HASAN, M.R

Improving the Urban Development Control Mechanism in Bangladesh: A Case Study of Dhaka City

PhD Thesis
December, 2018

Improving the Urban Development Control Mechanism in Bangladesh: A Case Study of Dhaka City

Muhammad Rashidul HASAN

A thesis submitted in fulfillment of the requirements for the

Degree of Doctor of Philosophy



Department of Urban and Regional Planning

Jahangirnagar University

Savar, Dhaka.

December, 2018

Improving the Urban Development Control Mechanism in Bangladesh: A Case Study of Dhaka City

Muhammad Rashidul Hasan

PhD Researcher

Roll No.: 058

Session: 2013-14



Department of Urban and Regional Planning

Jahangirnagar University

Savar, Dhaka.

December, 2018

Improving the Urban Development Control Mechanism in Bangladesh: A Case Study of Dhaka City

Muhammad Rashidul Hasan

PhD Researcher

Roll No.: 058

Session: 2013-14

A thesis submitted in fulfillment of the requirements for the

Degree of Doctor of Philosophy

Department of Urban and Regional Planning

Jahangirnagar University

Savar, Dhaka.

December, 2018

Certificate of Approval

This is to certify that the thesis titled “Improving the Urban Development Control Mechanism in Bangladesh: A Case Study of Dhaka City” is an original work done by Muhammad Rashidul Hasan, and the Style and Contents of the thesis have been recommended for submission for the award of PhD degree.

Thesis Supervisor:

Professor Dr. A. K. M. Abul Kalam
Department of Urban and Regional Planning
Jahangirnagar University, Savar, Dhaka.

Declaration

I declare that this thesis presents my own work, except where due acknowledgement is made, and it has not been previously included in a thesis, dissertation or report submitted to Jahangirnagar University or any other institutions for a degree, diploma or other qualification.

Signed……

Muhamamd Rashidul Hasan

Abstract

The consequences of urbanization for a country are not given. Urbanization holds both promises and problems for a country and features that come to dominate depend on the nature and efficiency of policy engagement with the urban agenda. Development control can be defined as a strategy, adapted by each community, to guide growth within that community. It entails a collection of policies, regulations and incentives that support objectives of growth of a community. There are a number of planning and development control initiatives, which are used as tools or instruments for urban growth management, such as comprehensive planning, zoning, subdivision regulations, property taxes, development fees, infrastructure investments and other policy instruments that significantly influence the development of an urban area.

Development control mechanism is vital for an urban area for achieving quality living of the urban community. Development control forms a major part of urban land use policy and contributes for promoting public interests, eliminating negative externalities, improving information base for decision making and redistributing public costs and benefits. Development control is mainly a public sector strive to control market forces in order to achieve varied social objectives and to shape transformation of the urban built environment.

Bangladesh is one of the countries of south Asia that is experiencing rapid urbanization. Its cities are growing more than twice the rate of rural areas, and this rapid growth of urbanization is expected to continue till Bangladesh transitions from a low income to a middle income country. About 30 percent of the total population living in urban areas is contributing approximately 60 percent to the national GDP. Consequently, urbanization has become synonymous with development. This has been manifested by corresponding increase in the number of urban centers in the country. In the distribution of urban population, the large cities have absorbed the major share, the capital Dhaka being one of the densely populated cities in the world. Secondary towns or municipalities of the country are also growing at a rapid pace as well.

A number of planning and development control tools are being applied in Bangladesh for managing the growth of Dhaka and other urban areas of the country. These tools include Master Plan, Development Plan, Municipal Acts, Building Construction Act and Rules, Building Code and so on. Although these are aimed at directing the growth of the city in a deliberate and well-managed way, the city has been sprawling outwards in an unrestricted fashion. These measures are proved to be not enough to guide the land development and management process in the urban areas.

The main purpose of this research is to explore and examine current practices of urban development control mechanism in Bangladesh in general and Dhaka City in particular. The research seeks to find answer on “how the existing laws, rules and regulations

followed for urban development control in respect of urban planning exercises are appropriate for urban development in Bangladesh"? The research question is further diagnosed with a number of arguments that this research would come across within its scope for investigations. Further investigations were made to substantiate such arguments, which are as follows: i) the concepts that might be considered for urban development control mechanism in the urban planning context of Bangladesh; ii) How effective are the existing laws, rules and regulations for urban development control mechanism in Bangladesh? Iii) Are there any variations in the practices of urban development control mechanism for different urban areas (such as metropolitan area, cities and municipalities) in Bangladesh or elsewhere? iv) What are the roles of different government agencies regarding development control of Dhaka city? And v) What are the pros and cons of Dhaka city in applying and improving urban development control mechanism for planned development?

Based on literature review and collection of data and information, the research sought for finding out the current practices of urban development control mechanism in Bangladesh in general and RAJUK area in particular. A mixed method is used to collect data as it is considered suitable for gathering information from different groups of participants including households, government officials, researchers and community leaders. This research is has adopted a qualitative approach for data collection and analysis to investigate the development control mechanism in practice in different urban areas of Bangladesh, namely metropolitan cities and municipalities (*Paurashavas*). The data has been mainly presented in the forms of Tables and Figures. The qualitative approach of data collection and analysis was also used, mainly in understanding the existing problems, constraints and future scope and potentialities of improvement in urban development control mechanism for the urban areas of Bangladesh. The secondary data for this research were collected through reviewing literature and various documents, laws and rules. The primary data were collected through questionnaire survey and interviews.

The research finds that there are differences between development control mechanisms among all the urban areas of Bangladesh. Development control mechanisms followed in various international cities and countries are also analyzed in this study to know about global practices and trends of changes. In the case of Bangladesh, land owners in Dhaka city have to follow Detailed Area Plan (DAP) and Floor Area Ratio (FAR) of RAJUK for land use clearance and building permission, while for Paurashava in most of the cases, there is no Detailed Area Plan and no provision of FAR. In those areas, land owners have to follow Building construction Rules 1996 for building permission. Municipalities in this respect are lagging behind the Dhaka city in terms of practicing development control mechanisms.

The study provides opportunities to find out the drawbacks of the current development control practices in Dhaka city. Absence or improper use of rules and regulations often result in unwanted physical development of urban areas. Master plans for various cities

and municipalities in Bangladesh recommend different development control mechanisms. This study reveals that in Savar Paurashava area, 58% of the land owners of the planned residential area violate the development control rules, as opposed to it, 78% land owners of the spontaneously developed area in Savar Paurashava violet the rules. In Dhaka city, only 23% land owners of Dhanmondi, a high class residential area under RAJUK were found to violet the building rules. It is observed that the approaches in the execution of plans, policy and laws in regards to urban development control have influence in the quality of urban space.

The research finally has made some recommendations on the improvement of development control mechanism for urban areas in Bangladesh in general and RAJUK area with its cities and municipalities in particular. This may help national policy planners to consider reviewing the existing legal documents for possible improvement on development control mechanisms in urban development. Thus the policy makers, planning and other related professionals, academics and researchers in urban planning and development are expected to benefit from this research.

Acknowledgement

My profound gratitude is due to Almighty Allah, who made me confident that I am a human being who could have the bounteous capabilities to perform for an innovative research work.

To the preparation of this Thesis, many people contributed in different phases in different ways both directly or indirectly. My scratchy knowledge became a polished one by the support and inspiration from my supervisor Professor Dr. A. K. M. Abul Kalam, Department of Urban and Regional Planning, Jahangirnagar University, Savar, Dhaka, from whom I still have many things to learn. I express my gratitude and respect to the Head & Faculty members of the Department of Urban and Regional Planning, Jahangirnagar University for their encouragement in my research.

My sincere and profound gratefulness is also due to my honorable teachers namely, Professor Dr. Ghulam Murtaza, Professor Dr. Md. Akter Mahmud, Professor Dr. Asiful Haq and Dr. Adil Mohammed Khan for their pragmatic advice and inspiration in completing this research.

This research would not have been possible to complete had I not received the generous cooperation from the government officials at RAJUK, LGED, UDD and Savar Paurashava. My sincere gratitude goes to academics and professionals who generously participated in the seminar sessions of my research. I am also thankful to the respondents of the questionnaire survey as well as surveyors for this research.

I acknowledge the whole-hearted cooperation provided by Md. Ashraful Islam and Tamanna Rahman working in RAJUK and Ishrat Jahan, Town Planner of Savar Paurashava and Abu Musa Jinnah, working in Sheltech (Pvt.) Ltd. I am highly indebted to my friends and students who spent their time for me and offered all sorts of supports as and when necessary.

Last, but not the least, I would like to thank my family for all their love, encouragement and optimism. At the end, I would like to give a big thank to my loving, caring and understanding wife who had to endure the hardest part of this PhD work: a “very stressful” me!

Muhammad Rashidul Hasan

Dedication

This thesis is dedicated to my beloved father Late Khondeker Syedur Rahman whose last words to me, before slipping into a coma and subsequently an eternal peace were to complete my PhD Thesis "no matter what happens".

I fulfilled your wishes, Baba!

CONTENTS

		Page
Certificate of Approval		i
Declaration		ii
Abstract		iii
Acknowledgment		vi
Dedication		vii
Contents		viii
List of Tables		xix
List of Figures		xxi
List of Maps		xxii

CHAPTER ONE
INTRODUCTION

1.1	Introduction	1
1.2	Problem statement	2
1.3	Research questions of the study	4
1.4	Objectives of the research	5
1.5	Scope and limitations of the study	5
1.6	Justification of study	5
1.71	Contribution to knowledge	6
1.7.1	Research novelty	6
1.7.2	Research uniqueness	7
1.7.3	Expected contribution to knowledge	8
1.8	Organization of the thesis	9
1.9	Summary	9

CHAPTER TWO

PHILOSOPHY OF DEVELOPMENT CONTROL AND CONCEPTUAL FRAMEWORK

2.1	Introduction	10
2.2	Land use planning	10
2.3	Definition of development and development control	13
2.3.1	Defining development	13
2.3.2	Definition of development control	14

2.4 Evolution of development control mechanism in urban planning 15
2.5 Characteristics of development plan and development control 15
2.6 Development control and processes 16
2.7 Purpose of development control 22
2.8 Development regulations 23
2.8.1 Development plans 23
2.8.2 Master plans 23
2.8.3 Zoning plan 23
2.8.4 Planning standards 24
2.8.5 Building codes and standards 24
2.9 Responsibilities of the urban planning department 24
2.10 Role of development plans in development control 25
2.10.1 Structure plans 27
2.10.2 Local plans 27
2.10.3 Public participation in local planning 28
2.11 The development process and development control 29
2.11.1 Initiation 29
2.11.2 Building 30
2.11.3 Disposal and final use of the property 30
2.12 Development control through planning applications 31
2.13 Monitoring and enforcement of development control processes 34
2.13.1 Enforcement notice 35
2.13.2 Stop notice 35
2.14 Key actors in development control 36
2.14.1 Land owners 37
2.14.2 Developers 37
2.14.3 Planners 38
2.14.4 Public sector and government agencies 38
2.14.5 Architects and building contractors 39
2.15 Problems of development control 39
2.16 Research Gap 41
2.17 Conceptual framework 41

CHAPTER THREE
RESEARCH METHODOLOGY

3.1	Introduction		44
3.2	Methodological framework		44
3.3	Research philosophy		46
	3.3.1	Ontology	47
	3.3.2	Epistemology	49
	3.3.3	Axiology	50
3.4	Research approach		51
	3.4.1	Qualitative research approach	52
	3.4.2	Quantitative research approach	53
	3.4.3	Deductive and inductive	54
	3.4.4	Deductive and inductive reasoning	55
3.5	Research strategy		57
	3.5.1	Case study	58
	3.5.2	Mixed method designs	59
	3.5.3	Research design	61
3.6	Research methods		66
	3.6.1	Sampling technique	68
	3.6.2	Data collection methods	69
	3.6.2.1	Interviews (face to face)	70
	3.6.2.2	Review of documents (archival)	71
	3.6.2.3	Questionnaire and its development	72
	3.6.3	Data analysis	78
	3.6.3.1	Steps of analysis for qualitative data	78
	3.6.3.2	Coding and the categorization of information	78
	3.6.3.3	Analysis of the interviews	79
	3.6.3.4	The analysis of the document reviews and case study	80
	3.6.3.5	Developing the analysis for quantitative data	82
	3.6.3.6	Analysis of the questionnaire	82
3.7	Ethical considerations		83
	3.7.1	Right of privacy during the qualitative and quantitative data collection	83
	3.7.2	Informed consent	83
	3.7.3	Research validation	84
3.8	Summary		86

CHAPTER FOUR

DEVELOPMENT CONTROL IN DEVELOPING AND DEVELOPED COUNTRIES

4.1	Introduction	88
4.2	Development control in England	88
4.2.1	Definition of development and development control	89
4.2.2	Procedures for development control	89
4.2.3	Basis of plans and policies	90
4.3	Development control in France	90
4.3.1	Definition of development and development control	90
4.3.2	Procedure for development control	91
4.3.3	Basis of plans and policies	92
4.4	Development control in Japan	92
4.4.1	Definition of development and development control	92
4.4.2	Procedures for development control	93
4.4.3	Basis for plans and policies	94
4.5	Development control in Manila, Philippines	95
4.5.1	Definition of development and development control	95
4.5.2	Procedures for development control	95
4.5.3	Basic plans and policies	96
4.6	Planning concepts and development controls in India	98
4.6.1	Planning concepts in ancient India	98
4.6.2	Planning concepts in Mughal period	101
4.6.3	Planning concept in British period	102
4.6.4	Planning concepts in post-independence period	103
4.7	Structures and strategies of development control	110
4.7.1	Structure of development control	111
4.7.1.1	Technical aspects of development control	111
4.7.1.2	Legal aspects of development control	112
4.7.1.3	Social aspects of development control	113
4.7.1.4	Economic aspects of development control	113
4.7.1.5	Aesthetic aspects of development control	115
4.7.1.6	Political aspects of development control	115
4.8	Strategies of development control	116
4.9	Conclusion	118

CHAPTER FIVE
URBAN EVOLUTION OF BANGLADESH

5.1	Introduction		120
5.2	Conceptualizing urbanization		120
	5.2.1	Definition of urbanization	120
5.3	Urbanization in pre-Bangladesh period		123
	5.3.1	Urbanization and urban growth in pre-Bangladesh	123
	5.3.1.1	Urbanization in pre-colonial period	123
	5.3.1.2	Urbanization in colonial period	126
	5.3.1.3	Urbanization during Pakistan period	128
	5.3.1.4	Urbanization in Bangladesh	129
5.4	Growth of urban population in Bangladesh		129
5.5	Growth of urban centers in Bangladesh		135
5.6	Growth of urban population in Bangladesh: Divisional and District level		136
5.7	Megacity Dhaka: physical and population growth		142
	5.7.1	Physical setting of megacity Dhaka	143
	5.7.2	Physical growth of megacity Dhaka	146
	5.7.3	The growth of population in megacity Dhaka	148
	5.7.4	Different area connotations of Dhaka city	149
5.8	The process of urbanization in Bangladesh		150
5.9	Consequences of rapid urbanization		152
5.10	Rapid Urbanization and Need for Planning Intervention		153
5.11	Conclusion		154

CHAPTER SIX
URBAN PLANNING PRACTICES IN BANGLADESH

6.1	Introduction		155
6.2	Urban planning during British colonial period (before 1947)		155
6.3	Urban planning during Pakistan period (1947-1971)		155
6.4	Urban planning during post liberation period		157
6.5	Current urban planning practice in Bangladesh		159
	6.5.1	Urban plan preparation and implementation style in Bangladesh	159
	6.5.2	Urban planning at policy level	159
	6.5.3	Urban planning at national level	161
	6.5.4	Urban planning at regional level	163
	6.5.5	Urban planning at local level	164

	6.5.6	Metropolitan planning	165
	6.5.7	Paursahava planning	167
	6.5.8	The existing planning process	168
	6.5.9	Zila and upazila planning	169
6.6	Agencies responsible for urban planning at different level		170
	6.6.1	Institutions responsible at national level	170
	6.6.2	Institutions responsible at regional level	170
	6.6.3	Institutions responsible at local level	171
6.7	Urban administrative structure and special purpose agencies		172
	6.7.1	Urban administrative structure in Bangladesh	172
	6.7.2	Special purpose agencies	172
	6.7.3	Weaknesses of institutional arrangement	173
6.8	Major planning related laws in Bangladesh		174
	6.8.1	The east Bengal building construction act, 1952	174
	6.8.2	The town improvement act 1953	175
	6.8.3	The town improvement (amendment) ordinance, 1958	176
	6.8.4	The Chittagong development authority ordinance, 1959	176
	6.8.5	The municipal administration ordinance, 1960	176
	6.8.6	The Rajshahi development authority ordinance(RDA) , 1976	177
	6.8.7	The Paurashava ordinance, 1977	177
	6.8.8	Major weaknesses in planning related laws in Bangladesh and their reforms	177
6.9	Conclusion		178

CHAPTER SEVEN
DEVELOPMENT CONTROL MECHANISM PRACTICES BY URBAN LOCAL GOVERNMENT ORGANIZATIONS IN BANGLADESH

7.1	Introduction	179
7.2	Legislative requirement	179
7.3	Preparation of master plan	182
7.4	Planning permission for Paurashava area	183
7.5	Plan approval committee	183
7.5.1	Committee formation	184
7.5.2	Job responsibility of committee	184
7.6	Performance evaluation of land use clearance	186
7.7	Building permission	187
7.8	Status of application of BC rules in Savar Paurashava	187

	7.8.1	Application of setback rules	189
	7.8.2	Permissible building height	193
	7.8.3	Rules and regulations on the construction of boundary wall	194
	7.8.4	Rules and regulations of constructing car parking facilities	195
	7.8.5	Lights-air circulation facilities	195
7.9	Reasons of violation of BC rules and its consequences		196
7.10	Consequences of BC rules violation		201
7.11	Development control practices at Upazila level		203
	7.11.1	Work procedure of the committee	204
	7.11.2	Status of present practices	206
7.12	Generalization on major problems of development control mechanism at urban local government		207

CHAPTER EIGHT
Development control mechanism in Dhaka: Legal and planning framework and institutional setting

8.1	Introduction		208
8.2	Institutional set up for Dhaka metropolitan area planning		208
8.3	RAJUK (capital development authority)		209
8.4	Organizational structure of RAJUK		210
8.5	Functions and mandates of RAJUK		211
8.6	Development planning and control in Dhaka		214
	8.6.1	Development planning in Dhaka	214
	8.6.2	Land use planning for Dhaka	214
	8.6.3	Master plan for Dhaka, 1959	215
	8.6.4	Dhaka metropolitan area integrated urban development plan,	215
	8.6.5	Report of the task force on Bangladesh development strategies for the 1990s	218
	8.6.6	Dhaka metropolitan development plan , 1995-2015	218
	8.6.6.1	Structure plan	218
	8.6.6.2	The urban area plan	219
	8.6.6.3	Detailed area plans	220
	8.6.6.4	Detailed Area Plan (DAP) Gazette	223
8.7	Development control		223
	8.7.1	Zoning	223
	8.7.2	Subdivision	224

	8.7.3	Density control	224
8.8		Planning laws for development control	225
	8.8.1	The town improvement act 1953	225
	8.8.2	Building construction act 1952	226
	8.8.3	Bangladesh national building code	226
	8.8.4	National housing policy 1993 & 2016	226
	8.8.5	Private residential land development rules 2004	227
	8.8.6	Real estate development and management act, 2010	227
	8.8.7	The greater Dhaka building (construction, development, conservation & defoliation) rule 2008	228
	8.8.8	Natural water body protection and preservation of open space and playground act, 2000	231
	8.8.9	Environmental conservation rules 1997	231
8.10	Conclusion		231

CHAPTER NINE

EFFECTIVENESS OF THE PRACTICES OF DEVELOPMENT CONTROL MECHANISM BY RAJUK

9.1	Introduction		232
9.2	Development Control Process Followed by RAJUK		232
	9.2.1	Development Control Wing of RAJUK	234
	9.2.2	Scope of Work of the Development Control Wing	234
9.3	Building Permission Process for Dhaka		235
	9.3.1	Land Use Clearance	235
	9.3.1.1	Approval, Rejection and Appeal of Application for Land Use Clearance	236
	9.3.2	Development Permit	238
	9.3.2.1	Development Projects	238
	9.3.2.2	Approval of Development Permit	240
	9.3.3	Building Permit	241
	9.3.3.1	Building Construction Approval Process	241
	9.3.3.2	Necessary Documents for Approval of Application	243
	9.3.3.4	Amendment of Building Construction Plan	245
	9.3.3.5	Limitation of Building Construction Approval Process	246
	9.3.3.7	Limitations of the Construction Monitoring Process	249
	9.3.4	Completion Report and Occupancy Certificate	249

9.4 Stakeholders and Their Responsibilities 251
9.4.1 Responsibilities of building owners (rule 15) 252
9.4.2 Responsibilities of Architects and Engineers (rule 16) 252
9.4.3 Responsibilities of Architects and Engineers (rule 18) 252
9.4.4 Responsibilities of Architects and Engineers (rule 19) 252
9.4.5 Responsibilities of Architects and Engineers (rule 21) 252
9.4.6 Responsibilities of Architects and Engineers (rule 22) 253
9.4.7 Responsibilities of Architects and Engineers (Rule 41) 253
9.4.8 Responsibilities of Architects and Engineers (Rule 43) 253
9.5 General Issues Related to Plan Submission 254
9.5.1 Construction of Building or Project 254
9.5.2 Mandatory Open Space 254
9.5.3 Consolidation of Plot 254
9.5.4 Plot Subdivision 255
9.5.5 Minimum Set Back from the Boundary Line 255
9.5.6 Basement Set Back 257
9.5.7 Highest Permissible Ground Coverage 257
9.5.8 Height of Building 257
9.5.9 Highest Permissible FAR 258
9.5.10 Boundary Walls 259
9.5.11 Parking Provision 259
9.5.12 Necessary Arrangements for Roads 260
9.5.13 Arrangement of footpath 260
9.5.14 Corner simplification 260
9.5.15 Mixed-use development 261
9.5.16 Health and safety 261
9.5.17 Community space 261
9.5.18 Light and ventilation 261
9.5.19 Miscellaneous 262
9.5.20 Special control 264
9.5.21 General issues related to monitoring of construction 264
9.6 Effectiveness of Development Control Measures by RAJUK 265
9.6.1 Building height 265
9.6.2 Building plan approval 265
9.6.3 Type of structure at different land use zone 268
9.6.4 Citizens' Awareness of the City Plan Making Process 269

	9.6.5	Corruption in RAJUK building approval process	270
	9.6.5.1	Violation of Development Control Rules and Acts / Land Use Plan and Building Regulations	270
	9.6.5.2	Micro level	271
	9.6.5.3	Intermediate stage: deviation in area plan	271
	9.6.5.4	Macro level: deviation in the proposals of structure plan	271
9.7	Effectiveness of Development Control Mechanism of RAJUK: Case Study on Dhanmondi Residential Area		272
	9.7.1	History of Dhanmondi residential area	272
	9.7.2	Growth pattern of Dhanmondi residential area	723
	9.7.2.1	Design criteria	273
	9.7.2.3	Land use pattern	273
	9.7.2.4	Amenity /facilities	274
	9.7.3	Existing land use	276
	9.7.4	Structure heights	279
	9.7.5	An investigation of initial form Dhanmondi residential area	280
	9.7.5.1	Use affiliation	281
	9.7.5.2	Built form	281
	9.7.5.3	Time affiliation	281
	9.7.6	Buildings construction and transferred	283
	9.7.7	Deviations in the original plan and the emerging form of Dhanmondi	289
	9.7.7.1	Re-subdivision of plots	289
	9.7.7.2	Changing scenario of building heights and form	290
	9.7.7.3	Increasing ground coverage	291
	9.7.7.4	Land use transferred	291
	9.7.8	Investigation of violation of planning laws	294
9.8	Conclusion		299

CHAPTER TEN

RECOMMENDATIONS AND CONCLUSION

10.1	Introduction		300
10.2	Challenges of Development Control Mechanism in Dhaka City		300
	10.2.1	Preparation and Implementation of Development Plan	300
	10.2.2	Conflict of interest between RAJUK's land development and planning roles	302
	10.2.3	RAJUK as land developer	302
	10.2.4	RAJUK as Strategic Planning Authority	302
	10.2.5	Development Control and Enforcement	303

10.3 The Legislative Context 303
10.3.1 The Town Improvement Act (TIA), 1953 and Subsequent Amendments 303
10.3.2 Dhaka Metropolitan Building (Construction, Development, Conservation and Removal) Rules 2008 305
10.3.2.1 Width of the road, FAR and MGC for building [Type: A (A1-A5): Residential Building and Hotel 306
10.3.2.2 Setback of Building 307
10.3.2.3 Minimum Parking Space Requirement for Different Classes of Building 308
10.3.2.4 Height of the Building 308
10.3.2.5 Building Construction Committee 309
10.3.3 Private Residential Project Land Development Rules 2004 311
10.4 Conclusion 316
10.4.1 Research questions answered and research objectives achieved 316
10.4.2 Limitations of this research 318
10.4.3 Recommendations for the strategies 319
10.4.4 Recommendations for further research 319

REFERENCES 320
APPENDICES 340

List of Tables

List	Description	Page
Table 2.1	Characteristics of Development Plan and Development control	16
Table 3.1	Nested-Nested mixed method research methodology framework	46
Table 3.2	Reasons for leaning more towards a position of interpretivism	51
Table 3.3	Research approaches - deductive and inductive	56
Table 3.4	Strategic research processes adopted for the study	57
Table 3.5	Summary of research strategy adopted for the study	58
Table 3.6	Prototypical characteristics of the major mixed methods types of design	60
Table 3.7	Reasons for adopting mixed method approach	61
Table 3.8	Relationship between objectives, methodology and data collection methods	64
Table 3.9	Multiple sampling techniques employed for the multiple research	68
Table 3.10	Data collection Methods	69
Table 3.11	Interview guide sections and questions	70
Table 3.12	Responses from questionnaire	77
Table 4.1	Reference of development control in selected countries	97
Table 5.1	Trends of Urban Population Growth during Colonial Period, 1901-1941	127
Table 5.2	Distribution of Urban Population by Size of Towns during 1901-1941	128
Table 5.3	Trends of Urban Population Growth during Colonial Period, 1951-1961	129
Table 5.4	Inter-Censal Growth Rate of Urban Population, 1974-2011	130
Table 5.5	Growth of Urban Centers by Population Size in Bangladesh, 1974-2011	135
Table 5.6	The Population Growth of Mega City Dhaka since 1951	149
Table 5.7	The Area and Population Growth of Megacity Dhaka since 1951	149
Table 5.8	Numerical Distribution of Population by Economic Category in Intercensal Years with Employed and Unemployed Labor Force in Bangladesh, 1961-1991	151
Table 7.1:	Legal Instrument for development control in Bangladesh	180
Table 7.2	Master plan prepared in Bangladesh from the year 1959 to 1984.	182
Table 7.3	Plan approval committee for Paurashava	184
Table 7.4	BC rules violation statistics in SavarPaurashava	189
Table 7.5	Status of the setback rules in different residential areas of SavarPaurashava	190
Table 7.6	Leaving space at the front side of the building	191
Table 7.7	Leaving space at the back side of the building	191

Table 7.8	level of violation at the left of the building	192
Table 7.9	level of violation at the right side of the building	192
Table 7.10	Permissible building height	193
Table 7.11	Additional building height according to the rule	193
Table 7.12	Violation of building height restriction	194
Table 7.13	Percent of responses of dwellers on the reasons of violation of BC rules	197
Table 7.14	Number of visit by officials during building construction	199
Table 7.15	Responses of dwellers on the awareness of BC rules	200
Table 7.16	Type of problems faced by the people	201
Table 7.17	Type of environmental problems faced by the people	203
Table 7.18	Type of utility problems faced by the people	203
Table 7.19	The structure of the committee for approval of design	204
Table 8.1	Maximum ground coverage and FAR based on plot size	229
Table 8.2	Setback distance from the back and side of the plots	230
Table 9.1	Name and Area of RAJUK Zones	232
Table 9.2	Classification of Building of Dhaka city in respect of Building Height	265
Table 9.3	Number & Percentage of building plan received, approved and rejected by RAJUK in different year at different zone.	267
Table 9.4	Permitted and non-permitted structures at different Land use Zone	268
Table 9.5	Eviction of unauthorized structured structure from July 2015 to June 2016	269
Table 9.6	Land Use Pattern of Dhanmondi Residential Area	274
Table 9.7	Amenity Facilities in Dhanmondi Residential area	275
Table 9.8	Area Utilized for Educational Facilities in Dhanmondi Residential Area	275
Table 9.9	Land Use/Structure Use	276
Table 9.10	Number of floor of Buildings in Plots	279
Table 9.11	Distribution of different sizes of plots in the original plan of Dhanmondi	282
Table 9.12	Year wise total numbers of buildings were constructed in the study area	283
Table 9.13	Change in number and subdivision of plots in Dhanmondi	289
Table 9.14	Increasing Building Heights and Present Form of Dhanmondi	290
Table 9.15	Land use transformation of Dhanmondi area	291
Table 10.1	Existing Rules for road, FAR and MGC for building	306
Table 10.2	Existing Set back rules	307
Table 10.3	Existing Parking space rules	308

List of Figures

List	Description	Page
Figure 2.1	Conceptual Framework of this study	43
Figure 3.1	Nested mixed method research methodology framework	45
Figure 3.2	Research Design	62
Figure 3.3	Show the steps taken by the Researcher to develop and administer the final questionnaire within the sampled Planning Authorities	76
Figure 3.4	Research Methodology in Flow Chart	87
Figure 5.1	Growth of Urban Population in Bangladesh, 1901-2011	132
Figure 5.2	Average Annual Growth Rate (%) of Urban Population, 1901-2011	132
Figure 5.3	Urban Population Density (per Sq. Kilometer), 1991-2011	133
Figure 5.4	Population Pyramid of Urban Population in Bangladesh, 1991-2011	134
Figure 5.5	Trends of Growth of Urban Centers in Bangladesh, 1901-2011	135
Figure 5.6	Growth of Urban Population in Bangladesh, 1974-2011: Divisional Level	137
Figure 5.7	Growth of Urban Population in Barisal Division, 1974-2011	137
Figure 5.8	Growth of Urban Population in Chittagong Division, 1974-2011	138
Figure 5.9	Growth of Urban Population in Dhaka Division, 1974-2011	138
Figure 5.10	Growth of Urban Population in Khulna Division, 1974-2011	139
Figure 5.11	Growth of Urban Population in Rajshahi Division, 1974-2011	139
Figure 5.12	Growth of Urban Population in Rangpur Division, 1974-2011	140
Figure 5.13	Growth of Urban Population in Sylhet Division, 1974-2011	140
Figure 5.14	Top 10 Districts by Population Size, 1974-2011	141
Figure 5.15	Bottom 10 Districts by Population Size, 1974-2011	141
Figure 7.1	Reasons and effect of the violation of BC rules	196
Figure 7.2	Source of the financing of the construction	198
Figure 7.3	Source of the financing of the construction	198
Figure 7.4	Influenced of the adjacent neighbors	200
Figure 7.5	Floor Area Maximization	201
Figure 7.5	Floor Area Maximization	202
Figure 8.1	Organogram of RAJUK	211
Figure 9.1	Manpower of Development Control Section of RAJUK	234
Figure 9.2	A General Land use Permission Process	237
Figure. 9.3	Committees for building construction approval process.	241
Figure 9.4	Building construction approval process: (manual)	242
Figure 9.5	Building construction approval process: (online)	242
Figure 9.6	Construction monitoring process	248
Figure 9.7	Building occupancy certificate process (manual)	250
Figure 9.8	Total structure of Dhaka in respect of building height (storey)	266
Figure 9.9	Percentage of building plan received, approved and rejected by RAJUK in different years	266
Figure 9.10	Citizen's *a*wareness about the City Plan making process, 2010	269
Figure 9.11	Year wise total numbers of buildings were constructed in the study area	283

List of Maps

List	Description	Page
Map 5.1	Location of Urban centers & Population size at Bangladesh	131
Map 5.2	Location of Dhaka City	144
Map 5.3	Growth of Dhaka City from the Mughul period to present	147
Map 7.1	Location map of SavarPaurashava	188
Map 8.1	DACCA Master Plan 1959	217
Map 8.2	Structure Plan (1995-2015) of RDP Area	221
Map 8.3	Detailed Area Plan (1995-2015) of RDP Area	222
Map 9.1	RAJUK Zone Map	233
Map 9.2a	Existing Land use of Dhanmondi area	277
Map 9.2b	Use of Structure of Dhanmondi area	278
Map 9.3	Existing Buildings Height of the Study Area	280
Map 9.4	Original layout of Dhanmondi Residential Area	284
Map 9.5	Building: 1975 to 1985 (build and transferred)	285
Map 9.6	Building: 1986 to 1995 (build and transferred)	286
Map 9.7	Building: 1996 to 2005(build and transferred)	287
Map 9.8	Building: 2006 to 2014 (build and transferred)	288
Map 9.9	Land use transformation of Dhanmondi area	292
Map 9.10	Land use transformation of Dhanmondi area	293
Map 9.11	Plots that violate Master Plan	294
Map 9.12	Floor area map of Dhanmondi area	295
Map 9.13	Floor area violation map of Dhanmondi area	296
Map 9.14	Sep back rules violation of Satmosjid Road of Dhanmondi area.	297
Map 9.15	Parking space rules violation of Dhanmondi area.	298

CHAPTER ONE

INTRODUCTION

1.1 Introduction

A city is more than a collection of buildings and streets; it embodies the ideas of progress, of betterment, of success, of construction and also the mirror companions - failure, disappointment, tragedy, hopelessness and destruction (Ramesh, 2000). It is therefore the duty of urban planners and managers to take adequate measures to counteract these negatives with the positives. This however requires strong institutions (Brooks, 2009).

Cities must be prepared to accommodate new residents - this requires more forward thinking measures like updating urban planning regulations to enable density and to avert demand pressures for scarce housing and land to bid up prices excessively (Freire, 2006). While there is the need to house the increasing number of people in the urban areas, how this housing is arrived at is a matter of concern to physical planners. To ensure orderly development of new housing and the supporting infrastructure on the one hand and expansion and/or extension, there has to be effective and efficient development control.

According to Tang and Tang (1999), development control is a major part of urban land use policy. As part of land use planning, development control is noted for promoting public interests, eliminating negative externalities, improving information base for decision making and redistributing public costs and benefits (Klosterman, 1996). Development control is the public sectors strive to control market forces in order to achieve varied social objectives. Development control strategy helps shape transformation of the urban built environment, particularly with regard to the renewal of dilapidated inner city areas by regulating private investment decisions on land.

How the institutions are tasked to ensure this order in development work is an important subject that must be studied. The inability of the development control institutions to effectively execute the required functions has dire consequences on the urban environment. It is a well-known fact that the physical environment impacts greatly on health, productivity and hence, general welfare of inhabitants (McCann and Ewing, 2003). To meet the welfare effects of development control, the institutions must be very effective and democratic to peruse principle of inclusiveness.

Unfortunately, the growth process of most settlements, especially in developing countries including Bangladesh has panned out in a reverse order. Therefore, the normative sequence of planning-servicing-building-occupation has now been replaced with

occupation-building-servicing (Kawu et al.,2010). This has led to situations where planning has lagged considerably behind development. To ensure organized spatial development, physical planning makes sure that urban activity is properly directed. Disorganized development has cost and health implications, and development control is the planning apparatus that forestalls both (Kawu et al., 2012). Development control has been long used as the tool to control and manage urban growth in many parts of the world, including Bangladesh. It is the basic way by which the state arbitrates the use and development of land in order to implement local and national planning policies. Development control processes provide the avenue for members of the public to come into contact with local planning authorities to explain their views in decision making in regard to development.

1.2 Problem Statement

Bangladesh is one of the countries of south Asia that are experiencing very rapid urbanization. Its cities are growing more than twice the rate of rural areas, and this rapid growth of urbanization is expected to continue till Bangladesh transitions from a low income to a middle income country. About 30 percent of the total population living in urban areas is contributing approximately 60 percent to the national GDP (Islam, 2012). Consequently, urbanization has become synonymous with development. This has been manifested by corresponding increase in the number of urban centers in the country. In the distribution of urban population, the large cities have absorbed the major share, the capital Dhaka being one of the densely populated cities in the world. Secondary towns or municipalities of the country are also growing at a rapid pace as well.

Urbanization has favored the concentration of economic activities, capital and people in cities of developing countries like Bangladesh. This has led to pressure and high demand for shelter and other facilities within and at the peripheries of the urban areas (Owusu, 2011). The state of the physical environment, particularly in the cities of developing countries is a major global concern. This is due to the fact that activities man undertakes have spatial implication and thus the environment is mainly of man's making (Ogundele et. el. 2011). In reality, many physical problems that exist in urban areas reflect our own inability as urban population to effectively control growth and development (Kawu, 2012).

Rapid urbanization and urban growth have made achievement of "Planned Urban area" one of the critical challenges of Bangladesh. There is a rising demand and pressure on the need for planned urban area in Bangladesh and this is due to the inability of development control to meet demand. This situation is often attributed to deficiencies

and weaknesses of city-level policies and strategies in providing and controlling development in the country (Islam, 2005). A glance through various research documents shows evidence of development control and housing development issues in Dhaka. People in their quest for shelter in the urban areas tends to put structures for themselves and this has resulted in spontaneous and uncontrolled physical developments in the built environment with its associated problems such as land encroachment and slum development in most of our urban areas (Siddiqui, 2005). Physical developments in many urban areas in Bangladesh are of serious concern. Development control literature in Bangladesh highlights issues on slum development, encroachment, and haphazard development which are all related to physical development.

Physical development to mean carrying out of building, engineering or any other operations, existing use of land or building and the subdivision of land, the disposal of waste on land including the discharge of effluent into the body of still or running water and the erection of advertisement or other forms of holding development. This indicates that any development activity undertaken in space has to be controlled to achieve satisfactory urban environment. Providing housing in Bangladesh like any other country requires some form of controls like development and building permitting. Permit allows a developer or a statutory authority to construct buildings in an approved area, within a period of time with guiding local or national building regulation. In many cities of Bangladesh, developers do not seek these permits before putting up their buildings. This has led to haphazard developments especially in the housing sector which have been a major issue to urban policy makers and managers in the country (Islam, 2005).

Development control many more mechanisms put in place to maintain orderly development. It is to curb the negative effects that come along with physical development. As evidence from the Upazila Towns Infrastructure Development Project (UTIDP) shows the absence of designated and well-resourced urban sector agencies is severely affecting development control in the secondary town of Bangladesh. It is evidenced by a myriad of chaotic physical development leading to incompatible land uses. Public use areas in the towns are encroached upon, land litigation is not uncommon, and houses are constructed in some locations without regard for building regulations. This situation is said to be of major concern in the secondary towns or municipalities in Bangladesh where development control seems to be completely lacking. The situation in the urban areas needs to be examined to understand various dimensions of development control in the urban areas of Bangladesh.

The study on the experience of development control mechanism in Bangladesh with special emphasis on Dhaka city is thus important.

1.3 Research Questions of the Study

Research question for this study, is adopted following various enquiries on different issues related to urban development control mechanism in Bangladesh. The following research question is posed for this study.

- How the existing laws, rules and regulations followed for urban development control in respect of urban planning exercises are appropriate for urban development in Bangladesh?

The research question is further diagnosed with a number of possible arguments that this research may come across within its scope for investigations. Further investigations that can be made to substantiate such arguments are as follows:

- What are the concepts that might be considered for urban development control mechanism in the present urban planning context of Bangladesh?
- How effective are the existing laws, rules and regulations for urban development control mechanism in Bangladesh?
- Are there any variations in the practices of urban development control mechanism for different urban areas (such as metropolitan cities and municipalities) in Bangladesh or elsewhere?
- What are the roles of different government agencies regarding development control of Dhaka city?
- What are the pros and cons of Dhaka city in applying and improving urban development control mechanism for planned development?

1.4 Objectives of the Research

The main aim of this research is to analyze in-depth the current urban development control mechanism in Bangladesh focusing critically on Rajdhani Unnayan Kartipakhya (Capital Development Authority) RAJUK area as Dhaka city and subsequently suggesting for the improvement of urban development control mechanism for Dhaka city and urban areas of Bangladesh.

The objectives of this research are to:

I. To review the conceptual and legal framework of urban development control mechanism in Bangladesh.

II. To examine the current practices of urban development control mechanism in Bangladesh in general and Dhaka City in particular.

III. To investigate and analyze the existing problems, constraints and future scope and potentialities of improvement in urban development control mechanism for a major city like Dhaka and urban areas in Bangladesh in general.

IV. To recommend for the improvement of urban development control mechanism in the context of legal framework of Bangladesh.

1.5 Scope and Limitations of the Study

Investigating and reviewing the problems, constraints and potentialities of current planning rules and regulations related to development control mechanism in the study area create some scope to find out the drawbacks of the current development control practices in Dhaka city. Furthermore, recommending some suggestions for improving the current development control in the context of legal framework of Bangladesh will make the development control procedure unique. Absence of proper rules and regulations often results in improper physical development of urban areas like Dhaka city. As a result, it is imperative to formulate proper guidelines for development control mechanism to ensure sustainable growth of the city.

This research analyzes the existing planning rules and regulations in Bangladesh. Based on the findings, the research makes recommendations to improving the current development control mechanism in the context of legal framework of Bangladesh that can be followed in the future provisions of urban growth and land management in the urban areas of Bangladesh.

1.6 Justification of Study

According to Rabe et al. (2011), development control always refers to physical land use planning for cities, towns or countries. It is the process that enables the local authorities to assess proposed development in relation to national and local planning policies and other relevant factors such as the impacts of the proposed development on the environment. Development control includes not only the determination of applications for planning permission such as material considerations, but also the enforcement of planning control. In general, the development control process consists of both the making of development plans and the practice of development control by local planning authorities through development plans and granting or refusal of planning permission.

It has, however, become very important to study the development control system in the country in light of the apparent haphazard nature of development, since effectiveness of the system usually shows in the physical manifestations. The development control process is influenced by plans, regulations and laws. To a large extent, the planning, regulatory and administrative framework upon which physical development takes place (Ahmed, 2010) dictates its effectiveness.

Despite the importance of the development authority in ensuring development control, the institution seems to be inadequately resourced (Adarkwa, 2012). It is particularly important to study development control in Dhaka as a result of the recent agglomeration

of economics taking place in the city. As a capital city and the largest urban centre in the country, a lot of the influx of job seekers and migrants are likely to locate in this city to take advantage of the national capital being the sources for national income and expenditure. This sudden influx of people in search of jobs is likely to raise demand for housing and other infrastructural facilities. These migrants need to be housed (Obeng-Odoom, 2009). Increasing the supply of housing in the short run is however difficult. Notwithstanding this, opportunities for construction activities exist (Obeng-Odoom, 2009). Land owners and lords are tempted to build houses quickly to cash-in on the high demand. Some private developers have the notion that development control stifles development (Ngetich et., 2014), and there is a tendency to ignore the development control process altogether. The planning authorities need to function effectively to avoid these violations of restrictions. However, there are apparent logistic and financial challenges facing development control institutions (Adarkwa, 2012). To be able to work effectively the current challenges must be resolved.

It is, therefore, important to study the development control system in Dhaka and obtain empirical insight into the factors underpinning the effectiveness or otherwise of development control, so that informed recommendations can be made to ensure effective control of physical development in the midst of the economic exploration.

1.7 Contribution to Knowledge

1.7.1. Research Novelty

To the researcher's knowledge, this study is the first academic scholarship to be carried out in Bangladesh relating to the need for development control in Dhaka. It is a new body of knowledge which could be termed 'Hybrid' where the knowledge of master planning approach and spatial planning approach are fused into one using the developing country's perspective; it brings about new knowledge in the area of Urban and Regional Planning. It is also a new tool enabling the professional Town Planners to perform their work better. And a new channel of addressing the physical planning problems using an improved planning approach which is introducing spatial planning creating better alternatives for planners (Giddens, 2000) and (De soto, 2001).

It is a new creation of a better and comprehensive tool for best practice for planners by widening their roles and responsibilities at different levels of operation (Development authority's area and Municipality area) in Bangladesh.

1.7.2. Research Uniqueness

The study calls for an in depth understanding of the process of urban planning and development control in Dhaka city of Bangladesh. Being the first empirical study of its kind in Bangladesh this effort could lead to the subsequent adoption as a tool/method of addressing Physical Planning problems in Bangladesh considering its importance.

The choice of Dhaka is informed by the fact that Dhaka is the oldest city in Bangladesh. It is known to have existed in the 7th century. In that period, it was under the Buddist empire and was under the Sens" Kingdom of Bikrampur in the 9th century. The then, Dhaka was known as Bengla. Dhaka was then a small town consisting of 52 bazars and 53 lanes only (Nazrul, 2012). But at this moment, Dhaka city is one of the 10 largest mega cities of the world, which constitutes around 14 million populations. The city is now accommodating 37% of the national urban population. About 40% of the city dwellers are said to be poor, 50% are middle income and the remaining 10% are of higher income (World Bank, 2017)

The rapid growth of Dhaka's population is mainly caused by the heavy influx of migrants from the vast rural areas and other parts of the country (Nazem 2011; Hossain 2008). It is estimated that nearly 60% of the present population of the city are migrants who migrated to Dhaka for employment, education and other purposes (Seraj, 2002). The average annual population growth rate of 4.1% in Dhaka between 1991 and 2001 surpassed the country's annual growth rate of 1.3% (BBS, 2013, 2008). If the present rate of population growth continues, Dhaka will surpass the size of Beijing by the year 2025, with an estimated population of 22.9 million (UN, 2014).

A number of planning and development control initiatives have been formulated for managing the growth of Dhaka. These initiatives include Master Plan, Development Plan, Municipal Acts, Environmental Regulations, Building Construction Act and Rules, Building Code and so on. Although these are aimed at directing the growth of the city in a deliberate and well-managed way, the city has been sprawling outwards in an unrestricted fashion (Ahmed & Hasan, 2010).

Numerous studies have shown that Master Planning approach has failed in addressing the problem of urban development and management of urban and rural areas due to non-implementation and its inability to co-ordinate the horizontal and vertical planning activities in Dhaka. There is a call for an appropriate Physical Planning approach to address the problem in Bangladesh using Dhaka to have an in-depth understanding of the problem. On the other hand, spatial planning is characterized by dynamic, timely policy and decision making, inclusion and effective community engagement,

collaboration, integration and joining–up, positive, evidence-based reasoning, outcomes and delivery, urban sustainable development and climate change amongst others. It is altogether very flexible and the complete opposite of the Master Planning approach. This is very important and timely considering the dynamic nature of the Bangladesh urban and regional population. If based on new values, this mode of planning has the potential for addressing the fundamental causes of uneven development. Redistributing infrastructure in space, which the spatial plan does, can effectively address the cause of the Physical Planning problems identified in most Bangladeshi cities and urban areas.

1.7.3. Contribution to Knowledge

This research provides useful knowledge on urban development control mechanism in Bangladesh where urban master planning has failed as observed by Nazem (2011). Bangladesh has a high rate of urbanization which has made the urban Master Plans inapplicable since they are not originally meant for application in dynamic environments. Planning is an evolving process concerned with constantly changing societal and environmental problems. This singular reason has made a case for the consideration of concepts and paradigms to change for planning to be relevant in most cities of developing countries. Professional Town planners in Bangladesh are supposed to be dynamic and adaptive in their approach to be relevant. Being dogmatic about a specific planning system on which the success of the urban planning practice should not be thought of. They tend to be enthusiastic about urban master planning which after being prepared are kept on shelves to gather dust, which is rather unfortunate just to end it there (Haque, 2004).The purpose of this research is to evaluate the need for improving development control mechanism addressing the Urban Development and Management in Dhaka by analyzing the current institutional framework, examining the effectiveness of the Urban Planning System in Dhaka to determine how development control can be applied to meet the stated aim of the plans. There is a lack of empirical studies on development control in urban areas of Bangladesh. Hence, this research adds knowledge to this area of concern. It also contributes to the literature of urban and regional planning by identifying the key factors affecting the policy and implementation of urban plans in most urban areas in Bangladesh. Based on this study the researcher provides a framework and guidance to show case the factors identified and use the spatial planning framework as a remedy to be adopted to address the physical planning problems in most urban areas in Bangladesh.

This research would contribute to knowledge, practice and policy. Knowledge is created in the area of spatial planning for Dhaka. Spatial planning contributes towards the issues that addressed the problem of physical planning problems in urban and regional

planning. There may be an increase and widening of the URP curriculum in the area of development control mechanism, where there is a marked difference between the Master Planning system and implementation procedure for urban sustainability are considered and adopted due to its nature over time. Town planners practicing now have other alternatives to adopt as a new paradigm in their planning profession, making adjustment in the pattern and tradition of administering the planning services to the urban areas. Policy makers would have new ideas about the changing issues as it relates to urban and regional planning problems. The outcome of this research may be relevant and applicable to cities in other developing countries in Asia.

1.8 Organization of the Thesis

This research is organized into Ten chapters. The first chapter focuses on the general introduction to the study, including the background, problem statement, research objectives, research questions and justification. The second chapter dilates on the review of relevant concepts and terms on development control. The third chapter consists of methodology which is the base of any research work. The fourth chapter assesses development control practices in developing and developed countries. The Chapter Five evaluates the urban planning history of Bangladesh. The sixth Chapter evaluates the urban planning practices in Bangladesh. The seventh chapter discusses about the development control mechanism practices by urban local government organizations of Bangladesh and Chapter Eight and Chapter Nine discuss about the current practices, problems, constraints and potentialities of planning rules and regulations related to development control mechanism in Bangladesh with special focus on Dhaka city. Chapter Ten proposes and recommends policies for future development control mechanism and chapter and conclusions of the research.

1.9 Summary

This chapter laid a foundation and served as a general introduction to the thesis. It considers the research background; statement of problem, research outline, research questions, aim and objectives and scope of the study. This chapter leads the discussion in other chapters of this research.

CHAPTER TWO

PHILOSOPHY OF DEVELOPMENT CONTROL AND CONCEPTUAL FRAMEWORK

2.1 Introduction

The developments that are taking place in the metropolitan area are extremely volatile in character. They are being continuously put under pressures by environmentally endogenous variables, like spatial contiguity, access and physically exogenous variables like economic input and social fabrics (Sorensen 2000). A development plan, be it a Structure Plan or Master Plan or Detailed Development Plan or local plan, uses this generalized development trends at metropolitan scale to allocate structured proposals for development. By purpose and nature, the development plans are abstracts and long term perspectives, and anticipate various local developments to modulate within this abstract frame. Conversely, the development control act as instrument in realizing the objectives of the plan, considers each development proposal in great detail; but it draws strength for scrutinizing developments from planned proposals of a development plan. It matches individual development to that of planned proposals with some flexibility and some firmness. Thus, the plan becomes a guiding force and development control acts as an executive instrument (Keeble 1983). Operationally, the development plan, development control system and actual physical development form a triangularity with their own goals and objectives but together it contributes to the development at large. Since the operation of development control is being almost live and bound by statute to refer the plan, it becomes the operational wing of the development plan.

This chapter discusses with the relevant studies or literature on land use planning with special emphasis on development control. It discusses from land use planning, development, development control and to the process involved. The last part of this chapter concludes with a conceptual framework for the present research.

2.2 Land Use Planning

All over the globe, urban settlements are being influenced by new and powerful forces that necessitate careful planning by governments to manage the urban future (Tipple, 2000). The organization further believes that demographic, economic and environmental factors are changing what takes place in the built environment. These factors are reshaping the configuration and fabric of almost all urban centers in the world (Maclaran, 2003). The human being has however over the decades intervened in a way that ameliorates the effects of the demographic, economic and environmental factors, and made deliberate decisions that have propelled urban growth in economically viable,

socially acceptable and environmentally sustainable form and nature (Ngetich et., 2014). This deliberate decision about what is to be done in the future is termed planning.

Any cautious challenges to alter the nature of using land for the purpose of securing aesthetics, convenience, economy, harmony, health and safety of the dwellers of a settlement is land use planning. Hermunen (2004) also defined land use planning as a process of examining different land use options, choosing between them and the making of a land use plan to make the chosen priorities to come true.

The Planning of land uses is necessary because a community is a pool of individuals with diverse needs, interests and lifestyles. Some of these needs are common, such as sanitation, fresh air, clean water, and open space for recreation. The nature of development of a city or town can impact negatively or positively on these needs and therefore the quality of life of its citizens (Ngetich et. 2014). According to Thomas (2013), people have needs that must be satisfied. For illustration, inhabitants of urban areas need housing, careers, schooling, recreational opportunities, transport, and basic services like water, electricity, clean air and health care; which Land-use planning seeks to accommodate within a technical and spatial framework. Land use planning is not a modern manifestation. The UN Habitat (2011) argues that urban land use planning has been going on since human settlements started. They assert that archaeological evidences have suggested that planning took place in the Middle East and North Africa, Latin America, Asia and Sub-Saharan Africa in ancient times. To support this assertion, Hutchison (2010) believes that land use planning takes place wherever people use land and its resources. In Indian sub-continent there are the ancient civilization as Harappa, Mohenjo-Daro, Lothal and others where the land use zoning is prominent and the civics need like water, housing and many more are well defined. Thus, land use planning takes place in every society; even if the term is not used.

Modern land use planning sprang up, especially in the UK, because of the need to solve the problems of squalor brought about by rapid urbanization in the 19th century and partly to cope with rebuilding war-damaged cities after the Second World War (Thomas, 2013). Thomas (2013) believes that there was a coalition of interest in this; planning was seen as an arm of the welfare state particularly involving better housing, better working conditions, slum clearance and better health.

But if land use planning has been taking place, particularly in Indian subcontinent since the ancient times (UN Habitat, 2011), why do Bangladeshi cities appear to be one an average unplanned? Why has planning failed to exercise control on human settlements growth, which has become jumbled? The answer lies here in the fact that Bangladesh is experiencing unprecedented urbanization with 31.3 % of the people living in urban areas

while local governments are weak and unable to generate sufficient revenues for planned development (Rahman, 2012). The problem of land use planning in Bangladesh emanates from lack of coordinated policy and planning, which is broadly interpreted to include policy formulation, planning, implementation, monitoring and feedback for resurvey and preplanning. Users of land are therefore hardly ever directed as to the environmental, social and economic consequences of their actions. Planning is reactive, short-term and haphazard. There is no nationwide master plan or roadmap in Bangladesh except the Bangladesh Delta Plan 2100 approved recently by the Government for sustainable water management in Bangladesh. But this Delta Plan 2100 does not accommodate all segments of land use planning and zoning systems.

The development authorities like Rajdhani Unnayan Kartripakkha (RAJUK), Chittagong Development Authority (CDA), Rajshahi Development Authority (RDA), Khulna Development Authority (KDA) and Urban Development Directorate (UDD) are responsible for land use planning but do a little proactive planning and the few plans that are prepared are partially implemented. Urban areas face issues of unauthorized developments, absence of essential infrastructure, low fecal sludge management, health hazards, fire hazards, crime and squatter settlements. While these problems confronting land use planning persist noted that any attempts to study them have been accusatory.

The modern planning practice has been evolved as a particular set of administrative arrangements, and procedures for the control of development and use of land (Yuen, 2007). As Thomas (2013) notes, the land use planning process consists of the two main functions of Development i.e. Land Use Planning and Development Control. Development control seeks to manage and regulate physical development (development in or on land) to ensure that all development takes place at an appropriate time and place and in such a manner that it conforms to a pre-determined set of policies or standards.

Development control is an important function and the Planners who work to vet applications for development permits; and monitor physical development have a duty to ensure that the haphazard and chaotic development noted by Yeboah and Obeng-Odoom (2010) do not perpetuate. The Urban Planners have a responsibility to ensure that physical development is channeled to the right locations and at the right time. The Urban Planner must also ensure that the lives of housing dwellers are not endangered due to sub-standard building structures. Housing structures must also have a minimum level of amenities to making living worthwhile.

2.3 Definition of Development and Development Control

2.3.1 Defining Development

Development is a term that has been defined variously by different people depending on their academic background (Forkuor, 2010). Definitions center on economic development, social development, physical development, environmental development, psychological development, product development, and web development among others.

According to Fellmann et al., (2005) development is the extent to which the resources of an area or country have been brought into full productive use. From this definition, it can be deduced that the felling of trees into lumber is development. It can also be deduced that the conversion of vacant land to housing areas is considered development.

The urban development and control has originated with statutory basis. The definition of 'development' marginally varies from country to country, but generally falls with that of Town Planning Act of England, the first known user of the word 'Town Planning' which hails from England's 1909 Housing and Town Planning Act. The definition of development is evolved from this Act and the Town and Country Planning Act 1971 (of England) defines the development as (Section 22(1): "The carrying out of building, engineering, mining and other operations in, on, over or under land, and the making of any material change in the use of any buildings or other lands"

Similarly, the Town and Country Planning Act (Act 172, 1976) of Malaysia defines development as the carrying out of any building, engineering, mining, industrial, or other similar operation in, on, over, or under land, the making of any material change in the use of any land or building or any part thereof, or the subdivision or amalgamation of land.

The definitions of the Town and Country Planning Acts of Britain and Malaysia provide a clear framework for defining physical development. These definitions imply that building, engineering, mining and industrial works constitute development. The connotation of development as spelt out in these acts (Town and Country Planning Act, 1963 and Act 172, 1976) exempts certain developments. Keeble (1983) lists these developments as follows:

- Works of maintenance or alteration to a building which does not materially affect its external appearance. This means that painting of a building requires development permission as it affects the physical appearance of the building;
- Road maintenance or improvement carried out by a highway authority within the boundaries of the road;

- Work on sewers, mains and cables by the appropriate authority;
- The use of any land for agriculture or forestry and of any building occupied together with land used;
- The use of buildings or land within the cartilage of a dwelling house for any purpose incidental to the enjoyment of the house; and
- The change of use of buildings or land from one use to another if both uses are within the same class.

This is a wide spectrum which includes all land owners, private, public to seek permission for 'development'. This procedure is common in many countries including Bangladesh and some South Asian countries.

2.3.2 Definition of Development Control

As the 'development' means the activity of use of land and building, the regulating mechanism is the 'development control.' The instrument of regulating the use of land and building is through issue of 'planning permission.' Planning permission is issued through an application to the appropriate development authority for the purpose of enabling development to be carried out in accordance with the plan. No person, other than agencies listed, shall use the land and building or develop for other than conformity with the development plan. In the process of issuing planning permission, a set of procedure is adopted. For instance, Tamil Nadu Town and Country planning Act 1971, Section 47 through 58 defines the procedures through which the development control is operated. It defines with the major headings of 'Use and development of land to be in conformity with development plans, restrictions on buildings and lands in the areas of the planning authority, application for permission, duration of permission, exemption for works in process, obligation to acquire land or building on refusal of permission or grant of permission in certain cases, compensation for refusal of permission or grant of permission subject to condition in certain cases, power of revocation and modification of permission to development, bar of claim to compensation in certain cases, power to require removal of unauthorized development, power to stop unauthorized development and development undertaken on behalf of any state government or Central Government or local authority.' Thus the operations of urban development are governed one by the definition of development and second by control development in terms of norms/standards, guidelines, regulations and acts that permit a given development (Davies *et al.* 1969).

2.4 Evolution of Development Control Mechanism in Urban Planning

The development control mechanism of the urban plan is evolving in nature as one tries to accommodate development requirements at different point of time. To ride over health problems during pre- and post-World War periods, many of the cities in industrialized nations imposed many guidelines to regulate the building size, shape, light and ventilation (McLoughlin 1973). The industrialization, especially in Europe had brought in rapid urbanization leading to mushrooming development with little environmental compatibility. This had caused the concerns of the state/local authorities to think to guide individual buildings through regulations.

At this time in evolution, the first Housing and Town Planning Act was introduced in United Kingdom in the year 1909. This is supposed to be the first Parliamentary Act of Town Planning (McLoughlin 1973). Similar Acts were introduced in different parts of the world to regulate urban development. These Acts had many commonalities and few differences. The commonalities were two folds: first, there had always been reference to a physical development plan; the second some regulatory measures which act upon the development of plan's objectives. Practically, these regulatory measures were widely intermingled with sectoral and administrative laws, such as Agricultural and Forestry Land Act and Pollution Control Act.

2.5 Characteristics of Development Plan and Development Control

Development control is the key operation in implementing the development plan. The actual developments are happening on selective basis at the behest of developers. Their selections, characteristics of applicants to be served are highly influenced by socio-economic and physical proximity. While development plans are prepared with certain level of flexibility, some amount of firmness could only provide broad contents of development (Table 2.1). Development control deals with day to day planning process, and individual cases for planning permission.

The integration of development plan and development control needs detail studies on its structure and operation. The result of such studies opens up the issues of strong and weak points for integration. This integration would assemble means to assess whether the planning is prone to failure or not, if so how? and how to rectify? (Sorensen,2000).

Table 2.1 Characteristics of Development Plan and Development control

Development Plan	Development Control
Generally, have only two statuses, i.e., existing and proposed land use	Continuous assessment of development process referring to development plan and other statutes pointing toward regulations and negotiations
Reference of development is not very specific to individual property	Details on control procedures are drawn down to each property, and therefore case based process
Synthesized based on one time compilation of policies and guidelines and in operation mostly standalone plan (Davies et al. 1986)	In operation each case is to be scanned with reference to the guidelines, policies and plan and serves a best platform for public participation (Lichfield 1979)
Its evaluation is based on synthesis of developments that had taken place during the plan period, and hence relying on development control.	Its evaluation is based on decisions made on individual case and its validity on aggregated implications on plans and policies.

2.6 Development Control and Processes

For any system to function effectively there is always the need for control and balance which is a form of regulation for necessary operation (Obabori et al., 2007). The need for effective influence on the spate of development heralded development control. Therefore, Development Control came to the fore due to industrialization and urbanization which accelerated urban development between 1945 and the mid-1980s in many countries (Enemark and McLaren, 2008). The industrial revolution brought with its affluence and increased mobility following the invention of private cars. Housing was developed with the express purpose of maximizing light, fresh air and green surroundings in new urban areas. This resulted in urban sprawl of a huge nature around the cities and towns. There was, therefore, the need for this development to be restricted.

Historically, development control was first employed in the USA in the 19th century in New York City to confirm effective master planning through guidelines concerning the sub-division of land, zoning regulations and restrictive covenants (Ogundele et al., 2011).

Also in 1906, Sir Patrick Geddes introduced a plan for the Dhaka city in Bangladesh (Kabir and Parolin, 2011). The aim was to propose an outline for the city and preserve natural greenery in the Ramna area and the broadening of roads for amplified traffic.

In India, town planning practiced from very ancient period (such as: Harappa, Mohenjodaro, Dholavira). There was systematic construction of residential houses and public buildings and laying down of principal streets in the past which are comparable with the modern-day city planning. The drainage system of that civilization was remarkable. The traditional city designed according to the principles of sacred geometry based on cosmological theories, viz., Vaasthu Purusha Mandala; Sthapatya Veda (part of Atharava Veda) layout of a city; Smrithi Sastra street layouts (micro and macro); Vaasthu Sastra treatise architecture, planning and construction and design, matters relating to site selection, and many more.

In India, the British rules enacted the first town planning Act called the Bombay Town Planning Act, 1915. Town planning in Bombay demonstrates Sir Patrick Geddes views on the relationship between social processes and spatial form. In independent India, the planning practice was first introduced for the accommodation of huge migrants from partition by building housing in cities, like Delhi and Calcutta, building new towns in Punjab and refugee towns like Faridabad. Most importantly, for the institutionalization of planning as a profession, a number of cities started to put together Master Plans for the first time with funding from the Central Government and a push from the Five-Year Plans. In some cities, especially in the larger ones, separate development authorities were formed under the control of the state government, and by 1991, there were at least 100 development authorities in the country. It is clear that these early Master Plans in post-Independence period were extremely ambitious in their visions for the city.

The Post-Independence era ushered in Master Plan with a ‘Top Down Approach’- Plans that were basically land use plans with a proposed circulation network of Ring Roads and arterial roads thrown in, with a set of zoning regulations, building regulations and layout rules- with implementing given to both civic body and the Development Authority (Considered the ‘Outsider’) and functional bodies, like Water Supply and sewerage board, Housing Board, Industrial Development Corporation, etc. Plans could not get fully implemented due to lack of funding and ‘coordination between the local bodies and the Urban Development Authority (UDA) and other parastatals. The DDA (Delhi Development Authority) Act, 1957 has been largely adopted in most of the major cities of India, viz., Andhra Pradesh, Gujarat, Kerala, Rajasthan, Uttar Pradesh, Madhya Pradesh, West Bengal, and Haryana which are modeled on this Act.

The National Commission on Urbanization (1988) has described the UDAs as “Quangos (Quasi urban non-governmental organizations)”, usurping the powers and functions of

the local bodies in the matters relating to promoting and regulating urban planning and developments which is undemocratic according to the Commission Based on the recommendations of the National Commission on Urbanization, the Central Government has recognized the existence of the Third Tier of Government, viz., the Local self-government and created provisions for institutional strengthening of these in the Indian Constitution. It enacted the 73rd and 74th Constitutional Amendments Act in 1992 and including the functions and powers of local self-government as 11th and 12th Schedule of the Indian Constitution, creation of Metropolitan Planning Committees, District Planning Committees, creation of State Urban Finance Commission, constitution of ward Committees for implementation, etc. The implementation has not been successful since the State Governments sense it is their right to plan, undertake and regulate development. Thus, planning and implementation continues to be a 'Top Down Approach' instead of 'Bottoms Up Approach' mandated by the Indian Constitution.

Development control is used to regulate urban development in Sri Lanka. This is much better compared to other alternatives, such as non-regulatory measures, as a result of resource scarcity. Development control is the main aspect of planning practice in this country and has been practiced since the institution of the Municipal Council Ordinance of 1865 and Sanitary Ordinance of 1882 (Samaratunga, 2011).

In Bangladesh, during 1950s a town planning cell of the then 'Construction and Building Department (C&B)' later splits to PWD, RHD of the Ministry of Public Works used to do the functions of Town Planning. That time a development plan for Dhaka city was prepared with a few micro-level area plans for residential, commercial and industrial development of the than Dhaka city. Before this period however, Sir Patrick Geddes introduced a plan for the Dhaka city. Later Dhaka Improvement Trust (Present RAJUK) in1956; Housing and Settlement Directorate (HSD) in 1958; Chittagong Development Authority(CDA) in 1959; Khulna Development Authority (KDA) in 1961; Urban Development Directorate (UDD) in 1965; Rajshahi Town Development Authority (RTDA) in 1976 but Rajshahi Development Authority (RDA) in 2018; National Housing Authority (NHA) in 2000; Paurashava Acts in 2009; Real Estate Developer ACT in 2010 all of these Ordinances and Act were introduced to control development in a planned way. The aim is to place facilities to citizen in a convenient way and ensure a healthy environment with the sustainability of socioeconomic security, environmental sustainability and overall betterment of the people.

The formal attempts to control developments were not a one-time activity but continued throughout the decades. In Britain in particular, the acts sanctioning development control have been revised, amended, repealed or re-enacted several times in their history. According to Pogbekuu (2007), the first act authorizing the preparation of planning schemes was passed in 1909. This marked the beginning of local council's 'control over

development decisions in Britain. Another act, the interim development control act was enacted in 1919 to help developers to proceed with developments, while planning schemes were under preparation. Also, in 1934, the Town and Country Planning Act was enacted to allow Local Councils to prepare planning Schemes for any land in England and Wales. A year later, the Town and Country Planning Act, 1944 was enacted. The purpose was to give Local Authorities the authority to earmark areas which had been bombed during the Second World War for reconstruction.

The act of 1947 provided the framework for modern development control in UK. This act was further amended in 1953, 1954, 1959, 1960 and 1962. The act of 1962 was repealed and the subsequent legislation also repealed and consolidated in the act of 1971. This act was again amended in 1972 and 1986. Another consolidation took place in 1990. The existing legislation was consolidated into three different legislation giving rise to the act of 1990. Further amendments were made in 1991 and incorporated into the 1990 act. Another act authorizing development control was enacted in 2004, the Planning and Compulsory Purchase Act. In order to have more footholds on development, the British government has recently enacted the Growth and Infrastructure Act of 2013.

In Bangladesh, for most ordinances and acts no major revision has been done to accommodate the changing demand of the citizen according to change in situation. The regulations have therefore failed to meet the changing urban development situation in the country. According to local government acts, the government of Bangladesh bequeathed the planning of towns and cities into the domain of the development authorities. The Ministry of Housing and Public Works is a ministry of the government of the People's Republic of Bangladesh. As per constitution of Bangladesh, the ministry provides housing and regulates the state construction activities in the country. It provides guidance for development operations. It consists of two major department named as department of housing and department of public works. National Housing Authority is assigned to develop flat / plot project after the approval of concerned Ministry (Ministry of Housing & Public Works) or Planning commission (in case of ADP project) up to Upazilla level according to the section 4-2(d) of "Real Estate Developer ACT 2010" except the area of any concerned "Town Development Authority" (ie RAJUK, CDA, KDA, RDA) / Local "City Corporation", Local "Municipal Corporation" and concerned "Cantonment Board". Building Construction Rule 1996; Preservation of Historical Buildings/Infrastructures/Important Locations (Published in Bangladesh Ga; Brick Manufacturing (Control) Act'1989; Natural Water Body Protection and Preservation of Open space and Playground Act'2000; Dhaka Mahanagar Building (Construction, Development, Protection and Removal) Rule 2008; Town Improvement ACT 1953; Private Residential Land Development Rule 2004; Real Estate development &

management ACT 2010 and others enactments provided fragmentary, archaic and sometimes conflicting regulations on development control. This led to the laws on land use and planning, provide for the orderly and progressive development of land, towns and other areas through a decentralized planning system, ensure sustainable development and improvement in the quality of life and human settlements, and ensure the continuous improvement in the development and judicious use of land, regulate national, regional, district and local spatial planning, promote health, safety order as well as provide for related matters.

The local planning authorities should ensure that development control promotes the right use of land and that the powers of development control are not used for other unrelated purposes. Similarly, development control as controlling the carrying out of building, engineering, mining and other operations on, in, under or over land or the material change in the existing use of land or building and includes subdivisions of land or disposal of waste on land including the discharge of effluent into a body of still or running water and the erection of advertisement or other hoarding. This is usually considered a state responsibility as stated by UN-Habitat(2011) which among other things state that planning is largely a public sector function to influence the future spatial distribution of activities.

Furthermore, it is a strategy used by planning agencies to ensure effective and efficient implementation of urban and rural development plans. It also helps to regulate the flow of infrastructural facilities. Planning agencies also use development control to either approve or refuse development applications (Ogundele et al., 2011).

In addition, development control is a process through which physical development permits or building plan approvals for development are granted via the submissions, assessment, registration and processing of building plan applications. It is a statutory measure to ensure an orderly, conducive and healthy environment is created for living, working and recreation, among other legitimate activities in human settlements. For development control to be possible there must be approved and up to date development plans, enforcement and sanctions.

Ahmad and Bajwa (2005), see development control as the mainstay of the land use planning system. It is the apparatus through which planning touches most people and, possibly, could be thought to have its most direct effects. In addition, the importance of development control is that it ensures that permission is granted for all manner of development. Larger areas are planned using land use controls such as zoning, and subdivision controls whereas the details of individual buildings are controlled through building controls such as permitting. The authors also believe that development control is mainly concerned with the use, area, space and construction details of building. Because

of the comprehensive nature of building controls, many development applications are vetted and approved within local planning agencies.

Development control works very well in places where development plans are in place. The non-application of development control can be hazardous and detrimental to the environment. Development control is important for achieving physical orderliness, conducive and healthy living, good accessibility, economy and harmony of development, aesthetics and safety.

Development control hinges on development regulations. According to (Thomas, 1997), these regulations include master plans, zoning plans, detailed development plans, Planning Standards, usage of buildings, coverage, Floor Area Ratio, set-backs, open spaces, height, number of stores, and parking requirements among others. These regulations concern various developments on land and different categories of buildings.

As a wide-ranging subject, Thomas (1997) believes development control embraces all human activity as far as it is expressed in the use of land. He classifies development control based on the following criteria:

> ***Substance and Procedure*:** in this case development control is concerned with the real substance of development; for instance, the color of a building or the width of a road. It is also concerned with a rational and legal procedure bureaucratic paper processes by which decisions are made. Substance and procedure are however inseparable in practice.
>
> ***Scale*:** Thomas (1997), again asserts that development control operates at widely different scales. At a modest scale, it may be concerned with the type of bricks or tiles used in a building. At the highest end of the scale it could deal with an international airport extension. The customary scales of operation are site level, local or district level. Many development control applications are small householder applications.
>
> ***Activities in adapted space*:** He further believes that planners are concerned with four basic types of human activity and the buildings and the spaces that accommodate them; workspaces, such as factories and schools; residential buildings, such as houses and residential institutions; and leisure facilities, such as playing fields and theatres. Transport is the fourth activity which physically connects the other three, for example by road. Development control is not only concerned with new buildings but also new activities in old buildings. For example, consider the conversion of an old house into an office, and the associated parking implications that come with the change.

2.7 Purpose of Development Control

There is a purpose to which development control is practiced. According to Thomas (1997), the purpose of development control is part of the wider purpose of town and country planning, and ultimately environmental planning. It is said that at the highest level of generalization development control is to ensure efficient and effective land use planning that satisfies public interest.

The purpose of development control is also to ensure that activities on the land and building developments do not compromise good practices. Therefore, misuses or abuses are forestalled (Ogundele et al., 2011). Qian (2009) also believes that orthodox control of land developments like zoning is commonly accepted by planners as an essential method to assuaging market imperfections such as negative externalities or social cost, and provision of public goods.

To illustrate the reasons for controlling development in the 19th century, Thomas (1997) believes that development control was to control disease and promote health. In addition, by the 20th century proactive plans were being produced to control land use activities in accordance with a strategy, rather than just to regulate buildings. Development control, therefore, became an activity to promote development. It also became a means of resolving conflicts between competing land interests. Klosterman (1996) also shared the view that planning emerged at the turn of the century with the main purpose of raising amenity levels, increasing efficiency in the performance of necessary functions; and promoting health, safety, and convenience and thereby improving the built environment. Furthermore, Adjei (2010) listed the following as some of the objectives of development control:

- To protect critical areas such as flood plains, marshes and nature reserves from being destroyed through unauthorized development; and
- To achieve co-ordination through time to attempt to make sure that today's development decisions will lead towards tomorrow's goals.

In a nutshell, the purpose of development control can be summarized as: to ensure order, convenience, safety, health, economy, harmony and aesthetics which would inure to the higher standards in the lives of inhabitants. In terms of health, the purpose is to create and promote healthy environments for all people, ensure that land is used for the right purposes, ensure orderly development and avoid encroachment on sensitive areas. In aesthetics, the aim is to protect the uniqueness of the town or city and ensure beauty in its design.

2.8 Development Regulations

There are numerous regulations that control how physical development activities should be carried out. These regulations are master plans, zoning plans, development plans, planning standards and building codes. These regulations are important because they provide the platform for development control. Decisions concerning uses that can be permitted and others that cannot be permitted in an area are based on the provisions of development regulations. It is therefore important to briefly explain what these terms imply in development control.

2.8.1 Development Plans

According to Adams (2005), Development Plans provide a context for control decisions by stating the strategies and principles that the planning authority will adopt in seeking to manage land-use and environmental change. A development plan indicates where an authority wishes to encourage development (by allocating land for specific uses), prevent it (e.g. by designating land as green belt) and direct it (through a combination of the previous two, e.g. by allocating land for a new shopping center within a city while preventing its development on the fringe). From this explanation, development plans can be defined as statutory documents that specify what types of development activities should be carried out and how, where, and when such development activities should take place. There are various types of development plans, namely master plans, structure plans and local plans.

2.8.2 Master Plans

A master plan is a guide for the future. It is a comprehensive document with a long-term vision, usually 10 to 20 years, which guides the development of a town or city. It is intended to guide public and private decisions on the use of land. According to Rangawala et. (2005), a master plan is a general plan for the future layout of a city showing the existing and proposed land uses. It is prepared to control the future growth of a town along preconceived and predetermined paths. Rangwala et al., (2005), further notes that a master plan is also called a development plan or town plan.

2.8.3 Zoning Plan

Zoning is a tool used by the planning authority to determine the accepted uses and form of development of and on an area of land. According to the TCPD (2009b), Zoning defines the use category of the land, prescribing allowable and non-allowable activities and developments on a parcel of land within a zone. The document which specifies zoning provisions for an area is a zoning plan. The TCPD further states that the zoning plan is a key component of the structure plan.

2.8.4 Planning Standards

Planning standards are used in Town Planning as recognized models for imitations (Alluko, 2011). Planning standards provide the guides used in dimensioning when preparing development plans. Planning standards are also a set of criteria for determining the scale, location and site requirements of various land uses and facilities (TCPD, 2011b). There are basically two types of standards; mandatory standards and discretionary standards. The mandatory standards provide the minimum space requirements or basic considerations that must be satisfied (Rangwala et al., 2005).

2.8.5 Building Codes and Standards

A building code is a set of rules that specify the minimum acceptable level of safety for constructed objects such as buildings. They also provide minimum standards to ensure the public safety, health and welfare in so far as they are affected by building construction and to secure safety to life and property from all hazard's incident to the occupancy of buildings, structures or premises. The National Housing Authority in Bangladesh 2000 for instance, specify the details that are needed to ensure that buildings are safe for human habitation.

The implementation of these development regulations require institutions, which have been adequately resourced. Therefore, the Town and Country Planning System shall be discussed in the next section.

2.9 Responsibilities of the Urban Planning Department

Planning authorities and agencies are set-up to carry out planning activities to promote growth and development in urban areas. The Town and Country Planning Department is the state agency responsible for exercising the powers of development control in England.

Alluko (2011), also states that the authority responsible for the day-to-day administration of physical planning in Singapore is the Urban Redevelopment Authority (URA) which performs the following functions:

- Preparing and revising development plans;
- Controlling land use and development;
- Providing good urban form;
- Implementing conservation; and
- Coordinating public and private sector development proposals.

To further elaborate on the duties of the Town and Country Planning Department at the Metropolitan, Municipal and District level (Adarkwa, 2012) postulate that the department performs the following responsibilities:

- Preparation of Outline Town Planning Schemes;
- Preparation of detailed sector layouts;
- Enforcement of land use regulation and the issuance of development permits; and
- The coordination of all aspects of physical planning carried out by the government.

Though, there are slight variations of these responsibilities from place to place, the general observation is that the Town and Country Planning Department is the state agency tasked by law to control the development of land.

In Bangladesh, the Development Authorities are under Ministry of Housing and Public works. Though the development authorities prepare plans and sub-divisional zoning plans and send those plans to the ministry for approval. The Ministry of Housing and Public Works is largely responsible for preparing development plans for both public and private lands and the preparation of policies to steer and guide spatial growth and physical development of settlements. It also implements development policies to promote orderly and sustainable spatial and socio-economic development of settlements.

2.10 Role of Development Plans in Development Control

The basic and most important instrument for regulation and control of development is the Development Plan. According to (Adarkwa, 2012), Town and Country Planning would appear to be about plans in the eyes of the layman. The study however believes that the general public seems to know more about the role of development control in the planning system than they do about development plans. Adarkwa further believes that development plans are important as a framework for making development control decisions and there is a realization that the plans are often dated and cannot cover every contingency. The primary guiding documents for development control decisions are development plans.

Alluko, (2011) believes that a development plan is an official document, which sets out the key policies regarding physical development of a settlement in the future. The writer also thinks that a development plan has to provide a basis for satisfying the longings and ambitions of the people. A city is like a business entity, which a local government controls. The development plan provides the legal and institutional foundation for such a

control. This agrees well with Maidin's (2011) assertion that development plans are policy documents, prepared by development authorities, providing guiding principles on the type of development that is permissible in a designated area. Otherwise, landowners or developers will be left to decide their own planning principles, which of course will be on maximizing profit. It would appear that, with the existence of development plans, all plans submitted to a local planning authority will be required to make major changes to meet the requirements of the provisions of the development plans, and provide information to residents of a local authority area on all proposed future development in their area. Maidin (2011), further claims that there are instances where local residents have hurled unfair accusations on local authorities as not acting in compliance with law if they do not agree with the proposed or approved development. Local plans that clearly spell out the type of future development have the effect of minimising such misunderstanding.

The Planning Policy Guidance (PPG1, in Maidin 2011) of the UK postulates that the planning system controls the use and development of public landed property. The development control system as a whole and plan preparation for that matter is the greatest way of integrating the need for development and the safeguard of the environment. Thus, development control has a crucial part to play in ensuring that the government's strategy for sustainable development is achieved by facilitating development in places which do not negatively affect the ability of future generations to meet their needs.

Furthermore, plans are prepared for the following reasons, according to Thomas, (1997);

- Envision the development needs of an area;
- Detect pertinent development concerns;
- Find prospects for and restrictions to development;
- Find areas which are appropriate/inappropriate for diverse categories of development;
- Make suggestions for the way in which the area should develop over time;
- Establish guidelines and ethics to guide development.

As a precursor to development control process; a development plan, be it regional / structure / master / district / local / action / town and or rural plan and or scheme, must be in place to guide the land use distribution through which development control process can be effectively achieved or without which development control process cannot be an effective human settlement management or a successful physical development implementing tool.

However, local plans have an immediate say in how development is controlled, since it subdivides land into buildable lots and provide detailed guidelines on what can be built where and how. This is also one of the requirements to verify the use zone to which a new development falls during the processing of development applications. In line with this, structure plans and local plans shall be examined closely here.

2.10.1 Structure Plans

A structure plan is a legal document that contains a report, structure plan map, other technical supporting documents and plans, to provide a context for the coordinated delineation and arrangement of future land use, subdivision and development in new urban areas (greenfield sites) and in existing developed/redevelopment areas (brownfield sites) in metropolitan and regional areas (Western Australia Planning Commission, 2012). The structure plan is a very important instrument for regions or urban areas where land ownership is fragmented as in the case of Bangladesh, where multiple families, stools and individuals own land.

The structure plan also defines all land uses, including residential, commercial, industrial and mixed-use areas, major open space, agricultural areas and areas requiring special treatment, such as areas of out-standing natural beauty, conservation areas and areas of historic or cultural importance, as well as areas for upgrading or regeneration and security areas as well as the alignment of major transportation routes, major water and sewerage infrastructure and power networks. Structure plans are the basis upon which local plans are prepared.

2.10.2 Local Plans

A Local Plan is a plan which proposes the disposition of land by function and purpose, or to be preserved in its present state, to meet the present and future identified community needs within the time frame for which the plan is valid. The department further states that Local Plans should be prepared when needed and the uses of land must be in conformity with permitted uses of the land in the designated zoning classification, as identified in the approved Structure Plan. The study, therefore, sees the functions of local plans as:

- Applying the strategy of the structure plan: giving particular attention to the proposed changes in development and use of land;
- Providing a detailed basis for development control: local plans are the official development control documents, giving precise information concerning uses allocated to particular sites, planning density standards and so on;

- Providing a basis for coordinating development: build coordinating units between public and private resource agencies and add positive elements to development control; and
- Bring local and detailed planning issues before public: showing in particular how various interests will be affected by the outworking of the plan.

2.10.3 Public Participation in Local Planning

Development control is a managerial apparatus that transcends urban development, urban planning and urban management in an effort to guarantee that appropriate and commended development is embarked on. It is, however, not a stationary mechanism since it also involves compromise in the course of altering the urban environment in order to accomplish the public interest (Thompson, 2002). The approach is anchored on the ideology of participation in which all stakeholders are expected to work together in the development process. On the other hand, where stakeholders and beneficiaries fail to agree on certain issues arising out of the development plans or conditions enshrined in the development permit, they can appeal the decision in the Administrative Court.

Planning is not a job reserved for the professionally trained planner only; it involves getting many different people to work together towards common goals (Maidin, 2011). The procedure for local plan preparation necessitates that satisfactory publicity is afforded to the matters to be contained in the local plan (Thomas,2013). Public participation is, therefore, an important component of the local planning process. The various interests' groups must be involved in the decision-making that would lead to the approval of the plan. According to Brunick (2003), the statutory requirements for public participation is simply that the local planning authority should provide adequate publicity in the area to issues to be incorporated in the plan, give those interested an adequate opportunity to make representation and make them aware of this opportunity.

It is understood by the study that local plan proposals for radical change can be expected to generate hostility and public consultation provides local authorities with a means of smoothing their progress especially in terms of reducing the number of objections laid against the plan.

Accordingly, the most common methods of securing public participation in the local plan process are: public meetings, questionnaire survey, the distribution of leaflets and newssheets, exhibitions and the use of local press and radio. Other methods as pointed out by Brunick (2003) include community panels, area discussion groups and community forums.

2.11 The Development Process and Development Control

The development process is a lengthy and complex process. The product of property development is a change of land use and/or a new or altered building in a process that combines land, labor, materials and finance (Read, 2008). Furthermore, the end product is unique, either in terms of its physical characteristics and/or its location. This process is concerned with stages by which buildings are built.

According to the study, the principal stages are; Initiation, Building and Disposal.

2.11.1 Initiation

This stage of the development process includes all of those activities that must be completed before construction can begin. This typically relates to: architectural and engineering studies, initial site control, environmental studies, zoning variances, and feasibility analyses. Permission is usually sought towards the end of the initiation stage before building begins (Alluko, 2011). According to the author, the whole process of development is affected by development control considerations. Development control is a small but vital part of the development process. He also believes that the developer needs to develop a concept based on the nature of development, whether the development is on a new land or the redevelopment of an old structure. Harding ‘s (2011) agrees with the notion that a prospective development is commenced through the expectation of need for a particular kind of development, or the expectation of a potentially advanced value for the use of an existing site.

Development may not always be building on new sites. Read (2008), on their part, note that development is commenced when either a piece of land or site is judged appropriate for a different or more intensive use, or if demand for a certain use leads to a search for an appropriate site.

Read (2008) states that the commencement phase includes site investigation. The purpose of the site investigation is to scrutinize the site conditions before the developer enters into an agreement to procure a particular site. It is imperative to clarify the physical and legal conditions of the site as unforeseen risks may incur expense/delay or even discourage property development at a later stage. The physical site conditions that should be scrutinized comprise the site's load-bearing capacity, ease of access, site drainage, the connection with relevant utility services, infrastructure provision, and any likely underground problems or contaminants. The legal considerations comprise the site's ownership and possession, easements, restrictive covenants, the planning status of the site and, also what type(s) of building can be built on that site (Harding, 2011).

Read (2008) are of the notion that except the developer is the existing site owner; all legal questions relating to the site need to be evaluated: these comprise ownership, existing planning permissions, and any rights of way, light or support. Cautious planning is essential to establish who the current owners of the site are and what is needed to acquire the right of use.

Thomas (2013) also suggests that the initiation stage crucially involves the investigation of the planning status of the proposal. If planning permission cannot be obtained, when in fact it is required, then this will hamper the project. The conditions and limitations attached to permissions can affect a development project in later stages. Read (2008) agree with this saying every development (with a few minor exceptions), needs planning permission from the local planning authority prior to its initiation whether it is change in use or a new building. A thorough application typically encompasses submitting to the planning body thorough drawings and information on siting, means of access, design, and external appearance and landscaping.

2.11.2 Building

This is the actual acquisition and construction or rehabilitation of the housing. This is the stage where the development plan of the developer is implemented. According to Thomas (2013), this stage may be a simple house extension, in which case planning conditions are not likely to be very important. On large sites, such as a factory estate or mineral working, planning conditions may affect the development.

The housing is built and operational planning is completed during this phase. Specifics include:

- Obtaining building and other permits to obtain permission to proceed with construction;
- Preparing the site and actually building the housing;
- Managing the construction; and
- Completing construction and obtaining a certificate of occupancy.

2.11.3 Disposal and Final Use of the Property

According to Thomas (1997), the disposal of the property may be by sale or lease or the developer may use the property himself. In any event, conditions imposed by the planning permission run with the land. Conditions that may affect the development at this stage involve the maintenance of the landscaping and restrictions on occupancy. During the building and disposal stages, the local planning authority checks that the development has been carried out as approved. If there are major departures, then the

local planning authority may decide to act. If enforcement is involved, unauthorized buildings may have to be demolished.

The disposal may be by way of leasing or the downright sale of the freehold interest. If the property is a major retail development, there may be many leases. But a single office complex can be sold outright (Wapwera, 2013).

2.12 Development Control through Planning Applications

Planning applications are applications for permission to undertake development. This application may either be for a new development or change of use of an old development or an extension of a building (TCP-England, 2010). There are basically two forms of planning applications. These are development permits and building permits.

A Development Permit is a practical approach for directing development in a manner consistent with community values. An approved Development Permit is binding for both the present and future owners of the property. There is a difference between a development and a building permit. Also, a building permit generally relates only to the construction aspects of a particular building or development.

According to Serkin (2013), building permits grant approval to prospective developers to build structures in approved locations. This building activity must take place within an established time frame and in accordance with national building regulations. The building permit is a legal document and covers any property whose plans are judged to be suitable for implementation and subsequent human dwelling. Serkin (2013) further states that building permits are normally approved for residential, industrial and commercial buildings which are permanent structures. Temporary or makeshift structures can also be given approval. Such temporary structures include kiosks, metal containers, local fabricated metal containers and advertising hoardings or boards.

The National Housing Authority of Bangladesh also provide the guiding principle for development and/building permits. The development authorities and municipalities states that any person who intends to erect any building: or make any structural alteration to any building; or execute any work or install any fittings in connection with any building shall apply to the authority. It also stipulates that an applicant shall satisfy the development authority or municipality planning section that he has good title to the land.

The regulations further state that the applicant shall also submit to the authority a certificate signed by a town or municipality planner to the effect that the corners of the plot on which the building or work is to be carried out have been demarcated on the ground in a permanent manner in accordance with the site plan.

In addition, that where a person submits an application for a building permit, the development authorities shall notify him within defined period of time of the receipt of the application and shall within a period of announced number of months thereafter notify the applicant whether the application is granted or refused. An applicant not informed of the grant or refusal of the application may after the expiry of the announced number of months commence development on the basis that application is acceptable to the development authority. What is however not clear is whether the development authority can go ahead to prohibit, abate, remove or demolish such a development which contravenes master plan, structure plan or detailed area plan of the Ministry of Housing and Public Works.

Due to the elaborate nature of these provisions, it begs for answers why developers seem to not be adhering to them. Some believe that the difficulty lays in the very requirements. A prospective developer in Bangladesh is required the flowing things to get the NOC (no objection certificate) for land use which vary from development authorities and municipalities. But the requirements are common in nature. The requirements which are required with the NOC application are as follows:

- ✓ All legal documents photocopies are must be attached with the application of applied land (as: property ownership document, taxation papers, tax voucher) for submission.
- ✓ RS mouza map (8”x 12”) photocopy with the signature of applicant have to submit which consist with mouza name, ZL no, sit no and RS plot number must be well written and the applied land will be indicated with red color.
- ✓ The hand map, sketch will be submitted with applicant signature. Hand map and sketch must consist with declaration of amount of property, attached road width, land use of surroundings, north sign with well-defined land mark and the description of the property on the basis of land marks.
- ✓ Applicant or a group of applicants must bear the photocopy of NID (national identification card) or passport or driving license or civic certificate or tax return for submission.
- ✓ Applicant must collect the receipt of application submission and have to bring for collection NOC.

In addition to the above requirements, applicants are expected to provide a land title certificate and detailed engineering, architectural and structural drawings and, sometimes, a geological certificate. It is important to ensure that the health and safety of physical developments in cities is not compromised. This has, however, not been the case as it is reported that the requirement for a land title certificate as a prerequisite for planning permission has proven to be counter productive over the years.

Furthermore, Rabe et al., (2011*)* noted that applicants for planning permission in Sabah, Malaysia, are required to submit a layout plan for approval which contains:

- ✓ A certified copy of land title or other legal documents such as power of attorney;
- ✓ The completed form of planning application with an introduction letter;
- ✓ 16 sets of plans or any prescribed number of copies as determined by the Council;
- ✓ Accompanying fees as prescribed by Building By-Laws 1951; and
- ✓ Development plans signed by the owner or relevant professionals and a space of 10cm x 15cm (4ll x 6ll) on the right-hand side of all development plans have to be reserved.

This is for use during endorsing the approval of the plan.

Rabe, et al., (2011*)* further contends that during the planning application process, the applicant is required to submit development plan together with land title, boundary and topography survey report to the local authority. During the process for making a verdict, details of the development plan will be reviewed by a committee whereby detailed discussions by relevant government agencies are carried on. Through this process, the Town Planning Department will check the proposed developments against the Planning Scheme for the zoning provision, plot ratio, set back, road patterns and parking requirements. In every planning scheme document, there are conditions mentioned which include a restriction or prohibition on location, height, yards, positions of buildings and coverage of drainages in the site. In general, conditions imposed by the local authorities are dependent on the types, scale of the application and provisions of development plan submitted.

In addition, Xiao (2005) write that the 1989 City Planning Act, in China, stipulates that planning permission is needed for all land developments. Every development application is assessed by the local planning authority under the control of the city government. The planning authority evaluates proposals for development in accordance with the planning proposals in the city plans and other government rules or regulations.

According to Doublet (2002), provisions of the 1992 Development Planning Act of Malta instruct that any person who intends to undertake a development (except developments where permission is granted in the General Development Orders) is mandated to apply for consent and must adhere to the regulations in operation at the point in time. Doublet (2002) further states that when the authority is determining an application, it should consider:

- Policies emanating from the existing structure plan and from any subsidiary plans, if any;
- Development plans;
- Representations made in response to the publication of the proposal; and
- Any other material consideration including aesthetic, sanitary and other considerations which the Authority may deem relevant.

When all the necessary requirements are met, a development permit is issued in favor of a particular piece of land and not in favor of an individual. It can be seen that the requirements for planning applications as a necessary step towards development control are universal. The requirements, however, need to be tailored towards the development needs of the country concerned.

2.13 Monitoring and Enforcement of Development Control Processes

Monitoring and enforcement are a very important exercise in the development control process. Without these twin functions, many of the regulations and rules for regulating development would not be adhered to by the developers as mentioned earlier in this chapter. There is the need for monitoring and field inspections to ensure plans are complied with. However, compliances do not happen automatically achieving it usually involves efforts to encourage and compel behavioral change that is enforcement (Muraya, 2006). The institutions that are charged with this function vary from one jurisdiction to the other.

According to Sorensen (2000), environmental regulation has been so successful in Singapore because public awareness of new environmental measures is followed by monitoring and inspection with strict and consistent enforcement of serious penalties. Sanctions are also required to deter people from developing against the requirements of the law.

In Bangladesh, the development authorities and municipalities planning sections mandates the building inspectorate under Ministry of Housing and Public Works to monitor development activities on a daily basis to ensure that developments are in accordance with the drawings presented for permit approval.

There are basically two tools used in enforcing development control processes (Ogundele et al, 2011). These are enforcement notice and stop notice.

2.13.1 Enforcement Notice

An enforcement notice is a notice requiring compliance with planning consent. An enforcement notice can require the demolition of a building erected without planning permission (Serkin, 2013). Enforcement Notices are documents served by a planning body which require the use of the land to be stopped and / or any buildings or structures that do not have planning permission to be removed. The planning body must find out the names of all the owners and occupiers of the property to ensure an Enforcement Notice is served correctly. Enforcement notices are also issued where a person has committed or is committing a development offence, such as undertaking building work without first obtaining the required development permit - enforcement notices are issued for work-in-progress (Qia,2009).

Ogundele et al., (2011) also explain that when there is a breach of Town Planning law associated with development, such as carrying out of development without planning permission (approval), an enforcement notice is served to the developer in question. It concerns illegal building, engineering, mining, and change of use among others.

Adjei (2010) adds that a written notice may be served to an offending developer. Such a developer is required to write to the Planning Body specifying reasons the said development should not be prohibited, abated, altered, removed or demolished. Failure to exhibit sufficient cause for such development results in the prohibition, abatement, alteration, removal or demolishing and all expenses incurred are written against the owner of the property as a debt owned the Planning Authority.

To issue an enforcement notice, Serkin (2013) believes that planning authorities must be satisfied that there is a breach of planning control and it is expedient to issue the notice in accordance with the development plan. Normally, the owner or occupier of the land or property can appeal an enforcement notice. When the enforcement notice has not been adhered to, the local planning authority can prosecute the offenders in a court of law.

2.13.2 Stop Notice

A person commits an offence if an enforcement notice is in effect and they have not completed the steps required in the enforcement notice within the compliance period specified in the notice (Leeds City Council, 2014). The planning authority can, therefore, serve a stop notice on the developer. The Council also posits that a stop notice can prohibit any or all of the activities which are cited as being breaches of planning control specified in an enforcement notice for a particular site before the enforcement notice take effect and the period for compliance expires. A stop notice cannot be served without

an associated enforcement notice. If a stop notice is contravened, then the person contravening it may be prosecuted for an offence.

It is further maintained that the stop notice is used to prevent the continuance of operations pending the outcome of an appeal against an enforcement notice. The stop notice is an indispensable enhancement to an enforcement notice, and cannot be served until an enforcement notice has been issued. Once an enforcement notice has been issued, a stop notice can be served to prohibit any activity complained about in the enforcement notice. There is, however, certain types of activities that cannot be prohibited by a stop work notice.

These include:

- ✓ When a building is being used as a dwelling house;
- ✓ When a piece of land is being used as the site of inhabited by a person as his sole or main residence; and
- ✓ When steps are being taken to ensure that the breach of regulations complained about in an enforcement notice is remedied.

The stop notice may be served on a contractor as well as the owner or occupier of land or property. There are no appeals against a stop notice and failure to comply is a punishable offence. According to Ogundele et al., (2011), the time frame is usually 21 days within which such development shall comply with prescribed provisions.

The monitoring and continuous enforcement of the development plans and building regulations is an important component in development control. Without effective monitoring and enforcement, the provisions of development plans and the conditions attached to permits may be contravened. In Bangladesh, there are several authorities empowered by the People's Republic of Bangladesh through several ordinances and enactments under Ministry of Housing and Public Works and Ministry of Ministry of Local Government, Rural Development and Co-operatives to prohibit, abate, remove, pull down or alter nonconforming developments to bring them in conformity with development plans and permit regulations. Other actors, like land owners and developers whose actions and inactions can promote development control are discussed below.

2.14 Key Actors in Development Control

Development control is a process that involves many actors (Harding, 2011). From the inception of a development project to its completion, many individuals, groups, agencies or professionals are involved in its execution. Harding, (2011) believes that the actions

and inactions of these actors are influenced by development control conditions and limitations. It is, therefore, important to understand who these actors are. Some of the actors include land owners, developers, Planners, Public sector and government agencies, building contractors and architects. The built environment is shaped by these professional actors in the light of their particular way of seeing buildings and cities and of their subsequent goals and actions (Guy and Henneberry, 2000).

2.14.1 Land Owners

According to Read (2008), land owners may either play an active or passive role in the development process. The role of land owners can therefore not be underestimated in the development process. For instance, land owners may develop the desire to improve the value of their property and therefore actively initiate the development process. They may also become standing blocks to development by refusing to lease up land for development, especially when the local administration needs such land for important public works. (Read, 2008).

Land owners can have a substantial influence on the nature of development. Since every development is supposed to receive planning approval, land owners can aid or hamper the process based on their adherence to or contravention of local plans in their area of jurisdiction (Forkuor, 2010). For example, if a land owner sells a piece of land which is in a non-buildable area for development purposes, the likelihood of such a development receiving planning permission is almost non-existent. In developing countries, where many land owners are either chiefs or families (Forkuor, 2010), the situation is even more unpredictable as many may disregard planning restrictions in the disposal of land.

2.14.2 Developers

Developers in the development process vary. The developers may be individuals, companies, and agencies. These all have a common interest fro development of land, whether for private use or for sale. However, before any such development can take place the developer, must as a matter of regulation, make a development application to the local planning authority for permission. Many developers, especially house builders in developing countries have however tried and do flout important components of the development process. The author's further note that the continued issuance of stop notices may be the clearest indication that developers do not comply with planning regulations.

2.14.3 Planners

According to Read (2008), the UK planning system has established planners as the professionals to regulate development. There are two categories of Planners; politicians and professionals. The authors further believe that politicians mostly act upon the technical advice of professional Planners in their line of work. In Bangladesh, many Ministries, Departments or Agencies has a planning department responsible for making the technical decisions. The Ministry of Housing and Public Works which is the body responsible for the Planning of settlements makes decisions which are implemented by the government. The planners are also responsible for determining whether applications for permission for development proposals should be approved or refused. The professionals are responsible for advising the politicians and administering the system.

Planners perform the function of safeguarding development by adhering to government policies and development plans in the review and approval of development applications.

In areas of low economic activity, planners usually place little restrictions on development proposals especially those that would generate employment. On the other hand, planners in developed regions usually impose higher standards, and even slow down the pace of development to ensure that there is a better balance between the design and use of a building. According to Read (2008), the fact that planners are relevant in determining whether a development will be accepted or prevented is a very important consideration for property development.

2.14.4 Public Sector and Government Agencies

Many public sector and government agencies are involved in controlling development. These institutions are either developers in the development process or controllers of development activities. Read (2008) have noted that planning authorities are largely concerned with developments for their own uses or community use and the delivery of infrastructure. Local authority participation in the development process will be subject to whether promoting development or controlling development to preserve higher standards is a main concern.

In Bangladesh, the Ministry of Housing and Public Works through RAJUK, CDA, RDA, KDA, UDD, NHA and Ministry of Local Government, Rural Development and Co-operatives through the local governments, the Ministry of Land, the Ministry of Water Resource, the Ministry of Environment, Forest and Climate Change and other concern Ministry and the Agencies are solely responsible for land use control. These institutions make sure that the development of land is done according to government policy and approved development plans.

2.14.5 Architects and Building Contractors

According to Read (2008), Architects and Building Contractors play very important roles in development control. While architects design the appearance of new buildings or the refurbishment of existing buildings, the building contractors use this design to build. These actors both work to ensure that the desired final product of the developer is achieved. However, the design and construction of building must meet planning specifications and conditions. Anything less than this would lead to difficulties in securing planning permission. Even after the permission has been secured, the actions or inactions of a contractor or builder could still hamper development. A contractor who does not build according to the conditions or limitations imposed on a development permit may be forced to abate, alter or even demolish a structure.

These actors as discussed have valuable roles to play in the control of development. A lapse by any one of them in the performance of duties and responsibilities can go a long way to derail efforts to effectively control development.

2.15 Problems of Development Control

The literature review has revealed certain challenges that militate against effective development control. In this section, a cursory mention of them shall be made.

Alluko (2011) identifies that the problems of development control are:

- ✓ Encroachment on public rights of way and open spaces;
- ✓ In urban areas the building setbacks have been taken over by front shops and a variety of unsightly development;
- ✓ Conversion of residential property to commercial premises, banks, places of worship, schools etc.;
- ✓ Construction of buildings in violation of building approvals; and Corruption by enforcement officers.

Nuhu and Yohanna (2013) also identified other major factors inhibiting effective and efficient development control as:

- ✓ Interference by personalities;
- ✓ Lack of cooperation by the Land Owners;
- ✓ Inadequate funding;
- ✓ Inadequate equipment and machinery;
- ✓ Scarcity of man power;
- ✓ Abuse of official power.

Ogundele et al., 2011 have also studied development control and conclude that development control (notwithstanding the advantageous effects on the physical environment) face many problems. These problems include:

- ✓ Land use maps are not up-to-date and therefore do not echo the trend of development and instruments used for development control purposes. Again, the procedures for development control are not operational because they do not ensure or provide easy access to the police and/or other law enforcement agents when the need arises for a quick response against unauthorized development.
- ✓ The departments responsible for development control are ill-resourced as compared to other public developments. Therefore, the development control system lacks adequate funding unlike the other sectors of the economy. The system therefore suffers obvious setbacks.
- ✓ The public is also not enlightened on physical development matters. They are therefore illiterate on physical planning programs. This results in the development of unauthorized structures to satisfy the parochial interest of developers without taking into consideration the negative impacts of such actions.
- ✓ Inappropriate or insufficient monitoring of developments to ensure compliance with planning regulations, especially in cases where development permits have been granted for such developments.
- ✓ Furthermore, residential structures are illegally converted into other uses especially mixed uses (mostly residential and commercial; residential-institutional).
- ✓ An additional factor is the bribery and corruption, which has bedeviled the processing and approval of applications for planning permission.

Obeng-Odoom (2010) also concede that several challenges inhibit planning efficiency. Five of these are particularly pervasive, namely: inflexible land tenure systems; a weak legislative framework; undue political interference in the planning process; weak human resource capacity; and inadequate funding. These issues are inextricably linked and are mutually reinforcing. Furthermore, the challenges are national in character and are more pronounced in urban areas owing to population pressures.

These studies have shed light on what problems are hampering effective control of development in urban areas. As can be seen, the same problems are common in all the localities studied, suggesting their near universality. What however makes these problems persist is a matter that this study seeks to uncover.

2.16 Research Gap

This thesis so far has highlighted many issues on development control in both developed and developing countries. These issues have provided a very good background for the study. Several authors such as Adarkwa and Post (2000), Pogbekuu (2007), Yeboah and Obeng-Odoom (2010), Ahmed and Dinye (2011), Dordaa (2012), Adarkwa (2012), and among others have contributed to the issue of land use planning in different developed and developing countries.

There is however a gap in the literature on the issue of development controls in Bangladesh. No comprehensive studies have been conducted on development control processes and dynamics on urban centers. This study, therefore, seeks to add up to the growing literature on development control in Bangladesh, and especially provides a comprehensive assessment on the subject.

2.17 Conceptual Framework

The literature review has identified some of the important issues that make development control effective. As explained in the review, development control is a border sense, can be achieved through preparation of land use planning and development control mechanism.

Development control is a process through which physical development permits or building plan approvals for development are granted via the submissions, assessment, registration and processing of building plan applications. It is a statutory measure to ensure an orderly, conducive and healthy environment is created for living, working and recreation, among other legitimate activities in human settlements. For development control to be possible there must be approved and up to date development plans, enforcement and sanctions. Development control hinges on development regulations. According to Philip (2007), master plans, zoning plans, detailed development plans, Planning Standards, usage of buildings, Floor Area Ratio, set-backs, open spaces, building height, number of stories and parking requirements; for various categories of developments on land and buildings are what comprise development regulations.

In view of the background, the design framework for this study is centered on the process from the preparation and publication of developments plans, especially local plans (the official development control documents), giving precise information concerning uses allocated to particular sites and planning density standards among others. The framework also includes the permit application and approval process, whereby development proposals are vetted by the development authorities and local government

bodies and concern agencies to ensure compliance with development plans and building regulations. This process is the beginning of the implementation of the regulations contained in the development plans and other government policies controlling land use planning. The framework also includes actions geared towards monitoring and enforcement of developments plans and conditions and limitations attached to permits. The main enforcement tools are enforcement notice and stop notice.

The actors whose actions or inactions can either promote or hamper development control are also at the center of this framework. These actors include Developers, Planners, Government Agencies and other Public Institutions, Building Contractors and Architects. When all actors, processes, and institutions and individuals work effectively; development of land and/or buildings would be effectively controlled to bring about order and healthy living, among other purposes of development control.

Figure 2.1 depicts the conceptual framework adopted for this study. As already explained, land use planning supported by development plan and development control (under the border umbrella of urban planning) therefore at the summit of the framework is urban planning followed by land use planning and development control.

Development control is executed by development authorities, local government bodies and related agencies which apply certain approved procedures to ensure that development is effectively and efficiently controlled. The institutions and the procedures employed are however within of the remit of legal provisions which provide the authority for the development control function. The conceptual framework diagram depicts this. Therefore, the legal provisions and the development control institutions are mutually reinforcing as shown by the arrow pointing in both directions. Also, the legal frameworks specify what actions are needed to ensure effective development. In the diagram, the arrow pointing to the procedures for development as well as the arrow pointing to effective development control depicts the importance of the legal frameworks. Figure 2.1 shows the conceptual framework for this study.

The conceptual framework presented an abstract of the issues that would be explored in the data collection. It therefore has an effect on the type of research design and approach used. It also affects the research instruments used to obtain the needed data. The chapter on research methodology elaborates on this aspect.

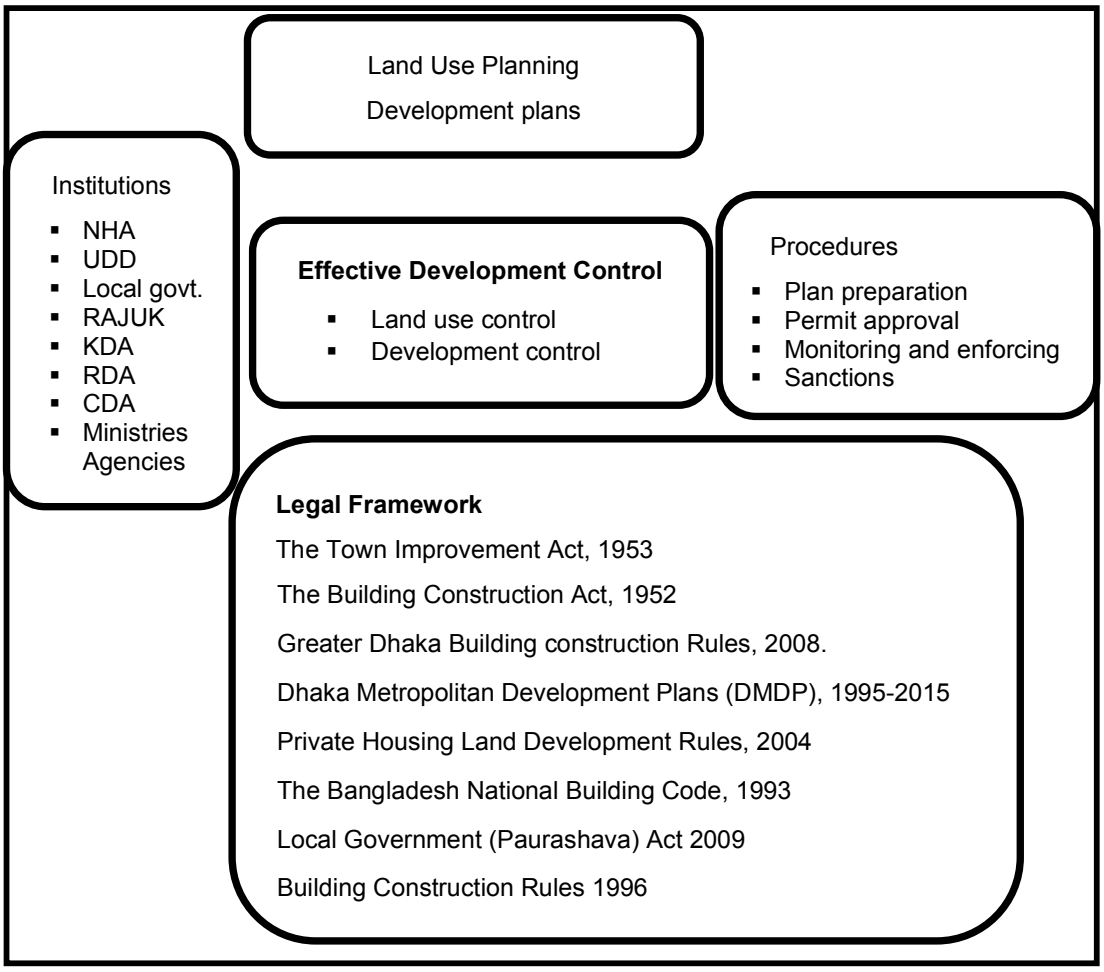


Figure 2.1: Conceptual Framework of this study

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The research problem, aim and objectives have been discussed in chapters one and two of this study. Chapter Three seeks to establish and justify the appropriate methodology for this research. Research methods have been defined as tools to be used for addressing specific questions and for undertaking, solving, etc., diverse scientific and empirical problems (Brace, 2004) and Yin (2003) notes that there are several different ways of collecting and analyzing empirical evidence in order to achieve a desired output, but this does not mean that the boundaries between strategies are always clear.

This Chapter seeks to establish and justify the appropriate methodology for this research.

- ✓ Methodological framework for the research
- ✓ Philosophy (purpose and process of ontological, epistemological and axiological contexts),
- ✓ Approaches (quantitative and qualitative), logic and outcomes (inductive and deductive),
- ✓ Research strategies (case study evaluation) and
- ✓ Data collection and analysis

(Denscombe, 2007; Collis and Hussey, 2009; Dawson, 2011; Robson, 2011; Creswell,2003)

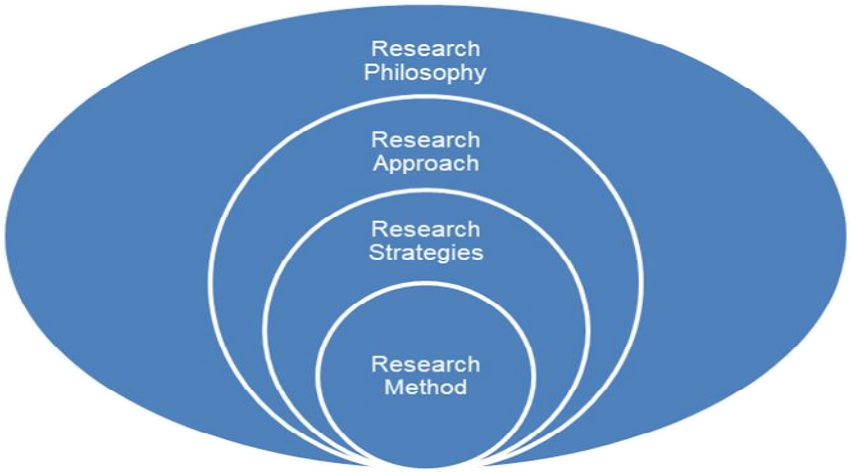
3.2. Methodological Framework

Sapsford (2006, p.175) defines methodology as a philosophical stance or world view that underlies and informs a style of research. Stemming from a congruent philosophy, a methodology is a set of principles and ideas that inform the design of a research. Hence, this section answers the question of what is the process of the research? It emphasizes the processes and step by step developments as well as the research tools and procedures to be employed for this research.

It advocates certain research philosophies, approaches/reasoning, strategies and methods. Denscombe (2007) argued that with positivism there are two forms of strategy; experimental strategy and non-experimental strategy. While, the phenomenology (social constructivism) has three forms of strategy; case study, ethnographic study and grounded theory study.

Consequently, as Denscombe (2007; p.109) highlights, research methodology can be represented as a procedural framework within which the research is designed and executed. A systemic research methodology is based on several interrelated elements. These elements include the research philosophy, research approach and strategy and research methods.

The "nested-nested mixed method research methodology framework" (hereafter the nested model), described by Kagioglou et. al, (1998a), Sexton (2000), and Keraminiyage, (2009) provides a detailed and integrated perspective of how the components guide the research methodology and its implementation process.



Source: (Kagioglou et al., 1998a; Keraminiyage, 2009)

Figure 3.1: Nested mixed method research methodology framework

As shown in Figure 3.1, the nested approach illustrates that research methods are led and informed by research strategies, and research strategies are informed by the research approach which is guided and informed by the research philosophy. The research philosophy defines the underlying assumptions of the study. The research approaches represent the theory generation and testing strategies adopted to answer the research questions. The research strategies are generally lines of attack employed to address research problems and these include; case study, mixed method, feminist, ethnographic, experimental, grounded theory, evaluation research and action research as observed amongst others by Castells (1979); Denscombe (2007); Dawson (2009); Robson (2011) and Creswell & Plano Clark (2011). Research methods are mainly the tools used to collect and analyze data within the selected research strategies. Each component of the nested mixed method research methodology framework is discussed in detail in sections 3.3, 3.4, 3.5 and 3.6 respectively.

Table 3.1 Nested-Nested mixed method research methodology framework

Methodology		Position	Authors
Research Philosophy	Ontology	Constructivist	(Bryman, 2001; Grix, 2001) Collis & Hussey (2003) Grix, | 2004; Denscombe, 2007 Dawson, 2009
	Epistemology	Interpretive	
	Axiology	Value laden and biased	
Research Approaches Research Reasoning		Qualitative & Quantitative, Qualitative& Quantitative/ Deductive & Inductive, Deductive & Inductive	Grix, 2004; Denscombe, 2007; Dawson, 2009
Research Strategy	Mixed Methods	Nested-nested mixed methods approach	Kagioglu et al., 1998a; Mingers, 2003; Denscombe, 2007, Yin, 2009; Keraminiyaage, 2009
Research Method	Sampling Design	Probability and non-probability	Creswell (2003) and Tashakkori & Creswell (2010) & Polwright (2011)
	Data Collection	Questionnaire, face to face interview and archival documents	
	Data analysis	ANOVA-N-way, Spearman ranks correlations coefficient Content & thematic analysis	

3.3. Research Philosophy

Collins English Dictionary, (2009) defines philosophy as the rational investigation of the truths and principles of being, knowledge, or conduct of a specific discipline. It could be for any of the following areas; natural, moral or metaphysical. Furthermore, it could be a critical study of the basic principles and concepts of a particular branch of knowledge with a view to bringing about improvement or reconstructing them. It deals with general and fundamental problems such as those connected with a branch of knowledge. It explains the methods and general guidelines involved in the conduct of research (Creswell, 1998; 2003). Grix (2001) and Creswell (2003) explain it as a way of analyzing the principles of methods, rules and hypotheses employed by a discipline and also the systematic study of methods that are, can be, or have been applied within a discipline in this case, urban and regional planning.

Philosophical assumptions help to bring about explanations of methodology by describing the underlying research processes. They explain the underlying principles and rules of inquiry, generic processes and compromise position or stance adopted for any research. Crotty (2003) considered that interrelationships exist between a philosophical stance adopted by a researcher, either from the epistemological, ontological and axiological stance. There are relationships that exist between philosophy, approach, strategy and methods which shape the researcher's view of the problem identified.

Therefore, philosophical stance such as epistemology and ontology, as well as axiology, determine, to a large extent, the approaches, strategy and methods of any research. The clear distinction of these philosophical assumptions is that ontology is about what we may know and epistemology is about how we know and what we know while axiology is the value of what we know (Bryman, 2001; Grix, 2001).

3.3.1 Ontology

Ontology is an assumption that is concerned with what is believed to constitute a social reality (Grix, 2001). It addresses questions on what objects exist or can be said to exist, how these objects can be grouped, related or subdivided according to relationships and variations. Ontology is a systematic account of existence (Gummesson, 2003). Hence, ontological postulations are concerned with what is believed to constitute subjective rationality (Grix, 2001).

The ontological stance has two divergent views or assumptions at opposite extremes of objectivism and those based on constructivism. Grix, 2001 argued that an individual's ontological position is their answer to the question: What is the nature of the social and political reality to be investigated? Hay, (2002, pg.3) observed that the assumption is difficult, if not impossible, to refute empirically.

Objectivism is an ontological position that asserts that social phenomena and their meanings have an existence that is independent of social actors. While constructivism asserts that social phenomena and their meanings are continually being accomplished by social actors. This explains the ontological view that entities are assumed to exist within a system and have relationships, and gives a systematic account of existence of the physical planning (urban sprawl) problems under consideration.

(Grix, 2001) observed that objectivists are of the view that things exist, as meaningful entities, independently of consciousness and experience; that they have truth and meaning residing in them as objects - 'objective' truth and meaning, therefore, a careful (scientific) research can attain that objective truth and meaning. The relationship between urban governance and management is through the planning authorities in Dhaka city. The presence of numerous planning organizations is believed to be the immediate cause of the failure of the urban master plan that brought about the physical planning problems observed in the urban areas. This is so because they operate as individual planning authorities without any linkage in their roles, functions and responsibilities within the same jurisdiction or boundary (Wapwera & Egbu, 2013).

The nature of the physical planning problems in most developed and developing countries are termed 'Wicked and Dangerous' as observed by Webber (1978). The simple reason why this is so, is because the factors that determine the conditions are interrelated, they keep changing and increasing, for instance an increase in the standard of living brings about an increase in population and, thus, consumption and demand on the basic infrastructure in the urban area. The absence or the inadequacy of infrastructure in the urban environment leads to the changing nature of the planning problem. This implies that physical planning problems are dangerous problems and that they exist.

On the other hand, objectivists believe that the world exists as evidence and experience and human observation is used to gain knowledge of it (Friedmann,1989). Based on this position, the ‘‘rationality' of issues of urban sprawl characterized by slums lies within the evidence and experience of the humans involved. This implies that physical planning problems are problems only because people experience and have evidence of the problems that are physical.

Therefore, the ontological claim for this research is that physical planning problems in Dhaka are dependent on the implementation of the appropriate plan, meaning the ideal conditions (plan i.e. master plan or spatial) are subject to the need for a concrete rationale. It is assumed that the rationale is independent of the evidence and experience of the planners. A compromise stands on how to investigate the rationale tends more towards the constructivist than the objectivist in the consideration of the epistemological view of approaching and observing the phenomena. This is so because previous writers (Nazrul Islam, Nurul Islam Nazem, Ghulam Murtaza, Akhter Hossain Choudhury, Akhter Mahmud and sarwar Jahan amongst others) in this field of study have expressed, in their studies, the belief that physical planning problems are seen as complex issues that are nested in so many issues that it presents a complex system requiring understanding of the actors, the context and the interplay between the actors and the context as well as the researcher. Therefore, the ontological claim for this research leans more towards constructivism than objectivism, drawing from the numerous considerations of other authors in the discipline of urban and regional planning.

3.3.2 Epistemology

Epistemology is, literally, the study of knowledge and knowing (Guba,1994). It deals with the nature and criteria of knowledge, its possibility, scope and general basis. It is concerned with providing a philosophical grounding for deciding what kinds of knowledge are possible and how we can ensure that they are both adequate and legitimate (Crotty 2003). Grix (2001) made this clear, that epistemology is concerned with the question of what and how we know what we assume exists? Putting it in the context of this research, what and how can one understand the factors determining the success or failure of the master planning system in Dhaka Metropolis? It is firstly by identifying objects (factors) that determine the success or failure of the master plan as a tool to address the problem.

Grix (2001) and Hay (2001) observed that the epistemological stance has two divergent views of assumptions at extreme ends of the continuum with positivism at one end and at the other end assumptions based on interpretivism.

The argument of positivism is that it is a fundamental characteristic of the scientific method that all theories must be tested against observations of the natural world rather than relying solely on reasoning, intuition, or revelation. Positivism is related to empiricism which in the philosophy of science emphasizes evidence, especially evidence discovered from experiments (Crotty, 2003 and Das 2007).

From the explanation above, the theories identified from literature need to be tested against observation of the natural world (social reality), the field work (observation, measurement and collection of opinion and views) to provide the data needed (which is also evidence) for the testing of the theories.

Grix (2004) observed that epistemology is concerned with the question of what and how can we know what we assume to exist? Putting it in context of this research, what and how can one understand the factors determining the success or failure of the master planning system in Dhaka? If we use this assumption, the research will uncover the truth of the reality presented above from the experience of failure of the urban master plan in Dhaka. Linking interpretivism to constructivism, which posits that truth and meaning do not exist in some external world but are created by the subject's interaction with the world, the interpretivist believes that to understand this world of meaning one must interpret it. The researcher must clarify the process involved in the meaning of construction and clarify what and how the meanings are embodied in the language and actions of social actors (Silverman, 2001). Constructivist and interpretivist perspectives contrast objectivism and positivism and are based upon ontology (Guy, 2000).

Therefore, the epistemological claim for this research leans more towards the interpretivist stance than the positivist stance, drawing from the numerous considerations of other authors in the discipline of urban and regional planning.

Furthermore, Grix (2001), Creswell (2005), Denscombe (2007) and Dawson, (2009) observed that the interpretivist position through epistemological assumptions results in a more interpretivist approach which will influence this research based on the following characteristics shown in Table 3.2.

3.3.3 Axiology

Collis & Hussey (2003) observed that axiology is another philosophical assumption which studies judgments about value. In this philosophy, in the continuum there are two extreme assumptions which have to be made, whether it is value free and unbiased or value laden and biased (Saunders et al., 2007).

Those who are involved in research (professionals) in the built environment such as builders, architects, civil engineers, quantity surveyors, estate surveyors and values in addition to town planners amongst others, by virtue of their training, background, and their idiosyncrasies take a very strong position. Their training generates personal baggage and they bring their bias into the domain. They are not free of bias, they are bias laden and, taking into consideration that the nature of the study is multidisciplinary, faceted and multidimensional, hence the study is open to source the opinion and views of these experts. Brainstorming sessions and discussions can accommodate their bias which is so intrinsic in their mind set that they don't see any value elsewhere. They have acquired personal baggage which they bring to discussions along with any bias they may have gained.

However, the assumptions merely suggest directions along which to look rather than provide a description of what to seek. Therefore, the axiological claim for this research leans more towards value laden than value free, as the research choices are determined by human interest, belief and experience, drawn from the numerous considerations of other authors in the discipline of urban and regional planning.

Table 3.2: Reasons for leaning more towards a position of interpretivism

Aspect of Interpretation	Description
Multiple subject realities	There is no single version of truth. What constitutes the real world or knowledge about the world is a construction of the mind, either individually or collectively. Different groups or cultures perceive the world differently. It is best explained in the multi-disciplinary perspective of the study.
Multiple interpretations	Due to the multidisciplinary nature of the research, explanation is not expected to be fixed. Hence, more than one explanation and discussion will emerge because there is more evidence to support (Gummesson, 2003).
Dynamic, socially constructed meaning	Whatever reality is for an individual or group, it can only be accessed and transmitted to others through yet more social constructions such as language and shared meanings and understanding (Gummesson, 2003). It is about the identity of the specific discipline under scrutiny.
Reflection	Basic assumptions, beliefs, values and actions will inevitably shape the research process and affect the situation, this would be manifested in a research because it is not neutral.
Qualitative and quantitative data analysis	There is often a strong preference for generating and analyzing both qualitative and quantitative data sets. However, the use of quantitative and qualitative data collections such as surveys and interviews can be analyzed in different ways and interpreted to meet the objectives (Gummesson, 2003; Denscombe, 2007).
Study of respondents in their natural social setting	The understanding of the respondents in the field (Planning Authorities in Dhaka) is very important because the laboratory is the field. Here the field is not artificial.

3.4. Research Approach

Research approach refers to the methodology that has been adopted to conduct the research. It involves the selection of appropriate research questions and methods as well as the conceptual framework that has to be adopted. It is often asserted that the choice of any approach by the researcher is determined by the questions asked (Alluko, 2010).

The research approach can be considered from the following perspectives; quantitative /qualitative, deductive /inductive and primary / secondary research approaches. Two research approaches were adopted for this current study, this include; Logical, theoretical research and Qualitative, observational research. Many researchers are observed to combine a number of these approaches. For instance, some researches use both quantitative and qualitative approaches as observed by Collis & Hussey (2003); Creswell (2005); and Denscombe (2007).

In research the methods have two principal functions (a) they offer the researcher a way of gathering or generating information so as to gain insight into the subject matter and (b) enable another researcher to re-enact the first's endeavors by emulating the methods employed (Grix, 2001; Gummesson, 2003). The research requires learning more about the concept of urban and regional planning as a research domain. Hence, a qualitative research approach based on observations, document studies and interviews on real world phenomena and also a quantitative research approach based on a questionnaire administered to actors or respondents is argued for in order to meet the research objectives.

This research seeks to evaluate the need for development control mechanism and to develop a framework and a guidance document for addressing physical planning problems which the previous Dhaka master plan has failed to address. It employs a mixed method approach to obtain data from the activities/responsibilities of the numerous Planning organizations and includes case studies, face to face interviews and document reviews.

3.4.1. Qualitative Research Approach

The researches that follow this approach are known as case studies (Yin, 2009), grounded theory studies and ethnographic methods (Dawson, 2009) amongst others. It offers the researcher the opportunity to be in contact with the field of study to develop an

understanding and, as claimed for grounded theory studies, to become able to formulate a conceptually rich theory explaining the phenomenon under investigation. Contact with the field of research may be based on interviews, observations, or analysis of documents and other artifacts. Furthermore, literature studies are performed to the extent required to develop sensitivity in observation and interpretation. A qualitative research approach can be used to develop the understanding required for evaluation of whether a variable is relevant or not to a given problem situation. Comparing the two methods, quantitative research can refer to counting, whereas qualitative research can be seen to be proposing which variables to count.

This approach, also referred to as “constructivist”, “interpretativist’ (Guba & Lincolyn,1994) is an enquiry process for comprehending a social or human phenomenon based on building a complex and holistic picture from the detailed views of informants (Creswell,2003; Lord,2012).

3.4.2. Quantitative Research Approach

Quantitative research, on the other hand, generates statistics through the use of large scale surveys, using methods such as questionnaires or structured interviews (Dawson, 2009). Grix (2001) observed that this research approach is predominantly concerned with quantity. Quantitative research is also known as the “traditional”, “positivist” or the “empiricist” research paradigm and it is an enquiry into a social or human problem based on testing a theory made up of variables, measured with numbers and analyzed using statistical methods in order to determine whether the predictive generalizations of the theory is true (Creswell, 2003; Alluko, 2010).

Furthermore, the entire process of the quantitative methodology uses the deductive form of reasoning or logic wherein theories and hypotheses are tested in a cause-and-effect format. Concepts, variables and hypotheses are stated in the early stage of the study and this remains a fixed guide throughout the study. The intent of this study is to make generalizations that contribute to the theories identified in the literature review (global and local) and to enable the researcher to provide a better prediction and explanation as well as a description of the phenomenon under study (Grix, 2001; Creswell, 2003).

This research approach employs the formal deduction of logical consequences from a set of initial assumptions (axioms). If the axioms are true and the rules are logically sound, the consequences are also true. This mode of research may be appropriate for formal sciences as exemplified by mathematics and parts of computer science. The main concern in the present study is urban and regional planning and the study of the real world (master planning). These logical theoretical approaches might not draw upon the benefits of empirical work.

The quantitative approach to undertaking research lies within the classical scientific paradigm of natural, "hard" sciences such as physics, chemistry etc. This scientific method implies postulating hypotheses, doing quantitative experiments, and then either sustaining or rejecting the hypotheses based on statistical analysis of the measured data (Grix, 2001; Creswell, 2003).

The scientific method may be claimed to be the "best" research approach in relatively well known areas of research and where natural laws can be assumed to exist. Even if there are an infinite number of theories explaining a given set of data, the experiments may be repeated and theories can be verified (Grix, 2001; Creswell, 2003).

Grix (2001) and Creswell (2003) observed that to propose fruitful hypotheses, one must have a well-developed understanding of the research area. An understanding of what constitutes statistically reliable results is very important in survey studies as the number of samples must be large (for survey studies, it has to be above 40, as observed by Galtung, 1967). Both these requirements suggest looking for other research instruments.

Quantitative research is usually associated with counting. Correlation and relationships between variables are estimated using statistical devices. However, in order for counting to be meaningful, one must also know that the variables are meaningful in the given setting, in this case the urban planning system. Hence, quantitative research requires a well-developed understanding of a domain, in advance, in order to judge if variables are meaningful (Saunders, Lewis & Adrian, 2009).

3.4.3 Deductive and Inductive

This empirical study is approached from both deductive and inductive points of view. The deductive approach is a research strategy where testing of a hypothesis is employed using specifically designed techniques for the purpose of developing a theory that is subjected to rigorous testing and prediction of occurrence (Collis and Hussey, 2003; Saunders, Lewis and Adrian, 2009). In this study, the theories to be considered are theories of urban development control such as institutional and deficiency theories. The inductive approach is based on observation of empirical data drawing conclusions from specific to general, and subsequently, using the results to develop a theory (Saunders, Lewis & Adrian, 2009). On the other hand, the deductive approach involves the testing of a theoretical proposition, such as the institutional deficiency theory, by using research strategies specifically designed for the purpose of testing. These methods are expected to provide data that are both qualitative and quantitative in nature.

The research is based on mixed approaches, but with more emphasis on the qualitative approach to bring about an underpinning of the theories in order to answer the research questions. The questions asked seek to explain the relationships that exist between institutional and planning and development authority (by planning organizations in Dhaka city) and Paurashava in the local level (Activities of planning authorities in Dhaka city and the physical planning problems).

3.4.4 Deductive and Inductive Reasoning

In reasoning there are two distinct methods namely; deductive and inductive approaches. The deductive approach moves from general to specific. This is also called a "top-down" approach as shown in Table 4-3. The deductive reasoning in this research contends that the number of theories identified about a topic can be narrowed down to the hypothesis stated (a hypothesis that can be tested). This can be narrowed down further by collecting data using different tools allowing the hypothesis to be tested (note that data collected and analyzed can either accept or reject a hypothesis and the reason for that is to confirm or refute the original theory (Collis & Hussey, 2003; Denscombe, 2007; Dawson, 2011).

In conclusion, the use of deduction reason from general principles to specific cases and in this case. For the purpose of this study this approach was used largely in the literature review. Preparation of Master plan approach was used in Bangladesh and specifically in Dhaka city and who has used the land use planning/master planning (development planning) and now uses spatial planning. The literature considered these concepts from the global perspective and narrows it down to Bangladesh and Dhaka city to be specific.

The inductive approach moves from specific to general. This is called a “bottom-up” approach as shown in Table 3.3. Inductive reasoning starts from specific observations (urban sprawl characterized by slums and haphazard developments in the Dhaka city), of the different planning patterns employed (or no patterns) by talking to planners in Planning Authorities and assembling common elements and comparing them with definitions obtained from professional associations about regularities (or irregularities); subsequently formulating a hypothesis with which to work and finally developing general theories or drawing conclusions (Ngetich,2014). The inductive reasoning starts with the literature review and identifies specific urban planning problems in Dhaka city. The unique characteristics go further to use the hypothesis as stated, a methodology is adopted to collect data, the data is analyzed and generalizations are drawn (global).

This approach could be very time-consuming, but the reward might be in terms of arriving at a fresh way of looking at the subject of planning, leading to the disclosure of a number of specific instances which can be weighed against an existing theory; as observed by Dawson (2011). Following characteristics shown in Table 3.3

Table 3.3: Research approaches - deductive and inductive

Theory	Theory
⇩	⇧
Hypothesis	Hypothesis
⇩	⇧
Observation	Pattern
⇩	⇧
Confirmation	Observation
Deductive reasoning	Inductive reasoning

Source: Compiled by author from Creswell, 2003; Dawson, 2011

Institutional theory/institutional deficiency theory forms the basis for the research using institutional analysis for the relationships between Policy and the activities of the numerous Planning Authorities in Bangladesh. It considers the nature of the planning authorities (organizations, cultural, social and economic norms and habit) (Keith, 1972; Fadare, 2004) and provides answers to questions, broadly and specifically, about the knowledge of what the key indicators are to the social, economic, cultural and demographic characteristics of Dhaka city? What is the current operational, institutional framework for urban and regional planning systems in terms of the current constraints experienced in Dhaka city? How effective is the development control mechanism in applying as a strategic tool in addressing urban sprawl in Dhaka city?

To generate data leading to information that would provide answers to the above questions both deductive and inductive approaches are required because of the need to identify issues from a global perspective and to deduce facts about planning and theories relating to local city; this is a deductive approach. From the local Dhaka city, data would be collected and analyzed and information obtained which could be used to make generalizations, this is an inductive approach. This research is in the middles of these two approaches as shown in Table 3.3. The literature review is the inductive element

(theory building), whilst the data collection and analysis is the deductive element (theory testing) of the work. It is against this backdrop that this research employs both deductive and inductive approaches.

3.5. Research Strategy

Based on the philosophical positioning of the research, the approaches adopted and the reasoning pattern considered; a mixed method strategy was adopted permitting different strategies to be used as well. The philosophical stances and approaches determined the best strategies to use which also informed the methods to be used. Denscombe (2007), Robson (2011) and Creswell & Plano Clark (2011), suggested four (4) strategic processes that are relevant to this study; analytical, archival, empirical and opinion as seen in Table 3.4

Robson (2011) observed that the type of research questions and research setting is always a major factor in deciding which strategy is more appropriate to a particular research study. Given the arguments based on the philosophical stance, approaches, strategies and type of questions asked and the hypothesis stated, a mixed method approach is adopted because it is a strategy which has the general ability to cover a wide spectrum of ways in which mixing can occur in this research process. This study adopts a mixed methods research strategy which is a combination of both qualitative and quantitative methods of data collection (Table 3.5).

Table 3.4: Strategic research processes adopted for the study

Strategy	Description
Analytical	This is based on the type of analysis adopted at every stage. This is largely based on reasoning which could be an inductive and deductive argument and the methods of data collection include: observation, sampling, context analysis and thematic analysis (Denscombe, 2007; Robson, 2011; Creswell & Plano Clark, 2011).
Archival	This is collection of records and documents (government publications and official statistics, newspapers and magazines, records of meetings, letters and memos and diaries amongst others) containing facts relevant to the study and the methods of data collection include: scanning, photocopying, observation and context analysis (Denscombe, 2007, 228; Robson, 2011; Creswel & Plano Clark, 2011).
Empirical	Reliance on experiment and experience to make judgements or construct ideas based on observation with direct access to facts. This could be carried out in a case study which accommodates field work or in a laboratory setting (Robson, 2011).
Opinion	It is a gamut of views, judgments, beliefs or appraisal of the individual, individuals, or groups of individuals which may or may not be dependent on direct observation of the facts. The data collection methods include: questionnaires, opinion or view polls drawn up during interviews and brainstorming (Denscombe, 2007; Robson, 2011; Creswell & Plano Clark, 2011).

Table 3.5: Summary of research strategy adopted for the study

Research Strategy	Positions	Decision
Mixed Method Strategy	Case study evaluation Strategy: Opinion, Empirical, Archival and Analytic	Opinion: Investigating a, phenomenon in a real-life context (master plan- DMDP)

3.5.1 Case Study

Yin (2009) argues that when undertaking social science research five main research strategies can be identified; case study, experiments, surveys, histories and analysis of archival information. Yin (2009) maintains that the best way to do social science research is by identifying a strategy and its characteristics and adopting it if it meets the aim of the study. Robson, (2011) opined that the type of research questions and setting are two major determinants of any methodology. It is based on these factors that this study, after considering the fact that the study is semi-science research (hypothesis) and semi-social science research (questions) due to its multi-disciplinary, multi-faceted and multi-dimensional nature, adopts the case study methodology. This study is aimed at evaluating the need for Spatial Planning in addressing the urban planning problems related to development control identified in Dhaka city, Bangladesh. It makes use of the Planning Authorities operating the Master Planning. Data was collected from experts working within the Planning Authorities and their opinions and views as to the reasons why they think the Master Planning approach has not been working well for development control.

In this study, Planning Authorities are captured in real-life situations, based on the analysis of multiple empirical sources which are rich in context. (Eriksson,2008) explain that this method helps to collect data that are both qualitative and quantitative, but is typical of the qualitative type of data collection method.

In this study, elaborate explanation is provided by considering the numerous planning authorities as different cases using Dhaka city as the context. The examples of experiences from other studies on Bangladeshi cities such as Dhaka, Chittagong and Khulna are covered. These studies have shown that the master planning approach has failed and effective physical planning is becoming a different task for Planning Authorities of Bangladesh.

The data collected from the planning authority (RAJUK), is used to provide information to analyze its institutional framework by identifying its constraints and to spatial planning practices.

3.5.2. Mixed Method Designs

Plowright (2011) observed that mixed method research encourages one to think through decision points and select a design that reflects interaction, priority, timing and mixing. There are a number of design options that are most commonly used in practice and which advance functional classification (Robson, 2011). Mixed methods help in the design of studies. It is of the utmost importance to carefully select a design that best matches research based on the problem identified. The reasons established for using mixed methods are that they make the study manageable, simple to implement and describe. A mixed method approach is one in which the researcher collects, analyses, and integrates both quantitative (quan) and qualitative (qual) data in a single study or in multiple studies in a sustained programme of inquiry (Creswell, 2003; Tashakkori & Creswell, 2010). Case study methodology uses multiple sources of evidence, establishes a chain of evidence and requires key informants to review a draft research report (member checking), thus adding value and credence to the research (Yin, 2009; Gilson, 2012). The mixed method approach is judged to be appropriate for use in this studies of planning problems.

In general terms, the rigor of case-study work is secured by detailed reporting on the methods of data collection and analysis, so that the reader can assess whether the analysis and interpretation is credible (Gilson, 2012). The embedded design is most appropriate for this study because of its definition, design purpose, typical paradigm foundation, level of interaction, priority of strands, timing of the strands, the primary point of interface for mixing, the primary mixing strategies and common variants. A detailed explanation can be seen in Table 3.6.

Table 3.6: Prototypical characteristics of the major mixed methods types of design

Prototypical Characteristics	Embedded Design
Definition	Either concurrent or sequential collection of supporting data with separate data before, during or after the major data collection procedures
Design Purpose	Need for a more complete understanding of an experimental trial, such as the process and outcomes (concurrent /during)
Typical Paradigm	worldview may refer the primary approach e.g., post-positivist or construct or pragmatism if concurrent
Level of interaction	Interactive
Priority of strands	Either qualitative or quantitative emphasis
Timing of the strands	Either concurrent or sequential
Primary point of interface for mixing	Design level
Primary mixing strategies	using secondary results to enhance planning strategies understanding or explaining of primary strand
Common Variants	Embedded experiment Mixed methods case study

Source: Adopted by Author from Creswell, Vicki & Plano Clark (2011) and Hesse-Biber (2012)

The method supporting data collection is sequential with separate data collection during the major data collection procedures. The design purpose is to provide a more complete understanding of the research trial, such as the processes and outcomes. The research view is constructivist which is the primary approach at the interactive level. The priority strands are either qualitative or quantitative. The timing strands are sequential with a primary point of interface of mixing at the design level. The primary mixing strategies use secondary results to enhance understanding of planning or to explain primary strands. Finally, the common variants are the mixed methods case studies which use theory in single case studies and then use replication logic in multiple case studies Table 3.7 explains the reasons of adopting the mixed method

Table 3.7: Reasons for adopting mixed method approach

Triangulation	This is the most commonly cited reason why mixed methods are incorporated into research. The researcher is looking for a convergence of the data collected by all methods in the study to enhance the credibility of the research findings.
Complimentary	It enables the researcher to gain a fuller understanding of the research problem and or to clarify a given research result. This is accomplished by utilizing both quantitative or qualitative data and just the numerical or narrative explanation alone to understand the social chronic in its entirely.
Development	Mixed methods often aid in the development of the research project by creating a synergy between the 'results from one method, help in developing another or to inform other methods'
Initiation	Research findings may raise questions or contradictions that will require clarification, thus initiating new or further research.
Expansion	Producing detailed findings helps enable future research endeavours and allows researchers to continuously employ different and mixed methods in their pursuits of new or modified research questions.

This study is an exploratory case study employing mixed methods and draws from all these reasons to create a synergy as to why the adoption of a mixed method research design is appropriate. I have been considering multiple sources of data, multiple methods of data collection, multiple data analysis, software SPSS and multiple ideas, amongst others as observed by Creswell, Vicki & Plano Clark (2011), Jogulu and Pansiri (2011) and Hesse-Biber (2012).

3.5.3. Research Design

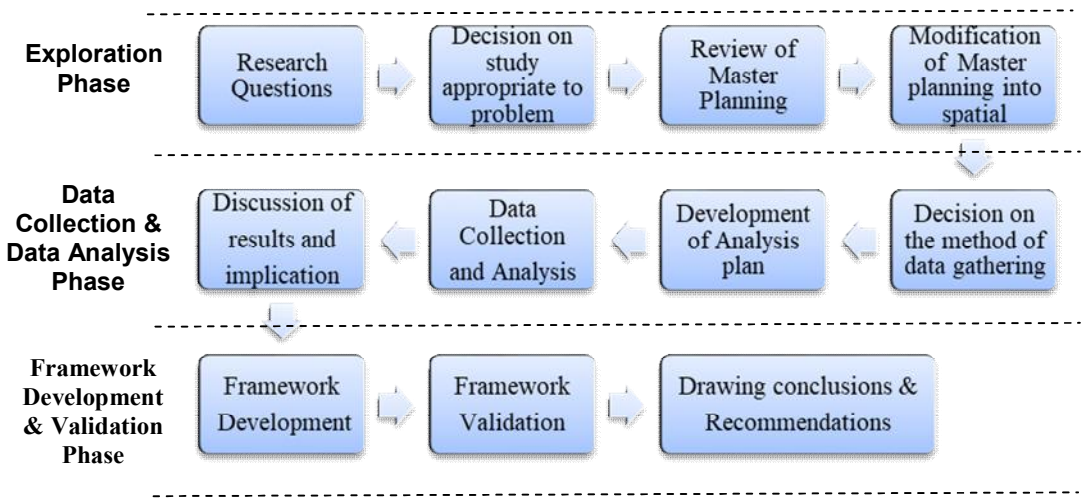
A research design is a logical plan of how a study is expected to start and finish. This research is divided into three stages which are: Exploration stage, data collection and analysis stage and framework, guide development and validation stage.

The first stage is to explore and evaluate the need for development control mechanism framework for addressing the physical planning problems in Bangladesh specially in Dhaka city. In Chapter 2 an extensive review of literature pertaining to urbanization, urban sprawl, spatial planning and master planning has been discussed, which helped to identify the research problems and to set the research objectives in perspective and this formed the first stage.

The second stage considered the most appropriate research methodology for the study. It also identified the appropriate research methods needed to answer the research objectives and the techniques to be used for the analysis of the data collected (Denscombe, 2007, 228; Robson, 2011; Creswell & Plano Clark, 2011).

The third stage considers the development of the framework and its validation as well as the guidance document. It also reports on how the analytical results meet the stated research objectives of the study.

This research design shows a clear relationship between the research questions, objectives and methodology adopted to meet the aim of the research. Due to the nature of the data required for the study, and considering the exploratory phase and the framework phase of the research, mixed method design becomes very necessary and relevant to the study as shown in Figure 3.2.



Source: Authors Field work, 2018

Figure 3.2: Research Design

Table 3.8 shows the relationship between research objectives, questions/hypothesis, methodology and data collection methods and linkage to chapters. Based on the literature review, some attributes from the concepts and the objectives generated from the data collected during the empirical studies, analysis was conducted and the spatial planning framework was developed.

Ozmen, (2012) observed that some attributes make models selective in terms of audience, in this study the issues are focused on the framework. Hence, the framework is based on model application; selective models cannot produce an output.

The framework developed can rely on both inclusive (field data- Dhaka city) and exclusive models from literature (Wilson, Alan, McLoughlin, Ratcliffte, Stubbs & Shepherd).

Each of the variables considered both the appropriate master plan and the spatial plan and the patterns of urban sprawl identified. Due to the correlation for each planning approach, it shows that there is a stronger correlation with the spatial plan than with the master plan.

The hypothesis for this research states that:

> 'If development control mechanism is applied as an urban management strategic tool, then the urban sprawl conditions in Dhaka city can be controlled' (Section 1.3)

The rationale for the use of this hypothesis in this study is that it tests and builds on theories, linking the research hypothesis with the research questions and the objectives. Furthermore, previous studies by Champika (2006), Gang, (2008) and Ozmen (2012) stated the hypothesis in addition to the research aims and questions in various areas relating to the built environment. It is against this backdrop that this research places emphasis on the philosophical stance to make a case.

Table 3.8: Relationship between objectives, methodology and data collection methods

Objectives	Issues under Investigation	Methodology / Tools	Source of Information
To review the conceptual and legal framework of urban development control mechanism in Bangladesh.	Are there any widely accepted mechanisms for urban development control in the world? What are the national policies on urban development control for Bangladesh? What are the planning laws, rules and regulations in the present urban planning context of Bangladesh? Are there any variations in planning laws/policies related to urban development control between different urban areas in Bangladesh? Are the planning laws/policies related to development control are compulsory to follow or these are the guidelines only for the planners and policy makers?	Analysis of Information From Secondary Sources	Policy, Acts, Rules and Regulations of Government of Bangladesh. Acts, Rules and Regulations of Development Authority, City Corporation, Paurashava. Master Plans, Structure Plan, detail Area plan and Development Plans of Urban Areas Various Secondary Sources: Books, Journals, Articles, Websites.
To examine the current practices of urban development control mechanism in Bangladesh.	Which are the responsible organizations for implementing the laws related to development control of an urban area in Bangladesh? What are the procedures followed by responsible organizations for implementing the laws related to development control in urban areas of Bangladesh? What standards /guideline have been followed for development control in urban areas of Bangladesh?	Analysis of Information from different primary and secondary sources. Evaluation of Planning Rules, regulation followed by various Development Authorities, Municipalities in Bangladesh.	Planning Act, rules, by laws, office order followed by various government organization (Development Authorities, UDD, City Corporation, Municipalities in Bangladesh.

Objectives	Issues under Investigation	Methodology / Tools	Source of Information
To investigate and analyze the existing problems, constraints and future scope and potentialities of improvement in urban development control mechanism for Dhaka city.	What are the problems and constraints existing planning rules and regulations related to development control in a specific area? What are expert opinion (Planner, Architect, Engineers, Lawyers) on development control at urban areas in Bangladesh? What are the existing demands of common people? What are the existing demands of professional? What are the existing demands of government officials?	Analysis of information Collected from field survey. Evaluation of Planning Rules, regulation followed by various Development Authorities, Municipalities in Bangladesh. -MS-Excel and SPSS, GIS will be used for analysis.	Plot to plot land use and building use survey. Assessment of People's Perception and Views from Questionnaire Survey Key Informant Interview (KII) of professionals of relevant field. Analysis of data from Secondary Organization
To recommend for the improvement in the current urban development control mechanism in the context of legal framework of Bangladesh.	What would be the right approach for improving development control mechanism in the context of legal framework of Bangladesh? Which would be appropriate for sustainable economic growth and development?	Analysis of Information collected from questionnaire Survey and Secondary Sources.	Policy, Acts, Rules and Regulations of Government of Bangladesh. Development Plans and master Plans for various urban areas in Bangladesh. Questionnaire and Feedback from KII

Source: Adopted by Author,2018

The ontological perspective on the continuum is that it leans towards constructivism which explains multiple realities, (from general to specific) and is linked directly to the research questions (inductive reasoning). The epistemological perspective on the continuum leans towards interpretivism emphasizing explanation (from specific to general) and also linking to the objectives and questions (deductive reasoning). While the axiological perspective leans more towards value laden principles.

The remaining part of the continuum, from ontology, epistemology and axiology, are objectivist, positivist and value free respectively and covers the section of the hypothesis which forms the basis for the development of framework. The development of the framework is more objectivist, positivist and value free.

These stances hinge on the fact that the framework is considered to be the magic bullet that makes the difference and which is presumed to be the only way of addressing the problem of urban development and management in the study area. The spatial planning framework is aimed at implementing the spatial plan to control the urban development and management in Dhaka city.

The methods adopted explain the sources of data (primary and secondary), the nature of the data (qualitative and quantitative), the sampling technique (probability and non-probability) the instruments of data collection, such as, face to face (semi-structured interviews) and questionnaires and documents (archival documents). Furthermore, the tools employed for data collection include; questionnaire, face to face interview and document review (Dawson, 2009).

3.6. Research Methods

This section considers methods (techniques, ways, specific tools) that data can be collected and analyzed. It considers sampling methods, data collection methods and data analysis methods and ethical considerations (informed consent, right of privacy, validation; construct, internal and reliability).

3.6.1 Data Collection Methods

To satisfy the research questions, both primary and secondary data sources were used as bases for the present work, underpinned by an extensive literature review. A “multi method” approach has been applied to collect relevant data, including a questionnaire survey, interviews, and documentary sources. The key benefit of using such an approach is that “one approach can provide information on topics that are not covered at all or are covered very lightly by others (Willis,1995)

Desk Research generally comprises searching for information using existing resources, such as the press, the internet, analytical reports and statistical publications. This is then followed by cross referencing and the collation of data. Desk research or secondary research can serve as a stand-alone research technique or as the initial stage of a primary research. Moreover, Desk Research involves the summary, collation, and/or synthesis of existing research rather than primary research, where data is collected from, for example, research subjects or experiments (Crotty, 2003). Secondary research is required in the preliminary stages of research to determine what is known already and what new data are required, or to inform research design.

Secondary sources generally include previous research reports, newspaper, magazine, journals, internet content, and government and NGO statistics. This study greatly focuses on 2 (Two) types of documents for in-depth analyses, first of all development plans (Master Plan, Urban area plan, Detail area plan) of various urban areas of Bangladesh and then Government rules, regulation, laws related to development control mechanism for Bangladesh. These have created more scope for greater and detailed analyses of development control mechanism.

Time constraints made it impossible for the researcher to conduct the whole field survey alone. Therefore, to complete the survey on time, 12 (Twelve) surveyors were hired for assistance in conducting the questionnaire survey prior to engaging them in the current study; the surveyors were briefed on the research purpose and were trained by the researcher.

3.6.2 Primary Data Collection

The purpose of the primary data collection was to supplement the secondary data. Questionnaire survey, direct observation and interviews were conducted for this purpose. Prior to conducting the survey, desirable sampling method and sample size has been fixed.

The findings of the questionnaire survey helped in improving development control mechanism. Semi-structured interviews were also conducted to acquire primary data on issues related to development control mechanism in Bangladesh. The interviewees were key persons working in various organizations and institutions that are providing community services at urban areas in Bangladesh. Findings derived from the interviews have been incorporated in this research.

In this study, population implies the households within RAJUK areas. It aimed to understand and analyze their perceptions on development control mechanism. A semi-structured questionnaire was applied to carry out the face-to-face survey. At first, the

sample size was decided based on the entire population. The key purpose of sampling is to determine a set of elements from the larger population so that the characteristics of those elements reflect a fair trend of the total population (Creswell, 2009).

3.6.3 Sampling Technique

There are primarily two types of sampling techniques: probability sampling and non-probability/purposive sampling (Willig, 2008). Probability sampling is widely used in social research for selecting the samples. The method assumes that individuals of the population are identical and possess different characteristics, attitudes, experience and behaviour and therefore no need to stratify them in certain groups (Babbie, 2012). Non-probability sampling, on the other hand, is used for specific purpose and targeted population. Since the households are homogenous in terms of investigating single issue, probability sampling is appropriate for this survey. However, interviews with the planning practitioners were purposeful and targeted to certain group of people, non-probability sampling technique was applied.

Along with selecting the methodology, the accuracy of the research findings largely depends upon sample design. Sampling refers to the selection of a specific segment of the population for investigation (Babbie, 2012). The sampling procedure enables researchers to carry out the study within time and resource constraints. In the next stage, sample size was determined for the survey. It is a general consideration that larger samples produce more accurate and reliable statistics, however, Kitchin and Tate (2000) argue that:

> *"a large sample with a poor sampling design will probably contain less information than a smaller but more carefully designed sample. .. sample size also depends on the variability of the population [under study]. If you already know something about this variablity, you can estimate the size of the sample needed to estimate population values with a certain degree of confidence."*

The study is specifically focused on respondents' comments on certain variables are already determined to measure. This notion permits the researcher to estimate a desired sample size with a certain degree of confidence. It is considered that higher confidence level provides a more precise estimation of sample size by decreasing standard deviation from mean. As the population is very large, this study refers to Dixon and Leach (1977) where level of confidence is 95% assuming a variability of 50% (Table 3.9).

Table 3.9: A guideline for determining sample sizes for a very large population with given levels of confidence assuming a variability of 50%.

Confidence limit (±% of mean)	Confidence level	
	99%	95%
5	663	384
6	461	267
7	339	196
8	259	150
9	205	119
10	166	96
15	74	43
20	41	24

Source: Dixon and Leach (1977)

A sample size of 290 households was finally decided considering very large population and level of confidence required for a valid research and representativeness of data. The issue of limited time and resources was also noted. To avoid potential bias, simple random sampling approach was applied. This approach is particularly useful when "each unit of the population is given the same probability of independent selection" (Kitchin and Tate, 2000).

3.6.4 Questionnaire

The design of a questionnaire is related to the studied population, research questions and the unit of analysis (Yin, 2003). The urban development issues covered in the questionnaire are those that are widely discussed in the open forums and do not include any personal or highly controversial matters. The issues identified for investigation are not confidential and do not include any potential of risk or loss to the participants. The contents of the questionnaire are divided into the following five categories in line with the objectives of the research:

- ✓ Socio-economic profile of the respondents.
- ✓ Process of communication between planning agency and the respondents.
- ✓ Experience of dealings with the planning agency.
- ✓ Status of individual's opinion on development control
- ✓ Identification of internal and external factors affecting their opinion

The questionnaire involves both close-ended and open-ended questions (Yin, 2003). To ascertain respondents' judgment on the planning services provided by the planning agencies, satisfaction scales were applied. At the end, an open-ended question was asked to mention factors affecting their participation along with ranking them as per their level of influence. However, few critical factors identified in literature review were

included in the questionnaire to understand their influence on individual's participatory attitude. For example, the levels of informal governance practiced by individuals were measured through three other sub-factors such as: trust in neighbours, sense of duty and attitude towards taking part in community actions. This allows the researcher to collect the information in a more structured way and to guide the respondents to organise their thoughts

3.6.5 FGDs

Nine FGDs were carried out simultaneously with the household surveys in the locations listed. The FGD sessions were aimed to discuss the key questions raised in the survey questionnaire in order to get more clarifications of the factors affecting participation. Then researcher also had the opportunity to collect data on personal or collective experiences of the community. It allows the researcher to triangulate the information collected through household surveys. Each session included 4-10 persons who were randomly invited through open invitation organized by the respective local government representatives. The discussions took around 60 minutes to conclude and the researcher acted as a facilitator to guide the dialogues (Mikkelsen, 2005).

3.6.6 Practitioners' interview

A key informant is defined as a source of information, who is able to provide a meaningful view and a complete description on certain issues and is undergone through an intensive interview over an extensive period of time (Tremblay, 1957; Mikkelsen, 2005).

An open ended questionnaire was applied for these interviews along with informal conversation. Fifty key informants were selected using snowball sampling method for the interview (Table 3.10). The researcher used his personal contact and professional network to identify key informants. The key informants were contacted in advance to attain their consent for participating in the research. The respondents were planners of city development authorities and consulting firms, mayors of the municipalities and members of academics teaching in urban planning schools. In line with Marfo's (2007) guidelines, selection of the respondents was vested upon their direct involvement in preparing master plans, long professional experience within the local context and familiarity with community interests

Table 3.10: Summary of selected respondents interviewed

Type of respondents	No.
Planners, Architects and Engineers of RAJUK	12
Planners from concerned government agencies and municipalities	16
Planners from consulting firms involved in Dhaka master plans	08
Mayors/ Councilors of City Corporation / Municipality	4
Planning Academics	10

Participants were provided with an information sheet and a consent form to sign. It was confirmed that responses would be presented aggregately and personal information would not be disclosed. They were interviewed to determine their perception of the factors that affect community attitudes towards participatory actions in Bangladeshi context. Each interview took around 30-45 minutes and the respondents were asked to list the external and internal factors that determine participants' reality i.e., factors that influence the development control process. Based on their response, a draft list of significant factors was developed. Practitioners were then asked to rank the factors listed. The discussion was focused on the justification of their ranking of factors and explanation of the different dimensions of each factor.

3.6.7 Review of Documents (Archival)

The vital documents concerning the establishment of planning organizations and their responsibilities and the master plans (previous and proposed) were reviewed. Appendix presents a list of documents that were reviewed, summarized and included in the relevant sections of the analysis to meet the stated objectives. These are secondary sources of data and include documents such as; government publications and official statistics, newspapers and magazines, records of meetings (minutes of meetings if available), letters and memos, project reports, internal reports from major planning authority ministries and also web pages and the internet all of which provide both qualitative and quantitative data for analysis and subsequently the analyzed data is justified by answering some of the research quires

Documents are considered to be sources of data which supplement the data obtained from face to face interviews and questionnaires and other data collection methods (Denscombe, 2007; Yin, 2009). Documents take different forms viz; written sources (majority), visual sources (pictures and artefacts) and even sounds (music), etc., all of which add value to the research. A major characteristic of this method is access to

documentary sources making it very attractive as vast amounts of information are conveniently available without much cost outlay, delay in collection, no prior appointment necessary, without need for authorization and without the likelihood of ethical problems. Denscombe, (2007) observed that documents pose considerably fewer problems than people as sources of data for research. While this is true, a number of documents can be considered sensitive and confidentiality is required. For instance, organizational reports and memos are only made available when confidentiality of the materials used is assured and the interests of the persons and organizations (planning authorities) involved would not be harmed.

The validity of the documentary sources is crucial for enhancing the study, hence, the selection of the documents used was carefully considered under; authenticity, credibility, representativeness and meaning. Therefore, the evaluation of official documents, records of meetings and statistics have to be considered with great caution (Denscombe, 2007; Yin, 2009; Dawson, 2011).

3.6.8 Analysis of the Interviews

The present study employed interviews (face to face) which were semi-structured to obtain qualitative data. The data obtained was analyzed using thematic and content analysis (Denscombe 2007). Dawson (2011); Yin (2009); Dawson (2011) and Robson (2011); observed that to be able to analyze data, it must be produced in a format that can be easily analyzed. The face-to-face interviews, documents, a series of written answers on the interview guidelines, field notes and written memos were compiled by the researcher. This was followed by the interpretation of meanings and explanations as to the way people perceived, behaved and understood the social constructs.

For the purpose of this study thematic analysis was used to analyze the data generated in the face-to-face interviews.

The recording of the interviews was done verbatim, using an audio-tape, which was an arduous and time consuming process but provides rich text. The transcription was done in the same sequence as the questions were asked during the interview, and careful selection of the important aspects of the interview was captured. Full recording and written notes were 150 considered to be the best approach to ensure conservation of every important fact revealed by the interviewees (Silverman, 2007; Bryman, 2008).

The process of transcribing involves a degree of analysis that is often underestimated or even ignored; yet it was very useful as the responses give more insight and due to this

many of the research questions were answered. Silverman, (2007) observed that it is better than passing the transcription process to an audio typist to save time. In this research, the researcher to gained more insight into the data because listening to the recordings involved an element of analysis and provided excellent understanding of the issue and offered more ideas and inferences as the process of transcription progressed.

A bank of records was created from the data which was drawn from each interview as a means of identifying what data has been obtained. In the case of conversational analytic research (face-to-face interview), the process of transcription takes on an added significance as it is the attention to detail (sequence of interaction, pauses and overlaps) that provide conversation analysis with the material that is being sought for analysis. Specific attention will be placed to doing thematic analysis for the face-to-face interviews. For further breakdown see appendix E.

3.6.9 The Analysis of the Document Reviews and Case Study

The use of document reviews and case studies as sources of data for this research is very important because it is an exploratory research. The use of text as a source may be of two types;

- ✓ Primary text: text not produced for the purpose of research that is, newspapers, diaries, memos and letters etc.
- ✓ Secondary sources: text generated by previous researchers

In both cases, the selection represents a set of prior analytical choices and the text once selected is subjected to further analysis (Denscombe, 2007; Yin, 2009; Boeije, 2010; Dawson, 2011).

The conversion of a variety of experiences (speech, observations, memories and so on) into text is a huge step in the process of qualitative research. It is not usually the first step, as encountering this source is preceded by recording them, and recording such experiences may not be in text form. The documents were summarized and incorporated into the text in units of communicative meaning that is, words and sequences of words. Both content and thematic analysis was used to analyze the data which is often a pre-requisite for subsequent forms of qualitative analysis (Denscombe, 2007; Yin, 2009; Boeije, 2010; Dawson, 2011).

The transcriptions from the written memos and notes were done immediately the data was captured, and this has helped to focus the work and keep records of vital points which could emerge from the data. The memos and transcripts were analyzed alongside

the data obtained from other sources. The purpose of the study is to provide input into the need for development control mechanism following the failure of the previous master plans. The new findings will be incorporated into the spatial planning framework, by influencing the factors that determine the positive implementation of a plan.

The summary of information relating to case studies was developed from the numerous documents (over 70 different documents), observation, views and opinion of officials with the responsibility for planning. Nine officials from the planning authorities were consulted to provide information about their planning organization. This was analyzed according to the objectives of the research and themes and sub- themes were created. These documents made a significant difference as they created patterns and linkages that answered the questions posed by the research (Silverman, 2007; Boeije, 2010).

The analysis was not conducted on the planning authorities because the nested approach employed considers the town planners to be a unit of study, the town planners are nested in the planning authorities and the planning authorities are nested in Dhaka city. The qualitative data from document reviews and observation were analyzed using content analysis in terms of the four methods of data collection used.

Firstly, the questionnaire form was used to capture the case study data and entered into the excel spreadsheet created. The content of the questionnaire was analyzed according to the data extracted to provide the information required to meet the needs of objective. Content analysis was conducted on the case studies (Planning Authorities) based on the data obtained. It, typically, included several sources that generated text and narrative data such as; brief responses from questions, surveys, transcripts from interviews or focus groups, notes from logs or diaries, newspapers, field notes, text or published reports, and data from people, etc., (Denscombe, 2007; Yin, 2009; Boeije, 2010).

However, there is cross-pollination between the socio-economic traditions and organizational procedures in institutional analysis due to the multi-disciplinary, multifaceted and multidimensional nature of the problem of planning in urban areas. Subsequently, the focus is to explain how planning authorities (organizations) and planners (individuals) within organizations make economic and managerial decisions, particularly by investigating the non-rational, non-economic and non-psychological factors. The main thrust of this form of analysis is the identification of hidden forms of power that initiate behaviors that influence planning procedures (Chomsky, 2006;; Boeije, 2010).

3.6.10 Developing the Analysis for Quantitative Data

This study has employed different methods and multiple data sources that require a mixed data analysis approach. In undertaking qualitative analysis, based on empirical data, has made efforts to understand and correctly interpret the contents of the data. To make some simple statistical analyses to produce frequencies and other summaries of statistics, as well as the statistical tables, diagrams and graphs of the data generated from questionnaire survey, SPSS software was used. Different online data sources such as Google Earth, Google Maps, were used to generate the maps required for discussion and analysis.

Data collected from household surveys were managed through Statistical Package for Social Science (SPSS) software tool. Responses were recorded and categorized for analysis purpose. SPSS also allowed to record comments against respective respondents. The data analysis involves both qualitative and quantitative in nature. Quantitative techniques were applied for coding, categorization of the responses, statistical analysis (such as mean, percentage, and cross-tabulation) and graphical presentation. Results derived from quantitative analysis were then interpreted using empirical evidence, case studies and arguments raised in surveys, FGDs and key informants' interviews. The content analysis of relevant reports, plan, policies and media reports (such as visual and print media) provides descriptive information and cross check of research findings (Babbie, 2012).

Prior to the return of the questionnaires a template was prepared aligned to the sections in the questionnaire. It contained two hundred and sixty-eight variables (268) arising from 15 questions. The data was entered into the excel spread sheet and thereafter underwent a cleaning process to ensure consistency in the entry of the ranked data. The variables were used for the analysis based on the requirement for each of the variables for each analysis. The data was then exported into the statistical package (SPSS) for analysis.

Table 3.11: Data collection Methods

research method/type	research technique	method of analysis	sample size/ source of information	issues/factors addressed/ institutions
in-depth analysis (re-use of existing data)	analysis of information from secondary sources	Analysis and synthesis.	books, journals, websites, library	laws, regulations, policies related to development control mechanism in Bangladesh
	analysis master plans and development plans in various cities in Bangladesh)	Data analysis and synthesis.	various master plans and development plans for cities and municipalities in Bangladesh	provisions of development control mechanism in various urban areas in Bangladesh.
	secondary sources: books, journals, websites,	Analysis and synthesis.	various countries/ cities in the world	provisions and analysis of development control mechanism of various cities
Primary research (on people's view and perception Study regarding development control mechanism in urban areas)	Questionnaire interview	data analysis, and synthesis.[software used: Microsoft excel and statistical package for social sciences (spss)]	290	existing practices of development control on urban areas in Bangladesh Level of acceptance of existing mechanism Existing problem of mechanism Necessity of improvement the present mechanism

Source: Adopted by Author,2018.

3.7 Ethical Considerations

Ethics is the appropriateness of behavior in relation to the rights of those who are subjects in the research or who may be affected by it, as observed by Dawson, (2011). The researcher's ethical responsibility is to ensure the privacy and confidentiality of the respondents, particularly when interpreting the information that is value-laden, judgmental and highly politically sensitive. This section considers the right of privacy, informed consent and professional honesty as captured in this study and which is a basic requirement for the research.

3.7.1. Right of Privacy during the Qualitative and Quantitative Data Collection

Participants were under no obligation to continue if they felt the urge to withdraw their participation and at no point of interaction during this study were participants obliged to contribute their views, ideas or experience under duress. Hence, the right to accept or decline to contribute remained with the contributors at all times. Partial or total withdrawal was accepted and granted at any time without any form of coercion originating from the researcher.

The researcher was not biased to the views, ideas or contribution of any of the participants, and ensured that the participants were not at risk by virtue of their contribution to this study. Most importantly, anonymity was granted to participants and the sources of results and data were kept in strict confidence, without compromise. The results and conclusions drawn from this study remain to be open and available to all contributors and participants without bias, as a way of appreciating and acknowledging their participation (Denscombe, 2007; Yin, 2009; Dawson 2011).

3.7.2 Informed Consent

Permission was requested by the researcher to quote directly from interviews but the provenance of any view point would be concealed if/when requested. Permission to use the planning authorities and their names was obtained following completion of the analysis. Registered town planners and members of the town planning profession were contacted and their informed consent was obtained. All participants, regardless of the degree of their contributions, age or status were informed of the purpose of this research work as well as the source and directional path it intended to follow. No form of deception or coercion was employed in order to gain the cooperation of participants. The principle of well-informed consent was employed and all participants in this study were provided with a clear picture of the subject purpose as well as their role and position in it before participating. The use of an audio tape recorder during the semi-structure

interviews/pilot study and the use of postal questionnaires (in the main study) were strictly based on the consent of the respondents and participants.

3.7.3 Research Validation

For the purpose of research validation, it was considered to be a test procedure to show that the triangulation of the data, obtained from qualitative and qualitative analysis, was suitable for the purpose it was used.

Robson (2002) argues that there are no standardized and universally accepted validation measures for most qualitative research. Hence, it has received criticism with reference to its validity as "scientific investigations". Lincoln and Guba (2000) argue that qualitative research is often based on the researcher's demand that their readers should trust them to have produced valid conclusions. One difficulty in addressing the traditional validation issues in qualitative research appears to be the nature of the phenomenon being investigated.

Based on the argument and the fact that this research is a mixed method research where, both qualitative and qualitative data are generated from the validation of the framework, it is considered most appropriate that the vital requirement of doing a "valid" research is applicable to all research irrespective of the philosophical stances adopted, as observed by Keraminiyage (2009, 138).

Finally, to monitor and manage the outcome of research generally, it is important to consider the quality of the outcome using validation approach construct validity; internal validity; external validity and reliability, as observed by Denscombe (2007) and Yin (2009).

Construct Validity: Lane (2005) observed that it is the measure of the correctness of the constructs that have been established for the issues being investigated. At the initial stages of the study, triangulation by theories was attained when conducting the literature review, through the integration of different streams of literature from urbanization, urban sprawl, urban governance, urban management, spatial and master planning as discussed in Chapters 2.

It is also based on the instruments used for data collection; as to whether they are appropriate for the research study. Construct validity was met by triangulation of the research methods as multiple sources of data were used and triangulation by methodology (mixed method) was achieved by integrating multiple data analysis approaches.

Internal Validity: This is concerned with the application of the different methods of data analysis to the issues being investigated. Linking the appropriate data to the theoretical propositions, an analytical strategy is vital to achieve internal validity. It was achieved in this research in several ways Firstly, the careful choice of the research design enabled the choice of an appropriate research approach, research strategy and research methods based on the modified nested model (Nested-Nested mixed method research methodology framework). Secondly, by providing research objectives and hypothesis for this study and advancing them in the literature review leading to the research direction and focus.

External validity: The extent to which the research findings can be generalized is termed external validity. As Yin (2009) explains, case studies lead to analytical generalization rather than theoretical generalization. This is common to qualitative research and in the same vein quantitative research leads to theoretical generalization rather than analytical generalization (statistical generalization). Yin (2003) explains analytical generalization as follows:

> "a previously developed theory is used as a template with which to compare empirical results of the case study" (Yin, 2003, pg.31).

In multiple case studies, if two or more cases support the same theory, replication may be claimed and thereby 'cross-case generalization' can be achieved. In this study four cases, planning authorities from the study area, were considered. Furthermore, multiple sources of data were used in addition to the case studies which include archival documents, face-to-face interviews and a questionnaire.

Prior to the data collection an extensive literature review was conducted from a global perspective and trimmed down to a local perspective and then down to Bangladesh and Dhaka city to be specific. Data was collected from Dhaka city analyzed, and which supported theories identified and confirmed from the literature review. Based on this generalization can be achieved.

The research findings of this study are, therefore, generalized based on the fact that the case studies considered were also found in the metropolis' of all the Bangladsh, the archival documents were applicable to all the study variables, the face-to-face interviews and questionnaires were also from the population of town planners within the Bangladesh. Based on these findings, generally similar results could be found across other cases leading to the general is ability of the findings, in the context of the study.

Reliability: The entire research process was vindicated by step-by-step justification of the adoption of each of the philosophies, approaches, strategies and methods within the scope of the research. The development of the methodological framework discussed in the early stages of this chapter provided transparency, thus ensuring reliability. This has demonstrated that the operations of the study could be repeated with the same results and explains the meaning of 'reliability'.

All good research projects must be valid and reliable. Validity refers to "the soundness, legitimacy and relevance of a research theory and its investigation" (Kitchin and Tate, 2000 p.34). Reliability indicates consistency of a finding and utilizing a coherent "deductive strategy of inquiry" (*ibid.* p.34-35). However, the issue of validity and reliability does not refer to the same meaning in qualitative and quantitative studies. In quantitative research, validity indicates that "the researcher's approach is consistent across different researchers and different projects" (Creswell, 2009). Qualitative studies, on the other hand, are subjective and case-specific in nature and the researchers usually take several strategies to establish the validity of their research (Yin, 2003). Creswell (2009) outlines the following strategies to establish the validity in a qualitative research:

- ✓ Triangulate different data sources on a single theme. Validity can be achieved when there is a convergence of several sources;
- ✓ Clarify the bias and self-reflections of the researcher. A clear and honest narrative on the influence of researcher's background (such as gender, culture and history) in interpreting the findings gets easy acceptance to the readers; and
- ✓ A negative and discrepant arguments and contradictory evidence that runs against the empirical findings, "becomes more realistic and hence valid" .
- ✓ In this study, data was triangulated through several sources of information including survey participants, FGDs and key informants (Figure 5.4). Relevant published materials and reports were consulted to check the validity of the data.

Apart from that the reliability of the data was kept through the following strategies (Gibbs, 2007):

- ✓ Checking transcript to remove inconsistency from the database;
- ✓ Conducting regular meeting with the research team to share the documentation and analysis; and
- ✓ Cross-checking with other studies for comparative analysis

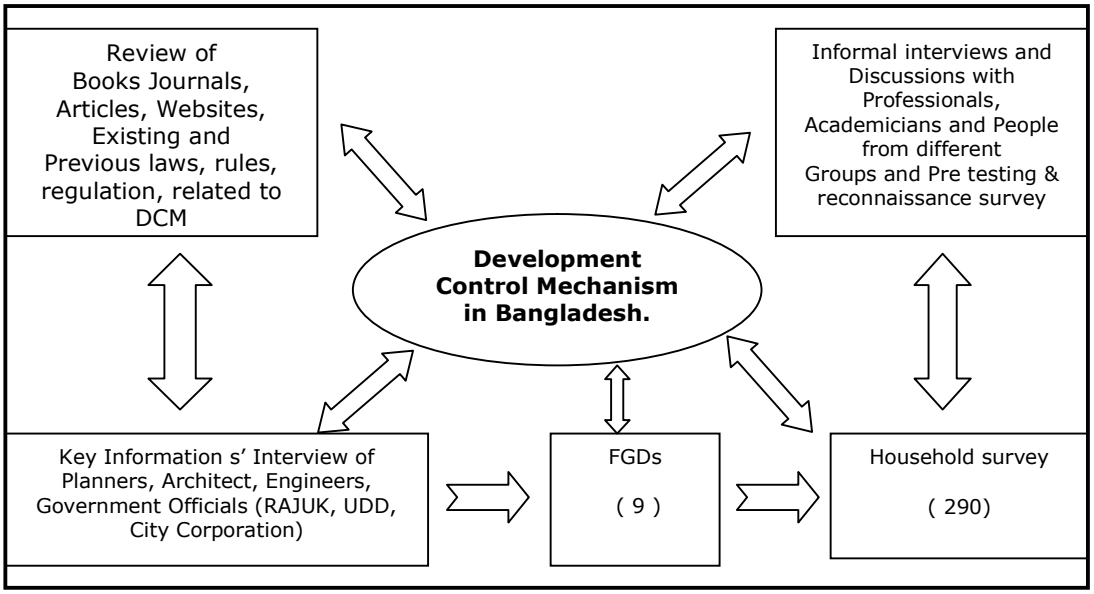


Figure 3.3: Triangulation of information using multiple data collection methods and sources to explore process of community participation in developing countries (adopted from Yin, 2003).

3.8 Limitations of Methodology: what went wrong and might have been better

One of the major challenges during the study related to the bureaucracy attached to most of the governmental agencies, which caused unexpected delays. Part of the difficulty lay in getting appointments for interviews with selected personnel at public offices. Consequently, faced both long queue waits and also needed to make multiple appointments as on a few occasions appointments were cancelled without prior notification. Considering the nature and duration of people's jobs, it was necessary to administer questionnaire surveys only on Friday for a limited time - from approximately 2 pm to 6 pm. One of the challenges was therefore to accomplish the questionnaire survey within the designed time span. This resulted in limiting sample size to a moderate number (i.e., 290 households) for the questionnaire survey. Better results may have been obtained if had more time and resources (e.g., manpower, etc.) for administering questionnaire surveys. In a few instances, due to the unavailability of recent information, have had to depend on the available but older research information. In order to ensure validity and enhance reliability, those statistical data were adjusted and extrapolated using trend analysis and the adjusted results were triangulated using knowledge

produced by other researchers. However, results produced by such extrapolation methods might not have produced the true picture, despite the fact that the best approaches available were used in facing such problems.

3.9 SUMMARY

This research seeks to improving the development control mechanism in Bangladesh and to develop a framework for Dhaka city with a philosophical position leaning towards interpretivism, constructivism and value-laden research (epistemological, ontological and axiological respectively). The approach adopted was both qualitative and quantitative which was based on deductive and inductive reasoning. Using mixed methodology which allows mixed methods as a research strategy. The research adopted a questionnaire survey, face-to-face interviews and archival or document review as research methods. The total number of experts in the built environment, working in the planning authorities, in Dhaka and those with the responsibility of town planning numbered. The research methodology is summarized if Fig 3.4 based on the research methodology adopted, the subsequent chapters will deal with the research issues leading to analysis of data and information, research findings, recommendations and conclusion.

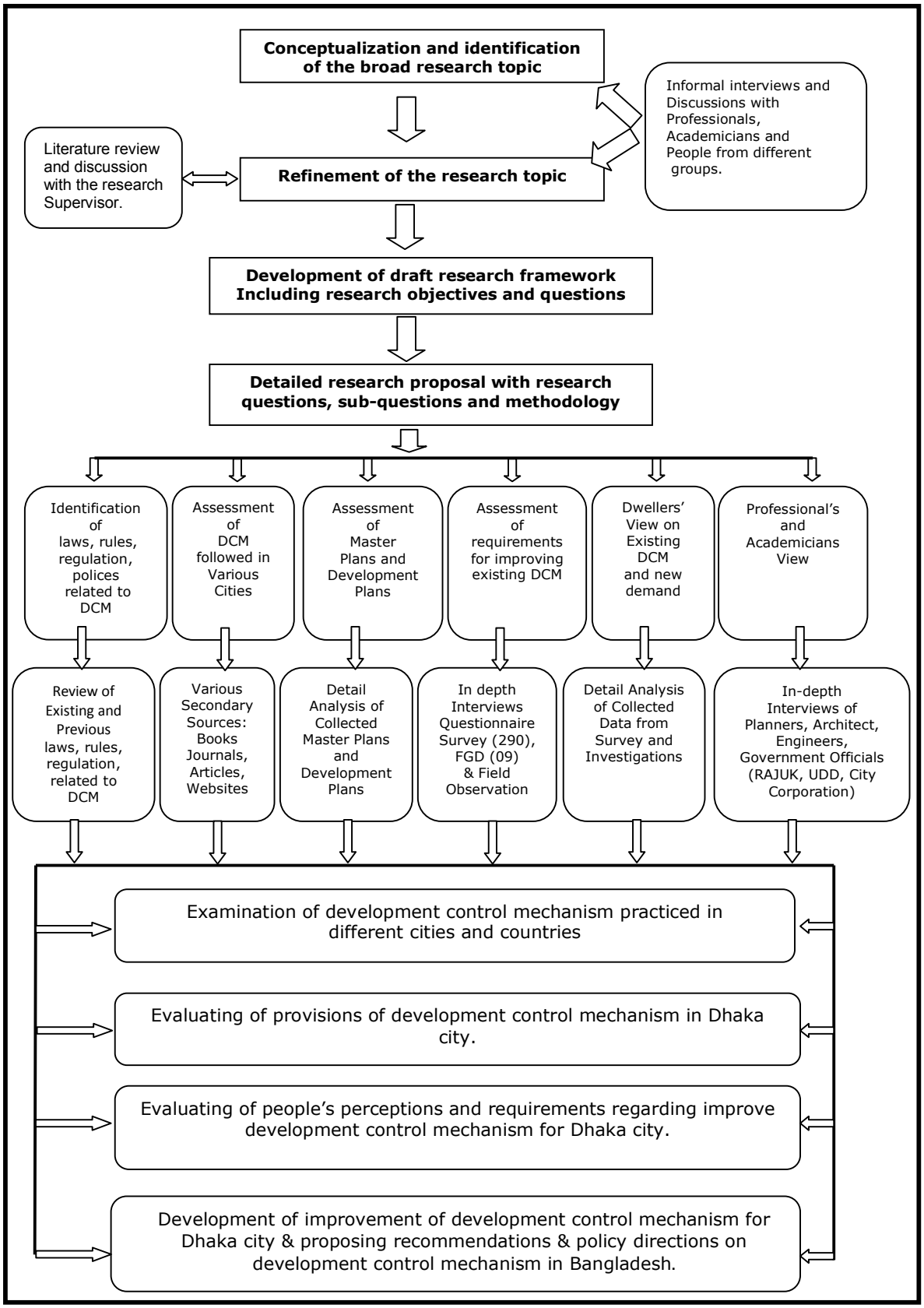


Figure 3.4: Research Methodology in Flow Chart

CHAPTER FOUR

DEVELOPMENT CONTROL IN DEVELOPING AND DEVELOPED COUNTRIES

4.1 Introduction

Present day development controls adopted by many countries were evolved mainly from the bye-laws of public health authorities (McLoughlin 1973). These bye-laws govern the physical conditions of the buildings specially that of light, ventilation, height and spacing. Factors of industrialization in Europe and North America had caused social, physical and environmental degradation. Post war period also had brought in special urban problems like redevelopment and urban renewal in industrialized countries. These were realized by the concerned governments and they were forced to adopt various legislation to protect and conserve their physical environment.

In developing countries, these problems were different. In most of these countries, population size and its growth, economic conditions forced the physical development in a different fashion and in most of the developing countries, the population size is very large with a high growth rate. The migrant population with very little or no skill put a heavy burden on the already meager and over-strained urban infrastructure. Informal economy and unplanned physical development had dominated the urban growth. Thus the adoption of development control in developing countries is varying and still in evolving process (Njoh 1995).

In this context, to review the development control process as a guiding force to hold development in selected countries is essential. Such a review would confirm the use of development control as a tool in governing urban development, and reveal courses of changes and validate the methodology developed in this research under wider context of urban development issues rather on a narrow planning problem. An analysis of the content, nature and the method of development planning and development control, their relationship under different socio-economic situations would clarify many issues. The outcome of such an analysis would also become useful inputs into the future model for development control based information capturing. Therefore, the detail of development control processes in England, France, Japan and Philippines (Manila) has been studied with reference to definition of development control, procedure for development control and basis of the plan and policies.

4.2 Development Control in England

England is having the privilege to be noted, to use the term 'Town Planning' in its statute for the first time in the history. This was statute in 1909 Housing and Town Planning Act. Earlier to this Act, the physical developments of building were directed by the norms of health authority.

4.2.1 Definition of Development and Development Control

The statute, Town and country planning Act 1971, section 22(1) defines development as: "The carrying out of buildings, engineering, mining and other operations in, on over or under land and the making of any material change in the use of any building."

This legislation covers the entire country, and hence, a binding universal law. However, the use of land for agriculture and forestry is exempted from this statute. Certain important activities by the Central Government and statutory authorities have been identified as 'deemed' permission category. Planning permission for certain construction of agricultural buildings, certain types of industrial processes are defined as 'permitted' development which need not seek planning permission. Along with this, a few other uses listed in the general development order, and listed under use classes order such as shops, does not require permission for change of use (Davies 1988). Certain special activities under enterprises zone and simplified planning zones where, if developed in accordance with the planning scheme would receive planning permission automatically (Davies 1988). The development control is the binding procedure which envisages that every proposal for development either by private or public should necessarily obtain planning permission from the local planning authority.

4.2.2 Procedures for Development Control

The applicant has to submit the application to the District Council. The District Council's planning departments scrutinize the application in consultation with the concerned agency such as highways, regional water authority and for few cases the Heritage Council. In most of the cases, the decision is made to either approve or refuse or approve with conditions by the District Council unless power is delegated to a planning committee or to a planning official. The decision has to be made by the District Council within eight weeks' time from the date of application, after which it is deemed to be a refusal unless the applicant agrees for an extension of time (Davies 1988).

The basis for taking decision for every planning application is, on consideration of a development plan and any other material consideration for the particular application for planning permission. The development plan is not legally binding to make a decision in planning permission. Other materials for consideration have a great value for planning

permission which are interpreted by legislation by court of law. Therefore, the decision for planning permission is discretionary in nature.

There are two categories of application for planning permission which is defined by General Development Order (Davies 1988). One is comprehensive planning permission, which prescribes precise information of site plan, layout, elevation, materials and landscaping. Second is the initial outline planning permission. This permission establishes agreement of the local authorities for a specific development in principle only. The applicant reserves the rights of design, massing, setback, open space and several similar parameters. The applicant must apply for prior comprehensive planning permission, if he decides to develop the area. No development is allowed with outline planning permission.

4.2.3 Basis of Plans and Policies

The local authorities empowered to issue planning permission should make themselves clear in two matters before initiating planning permission application scrutiny. One is the reference to the plan. The plan may be a structure plan, detailed development plan or local plan which is governed by statute of the legislation. The second is relevant to other material of consideration including policies/Acts/guidelines that are considered necessary to take decision of a given application. Some of these features may vary and some are common to all application. However, building permission is separate from that of planning permission in U.K. (Davies 1988). On disagreement with the decision of the local authority, a provision is made for the applicant to appeal to the secretary of state or court of law for consideration with valid reasons. The preparation or revision or review of the plans is guided by the Town and Country planning Act.

4.3 Development Control in France

Until recently, France was a unitary state having strong centralized power. The law of that country devolved powers to bureaucratic control, and political system play a secondary role, especially with reference to physical development. The other major factor that tunes the physical characteristics of France is the overall density of the country which is very less compared to other European counterpart. The administrative framework for France planning is having four level of hierarchy, i.e., National Government, the regions (22 economic planning regions), the departments (96 departments established by Napoleon), and the lowest level is the commune (like a village). Each of these levels plays a potential role in the decision making process including development control (Booth 1994).

4.3.1 Definition of Development and Development Control

As in other countries, the planning permission is issued to individual and organizations on the basis of an application to planning permission to the appropriate authority, in most cases, it is the mayor of the commune. In France planning permission is considered for building rather for land use (Punter 1988). The legal definition of 'development' is comprehensive. A permit is virtually essential for all type of construction works even for minor building. The exemption of a permit extends only to the activities like street furniture and small supportive structures. Buildings covered under official secrets Act are given standing rules for exemption. Activities like telecommunication work, schools and production of energy require preliminary declaration before the commencement of work. Large scale development of building requires special public enquiry. There are number of conservative proceedings on demolition of old buildings and conservation areas. The subdivision of plots is controlled separately and building permits in these subdivided plots are to be obtained separately.

4.3.2 Procedure for Development Control

Application of planning permission for any construction is a must. The applications for building permits are submitted to the mayor of the commune. The application has to be made on a nationally standardized form. Each application should be accompanied by a set of listed details. The scrutiny would be carried by nationally prescribed rules by technical staff of the commune. The technical staff of the commune refer to the concern plans to draw Technical details to take decision. There is a time limit for application process, and declaration of permit or rejection is within two months. If the authority does not notify the decision within this period, the applicant has the right of deemed permission. Building permits in France are complicated by the procedure of computing various levies. A formal decision is presented in the form of a decision notice ('arrete') (Booth 1994). A copy of this would be sent to the commissioner concerned to verify the legality of the notice. In the event of the decision of rejecting the applicant's proposal, or reserving the decision, it must be justified. It gives an idea to the applicant as to the means to appeal against such decision (Punter 1988). The decision notice is displayed in the town hall as well as on the site within a week's time of the decision. If the decision notice allows a building proposal, it is valid for two years. If the construction is not undertaken or stopped for more than one year, then the permit becomes invalid (Booth 1985). Before the start and after completion of work, the owner should submit on application to the authority. After completion of the work, the authority would visit the site and issue a conformity certificate. If the work is not in conformity with the permit, then powerful sanction is instituted including the demolition of the buildings (Punter 1988). All

stages of development control process, namely application submission, scrutiny, consultation, decision and implementation are standardized. Compared to the British system, the scope for discretion is limited. Still, a considerable amount of discretion is left with means of interpreting the rules. Yet another significant difference from British systemic that the France development control descriptions do rest with the bureaucrats and technocrat control rather with the politician.

4.3.3 Basis of Plans and Policies

The planning permits in France are governed by the plans of a concerned region. There are four levels of the plan. They are a national plan and its component regional plan at one level, a strategic long term development plan for cities, and land - use zoning plan for local level (Punter 1988). The land use zoning plan (Plan d' Occupation des soles [POS]) provides details on all the legislature and regulatory permissions. POS itself elaborates all the rules of location, servicing, size, sifting, volume and external appearance of development. Wherever there is no publication of POS, National Rules of Urban Planning (Regies Nationalesd' Urbanisme [RNU]) applies. These rules being applied throughout the country and these general in nature. Decentralization of development control is passed on to the mayor of the commune, if the local plan is already approved for the concerned area (Punter 1988). The plan at various levels requires the technical clearance for planning permission. Administration and hierarchy of government provides he legislative provision for issuing planning permission. The preparation of plan and planning permission are integrated for better decision making process in manipulating physical development.

4.4 Development Control in Japan

Uniqueness of Japan's urban management process is in its integrated approach (Alden 1984). Being developed in a small geographical area with high concentration of urban and industrial development, its management is a task for urban planners. Fundamentally, Japan also relies on the city plan and legislation to support urban planning. But it has different operational management. Two important issues are, the environment and the utilization of space either in rural or urban areas. The civil law (civil law Act of 1898) is having a great impact of development control (UNCRD and CPR 1991a). Japan is divided into 47 large local bodies called 'prefectures'. It is farther classified into municipalities, cities, towns and villages and local bodies totaling 23252 (UNCRD and CPR 1991a). These local bodies have authority to carry out administration. However, the local bodies are controlled by the central government in terms of financial allocations.

4.4.1 Definition of Development and Development Control

The civil law act 1898 has given rights to use land and buildings as independent ownership with independent rights. Therefore, the land ownership and the right of ownership of buildings on that land shall be the property of another individual. Development and transfer of land also governed by public acquisition of land, wherein, any third party transfer of land could be acquired by government. Therefore, the development and development control in Japan is governed by many legislations under City Planning Law and Building Standard Law. The individual or organization intended to promote development should seek the permit. The scrutiny of application is carried with two major premises: One is city planning law, and the other is the building standard law. Each of these laws has wider coverage of norms. The application is processed by the Governor of the prefecture or mayor of the municipality and cities. The implementation of land use as such is carried out indirectly in Japan by means of regulating measures. They include development permit system and building conformity system. If the proposed development is less than 0.1 hectare of land, planning permission is exempted (UNCRD and CPR 1991a).

4.4.2 Procedures for Development Control

The procedure for development control in Japan is governed by two major legislations: One city planning law, and the other the building standard law. The city planning law derives its strength by designating urbanization promotion area and urbanization control area as well as zoning regulations. Development is centered around eight land use zones (UNCRD and CPR 1991a). Each zone has limits on building coverage and floor area ratio (FAR). A unique characteristic of Japan's City planning is the adoption of city planning projects. Under city planning law, City planning projects detail out placement of infra structural facilities and characteristics of urban area developments such as land readjustment projects, new residential urban area development projects, whereas building standard law concerns mainly first with the individual building and its serviceability, and second, with the relationship of the proposed building with that of other elements in its vicinity. Regulations concerning individual building cover sanitation, safety, structure, fire proofing, disaster, planning the mechanical systems of buildings and other local government ordinance, whereas the relationship of the proposed building to that of its environment is scanned based on site, street, land use zone, restrictions on building coverage, building height and restrictions based on disaster prevention.

Any application for development from urbanization control area is prohibited. In an urbanization promotion area, development proposals require a permit from the mayor / Governor. To secure a planning permit in an urbanization promotion area the proposal

should be adherent to the standards under building standard law and city planning law explained above. The authority concern will examine the proposal and may summon the applicant for consultation. The application, on satisfying ordinances, will be issued with a permit application. On submission of permit application, the authority would issue a permit by opening a development project regulation file. After notification of permit, construction work starts. The building work is continuously under the supervision of the authority to confirm that the developmental activities meet the permit requirements. On completion of the building, a public notice is announced. Later, the land / building or both ownership would be transferred along with public land and facilities to the local authority.

Subdivision of land, transfer of property is taken care by urban development projects. They include land readjustment, new urban development projects, industrial estate development projects, urban redevelopment projects, new urban infrastructure development projects and residential block construction projects. For development of these natures, Government has the right to regulate the third party transfer of property and could acquire the property for urban development.

Under these restriction and rules, the demand and supply of various housing and space requirement in Japan are faced high price of land and rent. In 1989, new legislation called basic land act was introduced to accommodate national policy to accelerate the supply of housing. Under this policy, pockets of priority areas are identified. Under each category, the government expedites the housing supply by granting incentives. By this means the supply of housing has been promoted. These incentives are specific target areas bound, and cannot be applied in general.

4.4.3 Basis for Plans and Policies

The structure of urban planning and development control followed in Japan is comprehensive. It relies on many laws starting from the civil law, city planning law, building standard law and many such norms and standards of local authority. The planning permit system again considers provision of infrastructure facilities while issuing a permit. It has also overriding powers to acquire public facilities and land for public use through planning permits. Since the country has a great pressure for land and competing uses, the whole planning system is integrated to deal with the situation not as seen elsewhere in the developed countries. Planning permits, layout development, and infrastructure developments are not administered by separate governmental entities in Japan. Special projects like land readjustment, and the local authority's ruling on third party transfer of property are again unique to Japan. Design, lease and rental characteristics are strongly influenced by independent ownership of land and building on

that land. Though the basic urban plan of Japan is much similar to developed countries, its development control procedures are far integrated and unique in total urban planning solution. Therefore, the plan and policy basis of development control is much stronger in Japan.

4.5 Development Control in Manila, Philippines

Philippine is one of the developing Asian countries. Manila is the national capital of Philippines. Comparatively, Philippines have higher population growth with emerging economy. Therefore, with reference to urban planning, managing development control is an important task to be performed by the planners. The local government of Philippines is political in nature and is to manage the local development themselves. There are 73 provinces, 2 sub- provinces, 60 cities, 1534 municipalities and about 41657 bearings. Metropolitan manila is a special unit consisting of 4 cities and 13 municipalities. The metropolitan manila is headed by a Governor who is one among the mayors of the city (UNCRD and CPR 1991).

4.5.1 Definition of Development and Development Control

The definition of 'development' in Manila refers to any change or modification in use of building and land. The land development activities, such as layout sub-division are looked after by Housing and Land Use Regulation Board (HLURB). Building permits are governed by National Building Code and operated by municipal engineers of the city (UNCRD and CPR 1991). In order to promote housing supply for poor, the building standards for poor are relaxed by an act passed in 1982 (Bat as Pambamsa 220). This Act authorizes Housing and Urban Development Coordinating Council (HUDCC) to allow different level of standards and technical requirements / or specialist housing projects in urban and rural areas.

4.5.2 Procedures for Development Control

The process of layout and subdivision of plots starts with submission of a plan to the housing and land use regulatory board. The submitted plan should follow the subdivision rules with minimum size, street, passages, waterways, services, drainage and sewerage. The approval would be done based on the comparison of land use plan and zoning ordinance applicable to the case. A development permit would be issued after payment of processing fees. Each developer should also get a license to sell the plot by paying development costs, and the plan will be verified on the site by land management bureau for its management and locational authenticity.

The building permit system is governed by national building code, zoning, density control, and height restrictions (UNCRD and CPR 1991). On receipt of the building plan proposal,

the municipal engineer verifies the proposed buildings structure, land use and zoning regulations. The official also verifies the title, road lots, property line, streets or highways. In the next stage, technical staff evaluate the proposed building's architectural, structural, sanitary / plumbing, electrical and mechanical works. On conformity with the rules, the authority authorizes the applicant to pay the building permit fees. As mentioned above, there are certain concessions considered towards housing projects for the poor.

4.5.3 Basic Plans and Policies

Urban planning and development in Manila is regulated by comprehensive zoning ordinance for the National Capital Region, i.e., Metropolitan Manila. It is preferred under the guidelines of Housing and the Land Use Regulatory Board (HLURB). The guidelines emphasize the integration and interdisciplinary analysis of different sectors. These include social sector, infrastructure sector, economic sector, physical sector, fiscal sector and/or local government administrations. The comprehensive zoning ordinance for the National Capital Region, defines the city into land use zoning, specification of patterns and density. The development control process involves many issues in Manila. It is technically integrated to sectoral plans and development, and, not merely physical development. To that extent the development control process has far reaching impact on many sectors of the city.

From the selected case, it reveals that development control is the tool used to manage urban development. However, the levels of integration of development control to that of other sectors such as the infrastructure and services are varying from one country to another. In cases like Japan and Manila, the development control is attached to property transfer. In Manila, it is seen that the development control is deeply linked to several sectors of development and envisages better management of urban affairs as a whole, rather than only to physical development (Table 4.1).

Table 4.1 Reference of development control in selected countries

Country	Reference of development	Time frame for approval	Limits of exemptions	Nature of Planning permission
England	Comprehensive, refers to building and land use	8 weeks, after that period deemed refusal	Some development exempted	Discretionary powers rest with the government
France	Comprehensive, building and land use separately	Two months, after that deeme approval	Activities under official secrete act exempted	Limited discretionary powers rest with the bureaucrat
Japan	Comprehensive, building and land use separately	Continuous process in many department	Less than 0.1 Ha. of developments	Governed by urbanization promotion and control area
Manila	Building and land use		Relaxation for poor housing	Integration of many sectoral proposals

Country	Appeal to	Reference of Plan /Policies	Unique Characteristics
England	Government	Plan and other material consideration	Refers to development plan and other materials of consideration for sanction of plan, more discretionary
France	Mayor	Development plan	Bureaucratic control, governed by national rules of urban planning
Japan	Governor	City planning law, building standards and land use zones	Development is controlled by urbanization promotion area and urbanization control area, regulate third party transfer of property, integrated to services and infrastructure
Manila	Housing and land use regulatory board	Land use plan and national building code	Integrated to social, infrastructure, economic, physical, fiscal and local government, need license to sell plots

4.6 Planning Concepts and Development Controls in India

India's strong historical past of more than 2000 years, in the form of civilizations and associated systems, of which town planning was a characteristic feature has been well researched by historians. Planning for cities in India dates back to the Vedic times with most of the cities like Patliputra, Varanasi, Nalandaetc were built on the basis of well-conceived plans (Burby, 2003). These were the concerted efforts of specific kingdoms or empires prevalent at various points of time in history rather than an outcome of documented and institutionalized procedures. Therefore, it is difficult to compare the ancient planning systems with the modern planning systems. This section focuses on various planning concepts and development controls that have evolved along with the present day concept of master plan and in-built development controls in the post-independence era in India.

4.6.1 Planning Concepts in Ancient India

Town Planning was developed and practiced as an art by our ancestor's way back in 8000 BC when the small settlements evolved into about 100 large Indus Valley settlements following a hierarchy of cities, villages and outposts. Some of the legendary ancient cities along the Indus were Dholavira, Kalibangan, Rupar, Rakhigarhi and Lothal - presently located in states of Gujarat, Haryana, Punjab and Rajasthan in India.

The two largest and most studied cities of Indus Valley civilization are Mohenjodaro and Harappa. Each of these cities was about 1 sq. k.m. in size with an estimated population between 23000 and 40000, with a density of about 90 to 160 people per acre, which is desirable even by today's sustainability standards. These cities provided the first known examples of town planning, civil engineering, building design and construction in India. The focus was more on the spatial arrangement of houses for various classes residing within the city. The strategically safe areas were reserved for ruling or higher classes while the weaker sections resided in the outskirts. While setting the residential areas for the higher classes, attention was paid to the most frequent prevailing wind direction. City Streets had a north south orientation, with a central market place and a small wall surrounded the city. A fortified citadel lay to the west and a larger 'lower city' to the east. The citadel included a massive brick platform, possibly to protect from flooding and housed granaries with loading bays, baths and an assembly hall. The lower city was laid in a grid pattern of streets having controlled widths, with shops and workshops lining the streets. Every house was linked to a main drain, with regular inspection holes for maintenance. Houses up to two stores were built on plinths with brick stairs leading to upper floors or the roof. The typical residential unit was built around an open to sky court with entrance from side lanes, without any windows opening on to main streets. Houses

were varied in sizes, but included cooking and bathing spaces partitioned within them. Larger houses had courtyards and private wells also (Ramanathan, 2011).

The planning of the ancient cities clearly demonstrated appropriate planning approach. Further the building controls ensured that the buildings in the cities followed a uniform approach and provided enough room for light and ventilation. It was ensured that all the houses followed a similar layout resulting in organized development. The controls provided structured development of the cities with commercial and residential areas separated from each other.

Thousand years after the deterioration of Indus settlements, the period between 1750BC and 750BC, ushered in the second most lasting urban settlements in the Gangetic Plains. New trade routes emerged and knowledge guilds were established and new coastal cities were developed during this period. Kingdoms were fortified and planning of the towns was mainly confined around the fort that formed the nucleus with subgroups based on occupation and caste organized around it (Ramanathan, 2011). Thooyavan (2005) explained in his book on 'Human Settlements' that the settlements built during this period were within the framework of strict rules and regulations laid down in Hindu Shastras and Puranas. Among these, the most important were the SilpaSasthras and Kautilya'sArthasasthra. These ancient treatises on town administration and architecture indicate how scientifically the art of town planning in the earlier ages was studied and practiced. Based on the predominant features and functions, the towns were classified as Nagara (District headquarters), Rajdhani (Royal Capital), Pathare(Commercial town), Druga (Fortified, or small industrial town), Kheta (Town grown by local industries), Kharveta (Big industrial town), Sivira (Military encampment), Senamukha (Suburban military township), Skandavara (Military towns with imperial quarters), Sthaneya (Frontier Headquarters, fortified town), Dronamukha (Market town), Kotamakoraka (Hill / Forest site settlement). The cities were well planned and laid according to numerous patterns like Dandaka, Swastika, Padmaka, Nanyavartha, Chatmukha, Pratara, Karmuka, Sarvothobhadra etc. Each of these types differs from the other in their shape, method of street planning and location of activities based on size and principal purpose of settlement. The whole area of the city was divided into zones, based on the political and religious hierarchy, thus determining the exact sites for the Royal Palaces, the council hall, market places, streets and lanes, gardens, temples, wells (1: 10 houses), reservoirs and above all the blocks of houses and wards for different communities and professions. The division of areas or zones was based on the system of "Padavinyasa" i.e. division of town into a number of blocks (or pada) set apart for a particular caste/ profession. But

they had one thing in common and that was considerations they displayed towards the pedestrian. A person could conveniently transverse the whole width of the settlement.

Researchers like Nallathiga (2009) who studied and explored Kautiliya's 'Arthasasthra' in the light of town planning mentioned that it was mandatory to have the width of main thoroughfares be adequately wide up to 4 d and as i.e. 24 feet in width and lined with trees for aesthetic and comfort values. A number of bye-laws and regulations regarding construction of buildings in the towns were also highlighted in their studies. Although many of them were very conceptual giving directions related to the planning of a town and house. Some of them worth mentioning are given below.

- ✓ Basic controls like minimum plot size or land required for houses and height of the buildings were fixed based on the status of a particular class in the society i.e. low class population had smaller plots and low height houses and high class had larger plots and multistoried houses.
- ✓ Ground coverage of plot was not supposed to be more than 50% of site with open front yard as wide as 1/3rd of the plot.
- ✓ No deviation from the fixed measurements of lengths, breadths and heights of the respective buildings of different classes of people was permitted.
- ✓ Houses were provided with verandahs and flight of steps from the ground level lead to the high plinth of verandahs. One 'vedika' (raised seat) was constructed on each side of the door. Outside the house and touching it, a footpath ('Vithika') risen on both sides of the street was provided.
- ✓ All the houses faced the royal roads and at their rear narrow lanes for services were provided.
- ✓ Drains of sufficient slope and length were constructed from each house to the main drain.

The classification of towns based on their functions and existence of distinct areas for shrine, citadel, markets and gardens clearly indicates the concept of land use zoning being adopted while planning of settlements even in those days. The above listed rules shows how sensibly the ancient building controls were devised keeping in mind the light, ventilation, massing, aesthetics as well as health and privacy of the inhabitants. There are many examples which are still surviving based on these principles. Ancient core of Srirangam (Tamilnadu) on Nandavartha pattern and core city of Jaipur based on Sarvothobhadra pattern are the few worth mentioning examples.

Under the Mauryan and Gupta Dynasties between 750 BC and 700 AD, major growth of states and kingdoms took place. The two main centers of urbanization during this period were Patliputra and Taxila. Patliputra, the capital of Mauryan Empire was a garden city

surrounded by parks and ponds, with wooden structures dressed in stone. It had 570 towers, a wooden wall with 64 gates and a moat all around the city for defense. Drainage and fire protection systems were carefully planned. Taxila was the centre of religion, art and culture and centre of exchange between the East and West. Architecture had both the Gandhara and Greek influences, with narrow streets laid haphazardly in the city (Ramanathan, 2011).

The period after the Mauryan and Gupta empires till the time of Mughals (16th Century A.D.) was the period of successive invasions and endless strife among various rulers. The kingdoms established by Harsha, Kanishka, Mohammed Gazni and Mohammed Ghori were followed by a series of Muslim rulers in North India. During these times, planning was mainly confined to the establishment of well-fortified capital cities. These fortresses of these cities were impregnable, securing the safety of rulers and their accumulated wealth. Each of these fortress towns had a citadel where the well guarded residence of ruler, administrative offices, treasury and arsenal were located. The residents lived partly inside the fortress or just outside and were protected by the rulers. The splendor, art and culture of that period were reflected in the palaces, temples and other public buildings (Thooyavan, 2005). The closely packed buildings and network of narrow streets effectively provided shelter from sun and hot dust laden winds and also acted as protection from enemy. The fort and city walls dominated the skyline of towns as from miles away the forts and its battlements appeared on the horizon as symbols of impregnable cities. Jaisalmer in Rajasthan and Golconda in the Deccan are good examples of such fortress towns.

4.6.2 Planning Concepts in Mughal Period

The Mughal Period, starting from 16th century and lasting over 300 years, brought a comparatively settled period when city planning covered not only capitals but also defense outposts, trading establishments, ports and military cantonments (Thooyavan, 2005) Ramanathan (2011) categorized the towns of this period into four categories i.e. Administrative (Delhi, Lahore), Religious (Varanasi, Mathura), Military/ Strategic (Attock, Asirgarh) and Trade (Patna, Ahmedabad). A separate department existed for the construction and development work during the reign of Akbar and Shahjahan (Rangwala, 2005). The emperor himself headed the department and it included eminent architects, engineers and ministers as its members. It brought a new sensibility and symmetry to planning by introducing gardens, courtyards and water channels into the planning of public and private spaces. Subsequently, all the other Muslim rulers also maintained a separate section and pushed ahead the process of town planning according to their own

ideas to fulfil the requirements of public spaces. While the mughals stamped their religious and cultural identity on the built form in India, city

planning was mainly done in accordance with the principles of Shilpa Shastras. Security considerations also impacted the design and construction of houses. One of the chief features of these towns was the peculiar construction of houses which was arranged so as to make the locality safe against internal penetration (Ramanathan, 2011). Shahjahanabad (Delhi) built by Shahjahan in 1648 and Jaipur established by Raja Sawai Jai Singh II in 1728 are good examples of cities developed during this period.

4.6.3 Planning Concept in British Period

The continuity of town planning broke with the decline of Mughal Empire in India and the pattern of planning took an entirely different course under British colonial rule. The implementation of European concept of planning and controls had a great influence on town development in India (Nallathinga, 2009). Britishers during their rule over India have estimated the need for evolving the cities to serve the economic needs of their mother land. During the process, they had laid principles for organization of settlements, lying of infrastructure, legislation for legal validity of planning proposals. The system was mainly designed to serve the economic interests of the Britishers first and the social interests of Indians later. Therefore, it had several undesirable features associated with it. A clear division of areas was visible between Victorian grandiose of the 'rulers' within the city and contrasting poor neighbourhoods resided by the 'ruled' i.e. the general public. (Mehrotra, et.al., 1995).

Thooyavan (2005) in his book categorized the British towns in three categories i.e. Cantonments, Provincial capitals and Hill stations. Cantonments were established along the main routes and at strategic places in all parts of the country. Some of the important cantonment towns were Bangalore, Dehradun, Kasauli, Firozpur etc. These were permanent army camps with small civil population serving them. The areas were planned with wide roads in a grid pattern disconnected from their surroundings, with low density housing laid out strictly according to ranks, along with parade grounds and other facilities for the use of army personnel. The provincial capitals were administrative and commercial centers which subsequently developed into industrial centres such as Chennai (Madras), Mumbai (Bombay), Kolkatta (Calcutta), Allahabad, Lahore and Nagpur. In these towns, the residential area of the Britishers were clearlyseparated from those of the native population and areas reserved for the white population were distinctly better with regard to the layout and amenities. Hill stations were developed both in the North and South India (Simla, Dalhousie, Nainital, Darjeeling, Kodaikanaletc) as places where governors of provincial capitals and other British officials spend their summer

months away from the hot plains. These picturesque hill stations were laid out with spacious bungalows, gardens and wide roads and avenues. The residential areas for the native population were at the lower levels with very little amount of planning and infrastructural services.

The Britishers had been able to introduce dual character to cities, where their residential areas were separated from those of the native population in the congested core. In the areas developed by Britishers, streets were no longer an integrated element of neighbourhood, but were used as the dominant elements that fragment spaces. While traditional houses were set against the streets with an internal private courtyard and built in close proximity to each other, the colonial houses had setbacks on all sides leaving no room for internal courtyards. Houses for the British were far flung and built on larger plots, lined along road networks (Ramanathan, 2011).

The first effort in the direction of urban development and planning regulations made by the Britishers was through the appointment of Sanitary Commission in 1864 for the three provincial capitals (Madras, Bengal and Bombay). Under the Bombay Municipal Corporation Act of 1888, building regulations were first introduced and in 1898, the first Unitary Improvement Trust (UIT) of India was established in Bombay for planning the city (Ramanathan, 2011). The Punjab Municipalities Act 1911 provided the provisions for preparation of town planning schemes by the Urban Local Bodies (ULB) in both private and municipal lands for providing housing with secured sanitary conditions in Punjab region. Another town planning legislation, Bombay Town Planning Act, 1915 enabled the preparation of land use plan within city limits. Subsequently, the governments of princely state of Hyderabad in 1916, United Provinces in 1919, Madras in 1920 and Punjab in 1922 have enacted town planning legislations for their respective states, thus paving the way for introducing Town Planning Schemes for future expansion. The main focus of these schemes was to develop residential, commercial, industrial land uses in different areas. However, it emerged later that these schemes did not ensure comprehensive development of cities as expected (Thooyavan, 2005).

4.6.4 Planning Concepts in Post-Independence Period

After Independence, India adopted the British Town Planning System by adapting it as per the requirements of the Indian cities. According to TCPO (1996), the 2nd five-year Plan (1956-61) largely placed the responsibility of planning on the state governments. It was emphasized that if planned urban development is to be undertaken, then each state should have a phased program for the survey and preparation of Master Plans for all important towns. It was also identified that in order to get the task of preparation of Master Plan accomplished, town and country planning legislation and necessary

mechanism for its implementation need to be enacted in all states. Since most of the Town Improvement Acts in various states did not had provisions for preparation of master plans, therefore a need was felt to have a comprehensive Town and Country Planning Act on the lines of the British Town and Country Planning Act 1947. As a result, a Model Town and Regional Planning and Development Act in 1960 was formulated by TCPO to deal with the subject of planning (regional, urban and rural) and development policies. The major provisions of the Model Act include provisions for preparation of comprehensive Master Plan for urban areas; constitution of board by the local planning authorities in state to advise and coordinate in the matter of planning and provisions for implementation and enforcement of Master Plans in the state. However, momentum to prepare Master Plans was generated during the 3rd five-year plan (1961-1966) when central government provided 100% financial assistance to state governments to set up town planning departments. This was done for the preparation of Master Plan for all cities and towns under the legislative framework based on the Model Law formulated by the TCPO in 1960 (TCPO, 1996). Presently, most of the states have their own legislations based on this model such as State Town and Country Planning Acts, Urban/ Metropolitan Development Authorities Acts besides the Municipal Acts which enable preparation of Master Plans/ Development Plans, Regional Plans, Zonal Plans, Town Planning Schemes, Urban Development Projects, implementation of Central and State sponsored schemes, framing of rules and regulations by state governments and local bodies with necessary variations to suit their local, regional and state practices. These acts have mandated the preparation of Master Plans for the proposed development of cities for the next 20-25 years and undertaking development in the areas that have been declared as development areas.

Master Plan involves estimation of future population, social economic conditions and infrastructural needs along with land use plan (present and proposed) and development control restrictions for ensuring that the necessary facilities are in place when the development takes place. Master plan is a statutory document that is approved, enforced and implemented for controlling, directing and promoting sound and rational development or redevelopment of an urban area with a view to achieving maximum economic, social and aesthetic benefits (Nallathiga, 2009). The scope of master plan as defined by TCPO (1996) is confined to broad proposals and allocation of land for various purposes such as residential, industrial, commercial, recreational, public and semipublic for guiding and regulating development in urban sable area over a period of time. Dis-aggregation of Master Plan proposals is done through zonal development plans and in-built development controls. Zoning and Sub division regulations are a part of

Development Control Regulations (DCR) under Master Plan. They stipulate the densities of the development in various pockets of urban sable land through Floor Area Ratio (FAR) or Floor Space Index (FSI), maximum ground coverage, maximum height permissible etc. Building Byelaws is a separate document governed by the regulations given in Master Plan that guides and controls the setting, design and construction of the buildings with due recognition for ventilation, light and built envelope requirements from health and sanitation perspectives.

As per Census of India 2011, the total number of towns and cities are 7935, out of which 4041 are statutory towns. TCPO (2011) reports that the number of approved master plans available in the country is 1233 and about 657 master plans are under various stages of preparation. This means that although the concept of Master Plan is in practice for the last five decades, only 24% of cities and towns have master plan and more than ¾ of the urban settlements are growing without any spatial plan and planned interventions. It is important to note that only 47% of statutory towns have approved Master Plans, based on the assumption that the 657 Master plans under preparation get approved shortly (Kshirsagar, et al., 2012). But the extent to which these plans have influenced in shaping urban form and structure of our towns is a matter of debate.

According to Philip (2007), inspite of the fact that Master Plans and Detailed Zonal plans have been notified for urban areas, cities are characterized by chaos, congestion, narrow roads, dilapidated buildings and lack of parking spaces. It is to be noted here that the development authorities and municipalities are not the only agencies working for planning and development of urban areas. For providing the much needed infrastructure, different nodal service providing agencies like Water Supply and Sanitary Boards, Housing Boards, Slum Clearance Boards, Industrial Area Development Boards, Electricity Board co-exist. A coordinated and structured collaboration with these agencies is essential. Lack of coordination among these agencies is responsible for violations of development controls, thus putting impact on housing and traffic which further leads to unauthorized developments and congestion (Swamy, et al., 2008).

It is evident from the review of the urban development and planning regulations and experiences that over the past decades, the conventional forms of urban development and planning regulations have failed to provide orderly and sustainable urban development (Sengupta, et al., 2012). Despite the various planning legislations that have been put in place, urban development has been haphazard and disjointed. As a result, violation of development controls, squatter settlements and informal sectoral activity have continued to mushroom due to inadequate and incompetent development control mechanisms.

As identified by Government of India (1996), inspite of deficiencies in the Master Plan approach listed below, there is no alternative to land use plan.

- ✓ Rigid, static and regulatory nature of plans
- ✓ Long term plan period - projections for longer duration (20-25years)
- ✓ Long time taken for plan preparation
- ✓ Weak Database and non- availability of Base Maps
- ✓ High norms and standards
- ✓ Time consuming process
- ✓ Lack of co-ordination among service providing agencies
- ✓ Ineffective Public Participation
- ✓ Lack of monitoring mechanism
- ✓ Rigid process of modification/ removal
- ✓ Lopsided plan implementation
- ✓ Mismatch of growth projections and sectoral needs
- ✓ Neglect of development of urban fringe
- ✓ Lack of cooperation and coordination among implementing agencies

Apart from the short coming listed above, research over the one and half decade (Jain, 2010; Philip, 2007) indicates that Development Controls that forms a part of Master Plan are restrictive in nature and do not take considerations of prevailing socio economic realities of people. These are too static, inflexible and hardly accommodate the urban poor or adapt itself to increasing pressure on land, soaring land value and advancing technology. Development Controls are also viewed as an unnecessary interference in private property rights as it interferes with the individual freedom to build according to their choice. Rigid rules coupled with laxity in enforcement create havoc in the system. In addition, where regulations have been enforced, they are seen as distortions into land and housing markets, which result in higher costs. It has been argued that traditional land use planning has justifiably been discredited and must take a share of the blame for illegal developments and inadequate service provisions.

Risbud (2011) while conducting state level case studies for cost reduction by regulations and guidelines in India highlighted that many regulations in India are old and framed without any affordability considerations. Almost 95% of the regulations are focused on new greenfield developments rather than redevelopment. It has been highlighted that the enforcement of regulations has been weak and eroded by massive growth of illegal land subdivisions in all cities which resulted in high standards for minimum plot sizes. In the context of high land prices, housing became unaffordable for middle and low income groups and resulted in unauthorized colonization and illegal commercialization. This is

accompanied by state's policy of regularizing illegal and unauthorized development either through Act or through administrative policy thus making the planning exercise whole planning exercise irrelevant and futile.

Bertaud (2002) explained that the combined effect of multiple layers of poorly conceived regulations has contributed to an artificial urban land shortage. In addition, some regulations have negative impact on the spatial structure of cities. By unreasonably reducing the amount of floor space i.e. prescribing the low FAR that can be built in centrally located areas and by making land recycling difficult, some regulations tend to push urban development toward the periphery. As a result, commuting trips becomes longer, operation of public transport becomes difficult and urban infrastructure needs to be extended further.

As evident from the studies of Risbud, 2011; the Floor Area Ratio (FAR) values in India are very low as compared to major cities around the world. Typically, even in centrally located areas FAR in India are seldom above 2.0 compared to values ranging from 5 to 15 in the CBD of other cities of Asia. This tends to increase the consumption of land as more land is required to build the given area of floor space. This affects low and middle income households more than others and in the nonresidential sectors contributes to a loss of productivity. According to the TCPO (1999), in Indian cities the FAR determines the total built up space that a plot is allowed to hold, subject to the land availability and requirements, household densities and dwelling sizes and availability of parking. In most large cities of the world, as technology and infrastructure improves, the FAR in the city tends to increase. One could argue that existing infrastructure in developing countries is insufficient and so higher densities (presumably brought about by higher FAR) cannot be absorbed, which appears to be the basis of TCPO's stated guidelines. But it is to be noted that whether density would increase or decrease following an increase in FAR depends on the FAR-elasticity of demand for built area. If there is a more than proportionate increase in built area in response to an increase in the FAR, then population and/ or employment density increases. The infrastructure will then have to be redesigned and rebuilt in the areas where a large FAR increase is projected. Bertaud (2002) explained that the progressive increase in FAR serves two purpose, firstly it allows households and firms to consume more floor space as their incomes increase without moving to new areas or in the suburbs and secondly increase in FAR contributes to decrease in the city spatial expansion (suburbanization) and commuting costs. The same views has been expressed by Sridhar (2007) in reference to land use regulations that population gets attracted to the areas where relaxation of FAR norms exists. This means that in order to make better use of existing infrastructure (water supply,

sewerage, roads etc.) in Indian cities, state and local governments must consider increasing the FAR with time so that more floor space can be accommodated in the already developed or newly developed areas. This way excessive city growth and urban sprawl can be contained, commuting can be reduced and housing along with other facilities can be made more affordable.

In addition, the general principles that justify specific value for the FAR at specific locations should be revised. For this guidelines shall be provided to urban planners to help them regulate FAR in a manner that is consistent with an efficient and market driven urban spatial structure. As suggested by Banerjee (2014) especially with reference to Indian cities, the concept of additional FAR Factor shall be based on 'creativity' and 'context'. In such cases, the creativity is defined as design parameters including urban form, parking provision, pedestrian safety and impact of design on services and environment. The context is defined as local attributes like location with respect to land use as given in Master Plan, accessibility, level of congestion on the approach road etc. Normally maximum permissible FARs (with additional 5% as compoundable) are specified for various use premises in the Master Plan which is generally revised upwards over a period of time as part of extensive modification to the Master Plan. The same can also be applied to land subdivision regulations where the quantitative parameters like minimum plot size, streets right of ways etc should be carefully audited, taking into account their impact on development costs, land affordability and environment.

In India, Building Byelaws provide a uniform building code for construction of buildings by getting the legal support under the respective Municipalities Act or Authority Act as the case may be. Building code is a document containing standardized requirements for the design & construction of almost all type of buildings, with an objective to protect the health, safety & welfare of the occupant. Building byelaws expresses all aspects of construction including structural integrity, fire resistance, safe exits, lighting, electrical, energy conservation, plumbing, sanitary facilities, ventilation, seismic design and correct use of construction materials. They also provide broad planning norms such as size of rooms, building height, setbacks, coverage, floor area ratio for different sizes of plots in different use zones, the requirement of light and ventilation, thickness of walls, floor, provisions regarding stairways, passages, lifts, elevators, etc for various types of buildings. Currently Building Bye-Laws are based on the National Building Code which was first published in 1997 and revised in 2005 (Das, 2007).

Government of India (2011) under JNNURM Rapid Training Programme highlighted that although modern building bye laws are framed to ensure greater compliance with the planning/ zoning and structural requirements, there are several pitfalls associated with

their design, practice and implementation at local level. Such pitfalls like rapidly changing technology, excessive control and rigid specifications; ambiguity and discretion; coordination hurdles; lack of transparency; corruption which in turn have led to the creation of an inefficient system.

While examining the degree of compliance with the required regulations, the extent to which people are aware of the existence of these regulations is important because it partly determines the extent to which people will comply with these regulations. The lack of awareness is one of the main causes of building violations as people carry out the construction without being aware that their activity would result in violation of building bye-laws. Public participation in plan preparation process is emphasized time and again by researchers over the years (Chotani, 2012; Dewal, 2006; Rakodi, 2001; Thomas, 2001) in a way that it should not be confined only to inviting the public objections and suggestions after Draft Plan Preparation. In fact, the requirement of greater public participation/ stakeholder consultation at every level and stage of the urban planning process starting from notification of the intention of plan preparation to plan implementation, enforcement and review has been highlighted. Such practices are being followed in Singapore and Malaysia as they are helpful in preparing the plan as people's product (World Bank, 1989).

A number of factors that contribute to non−compliance of the development control regulations in India as enlisted by researchers in their studies (Chandira, 2007; Gupta, 1992; Gupta, 2002; Jain, 2002; Poulose, 2007) are as follows–

- ✓ Failure of planning process to take account of ground realities and reset the planning guidelines, thus resulting in supply side shortages in terms of legitimate spaces for various land uses.
- ✓ Weak enforcement machinery is responsible for the non-implementation of building laws and regulations. Implementation of development policies has been characterized by delays and poor execution of projects and programmes by nodal service providing agencies, lack of institutional and inter-sectoral coordination framework for development planning and the inadequate participation by the beneficiary population.
- ✓ Unrealistic and cumbersome regulations including complex development control norms and building byelaws along with long drawn approval.
- ✓ Absence of proper standing of institutional mechanism for seeking justifiable modifications/ relaxations vis-a-viz the existing building code and land use regulations. In recent years, there has been considerable debate and criticism levelled at the management of local government and legal system as it does not

provide for quick and apt resolutions of building violation issues, which result in delays and misuse of the system.

There are ways as suggested by Farvacque, et al., 1992; Jain, 2010; Rakodi, 2001 that can improve the enforcement of development regulations and are listed below:

- ✓ Simplification of development control requirements by simplifying procedures and introducing appropriate policies/ zoning regulations while safeguarding the health and environment and not damaging the economic base of the activities concerned.
- ✓ Revisiting the principles on which development control is based. As in case of zoning systems, certainty for developers is achieved at the cost of inflexibility for unforeseen demands and needs; while in discretionary systems flexibility to accommodate rapid and unforeseen changes comes at the cost of uncertainty and greater opportunities for corruption. It has been recommended that a system needs to be evolved to achieve a workable compromise between these principles.
- ✓ Strengthening the enforcement capacity to monitor and take action on illegal developments and violations of development controls. In order to improve the efficiency and effectiveness of development controls, it is important that rather than devoting resources to improving the quality of urban spatial plans and development regulations, urban managers should concentrate on governance. It is necessary to make the whole system of plan formulation and implementation more dynamic and responsive to changes. For this, the planning legislation will have to be modified, updated and made more citizens friendly.

4.7 Structures and Strategies of Development Control

By way of planning urban environment, the responsibility and goals of urban planners are higher compared to that of their powers (Faludi 1984). Urban planners are ultimately expected to harmonize the social and economic environment of an urban area, but with ultimate powers to control only the physical environment. This leads to a dilemma in practice of what to do and what not to do with urban environment. The development control, has therefore, to react to many aspects of subsystems of urban areas, such as:

I. Increasing pressure from number of applications, appeals and enquiries from the applicants and developers.
II. Public who are much more vigil and concern with standards of environmental quality and protection.
III. Pressures from developers/financial institutions to release more and more space as well as relaxations of standards for development.

IV. The plan, policies, zoning regulations, public organizations imposingnumber of new regulations that affect development control (Rivkin 1978, Levy 1992) and

V. The overall planned objectives of the plan and its capability to interpret all the above pressures and yet to yield a judgment, keeping plan and proposed development in a balanced manner is a challenging process.

One possible way to manage such pressures is looking at it on time scale; i.e., How the pressures are evolved through time and its ultimate results to that of a plan? (McLoughlin 1973) Development control is the process through which the realistic result of a plan is to be achieved. As a result, the development control process cannot be visualized as mere routine operation but more of a decision making process. It is also visualized from the study of various countries that the decision making process of development control draws tactic knowledge, judgment and lot of broader range of factors that vary depending on the context and characteristics of each planning permission case (Leary 1988).

4.7.1 Structure of Development Control

Development control aspects are varied. Some major aspects are discussed here for understanding the various implications.

4.7.1.1 Technical Aspects of Development Control

The relationship between the development plan and development control is established through the technical references of one with the other (Davies *et al* 1989). Any improvement is envisaged in development plan or development control is based on how the technical link is made. It is anticipated that the characteristics of better planning are its responsiveness and flexibility to the changing conditions (Willis 1995). The technical aspect of the development control may require key information in a contextual analysis of planning permission. For example, while deciding a complex case for planning permission, the planner may seek "how many such cases earlier been issued or rejected with planning permission?" or the validity check with all other policy concerned, the decision has been correctly made or not ? It is also interesting to note, that no development plan could give property wise details on allowable development. Even if it is done, it becomes too rigid and its implementability is weak. At the same time, if a development plan is preferred showing very huge area of kilometer squares marked as residential, then almost any proposal may find a fitness within it. Then it becomes the responsibility of development control to make the judgment on each proposal based on various regulatory procedures (Keeble 1983). Development control feedback has the potential information in sensing the practicability of plan’s proposal. Another interesting

area of information utility from development control is the context of review of a development plan. A development plan for urban areas is usually prepared for 15 to 20 years plan period. All the proposals envisaged for such a long time in the plan may not take place. There may be proposals which are not anticipated at the time of plan preparation. The trend of development may also warrant a review of the plan. Under these circumstances, regular information updates from the development control feedback would help the development authority to validate the plan now and then and enable them to review the plan.

The signals for review of a plan may be many. A few important parameters to test the validity of the plan or to have a review should be tested against number of unintended developments that have come up in an urban area. Slackness of development from the anticipated development plan may also serve as an indicator to review the plan. Context of these indicators could be learnt only from the development control process.

The development control disaggregated individual applications that are piped through, rather to describe and explain the form of the physical environment that evolves (Procos and Harvey 1977). Development control also provides opportunity for the planners to learn the implications of the plan from the public reactions which either are echoed welcoming or indicating the limitations of the plan. Consultation with the applicant during case study is informative and good platform to know the plan as perceived by the general public. There are many such potential analyses possible to synthesis from development control activity as a feedback system. Several commentators have identified lack of integration between development plan and development control as an area of weakness in current planning practice (Davies *et al.* 1989).

4.7.1.2 Legal Aspects of Development Control

As a parallel to the technical aspect as core to development control, legal aspects also play a great role in planning. The review by the Royal Town and Country Planning Institute, "was concerned entirely with the mechanisms of the development control process and with the causes and effects of delays and the consequent abuse of natural justice" (Preece 1990, Faludi 1984). As seen earlier, that the ownership of land and related activities are tightly connected to fundamental laws (Humbly,1983). It also involves various policies and regulations of other department. For example, under the British Planning system, there are as many as 87 possible planning considerations while processing applications (Davies *et al.* 1989). Similarly, in France there are 90 possible consultations in any permit (Punter 1988). Under the Building Standard law of Japan, the off-site and on-site infrastructure and its relationships are built in the planning permit system themselves (UNCRD and CPR 1991a). In Denmark for example, planning

legislation includes coordination and integrates between public bodies (Edwards 1988). Sectoral approach is adopted in preparing and implementing plan in Metropolitan Manila (UNCRD and CPR 1991). There are several occasions in which the legal interpretation of a given development is self-defeating with different policies (Pountney and Kingsbury 1983).

The legal aspects of development control are having very strong implications on physical development. If properly applied, it has the potentiality to tune the physical and social environment. For instance, California state enacted a legislation requiring employers to pay the cash value of parking provided to reduce the traffic congestion and air pollution (Shoup 1995), whereas in Southern California, Zoning codes cause parking to be oversupplied. This in turn caused more automobile commuting, low building density and low land value that resulted in the automobile oriented urban design paving way for the spread of urban development (Shoup 1995).

It is to be learned that causes of legislation that is enacted for development control do not stop in forming a physical form alone, but also cause social and economic impacts. Any legislation enacted to control or to encourage a set of physical form should be evaluated to the resultant overall impact. This is rarely done. Basically all the development control enactments have a set of objectives to reach to an overall physical form. The means of approaching this is by regulating each planning application.

Another legal aspect of development control is the coordinated development. At municipal level, there are many agencies involved in keeping up of urban environment. Each department has its own norms to be followed in formulating and implementing the plan. Unless some coordinated efforts are made, the ultimate result of many developmental efforts to keep up the urban form is at risk of mismatched development. Since the development control procedure has knowledge on developmental trends, it could be an efficient guiding force. An example of Japan development control procedures may be cited for better integrated execution of work, especially safety and infrastructural management (UNCRD and CPR 1991a).

4.7.1.3 Social Aspects of Development Control

People and their culture reflect in the process of development. People's awareness, their desire to participate in the developmental process influences the development control process. Population, its size, mobility and economic power do reflect in shaping the physical environment. For example, developing country, like Bangladesh, where about 40 per cent of metropolitan populations live in slum or slum like environment (Islam, 2014). Their living space and standards are below the minimum. Any proposal or plan

for physical development cannot ignore it. If provisions are to be made to improve the poor's living conditions many incentives in planning standards are to be adopted.

Public participation is one more avenue where the development control could learn the desirable and practicable ends of a plan (Keeble 1983). At each stage of planning process, i.e., plan preparation, review and implementation should provide desirable proportion of public participation. It is also interesting to note that the social and cultural change too affect the development control. For instance, there is growing trend in Germany that demand for single person housing with more floor space per person is the trend (David 1989). Developments like inner city redevelopment do not attract the developers even after the government allows many relaxations.

4.7.1.4 Economic Aspects of Development Control

Economic aspects of development control play a dual role: One, the national and local government's investment for development, and the second, individuals, groups, or organizations as developers investing on urban development. For both, especially in urban areas, development control has a bearing. It is to be noted that only in selected countries, the sectoral investments are guided through coordinated development control. At metropolitan level, some countries participate to prepare comprehensive plan on spatial led sectoral plan. Like metropolitan Manila, more integration to spatial development is done with social, infrastructure, economic, physical and fiscal sectors. Plan for these sectors are drawn up and integrated at spatial level. While issuing of development permission, various sectoral proposals are also looked into. This gives credential support for plan and guided urban development, where the costly social and infrastructural developments are synchronized with the physical development. This approach resolves many conflicting proposals from various departments.

The second set of economic aspects of development control relates to the investment made by promoters. While promoters invest for profit, they treat every proposal as a business. The promoters try to optimize space as well as capital investments, whereas, the planning permission for development validate any proposal with standards. Applying planning standards and zoning regulations socialize the space and thus, reduce the profitable space counter to social space. Conversion of single family plots to flats is an increasing phenomenon. This ultimately changes the whole physical environment apart from overtaxing of infrastructure (Keeble 1983, Patton and Sophoulis 1983) (Figure 2.1). Delay in processing planning permission applications causes depreciation of project value especially large scale commercial development.

4.7.1.5 Aesthetic Aspects of Development Control

In the process of development control, the development authorities do try to mould the physical as well as, to an extent, social environment of urban areas. Many countries treat design quality as some check points in development control. In most of the developing countries, the design quality is restricted to certain notified areas and notified structures only. Information of design quality, checks as skyline, colors of the exteriors of buildings and urban design quality is not much published in the context within which the design decisions are discussed by the promoters as well as the local or development authority (Beer 1983). In most of the cases, especially for residential development, four criteria are checked. They are site-layout, appearance of buildings, external spaces and site assessments.

It is also argued in a few of the rarely published design quality and development control research papers, that the involvement of professional designers by the developers and the development authority do matter much in the final output. The result of design quality check in development control over a period of time a sizeable portion of city environment is being changed. (Beer 1983).

4.7.1.6 Political Aspects of Development Control

Political system, especially in a democratic setup, has the ultimate authority to decide the policies (Edwards 1988). Planning system, particularly development control is the sharp edge on which the planners and politicians meet. At the societal level, politicians view the goals of development control as to generate better physical environment. So he enacts many safeguards in the interest of the citizen to whom he is most obliged (Friedmann 1989). The development control process is a peculiar case, where the political system enacts many safeguards at the interest of the society, and interestingly, breaks its own act to favour individuals or investors at a later date on appeal/ application (Davis,1969). In the politician's point of view, this act of favoring individuals may fit him with added political strength; while viewing it in the angle of professional practice, it may be an unfortunate decision if the rulings of the development authorities are overruled by the political system.

Given the context of legal frame work of development plan and development control, it is inevitable to have appeal procedures. However, indiscriminate use of such clause causes worry to the planning system (Fredmann 1988). There must be a procedure through which both decision on appeal and safeguarding of the plan are taken care of. For instance relaxation of standards of FAR, setback and height would press hard upon the environment and living space. Hence, studies with reference to political spheres of development control are essential to capture and transmit the feedback to the planning system.

4.8 Strategies of Development Control

One of the imputations to this research and other critical review already made on development control mechanisms is to view it as means and not as an end process. Till recently, the potentialities of development control feedback were not thought to be a wrathful exercise (Joseph and Pathak 1995). Though there are several studies citing critically on using development control related information for urban planning process, only selective studies devote much attention toward these aspects (Table 2.3). In one such study Davies and his team worked for the department of environment and concluded that the relationship between development plan and development control is robust (Davies *et al.* 1989). Aspect on usage of information for evaluating development plans or urban planning processes was sketched in this study. Pountney and Kingsbury's study in the relationship between development control and its usage in urban planning process observes that

> *"Two objectives of the study were established; first, to examine the framework provided by the local plans for development control and to assess the scope for its improvement; and secondly, to consider the extent to which various types of development control information are used in the preparation and review of local plans" (Pountney and Kingsbury 1983)*

The only laudable argument on the linkage between development control and urban planning process is outlined by McLoughlin in his book on control and urban planning (McLoughlin 1973). He in essence postulates many circumstances in which an efficient and comprehensive information system of development control would improve urban planning process in a variety of ways. He puts forth that,

> *"the most effective and helpful action for planners may simply be to provide better information about the urban systems "First, to indicate when required, how much development of what kind has been approved or refused and when and where .... in order to improve the information base for the planning function. More specifically it will help to ensure that the planning authority is fully aware of the overall demands on land and how much demands change over time ....to assist in the provision of an up-to-date picture of the land use in administrative country ....to evaluate the continued relevance of current plans and policies (and) to provide the statistical returns required by central government. Secondly to provide when required information for the better management of the work of development control. More specifically to establish a remainder system indicating the impeding expiry of temporary planning constants and to help in the*

preparation of statistics for reporting (quarterly) to the country planning committee" (McLoughlin 1973). He continues to express that "The success a system clearly derives from a sophisticated view of the planning process and the relevance of control as a means of monitoring of the actual course of change and as error activated device wherein outcomes in terms of physical developments are compared with the intentions embodied in plans and policies". He also suggests that "development control should be integrated not only with detailed physical planning but with many other kinds of public activities of a detailed executive kind" (McLoughlin 1973).

Several such studies, specially from developed country, evidences support to the argument put forth above. They are mostly concerned with one or two specific aspects of development drawing information similar to that is dealt in development control process.

Attempts significant to above nature to exploit or expand or integrate development control in Bangladeshi city planning scheme is limited, rather it is nil. It is only in recent times such an issue has surfaced among senior urban planners in Bangladesh and urban planning professionals (Rahman, 2004)

Development control process is the meeting point between the plan and the implementation. The case studies acknowledge that the relationship between development control and development plan is robust; but it is not that all about the planning system. It does represent major part of the plan's life cycle wherein, throughout the plan period, plan is linked to reality through development control (Davies *et al.* 1989). The scope of the development plan, technically, could not be elaborated to site level. Development control fixes certain norms and standards in order to look after the process of planning permission. This phenomenon is also a universal application. The development control by means of plan rules, regulations, Act have sense of flexibility and at the same time some aspects of firmness.

Dealing effectively with all aspects of urban development is hard to follow. Development control being an important agenda of development authority, several commentators have identified lack of integration between development plans and development control as an area of weakness in current planning practice (Pountney and Kingsbury 1983).

Development control at core deals with the technical and legal aspects warped - up by social, economic, aesthetic and political aspects. Adoption, intensity of its applications within development control process varies over the countries. Understanding the relationship between plan and development control and its aspects are important to improve the effectiveness of urban planning system. The ineffectiveness of development control,

"is pity because planning proposals are particularly useless except to the extent to which they are translated into work of various kinds on the ground; so if planning theory and development control practice do not match, there is something wrong with one of them or both." (Keeble 1983).

Delays in processing planning permission may cause irreversible damage to the planning system. Delays may be expensive in achieving the plan objectives. Secondly, delay in planning permission is yet another area which is considered to be for more important by the promoters (Pountney and Kingsbury 1985). For instance, if a promoter invests about Tk.100 lakhs in a project, simple interest of 12 per cent per year will cost about Tk. 3,500 per day, apart from inflation, apart from the promoter's office establishments and capital investment on land. It is quite natural that any promoter views the delay in planning permission as a critical issue. Individual's affordability, especially for housing and consequent development control influences physical environment greatly. The disaggregated data that are generated through development control are immense feedback to the urban planning system as brought out by Pountney and Kingsbury (1983) who points out that,

"There is a growing, albeit, not very widespread awareness that the potentialities of the development control process have not been fully exploited (Procos and Harvey 1977). The nature of development control work ensures that it is an important part of the development's early warning system. Processing the applications lead to detailed local knowledge which in turn makes for an early awareness of anticipated and actual development pressure. In fact, the planning application procedures provides an antenna sensitive to which development options in a plan are currently in favor and which are not" (Pountney and Kingsbuy 1983).

It is also to be understood that the nature of planning process and development control are context sensitive to social, economic and cultural value of the society and country. It is therefore, difficult to transfer the experience of development control from one country to other. It has to be learned much of oneself (David 1989).

4.9 Conclusion

Urban planning does not end with the preparation of a Master Plan. It is a continuous process and not an event of making a plan and getting it sanctioned and implementing it within a time frame. There is a fundamental difference between the developed and developing countries regarding the potential effectiveness of the whole Master Plan approach, as a primary step towards urban improvement. In most of the developed cities, a set of basic assumptions – the social and civic standards are usually quite well understood and therefore widely accepted. It is implicit in their master plans that certain minimum physical standards of housing and services, which are both desirable and

feasible. The growth trends could readily be projected and the established economic base of the city continues to provide increased employment and adequate tax resources, with little public intervention beyond zoning and services. In developing countries, however the fundamental economic, social and demographic assumptions are hardly beginning to be clarified, in terms of viable urban standards. The answers to questions like what would be the affordable overhead investment per capita, how to spend that amount to provide reasonable urban living conditions, what should be the urban pattern from the viewpoint of social conditions, are still not being made available to the planning team at the time of preparation of Master Plan.

In Bangladesh, where planning is completely a government responsibility, a school of thought have emerged that the government or the planners should only be responsible for the maintenance of public spaces and should not interfere in the functioning of private residential areas or even privately owned commercial spaces. The residents of an area understand their needs and should be left free to decide their plans of construction and management and disposal of their properties. It is the market forces of demand and supply that should be allowed to determine the most appropriate use of land.

In a rapidly evolving urban environment, it is very difficult to maintain the master plan and in-built development controls in the best of times. Therefore, research is necessary to have a flexible system on comprehensive development plans for sustainable development. Master Plan as a tool for urban development planning cannot be done away with; rather the need is to make it more dynamic, realistic and effective. This is possible only with greater involvement of people and improvement in urban governance. The studies over the years have analyzed the impact of land use regulations recommended that the needs and conditions of development in developing countries require a more flexible set of standards than what has been introduced based on European experience. These standards must consider the rapid changes in the urban fabric, relate more to local conditions and be easier to implement. It is important to identify simple design paradigms that encapsulate the overall strategy and implement them through strategic interventions that have multiplier effects. In the end it is important to note that with all this discussion, research hypotheses framed during the initial stage of the study has been strengthened i.e. Development controls are important and necessary so as to promote public health, safety, moral and social welfare of the community by securing the right use of land and buildings in a regulated way; weak enforcement mechanisms leading to increasing violations and limited need based flexibility in development controls is important. The chapter has provided necessary direction and has laid the path for better understanding of the situation of urban evaluation in Bangladesh in next chapter.

CHAPTER FIVE

URBAN EVOLUTION OF BANGLADESH

5.1 Introduction

The 21st century is becoming an urban century. In 2008, humankind has crossed a socio demographic milestone for the first time in history by having half of its population living in the urban areas (UNFPA, 2007). Urban population is projected to become 66% of the total population of the world by 2050 (UN, 2014). Bangladesh is not detached from this historic metamorphosis. The process of urbanization in Bangladesh was relatively low compared to other Asian countries. However, the country has experienced a remarkable progress of urbanization and urban growth in terms of increasing proportion of urban population and urban centers since the country's independence in 1971. Urban population growth rate has always been higher than the national population growth rate since 1901 (BBS, 2011). The level of urbanization is now 28% which is projected to become 56% in 2050 (UN, 2014). The number of urban population is projected to become a staggering 112.44 million in 2050 (UN, 2014). Its capital Dhaka is now the 11th largest megacity in the world and projected to become the 6th largest megacity in 2030 with a population of 27.37 million (UN, 2014). This entire extreme scenario poses serious major socioeconomic and infrastructural transformation of the country with other related changes.

In this Changing Patterns of Urbanization in Bangladesh context, this chapter will broadly focus on the tempo of urbanization and urban growth in Bangladesh.

5.2 Conceptualizing Urbanization

5.2.1 Definition of Urbanization

The word 'urban' was hardly used in the English Language before the 19th century. It is derived from the Latin 'urbs' - a term applied by the Romans to a city - more specially the 'City of Rome' (Notridge, 2007). The growth of town life is synonymous with a quickening of the tempo of civilization. Urbanization in its minimal meaning is the study of the growth of cities. More specifically it is the study of the process of population concentration within human settlements (the city), as well as the expansion of cities into surrounding communities (suburbanization) and regions (Hutchison, 2010). The Statistical Office of the United Nations has classified the definitions in use into five principal types. The underlying concept is that of 1) administrative area, 2) population size, 3) local government area, 4) urban characteristics, or 5) predominant economic activity (Shryock et. al., 1976).

Administrative Area

The concept treats as urban the administrative divisions that have been so classified by the national government or such parts of them as their administrative centers, capitals or principal localities. This classification is based primarily on historical, political or administrative consideration, rather than on statistical considerations. It tends to be relatively static and is not automatically changed after each census.

Population Size

This concept treats as urban those places (cities, towns, agglomerations, localities etc.) having either a specified minimum number of inhabitants or a specified minimum population density. The discussion of this concept in the United Nations Handbook recognizes that suburbs of large places, densely populated fringes around incorporated municipalities and the like are sometimes classified as urban in this approach. This type of classification can readily be brought up-to-date at the time of each census.

Local Government Area

This concept defines urban as those places, agglomerations or localities "possessing some form of local government". For some countries, at least these places might be interpreted as referring to a particular form of local government, especially one having relatively great autonomy. The American equivalent would be the incorporated municipalities (city, town, borough or villages). Other terms cited by the Handbook include "chartered towns", 'local government areas' "municipal communities" and "burghs". No minimum population size is used in this definition.

Urban Characteristics

This concept requires an urban place possess specific types of urban characteristics, such as established street patterns, contiguously aligned buildings and public services such as sewer system, piped water supply, electric lighting, police station, hospitals, school, court of law and local transportation system. A classification of this sort would need to be developed during or shortly before the census canvass. This concept is subject to possible regular up dating.

Predominant Economic Activity

Here places or areas qualify as urban if they have at least a specified proportion of their economically active population engaged in non-agricultural activities.

In brief, urbanization refers to increase of percentage of urban population with respect to total population. Basically, urbanization is a cause and effect in socio-economic development accompanied by the demographic and cultural changes that is an increasing function of urban population growth and increasing involvement of people in secondary and tertiary production activities. Urbanization is an unavoidable feature in the

process of development and it occurs due to urban population growth of a city and town, which results from the net impact of natural increase or decrease and the net migration resulting from the balance between the total movements in and out of the urban areas. Urbanization is not a discrete local process but it is a part of large societal coalescence and lias both positive and negative implications on some aspects of national economy directly and indirectly. In case of developing countries, rural-urban migration is the dominating factor to the growth of urban centers which occurs due to attraction of employment facilities and job opportunities, improved health and medical services, educational and recreational facilities etc. of urban areas. On the other hand, declaration of new urban areas, as they meet the formal criteria where non-agricultural activities are prominent, is another important factor that contributes to the increase of urban areas.

The definitions of 'urbanization' or of 'urban' vary from country to country and a country can also change its definition from time to time. Sometimes mixed criteria are also used to define urban. So it is very difficult to define urban or urbanization in absolute terms. Comparison of the changing Patterns of Urbanization in Bangladesh with others countries is difficult for the same reasons.

The definition of urban area used by the Government of Bangladesh in different censuses has not been uniform. The definition of urban area used in 1981 was continued up to 2001; however, the definition was changed in 2011. In earlier censuses, the urban area included city corporations, municipalities, upazila headquarters, growth centers, cantonment and urban agglomerations adjacent to large cities, i.e., city corporations termed as Statistical Metropolitan Area (SMA). However, in 2011, the concept of SMA, growth center and some other urban areas was abandoned and the areas covered only city corporations, paurashavas, upazila headquarters and cantonment area. In Bangladesh the urban areas have been classified into six categories according to their fractions and sizes (BBS,2014), These are mentioned below:

Mega City: It is metropolitan area having population 5 million or more.

City Corporation: It includes city corporations incorporated and administered by the Ministry of Local Government under City Corporation Act, 2009.

Paurashava/Municipality Area (PSA): It includes Paurashava incorporated and administered by local government under Paurashava Act, 2009.

City: It is an urban area having population 1,00,000 and above

Other Urban Area (OUA): It includes those Upazila headquarters which are not Paurashava. The only exception is the 17 unions adjacent to Dhaka City Corporation under Dhaka Metropolitan Area. These unions are treated as other urban areas on the basis of their urban characteristics.

Town: It is an urban area having population less than 1,00,000

5.3 Urbanization in Pre-Bangladesh Period

5.3.1 Urbanization and Urban Growth in Pre-Bangladesh

The present Bangladesh, along with other parts of the Bengal, has a rich urban heritage which goes back to the 3rd century B.C (Ahmed, 1997). Various factors contributed to the growth of towns in ancient and early medieval periods in Bengal. Mojumdar identified at least three 'principal causes' like administrative/political, religious (place of pilgrimage) and 'center of routes' by land or by water as the main causes for the urban development in that period (Majumdar et al., 1963). The writings of ancient urban history of Bangladesh largely depend on archaeological findings, traveler's accounts, ancient literature, religious scripts etc. (Karim, 1991). Historical relics of fort towns are found all over Bangladesh. Very recent archaeological excavation and findings at Wari-Batesh war at Narsinghdi district is revealing older urban settlement in this land which can be dated back to 600 BC to 400 BC. Some artifacts and water management system in the Wari-Bateshwar site are indicating a 1500 to 1000BC older human settlement in this area (Rahman, 2012 a).

The trends and patterns of urbanization in Bangladesh were influenced by different politico administrative eras in different periods of its history. Apart from geographical and climatic reasons, it is very essential to address the political economy of different politico administrative regimes which shaped the socio-cultural as well as the ups and downs trends of the urban centers since the very beginning of urban development in this part of the subcontinent. Before the independence of the Indian subcontinent in 1947, the present territory of Bangladesh was part of Bengal which was a province during the Mughal and British periods. So to understand the nature and trends of urban development in pre Bangladesh period should be comprehended in the broader socio-politico-economic context of the Indian subcontinent during different historical periods. For the purpose of accommodating the historical continuity, the history of the trends and patterns of urbanization in pre-Bangladesh period has been addressed in the following phases:

- ✓ Pre Colonial urbanization
- ✓ Colonial urbanization
- ✓ Urbanization during Pakistan period

5.3.1.1 Urbanization in Pre-Colonial Period

Before the British colonial regime, the urban spatial development of the present day Bangladesh territory was shaped in the context of basically two types of politico

administrative situations. Bangladesh was either ruled as a part of a centralized system under the Maurya, Gupta, Palas, Senas and Muslim rulers or as several independent states under independent rulers (Ahmed, 1997).

Mahasthangarh in Bogra has been identified as the earliest organized city in Bangladesh which was then the seat of provincial administration under the imperial Mauryas and the Guptas. Chinese traveller Hiuen Tsang mentioned Mahasthangarh as a prosperous city around 630 AD (Bhattacharyya,1996). Panchanagri in Dinajpur (448 AD), Paharpur or Shampura in Rajshahi (5th century AD), Vikrampur in Munshiganj which was the capital and port city of Bengal under the Sena kings in the 7th century, Mainamoti in Comilla, Chatigram (Chittagong), Kotalipara in Faridpur, Savar and Suvarnagrama (later Sonargaon) were some other important ancient urban settlements in Bangladesh. These towns tended to serve a wide variety of commercial, industrial, political, judicial and military functions (Bhattacharyya,1996).

Although Sonargaon's origin can be traced back to the period of *Kuru-Pandava* War described in the *Mahabharata,* the most glorious period of Sonargaon began in 1338 when it emerged as the capital of the earliest independent Sultanate of Bengal founded by Fakhruddin Mubarak Shah, the first independent Muslim ruler of Eastern Bengal. Before rising to this position, Sonargaon was administrative headquarter of a province of the Kingdom of *vanga* or *samatata* from sixth century AD to down at least the second or third quarter of the tenth century AD. Ibn Battuta, Chinese envoy Ma Huan, HouHien or Ralph Fitch found Sonargaon as a great commercial metropolis which had direct commercial relations with countries like China, Indonesia (Java) and the Maldives. Sonargaon enjoyed the position of a metropolis in the region in the pre-Mughal period (14th to 16th century AD) (Khan, 2012). In this period, other major towns were *Ekdala* (Dinajpur), *Mandaran* (Feni). These towns have considerable importance from the administrative point of view, if not always from that of trade and commerce (Tarafder, 1965). Bagerhat, in South Bangladesh, is an old settlement which dates back to 15th century, when Khan Jahan Ali is said to have built his fortified metropolis of *Khalifatabad* (modern Bagerhat). He was a great builder who also founded some townships, mosques, educational institutions, roads, highways and bridges excavated a large number of ponds in the districts of greater Jessore and Khulna. He founded Shatgumbad Mosque which is the largest of the Sultanate mosques in Bangladesh and one of the most impressive Muslim monuments in the whole of the Indian subcontinent (Bari, 2012).

Dhaka, the present capital of Bangladesh, has also a long history dated back to antiquity. Dhaka's urban-commercial aura was evident in the celebrated commercial exposure of

the cotton products in different continents since the 'ancient maritime world' (Rizvi, 1975; Islam, 2008). Dhaka's pre-Mughal existence as a small town of some importance was proved by the discovery of two mosque inscriptions, some literary sources and traditions. Dhaka was turned into a *thana* during of the military operations in the reign of Akbar. The needs of the garrison stationed here gave Dhaka a new breath of life (Karim, 1964). It came into prominence when Mughal Subadar Islam Khan Chisti commissioned Dhaka as the capital of the 'Subah Bangalah' in 1610 (Chowdhury, 2012). This politico-economic status pulled many people from different professions, colours and creed from Asia and beyond which changed its demographic and socio-economic growth patterns over nightly. At the pinnacle of its heyday during the Mughal period, it was estimated to have a population between 8,00,000 to10,00,000 according to some sources (Taifoor, 1965; Ali, 2001; Ahmed, 1986; Rizvi, 1975; Karim, 1964). Dhaka lost administrative importance due to the shifting of the capital to Murshidabad in 1704. But increased commercial and manufacturing activities by some European trading companies and being the headquarter of 'Dacca subprovince' almost sustained its growth (Karim, 1964; Ahmed, 1997). James Rennel estimated a population of 4,50,000 at the end of the Mughal rule in Dhaka in 1765 (Ahmed,1986). Ancient origin Chittagong was another important town in the Nawabi period and its economic activities and urban characteristics had grown as a port city until the 17th century. Later its growth was hampered by repeated attacks by Maghs of Arakan and the Portuguese pirates. Merchants from the Arabs and Europe used to visit Chittagong for business related activities (Ahmed, 1997).

During the Mughal rule, the subcontinent had a fair degree of political unity because of centralized administration and a uniform revenue policy, all of which helped to stimulate an expansion of commerce and productive efforts (Raychaudhuri,1983). There were two types of towns in India during Mughal time. The larger ones as thriving centers of manufacturing and marketing, banking and entrepreneurial activities with national and international network; and smaller urban centers as performing modest role in local commerce, exploiting local resources and providing local consumer needs within regional or sub-regional scales (Islam,1996). Towards the end of the Mughal rule, Bengal virtually became independent (Islam,1996). During the end of the Mughal period, Bangladesh had some sparsely developed urban centers. Among 36 urban centers in Bengal, only 9 urban centers belonged to East Bengal which now comprised the present day Bangladesh territory. The urban centers were Rangpur, Dinajpur, Boalia (Rajshahi), Kumarkhali (Kustia), Bakerganj (Barisal), Dacca, Sylhet, Lakshmipur (Noakhali) and Chittagong (Ahmed, 1997).

5.3.1.2 Urbanization in Colonial Period

The beginning of colonial regime in this sub-continent was initiated by the defeat of Nawab Sirajud-Daulahin the battle of Plassey with the army of the British East India Company in 1757. These basic politico-administrative changes brought basic changes in the 'traditional modes of urbanization' process of the country (Ahmed, 1997). The colonial establishment destroyed the indigenous urbanization process of the country which was significantly based on trade and commerce. The land revenue policy and the industrial and commercial restrictions imposed by the colonial government led to economic decline and brought about profound changes in the urbanization as well as development process of the country. The economic decline resulted in de-industrialization and 'de-urbanization of Bengal' (Ahmed, 1997). In 1800, an estimated 17.6 million people lived in urban centers that constitute about 11% of the total population of the sub-continent and it reduced to 8.7% in 1872 (Kidambi, 2013). Similarly, in 1750, India produced about 25% of world industrial output which reduced to 2% in 1900 (Clingingsmith and Williamson, 2004). The extent of decline and destruction was most vividly visible when we look at the plight of the city of Dhaka. Walter Hamilton estimated the population of Dhaka at 1,50,000 in 1815 which reduced to 66,989 in 1830(Walters,1980). In 1872, when the first census of the subcontinent was taken, Dhaka's population was 69,212(Beverley, 1872). This very sharp decline of population in the first three decades and levelling off to a stationary state in the nineteenth century is clearly revealing the de-population and de-urbanization process of the main city of Bangladesh. Islam(1996) mentioned the classic remarks of R Palme Dutta in this regard: The old populous manufacturing towns of Dhaka and Murshidabad (which Clive had described in 1759 to be as extensive, populous and rich as the city of London), Surat (in Gujerat) and the like were in a few years rendered desolate under 'The pax Britannica' with a completeness which no ravages of the most destructive war or foreign conquest could have accomplished

During the colonial period, a 'new kind of urbanization' was introduced and different urban centers were established in Bangladesh for administrative and trade purpose (Ahmed,1997). Communication system was also developed for the accumulation of raw materials and administrative purposes. Although many urban centers were developed during the colonial period - they were parasitic in nature. The intrinsic industrial and urban growth of the subcontinent was destroyed to serve the interests of the colonial power. Ahmed (1997) quoted Raza and others' much related remark in this regard:

> "The colonial process of spatial articulation, which was strongly embedded in the space economy, affected both the qualitative and quantitative attributes of urbanization. The dominance-dependence relationship destroyed the indigenous production activities of the urban centers and disrupted the geographic specialization they had achieved during the earlier periods. Consequently, the process of urban atrophy and deurbanization set in. These processes were characterized by the emergence of 'satellitic' primates and by the weakness of the formal urban systems. Most of the urban centers became economically sterile and performed very limited functions which were geared to economic development. The economic sterility of the colonial cities was reflected in a constricted industrial base, hinged to traditional handicraft production and to a proliferated tertiary sector which was non-productive."

The de-population of the city of Dhaka as well as of the destruction of the Indian indigenous industrial and urban growth was delineated by Karl Marx (1975) in the following way:

> *" It was the British intruder who broke up the Indian hand-loom and destroyed the spinning wheel. England began with driving the Indian cottons from the European market; it then introduced twist into Hindustan and in the end inundated the very mother country of cotton with cottons. From 1818 to 1836 the export of tourist from Great Britain to India rose in the proportion of 1 to 5200. In 1824 the export of British Muslim to India hardly amounted to 1,000,000 yards, while in 1837 it surpassed 64,000,000 yards. But at the same time the population of Dacca decreased from 1,50,000 inhabitants to 20,000. This decline of Indian towns celebrated for their fabrics was by no means the worst consequence. British steam and science uprooted over the whole surface of Hindustan, the union between agriculture and manufacturing industry."*

Table 5.1: Trends of Urban Population Growth during Colonial Period, 1901-1941

Census Year	Urban Population		Decadal Variation		Growth Rate (Exponential)	Number of Urban Centers
	Number	Percent	Number	Percent		
1901	702035	2.43	---	---	---	48
1911	807024	2.55	104989	14.95	1.39	48
1921	878480	2.64	71456	8.85	0.85	50
1931	1073489	3.02	195009	22.20	2.00	58
1941	1537244	3.66	463755	43.20	3.59	59

Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

It can be seen from Table 5.1 that the level of urbanization (percentage of people living in urban areas) in the then Bangladesh remained virtually stagnant between 1901 -1921 period and increased only slightly in 1931 and 1941. In the forty years (1901-1941) of British rule urban population growth rate was 1.39 per cent in 1901 and raised to 3.59 per cent in 1941 representing a low level of urbanization of the then Bangladesh during the British rule. However, the high rate of urban growth in 1941 was evaluated as 'inflated' because 'the communal excitement became so great that each community vied with the other to swell their respective number by fair means or foul and by multiple fictitious enumerations' (Rahim, 1969).

Table 5.2: Distribution of Urban Population by Size of Towns during 1901-1941

Census Year	Total Towns	Population Size						
		500000-4999999	100000-499999	50000-99999	25000-49999	10000-24999	5000-9999	Below 5000
1901	48	-	2	-	-	21	15	10
1911	48	-	2	-	-	23	13	10
1921	50	-	2	-	5	20	13	10
1931	58	-	2	-	7	21	17	11
1941	59	-	2	2	13	20	19	3

Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

5.3.1.3 Urbanization during Pakistan Period

British rule in the subcontinent ended in 1947 and with it, the region now forming Bangladesh became the eastern province of Pakistan. The establishment of the provincial capital in Dhaka, the invigoration of the port town of Chittagong, the undertaking of public investment in industrial development and establishment of industrial estates in district towns and subsidies in the form of tax concessions to attract private investors - all contributed to the urban development process in the present Bangladesh during Pakistan period.

It can be seen from Table 5.3 that the ratio of urban population received a moderate increase during 1951 - 61 representing an urban growth rate of 3.75 percent per annum. However, this rate of growth of urbanization was slow in the national context because of interregional disparities in development that cropped up during the Pakistan rule between East and West Pakistan as "all economic indices show that East Pakistan was relatively less developed that in west Pakistan.

Table 5.3: Trends of Urban Population Growth during Colonial Period, 1951-1961

Census Year	Urban Population		Decadal Variation		Growth Rate(Exponential)	Number of Urban Centers
	Number	Percentage	Number	Percent		
1951	1819773	4.33	282529	18.38	1.69	63
1961	2640726	5.19	820953	45.11	3.75	78

Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

The national government during Pakistan period favored large-scale industrial development of West Pakistan mostly at the cost of transferring resources from East Pakistan. This industrialization process also enhanced the urban development process as the percentage of urban population was 17.8 and 22.5 in West Pakistan during 1951 - 52 and 1959-60 as compared with the percentage of 4.4 and 5.2 in East Pakistan during the same periods. During these periods, the corresponding rates of large-scale industrialization were 41 and 72 per cent in West Pakistan as against 15 and 43 per cent in East Pakistan. However, the slow urban development process during the Pakistan period was also associated with the growth of new urban centers. The number of urban centers increased from 63 in 1951 to 78 in 1961 representing an increase of slightly more than 24 per cent during the period as evident from Table 5.3.

The pattern of urban growth during the Pakistan period based on data of urban population and urban centers of 1951 and 1961 reveals that urban population had a modest increase in this period but its distribution showed signs of concentration in the large centers such as Dhaka and Chittagong. This period also witnessed increases in the number of urban centers in almost all size classes.

5.3.1.4 Urbanization in Bangladesh

Bangladesh emerged as an independent nation in 1971 and this political event brought about significant changes in the socio-economic life of the people and their living style. In the new socio-political context, the urbanization of the country received new spur and vigor. Dhaka assumed the importance of a national capital. Chittagong and Khulna became ports of an independent country, while other urban centers also responded to the new situation growing in size and scale.

5.4 Growth of Urban Population in Bangladesh

Growth of urban population rate is higher in Bangladesh than the rate of natural increase of population. Growth of urban population is dependent on various factors like (BBS, 2014; BBS, 2008; BBS, 2003; BBS, 1997; BBS, 1994)

- ✓ Natural growth rate of urban population.
- ✓ Emigration from rural areas due to various socio-economic reasons.
- ✓ Changes in urban boundaries.
- ✓ Changes in definition of urban areas.

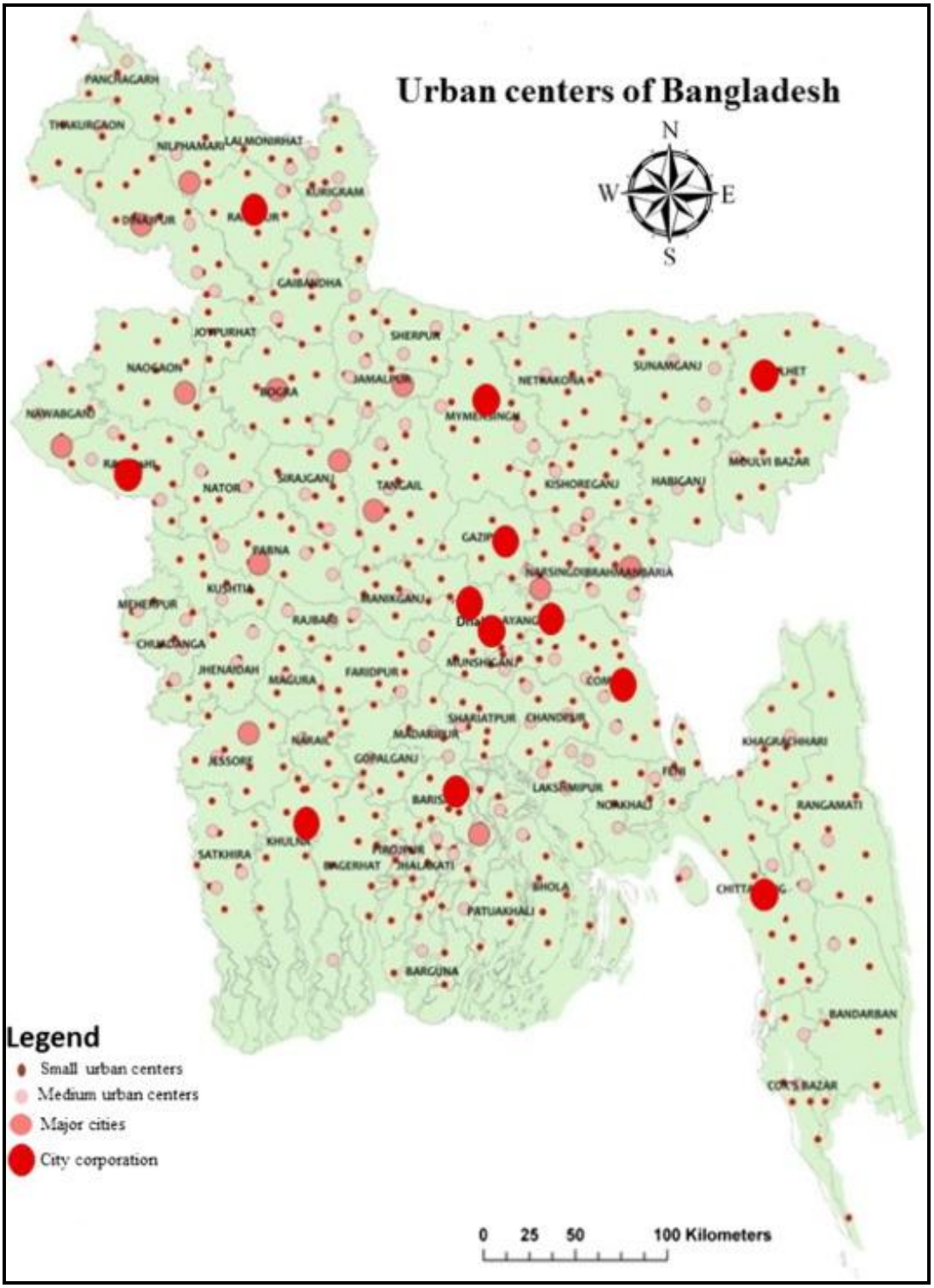
The volume of change due to the definition of urban can easily be measured, while separation of the effect of two other factors natural growth of urban population and emigration from rural areas needs special survey. No attempted is made to estimate increase in urban population due to these two factors separately because of the absence of relevant information. The inter census population growth is shown in table 5.4.

Table 5.4: Inter-Censal Growth Rate of Urban Population, 1974-2011

Census Year	Urban Population	Urban Percentage	Decadal Variation		Growth Rate (Exponential)
			Number	Percentage	
1974	6273602	8.78	3632876	137.57	6.62
1981	13535963	15.54	7262361	115.76	10.63
1991	22455174*	20.15	8919211	65.89	5.43
2001	31077952*	23.81	8622778	38.40	3.30
2011	35094684*	23.43	4016732	12.92	1.22
2011	41943532**	28.00	10865580	34.96	3.00

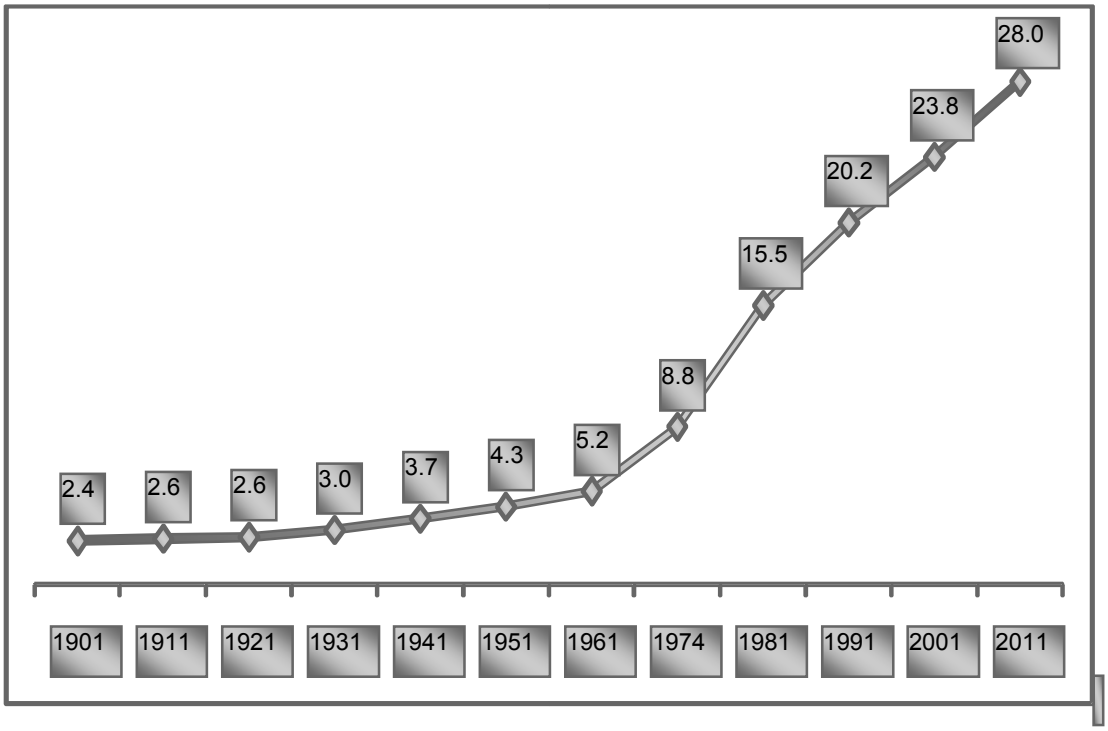
Source: Population and Housing Census 2011, National Volume 3, Urban Area Report * Adjusted Population; ** Including SMA Adjusted Population

Table 5.4 presents census enumerated urban population, percentage of urban population, variations in urban population and average annual growth rate of urban population between census years for the period 1974 to 2011. The proportion of urban population of Bangladesh reached 8.78 percent in 1974, which increased to 15.54 percent in 1981. About 30 percent of the total increase during 1974-1981 could be explained by the extended definition of urban in 1981. The inclusion of Thana Headquarters and small hats and bazars with electricity accounts for about 4 million urban populations. The level of urbanization can be measured by the proportion of total population residing in urban areas. A comparative picture of the growth of the proportion of total population residing in urban areas for the period of 1901 to 2011 can be found in Figure 5.1. On the other hand, Figure 5.2 shows the average annual growth rate of urban population between census years for the period 1901 to 2011.



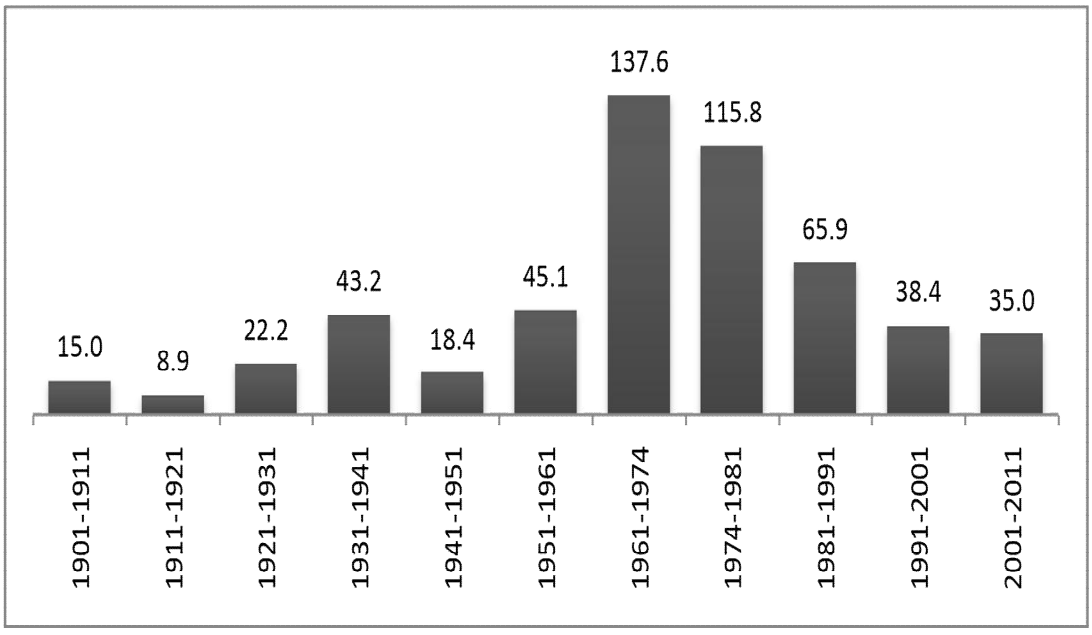
Source: Population and Housing Census 2011, National Volume 3, Urban Area Report
Modified by Author

Map 5.1: Location of Urban centers & Population size at Bangladesh



Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.1: Growth of Urban Population in Bangladesh, 1901-2011

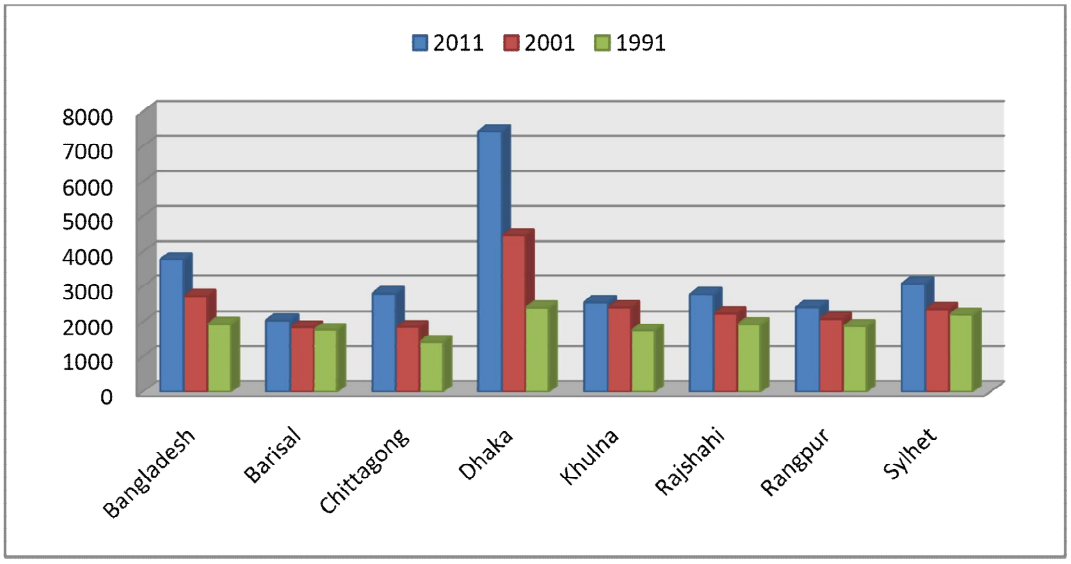


Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.2: Average Annual Growth Rate (%) of Urban Population, 1901-2011

It has been observed that the urban population density (per sq. kilometer) has also been increased in line with the growth of the urban population. The Figure 5.3 shows that urban population density has been almost doubled in 2011 compared to 1991. However, for Dhaka division the increment of urban population density is almost three times in 2011 compared to 1991.

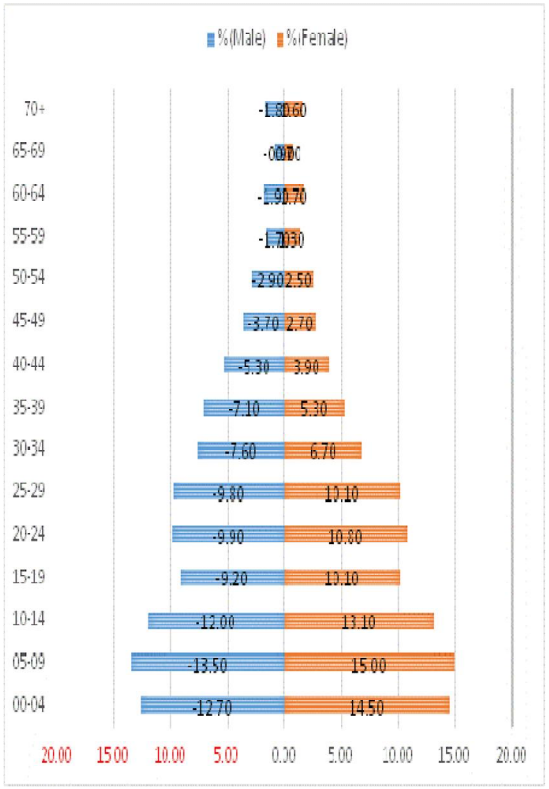
Figure 5.3: Urban Population Density (per Sq. Kilometer), 1991-2011



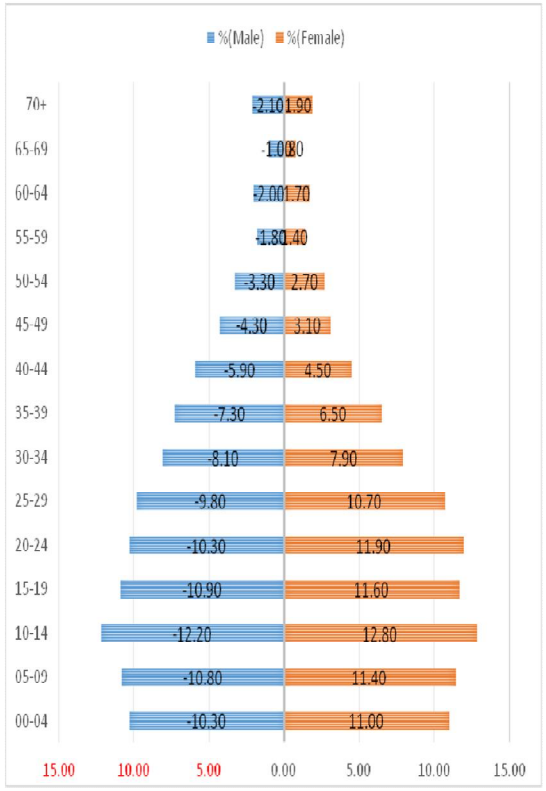
Sources: 1. Bangladesh Population Census 1991, Volume 3, Urban Area Report
2. Population Census 2001, National Series, Volume 3, Urban Area Report
3. Population and Housing Census 2011, National Volume 3, Urban Area Report

Over the censuses, it has been observed that the urban age-sex structure has been changed (Figure: 5.4). In 1991 census, 13.5 percent of the urban male population and 15 percent urban female population were in 5-9 years' age group. In the subsequent census in 2001, it has been observed that the highest urban population for both male and female was in 10-14 years' age group. However, this pattern has been changed in 2011 census. The highest percentage of urban female population is still in 10-14 years' age group but for male 20-24 years age group has the highest population.

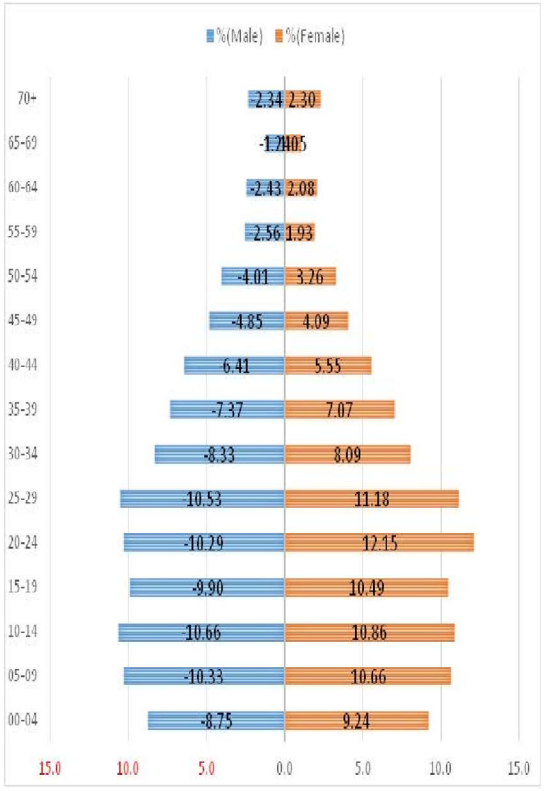
Population Pyramid of Urban Population 1991



Population Pyramid of Urban Population 2001



Population Pyramid of Urban Population 2011



Sources:
1. Bangladesh Population Census 1991, Volume 1, Analytical Report
2. Population Census2001, National Report
3. Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.4: Population Pyramid of Urban Population in Bangladesh, 1991-2011

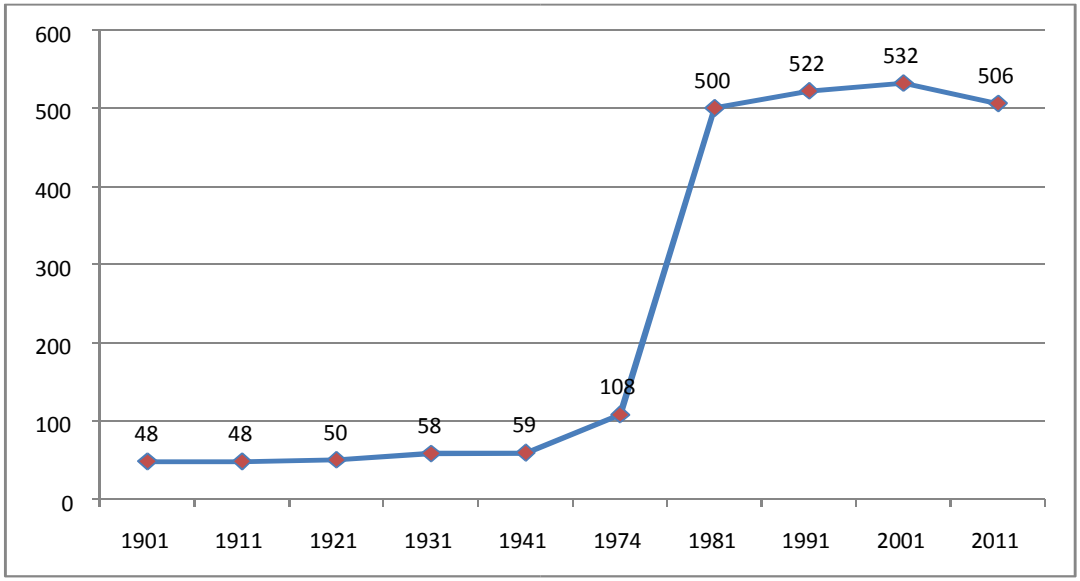
5.5 Growth of Urban Centers in Bangladesh

There were 108 urban centers in 1974, which increased to 500 in 1981 (Table 4.4). This change happened due to the extended definition of urban in 1981. The inclusion of Thana Headquarters and small hats and bazars with electricity accounts for about 4 million urban population. The increasing trend of urban centers continued till 2001 and declined again in 2011 due to definitional change. A comparative scenario of the growth of urban centers has been provided in Figure 5.5.

Table 5.5: Growth of Urban Centers by Population Size in Bangladesh, 1974-2011

Census Year	Total	Population Size						
		500000-4999999	100000-499999	50000-99999	25000-49999	10000-24999	5000-9999	Below 5000
1974	108	-	6	14	23	49	12	4
1981	500	3	10	23	45	122	129	168
1991	522	4	14	19	14	66	80	325
2001	532	4	22	50	118	188	90	60
2011	506	5	39	63	159	151	64	25

Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

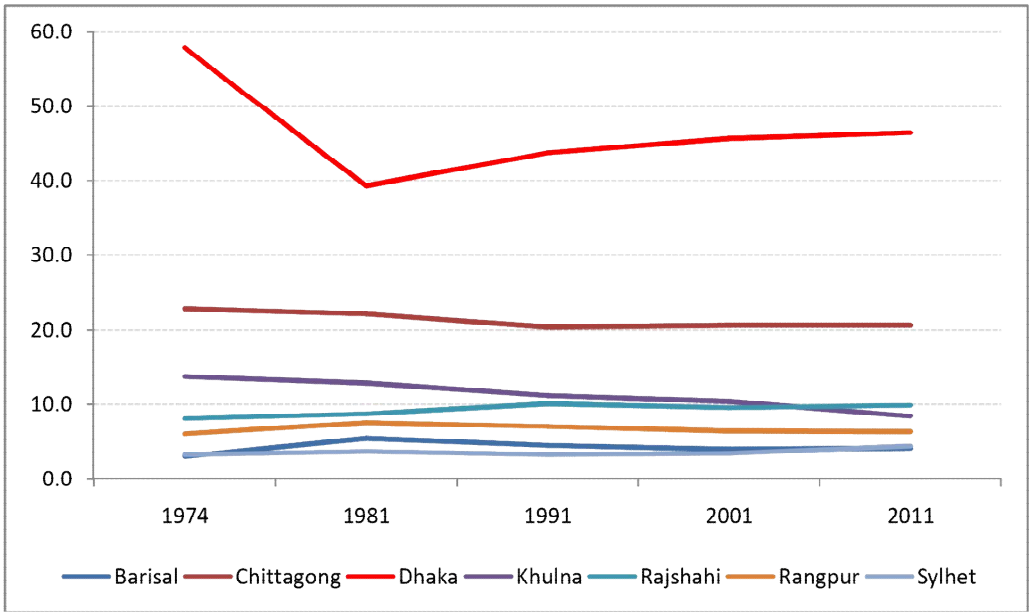


Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.5: Trends of Growth of Urban Centers in Bangladesh, 1901-2011

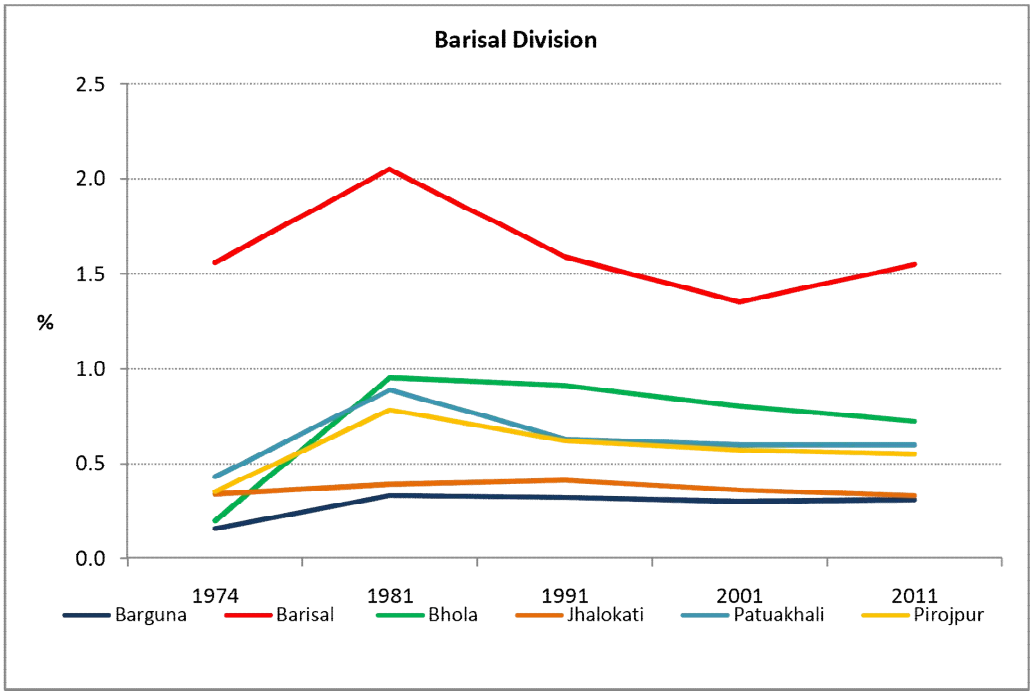
5.6 Growth of Urban Population In Bangladesh: Divisional and District Level

Division level growth of urban population in Bangladesh for the period of 1974-2011 has been presented in Figure 5.6. The figure shows that in the last three decades urban population has increased in all divisions except Khulna. However, the share of urban population is predominantly concentrated in Dhaka followed by Chittagong. On the other hand, by district, it has been observed ups and down trends in many districts. The Figures 5.7 to 5.13 show the trends of urban population growth in Bangladesh during 1974 to 2011. Within Barisal division, only Barisal district has upward trend in urban population growth (Figure 5.7). In Chittagong division, a declining trend has been observed for Chittagong district while Comilla has experienced an upward trend (Figure5.8). Urban population was 11.5 percent in Chittagong in 1991 which reached to 9.4 percent in 2011. On the other hand, the urban population in Comilla was 1.8 percent in 1991 which increased to 2.5 percent in 2011. In Dhaka division, the growth of urban population of Dhaka district is showing an upward trend since 1981. The percentage of urban population in Dhaka district was 21.9 percent in 1981 which has reached to 27.8 percent in 2011 (Figure 5.9). Figure 5.10 shows that in Khulna district under Khulna division is experiencing a continuous declining trend in terms of proportion of urban population. In 1991, Khulna district had 4.4 percent urban population which has reduced to 2.3 percent in 2011. On the other hand, all the districts except Pabna and Rajshahi under Rajshahi division are showing an upward trend in terms of urban population growth since 1991 (Figure 5.11). Bogra district has observed a significant upward trend in 2011 (2.0 percent) compared to 1991 (1.2 percent). Rangpur, which is a newly established division, is experiencing a very slow growth in terms of urban population (Figure 5.12). Finally, figure 5.13 shows an upward trend in all the districts of Sylhet division in terms of urban population growth though the growth rate is not high.



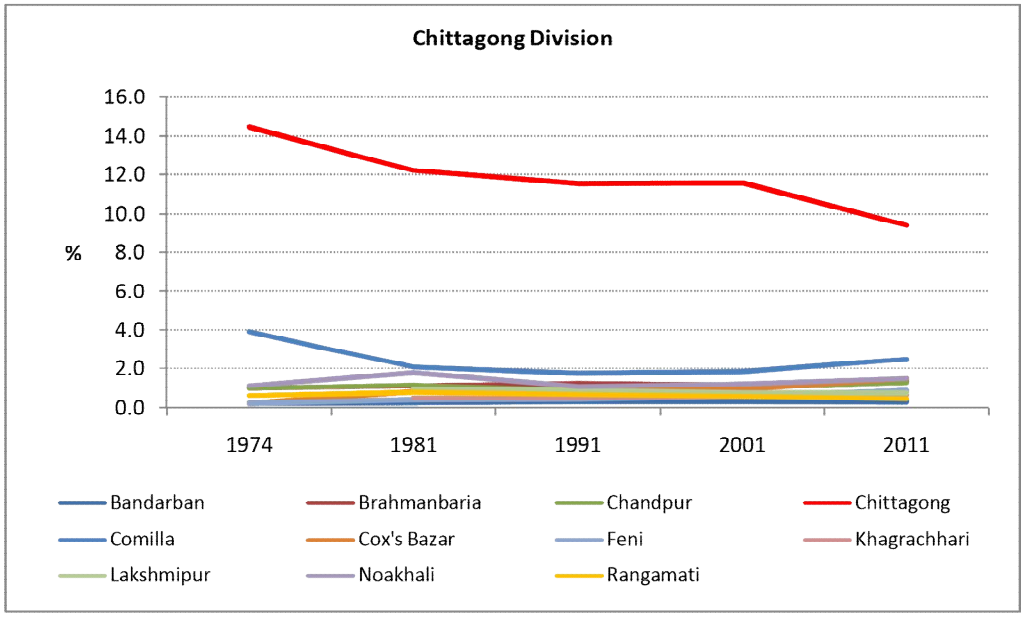
Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.6: Growth of Urban Population in Bangladesh, 1974-2011: Divisional Level



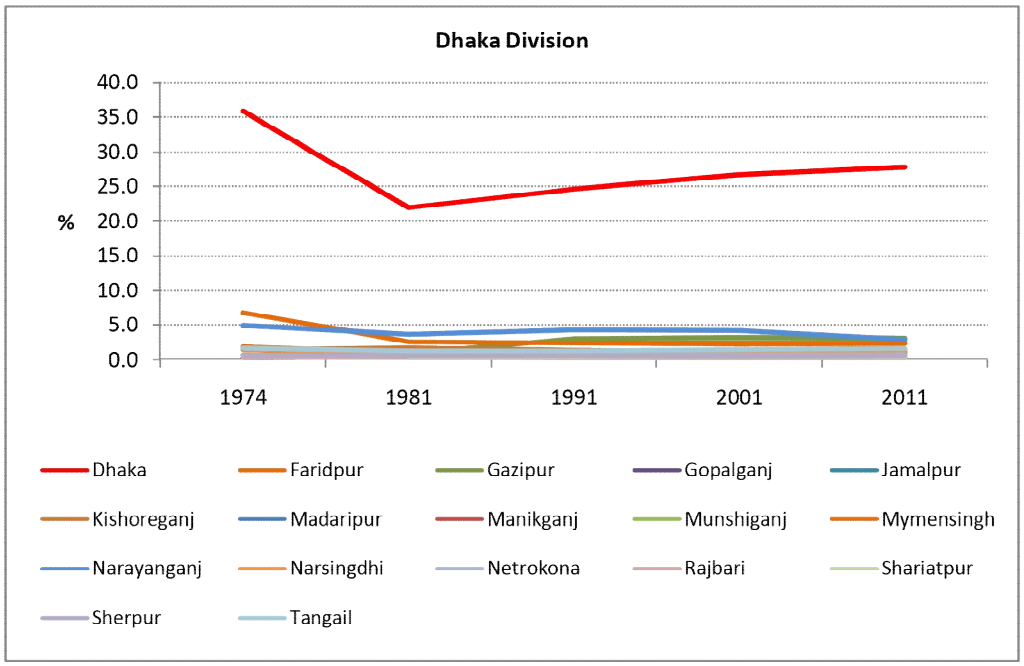
Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.7: Growth of Urban Population in Barisal Division, 1974-2011



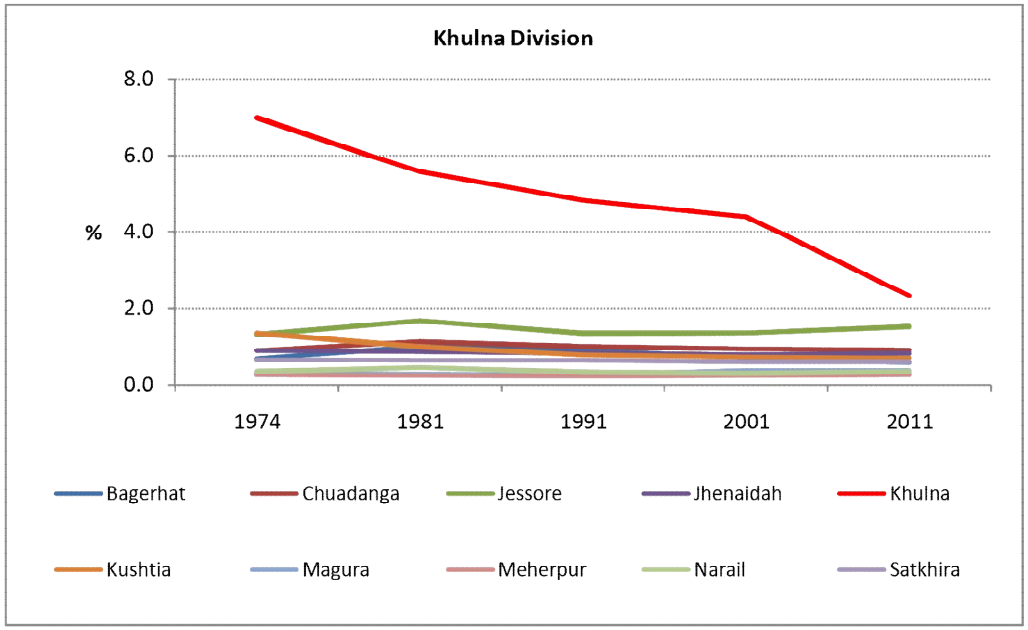
Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.8: Growth of Urban Population in Chittagong Division, 1974-2011



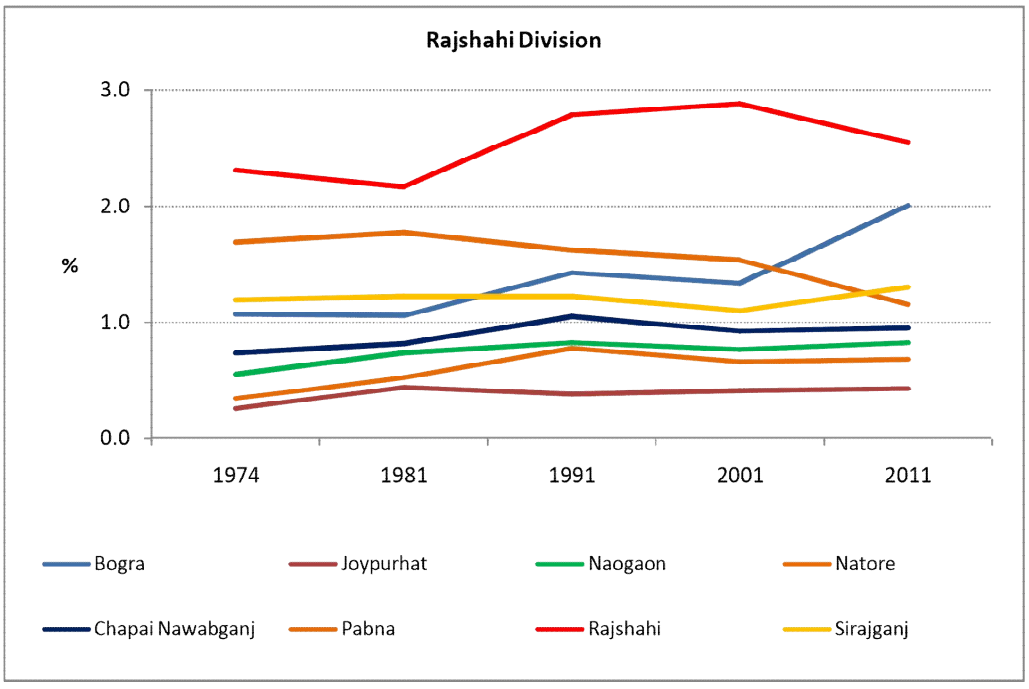
Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.9: Growth of Urban Population in Dhaka Division, 1974-2011



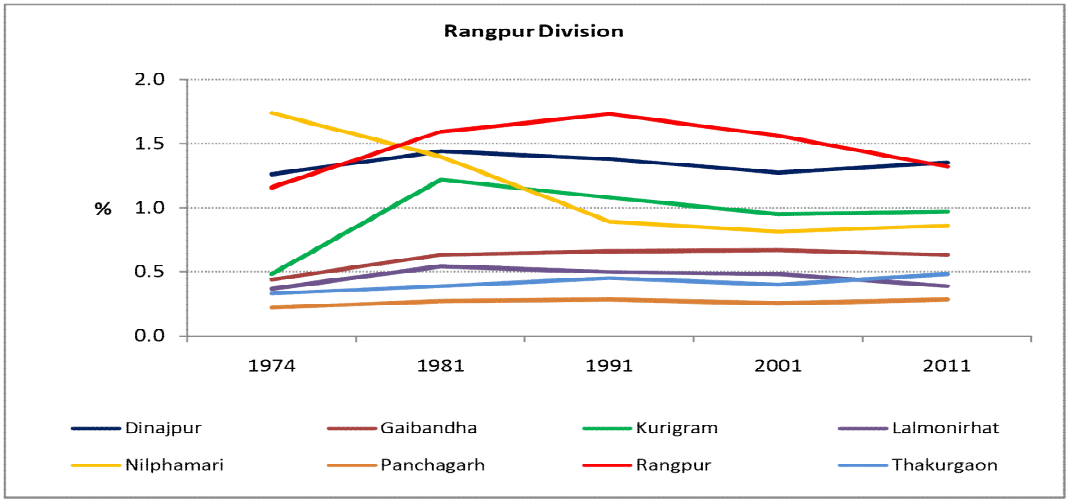
Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.10: Growth of Urban Population in Khulna Division, 1974-2011



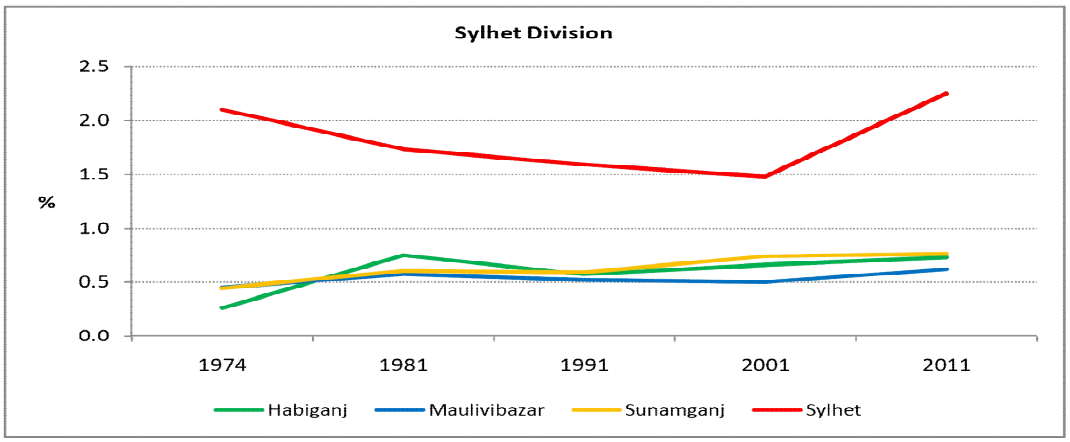
Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.11:Growth of Urban Population in Rajshahi Division, 1974-2011



Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.12: Growth of Urban Population in Rangpur Division, 1974-2011



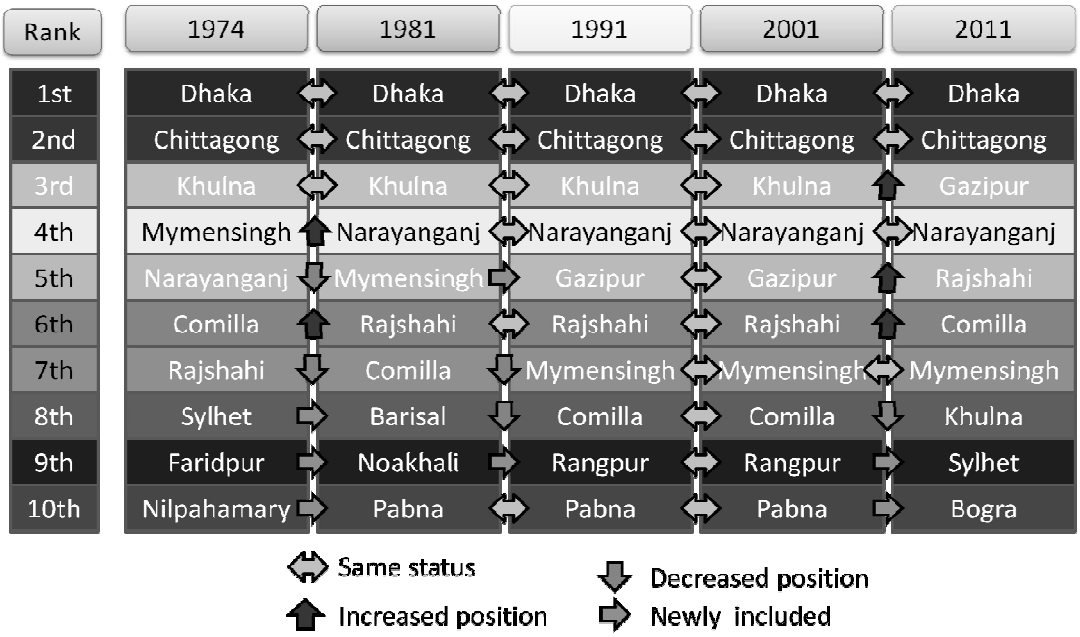
Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.13: Growth of Urban Population in Sylhet Division, 1974-2011

Figure 5.14 shows the ranking of top ten districts by their population size for the period of 1974 to 2011. The figure shows that there is no change in the ranking of Dhaka and Chittagong districts in terms of the population size and these two districts are ranked as 1 st and 2nd respectively. Khulna was ranked as 3 rd until 2001 but moved down to 8th position in 2011 while Gazipur district move to 3 rd position in 2011. Narayanganj district is remaining in the 4th position since 1981. Rajshahi, Comilla, Sylhet, and Bogra have gained their position in 2011 while the position of Mymensing is remaining the same.

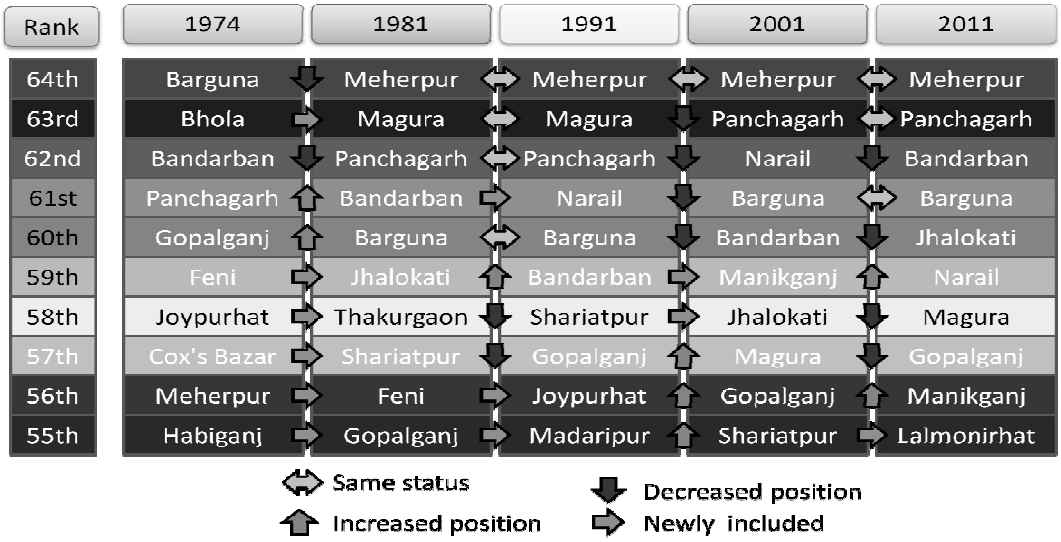
On the other hand, Figure 5.15 shows the ranking of bottom ten districts by their population size for the period of 1974 to 2011. It shows that Meherpur is continuously

raked as 64th since 1981. Panchagarh is experiencing continuously a declining ranking; its rank was 61 st in 1974 which decreased to 62 in 1981 and 1991 and then further moved down to 63 rd position 2001 and 2011. Bandarban, Jhalokathi, Magura, and Gopalganj have observed a declining trend in their ranking in 2011 while Barguna is remaining in the same ranking as in 2001. On the other hand, Manikganj has gained its ranking and Lalmonirhat has lost its ranking and placed 55th position for the first time.



Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.14: Top 10 Districts by Population Size, 1974-2011



Source: Population and Housing Census 2011, National Volume 3, Urban Area Report

Figure 5.15: Bottom 10 Districts by Population Size, 1974-2011

5.7 Megacity Dhaka: Physical and Population Growth

Dhaka is the oldest city and known to have existed in the 7th century. In that period, it was under the Buddist empire and it was under the Sens‟ Kingdom of Bikrampur in the 9th century. The then time, Dhaka was known as Bengla. Dhaka was then a small town consisting of 52 bazars and 53 lanes only (Nazrul,1996). The history of pre Mughal Dhaka is very vague, that period ranges from the 13th century to the beginning of the early 17th century. It was then a market centre. During the Mughal Period Dhaka became a prestigious city of the empire of the Mughal. It was named as Jahangir Nagar after the name of Emperor Jahangir. It was made the capital of Bengal in 1608 by Subadar Islam Khan. During the reign of Subadar Shaista Khan (1662-1689) tremendous development of Dhaka had been taken place. The city started to lose its glory after the shifting of the Capital from Dhaka to Mursidabad in 1717. At that period, size of the Dhaka city was 4.5 sq. km and the population was about 1 lac.

After the Battle of Plassey in 1757 the area and population had decreased remarkably. Later on, after the transfer of power to the Crown by the British East Indian Company in 1858, the city started to expand. The Dhaka Municipality was founded in 1864 by Mr. Skinner (Hossain,2008). In 1905, the partition of Bengal took place & Dhaka was made the Capital of East Bengal and Assam.

From 1905 to 1911 the population of Dhaka increased by 21% and after the Partition was annulled of Bengal, importance of Dhaka began to decline (Nazrul,1996). In 1947 the Indian Subcontinent was divided into states of India and Pakistan and Dhaka was made the Capital of East Pakistan. Migration from India to Bangladesh (East Pakistan) was the main cause of population growth in this decade. In 1961 the area was 125 sq. km.

After the independence, in 1974, the population of Dhaka stood at 20,68,253 with an additional 13 lacs of 1961. From 1981 to 1991 the population of Dhaka city had been increased remarkably. In 1991 the population stood at 68,87,459 which was an addition to about 35 lacs with the population of 1981. In this decade garment industries began to develop in Dhaka. The population of Dhaka city stands at 17721600 in 2011 which is near 70 lac addition to the population of 2001 (10712206) which is much higher than its previous decade. In 2001 the area of Dhaka mega city increased by 1530 sq. km and population increased over 10 million and in 2014 it stood at 18 million. Most of the People of Dhaka is immigrant, which may be 60% (Nazrul,1996).

5.7.1 Physical Setting of Megacity Dhaka

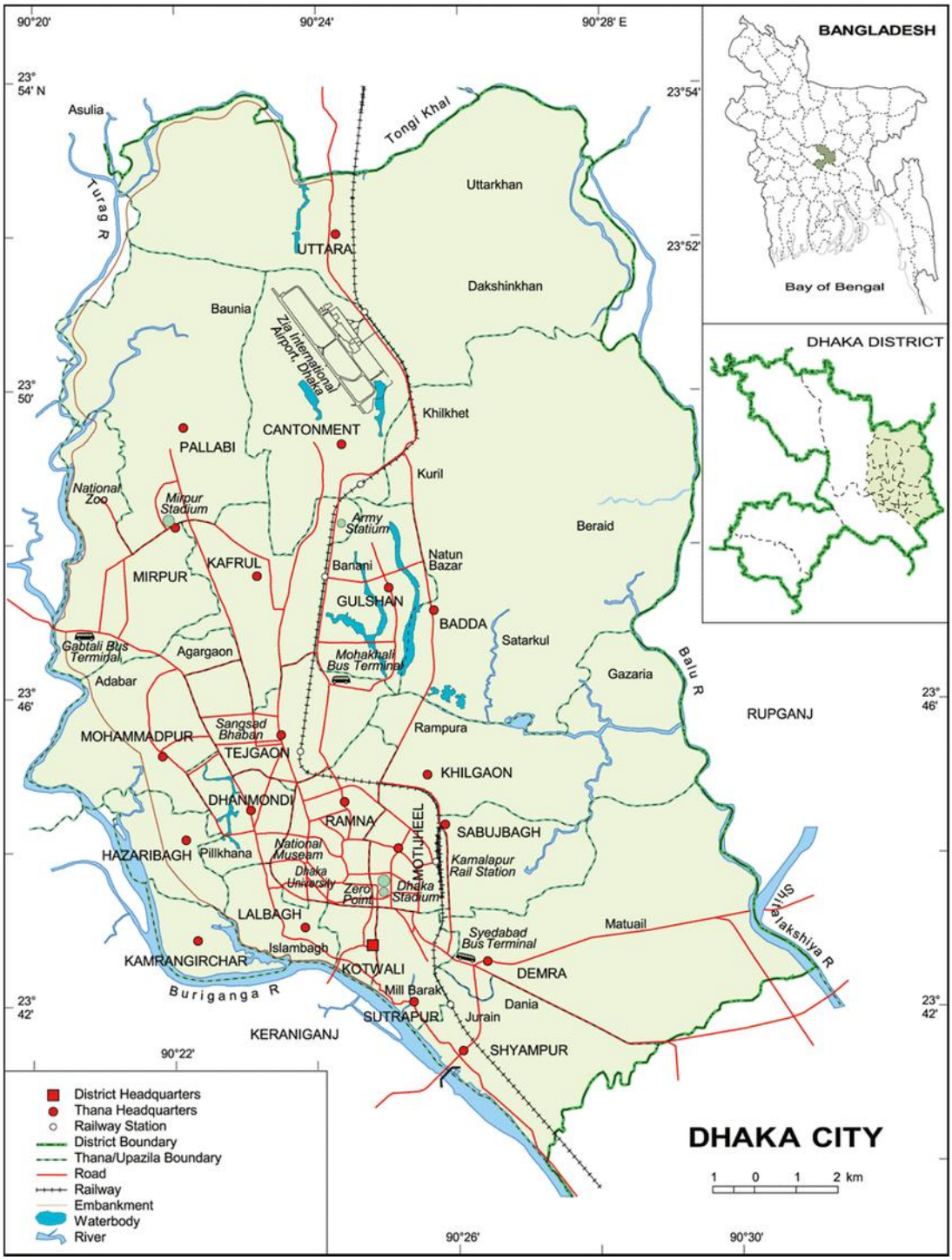
Dhaka City, the capital of Bangladesh, is at the geometric centre of the country. Dhaka City is to located at 90º24´ East longitude and 23º 43´ North latitude and lies in the central region of the flat deltaic plain of the three large rivers, the Ganges, the Brahmaputra and the Meghna (see Map 5.1). The tributaries of these major rivers surround the city. The surrounding rivers are the Buriganga in the south, Turag in the north and west and Balu in the east. The elevation of Dhaka City lies between 2 to 13 metres above mean sea level. Dhaka west and part of north and south is protected from river floods by peripheral embankments (Ahmed, 1997).

Much of Dhaka and its surrounding areas are prone to yearly floods. Flood prone areas have 2 to 4 metres of flooding that extends to the edge of the city thus forming a real urban boundary. Even within the city itself, which stands on relatively elevated land including the areas to the north of the city, urban development opportunities are constrained by a large number of re-entrant valleys. Thus the area of expansion of Dhaka has been governed largely by the physical configuration of the landscape in and around the city, particularly the river system and the height of land in relation to the flood level (Islam,1996).

Dhaka's setting is the low-lying area all around and stretching from the Buriganga bank in the south towards the north practically to the Tongi River; a stretch of high land is flanked on either side by low-lying marshes and old riverbeds. Often these low-lying swamps creep right into the heart of the high areas (as in the case of the Mirpur to Cantonment depressions from the west to the east, and the Baridhara-Khilkhet-Uttara depression from east to west) and as a result the expansion of the city has not been without difficulty. The hazards of flood and inundation haunt the Dhaka city-dwellers even to the present day (Chowdhury, 2012).

Chowdhury (2012) described Dhaka as:

> *'…one great wide-sweeping plain, low-lying and fertile, drained by some of the mightiest rivers of the east as they forge their impetuous way through many and ever-changing channels to the sea…[its] trim rice fields locked close in the embrace of countless streams and rivulets, luxuriant in every exquisite shade of green, like emeralds set in silver sheen.'*



Source: Bangla Pedia, 2003. Modified By: Author,2018

Map 5.2: Location of Dhaka City

Dhaka stands on the northern bank of the River Buriganga, about eight miles above its confluence with the Dhaleswari River, and this river-side situation not only gives to Dhaka, with its minarets and spacious buildings, an appearance like that of Venice, of a city rising from the surface of the water, but at the same time affords command over the water-routes. Through the Buriganaga and the Dhaleswari Rivers, Dhaka is connected by navigable waterways with the River Padma, the Brahmaputra and the Meghna Rivers and thus has the convenience of water carriage to and from any principal place in the region. This is the historical and geographical reason for Dhaka being the main city in Bangladesh. Dhaka is also well placed for land communications, being on the southern edge of an old alluvial terrace considerably above the highest level of the surrounding rivers in ordinary seasons of inundation. The northern part of the city is on a laetrile terrace, which broadens out northwards. This high ground means that Dhaka has been able to take advantage of transport links in the age of motorised land transport (Chowdhury,2012).

Based on the flood control infrastructure, the city is divided into two parts: Dhaka West and Dhaka East. The Pragati Sarani (old DIT road) divides Atish Dipankar Sarak up to Jatrabari, Atish Dipankar Sarak up to Jatrabari to Demra Ferry Ghat. These roads were raised after the devastating flood of 1988 to perform as road-cum-embankment. The combined area of Dhaka East and Dhaka West is named as Greater Dhaka for its flood protection program (DOE; IUCN 2000). Most of the western part of Dhaka has become urbanized. The eastern part of Dhaka is on the floodplain of the Balu and Sitalakhya Rivers. Though it is a low-lying area, it is on the peripheral areas where quite considerable urban growth has already taken place outside the formal planning process and is likely to become intense in the future (Khan,1997) indicates that 62% of the Greater Dhaka City had been urbanized by 1996. If further flood protection can be achieved, it is likely to accelerate urbanization in Dhaka East. Dhaka's urbanized part mostly lies at an elevation of 6 to 8 m above mean sea level. The land area above 8 m Mean Sea Level (MSL) covers only about 20 sq km the land elevated from 6 to 8 m above M.S.L. covers 75 sq km, while 170 sq km of the area is less than 6 m. As tidal movements can be greater than 6 m this means that a large part of the city could be flooded during the monsoon period. Most of the eastern part of the city is a low-lying area having no peripheral embankment and is thus subject to regular flooding (DOE; IUCN 2000).

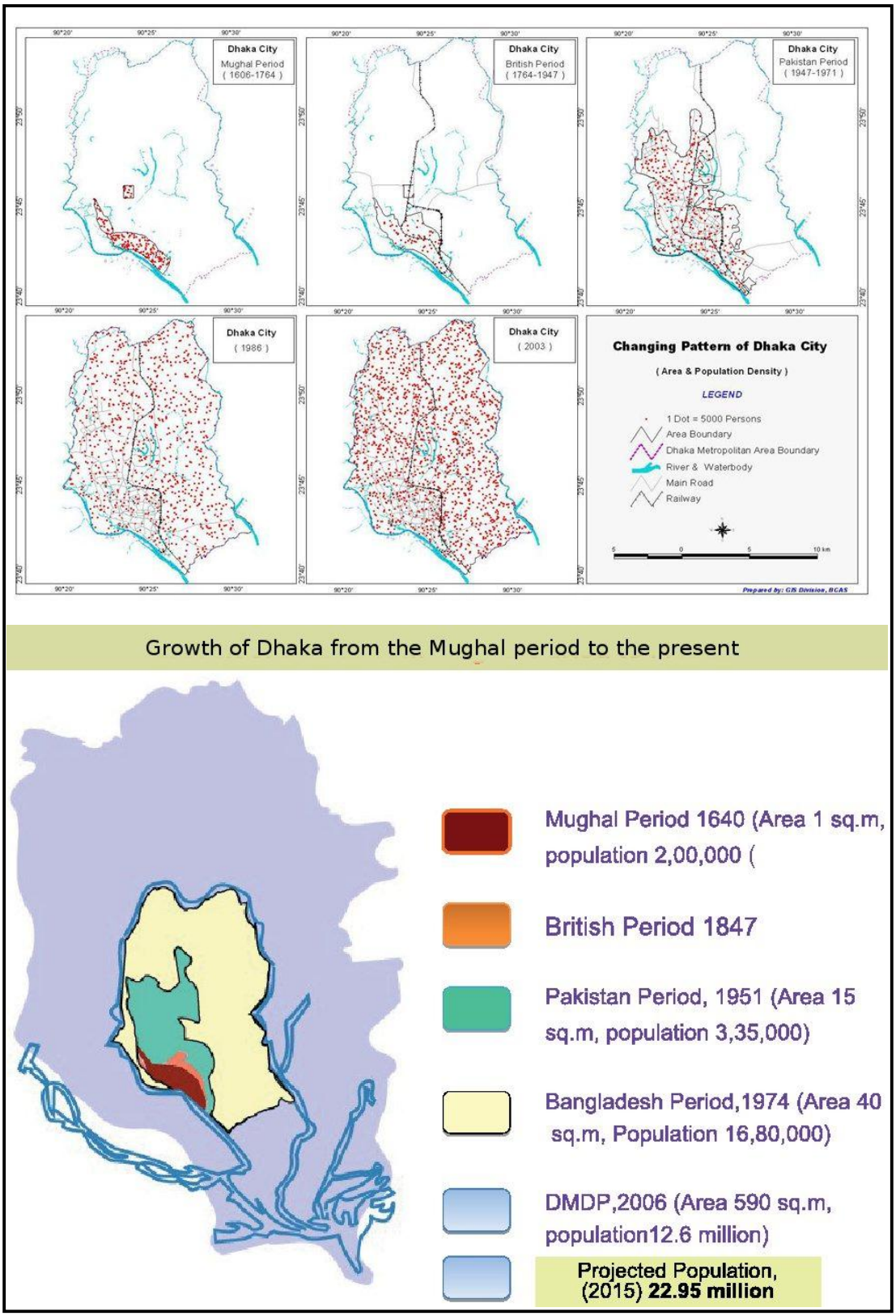
Variations in land levels in the tract bounded by the first ring of rivers have resulted in intermittent development trends in Dhaka. The first urban development took place on relatively higher tracts with an elevation between 6 to 8 meters above sea level. This

land remains above normal flood level and experiences inundation of up to 2 meters during unusual flooding, as was experienced in 1988. Most of this high land within a radius of 15 kilometers of the city centre is already permanently built-up and occupied. However, there are basins of lower level land or water bodies within this high land. Most of these lands have remained undeveloped, although there are portions where development has been made possible by infilling. The second level of land with medium height, typically of 3 to 4 meters above sea level, is susceptible to flooding for short periods annually. Much of these lands still remain outside urban use, but semi-permanent dwellings exist in many areas, mostly because of infilling and the artificial raising of land levels. The third level of land between 1 and 3 meters above sea level is flooded annually. Settlements on such land are few and the land is used mainly for agriculture. Thus the *Desakota* mixture of scattered urban development and agricultural remnants has a strong physical base in Dhaka (Islam,1996).

5.7.2 Physical Growth of Megacity Dhaka

The creation of the sovereign state of Bangladesh in 1971 bestowed on Dhaka the fame and standing of the capital of a country. Thus it became the site for Bangladesh's participation in the global economy which has led to Dhaka's extraordinary growth since 1971 (Map 5.2). The low-lying areas of the eastern side such as Jurain, Goran, Badda, Khilgaon, Rampura, and on the western side areas of Kamrangirchar, Shymoli, and Kallyanpur, came to be developed. Dhaka's growth picked up at a tremendous pace and private initiative played the dominant role in its expansion, as Dhaka became the region's link to the global economy. However, its role as the capital of government has also played a part. The expansion of Dhaka City in the 1950s could be described as dawdling and steady; in the 1960s the speed picked up but in the period after the emergence of Bangladesh in 1971, it could be said to be extraordinary because of its standing as the capital of a new country.

Along with its permanent residents the city has a very large floating population, the pressure of which has resulted in the growth of slums in all possible surroundings, occupying any conceivable vacant land. The recent phenomenon of high rise buildings, both in the commercial and residential sectors, is clearly manifested where the highlands within the city have been occupied; to cope with the ever-increasing pressure Dhaka has started going upwards, an inevitable and common phenomenon in all modern cities with a fast growing population. Dhaka is now on the verge of a change in its urban character, vertical growth taking the place of horizontal expansion as it has filled all the available high land in the bio region (Chowdhury,1991).



Source: DMDP/RAJUK 1995 Modified By: Author,2018

Map 5.3: Growth of Dhaka City from the Mughul period to present

The development of Dhaka has followed the dictation of nature, rather than planned growth. The development of Gulshan, Banani, Baridhhara and Uttara was based on choosing the highlands on the main Dhaka-Tongi axis road and Mirpur on Dhaka-Savar axis road. Dhaka did not expand toward the south beyond Buriganga River, until the construction of bridges over the river Buriganga in the 1980s and 1990s. No serious effort at reclaiming land under a well-planned scheme to give the city a homogenous and cohesive growth is visible. Dhaka has grown on its own, in a haphazard manner and the topography of the area dictated the terms and direction of the growth. Since Dhaka became the capital of an independent sovereign country, the pressure on it has become enormous. The number of permanent inhabitants of the city registered a steady growth from 2 million to 10 million in 30 years (see Table 5.6).

5.7.3 Growth of Population in Megacity Dhaka

In the last 60 years, the population of Dhaka city has increased more than 30 fold, yet the area of the city has only expanded 18 times (Table 5.6). Due to unprecedented urbanization, Dhaka has grown on its own in a haphazard manner and the topography (especially flood proneness) of the area has dictated the direction of growth. The development of Dhaka has been influenced by the rivers and floods which have been accommodated in its spatial plans over the past 50 years. The dynamic nature of river morphology and the lower load bearing capacity of the soil made the construction expensive and uncertain. This is the main reason that Dhaka did not expand` toward the south beyond the Buriganga River until the construction of a bridge in the 1980s and 1990s.

The urban expansion around the city has been restricted by the rivers at its south and by low-lying lands adjacent to the rivers at its west and east, resulting in the city's growth along the northern routes in an irregularly elongated manner. Development intensity is higher in the old and main city reaching its density up to 140,000 persons per km2 (The Louis Berger Group, and B. C. Ltd, 2005). For a city with very few high rise buildings, this density creates very compact development. There is also an acute shortage of available land for development in or around Dhaka. In addition to land scarcity, other reasons for this situation are malfunction in the operation of the land market and the performance of the development control body that is strategically not able to restrict development. The population at the various stages of Dhaka's growth is shown in Table 5.6 and the growth in area of the city in Table 5.7.

Table 5.6: The Population Growth of Mega City Dhaka since 1951

Locality	1951	1961	*1974	1981	1991	2001	2011
Dhaka Megacity	411279	718766	2068353	340147	6487459	9912908	17300000
Dhaka City Corporation	276033	368575	1403259	2475710	3612850	5378023	12800000
Narayanganj Municipality	72517	125792	176459	246515	276549	230294	709000
Kadanrasul Municipality	-	-	-	-	-	126898	
Savar Municipality	-	-	-	-	77216	124885	296851
Tongi Municipality			67420	94580	168702	281928	645000
Gazipur Municipality					96717	123531	
Other Urban Areas	62729	224399	421215	623342	2255425	3647349	

Source: Compiled from Islam, 1996b; Talukder 2006; BBS, 2011;
The Louis Berger Group, I. and B. C. Ltd (2005)
source: Bangladesh Bureau of Statistics, Population Census 2001: Preliminary Report.
*The Population Census in 1971 could not take place due to the liberation war.

Table 5.7: The Area and Population Growth of Megacity Dhaka since 1951

Year	Area in Sq Km	Population
1951	85. 45	411,279
1961	124. 45	718,766
1974	335. 79	2,068,353
1981	509. 62	3,440,147
1991	1352. 87	6,487,459
2001	1530	9, 912 908
2011	1530	17,300,000

BBS: Bangladesh Bureau of Statistics 2011

5.7.4 Different Area Connotations of 'Dhaka City'

First - Dhaka City Corporation (DCC) has a clear administrative boundary and its area can easily be measured. In 2011, the Government of Bangladesh amended the Local Government City (City Corporation) Act 2009, and divided the Dhaka City Corporation into two namely, Dhaka South City Corporation (DSCC) and Dhaka North City Corporation (DNCC).

Second - Dhaka Metropolitan Area (DMA), the area defined by police administration for the maintenance of law and order. DMA is only slightly larger than the DCC area. DMA consists of 14 sub-units known as Thanas (lowest tier of police administration served by a Police Station) with an average size of 10 sq km ranging from 3 to 37 sq km and population ranging from 130,000 to 750,000.

Third - Dhaka Statistical Metropolitan Area (DSMA), which in 1991 had an area of 1353 sq km. The population of Dhaka Statistical Metropolitan Area (DSMA) in the 2001 Census was 17,300,000 (BBS 2011). It comprises Dhaka South City Corporation (DSCC), Dhaka North City Corporation (DNCC) and the entire Narayanganj Sadar, Bandar, Keraniganj, Savar, Tongi and Gazipur Sadar Thanas (BBS: Bangladesh Census 1991). Bangladesh Bureau of Statistics (BBS) stated in Census Report (2001) that Dhaka is the only Megacity of Bangladesh and referred to this concept of the city.

Fourth – The Capital Development Authority (or Rajdhani Unnayan Kartripakkha, RAJUK) area, which is in fact the planning area of RAJUK. The planning area of RAJUK is larger than both DCC and DSMA. The present planning area of RAJUK covers nearly 1530 sq km (590 sq miles) (DMDP 1995). Within the area of RAJUK there are two City Corporation (Narayangonj and Gazipur) and three municipalities (Savar, Tarabo & Kadamrasul) apart DSCC and DNCC. RAJUK also encompasses rural areas administered by Union Parishads (lowest tier local government unit in rural areas) in the three administrative districts- Dhaka, Narayanganj and Gazipur (GOB 1996, p.101).

The Extended Metropolitan Region (EMR) of Dhaka is similar to the area of RAJUK. This covers nearly 1530 sq km (BBS, 1994) and includes a larger urbanized area adjoining the core city of Dhaka; with the surrounding city and municipalities along with the peripheral Desakota settlements the city had a population of 9.9 million in 2001. The area has been recognized by the Dhaka Metropolitan Development Plan (DMDP) of 1995-2015. It is only a step to recognition of an area for planning purposes.

5.8 The Process of Urbanization In Bangladesh

There are several causes of rapid urbanization in Bangladesh of which the following could be considered as more significant:

- ✓ The natural increase of population growth and re - definition of urban areas i.e. physical and spatial expansion, are major causes of rapid urban population growth.
- ✓ Poverty and poor economic conditions in the rural areas causing immigration to urban area are also responsible for rapid growth of urbanization in Bangladesh.

- ✓ Increasing industrialization after the independence causing private and public investment that creates employment opportunities.
- ✓ The villagers have started to migrate in the urban areas especially in the big cities, like the capital city Dhaka, divisional cities Chittagong, Khulna, Rajshahi, and other urban areas for employment, better health care, higher education and other urban amenities.
- ✓ There is a regional variation in terms of employment opportunities, educational facilities and other opportunities due to which people migrate from one region to another region.
- ✓ Per capita agricultural land available in the rural areas of the country is not sufficient to earn livelihood, and the huge unabsorbed agricultural labor force are coming up to the urban areas for searching employment. Table 5.3 shows the components of population growth in major cities in Bangladesh from 1961 - 1991.

Table 5.8: Numerical Distribution of Population by Economic Category in Intercensal Years with Employed and Unemployed Labor Force in Bangladesh, 1961-1991

Heads	Population (Both Sex) in million			
	1961	1974	1981	1991
Total Population	2.6	6.3	13.2	20.9
Population below 10 years	0.8	1.9	3.7	5.8
Population below 10 years and above	1.8	4.4	9.5	15.1
Economically Active	0.9	2.0	4.1	7.0 (10.9)
Civilian labor force	0.9	2.0	4.1	6.7 (10.3)
a) Employed	0.9	1.9	4.1	6.7 (10.6)
b) Unemployed	-	0.1	-	0.3 (1.4)
Economically not active	0.9	2.4	5.5	8.1 (4.9)
Not in civilian labor force				0.3
a) Housewives/Household Work	0.5	1.2	2.7	4.6 (4.8)
b) Inactive	0.4	1.2	2.8	1.3 (1.3)

Source: Population census. 1991, Urban Area Report, 1997.

From Table 5.8 it is observed that, the total population of the country has increased by 703.8% during the period of 1961-1991, while the employed persons have increased by 644.4%. These figures were 142.3% and 111.1% in 1974, 109.5% and 115.8% in 1981 and 85.3% and 63.4% in 1991 according to the census. Due to employment opportunities in urban sector, the surplus of labor force from the agricultural sector is adding to the urban sector and being illiterate and unskilled, they mostly get employment

in the informal sectors like construction, transportation and only a few in government formal sectors. However, unemployment and underemployment is also a common picture.

In Bangladesh, natural hazards like riverbank erosion, cyclone, tornadoes, tidal surges, droughts and floods are common scenario which have strong regional push factor that attracts people from rural to the urban areas. Better transportation linkage of urban centers with the rural areas is another positive factor for shifting people from rural to urban areas. For example, Dhaka, the capital city, is enjoying all the major pull advantages e.g. size, diversified economic and employment base, central location within the country and easy accessibility from all parts of the country. Mainly, the people from the poverty stricken districts of the north, south, and south-east regions of the country generally migrate to the capital city.

According to various surveys, landlessness and poverty, unemployment and economic crisis, lack of earning options, business, and environmental factors such as riverbank erosion and personal or family reasons i.e. loss of husband and family fund are the main causes of rural-urban migration.

Newly designated urban areas play an important role in urbanization. At the time of rapid urbanization, a huge number of low-income people build their houses outside the boundary of the towns and cities and when these areas are included as a part of the main city, total number of urban population increases and there is a strong effect on the growth of urban population.

5.9 Consequences of Rapid Urbanization

i) Due to rapid increase of population in the urban area, direct pressure is visible on the housing sector. As the poor cannot afford the average rent of the houses, they shift from central area to urban fringe area in substandard houses and they build their houses in the government owned vacant land, roadside spaces, and privately owned vacant land and create slums and squatter settlements.

ii) The density of population in the slums and squatter settlements is very high which create environmental problems. Transport is another big problem. The general passenger moves from one place to another by rickshaws due to which unauthorized rickshaws are gradually increasing. Due to unplanned road system, poor traffic and road transport management system the citizen suffers from traffic jams.

iii) Due to rapid increase of urban population, labor force is also increasing rapidly, and as a result, unemployment and underemployment is a common feature. Thus a section of the urban low income group of people both male and female is unemployed.

iv)The slums and squatters settlements do not have health and sanitary facilities and the health condition of the dwellers is extremely poor, especially the children and female members who are suffering from diarrhea, respiratory tract infections, fever and various other diseases.

v) Due to continuous in-migration of the illiterate rural poor, the total numbers of the urban illiterate shave gone up, and demand of educational institutions have increased and as a result, all existing educational institutions have become overcrowded.

vi) The utility services like sanitation, sewerage, drainage, water supply, garbage disposal etc. are highly unsatisfactory in most of the low income settlements. Although in big cities of the country garbage collection and disposal system prevails but the effort is not sufficient.

5.10 Rapid Urbanization and Need for Planning Intervention

Urbanization is an inevitable circumstance which has both positive and adverse impacts. As adverse impacts, poverty, gross inequality, high unemployment, under employment, overcrowded housing, proliferation of slums and squatter settlements, deteriorating environmental conditions, inadequate supply of drinking water, high incidence of diseases, overcrowding in schools and hospitals, overloading in public transport, increasing traffic jam, road accidents, violence, crimes and social tension etc. are the common features in our country.

In a rapidly urbanizing situation, physical expansion of urban areas cannot cope with the population increase. Urban land is a valuable asset and day by day land shortage is getting acute. Thus every parcel of land should be used in a planned manner and its optimum utilization must be ensured.

The secondary towns of the country are growing without any physical and development plan. Small scale industries are also developing in many of these secondary cities and market places. Only four metropolitan cities of the country, Dhaka, Chittagong, Khulna and Rajshahi, have development authorities and their own master plan, but with the

changing scenario the traditional approach of master plan is not effective for planned development.

Urban local government should be strengthened with appropriate power, resources, and technical capabilities, so that they can take responsibilities for a wide range of planning, infrastructure provision and essential household delivery functions.

5.11 Conclusion

This chapter has broadly focused on the trend and pattern of the level of urbanity in different urban centers in Bangladesh special focus on Dhaka city by using census data. The findings of this chapter show that over the decades, Bangladesh has experienced a significant level of urbanization in terms of the proportion of population living in the urban area and the growth of urban centers. Only 8.78 percent of the total population was living in urban area in 1974 which has increased to 28 percent in 2011. Over the period, the number of urban centers has increased as well. There were 108 urban centers in 1974, which increased to 506 in 2011. The number of urban further increased to 532 in 2001 but due to definitional change the number reduced to 506 in 2011.

The number of urban centers increased over time but the pressure on the primate city which is Dhaka has not been reduced; rather increased steadily. It shows that gap between primate city and other cities in terms of the population size are increasing over time. The next chapter thus discusses on the urban planning practices in Bangladesh to investigate the outcomes in the practices of urban planning, which is assumed to have influences on urban development control.

CHAPTER SIX
URBAN PLANNING PRACTICES IN BANGLADESH

6.1 Introduction

Urban planning is used to indicate the arrangement of various components of an urban area, in such a way that the town as such attains the significance of a living organism, and helps in achieving the best possible advantages of the town with respect to its land and the surrounding environment. Its success is dependent on, converting the town from an inert and lifeless object to a complex organic body that pulses with life, and carries out its activities in a normal way like a living organism including beauty, convenience and health (Rangawala,2005)

6.2 Urban Planning During British Colonial Period (Before 1947)

The urban planning practice holds a position of special significance in Bangladesh. The practice of urban planning has started relatively late and has been progressing rather slowly up to the present time. It is because, in the early 19th Century, the urban planning practice had been developing rapidly in several countries of the world, especially in the UK and the USA, and this sub-continent was under the British Colonial Rule at that time.

Sir Patrick Geddes visited Dhaka in 1917 and he threw light on the preparation of an urban plan for the city of Dhaka, a provincial capital, which include his idea and thoughts on the urban planning practice as a whole in the region. He also came out with some new ideas on Regional Planning and prepared a Master Plan for the city of Dhaka, which however, remained on paper only (Mahmud, 2007).

Afterwards, as a consequence of the movement for Local Self Government in India, the Self-Government Act of 1935 of India was enacted (Nuruzzaman,2015). This act laid down a foundation for decentralized efforts in planning and development in the East Bengal. In that period, some attention was paid towards development activities associated with some type of planning and a few development projects were undertaken in this part (East Bengal) of the Sub-continent.

6.3 Urban Planning During Pakistan Period (1947-1971)

After the partition in 1947, a system of planning including planning of urban component was introduced in Pakistan. In 1948, a planning department was created in the-then East Pakistan and a skeleton re-planning scheme for Dhaka city was prepared.

At the central level, the Planning Commission, with the responsibility of looking after planning and policymaking was formed as an agency of government. The provincial planning activities were looked after by an organization known as the Provincial Planning

Authority. However the Provincial Planning Authority was not so effective due to the domination of Central Planning Commission.

During this period, development plans in the form of Five Year Plan document and Annual Development Plan (ADP) were prepared and implemented. On the other hand, urban planning or physical planning and regional development planning did not receive due attention. However, the principal cities like Dhaka, Chittagong, Khulna and Rajshahi needed priority attention due to influx of huge number of immigrant refugees from India and the added extra pressure on development. To meet the new situation, different local development institutions for urban planning and development control were created and a number of legislations were enacted. Under this initiative the following achievements were made:

- ✓ The Town Improvement Act of 1953 (TI Act) was passed to develop the provincial towns and the capital city of the East Pakistan (presently Bangladesh);
- ✓ The Dhaka Improvement Trust (DIT) was established in 1956 with responsibilities for looking after planned development of the city and to meet its transportation, housing and environmental needs and exercise development control to check haphazard constructions through approval of building layout plans within its jurisdiction;
- ✓ Chittagong Development Authority (CDA) Ordinance of 1959, and Khulna Development Authority(KDA) Ordinance of 1961 were enacted, but Rajshahi did not come into consideration;
- ✓ During the mid1960's, initiative was taken for future development. A project titled "Preparation of Nation Physical Plan" financed by UNDP and UNCHS, was undertaken by the Urban Development Directorate (UDD) with foreign technical assistance to prepare National Land Use Plan, but the project could not be completed due to various reasons and only a number of components such as urban land-use policy, study on urban institutional structure etc. were completed through the assistance of foreign consultants;
- ✓ Under the National Planning Project for strengthening institutions of the country, four regional planning offices at Chittagong, Khulna, Rajshahi, and Sylhet were created and these offices were proposed to be operated by qualified urban planners;
- ✓ These steps for expanding and strengthening urban planning practice in the country were frustrated by apparently internal conflict and in pursuance of

self-interest in place of national interest. As a consequence, urban planning practice faced a great setback;

- ✓ Three development plans under the style of Master Plan of the cities of Dhaka in 1959, and Chittagong and Khulna in 1961 were prepared with foreign technical assistance under the Colombo Plan. These plans embodied in themselves as the zonal land use plan;

A Trust was established for Dhaka supported by an Advisory Board of Trustees which consisted of the representative bodies of Dhaka and Narayanganj, public service providing bodies, Architecture and Planning Faculty of BUET, representatives of the Chambers of Trade and Commerce and some elite civil society personnel; and

The main objectives of DIT Master Plan Project included planned development of Dhaka with three aspects;

- ✓ Preparation and implementation of a Master Plan for Dhaka;
- ✓ Introduction of a set of development control system with utilization and application of the provisions of Building Construction Act, 1952; and
- ✓ Initiation of development work including land development projects with sites and services and construction of residential building for public housing, construction of roads and other development infrastructure and urban utility services.

Soon after establishment of the Trust, many members and official personnel of it fell into corrupt practices and the Trust became a bad reputed organization to the central government of Pakistan. As a result, the organization was infested with widespread malpractices and the main objective of achieving planned development of the city remained unfulfilled. The situation was almost similar in other two cities of Chittagong and Khulna. These are the reasons why the planning practices in the East Pakistan (presently Bangladesh) could not be developed.

6.4 Urban Planning During Post Liberation Period

After liberation in 1971, Bangladesh came into existence in the world map as an independent and sovereign state. It was difficult to manage the adequate supply of food grains of its huge number of population. As an industrial backward country, agriculture was the principal field of occupation and a significant portion of GDP used to be generated from the agricultural sector. Rebuild the broken infrastructure both in urban and rural areas, become a huge challenge for the newly emerged nation. In this situation, it was very difficult to give attention to improve cities and towns particularly preparation of master plan, land use plan, and the detail area plan for the towns and

cities. With this shortcomings and resource constraints, some planning activities were however carried out although these were neither remarkable and nor impressive.

- ✓ In the year 1976, Rajshahi Development Authority (RDA) was established and a development plan in the form of master plan was prepared in the year 1976;
- ✓ To develop the secondary towns in a planned manner, Paurashava Ordinance was passed in1977, and the Paurashava authorities were given the responsibility to prepare master plan and development plan and to exercise building control within the jurisdiction of Paurashava;
- ✓ The master plans prepared for the four big cities in the country aimed at attainment of planned development but the proposals of such plans were not implemented properly. As a result, these big cities were growing in an unplanned way;
- ✓ After liberation of 1971, a large number of rural people migrated from rural areas to urban areas. In the big cities especially in Dhaka, huge numbers of slums and squatter's settlements were developed. As a result, additional pressure was exerted of housing and physical infrastructure
- ✓ There was provision of review and revision of master plans in every five years which were prepared for the planned development of the big cities to accommodate changes of socioeconomic situation. But none of these planning documents was reviewed and updated;
- ✓ After the DIT Master Plan, 1959 another strategic plan was prepared for Dhaka in 1981 under the 'Dhaka Metropolitan Area Integrated Urban Development Project' (DMAIUDP);
- ✓ Finally, in 1991 another project was undertaken with the purpose of preparation of Structure Plan, Urban Area Plan and Detail Area Plan. The last one is very important for dealing with unplanned development, proliferation of unauthorized construction within the cities, towns and other urban areas. Other planning proposals made in the plan with respect to future development strategy and urban area planning could not be implemented due to lack of initiatives and political commitment;
- ✓ Apart from the above condition in the field of urban planning, some other initiatives came up. For example, in the early 80's Upazila system was introduced and 460 upazilas were established. Master Plan/Land Use Plan for all these upazila and district headquarters were prepared by UDD. By this time, structure plan for Chittagong Metropolitan Area and Khulna Metropolitan

Area were completed and with the own resource of the government, master plan of Rajshahi was also completed; and

- ✓ At present, preparations of twenty two detailed area plans for Dhaka Metropolitan Area are progressing. On the other hand, upazila master plans prepared during 80's have become outdated in the context of present situation. The LGED also prepared some master plans for Zila and Paurashava towns. But because of absence of any legal basis such master plans were not followed or implemented by concerned authorities.

6.5 Current Urban Planning Practice in Bangladesh

6.5.1 Urban Plan Preparation and Implementation Mechanism in Bangladesh

There is no special Ministry or Division directly responsible for urban planning and management in Bangladesh (Chowdhury,1980). Mainly two Ministries are largely responsible for urban administration -Local Government Division (LGD) of Ministry of Local Government, Rural Development and Cooperatives(MLGRD&C) and the Ministry of Housing and Public Works (MHPW).

Planning Commission is responsible for preparing sectoral plan with financial allocation. At the national level, Urban Development Directorate (UDD) is responsible to assist government in formulation of policies on urbanization and urban development, and support municipalities in preparing urban area master plan.-

At the local level, Paurashava are responsible to prepare and implement master plan. On the other hand, there are some special organizations which contribute in urban management, especially at the metropolitan level such as - WASA, DESA, Titas Gas, BRTA, BT&TB, etc. But little coordination is exists among these organizations. Coordination of urban administration of civic services and planning activities are done at the national level by the Planning Commission (Chowdhury,1980).

6.5.2 Urban Planning At Policy Level

National policy planning generally suggests the setting up of the planning procedure at the highest policy level and it takes into consideration the potentialities in various fields of the nation as a whole. Basically available resources of a nation are allocated and planned to be utilized in the best possible manner. In Bangladesh, Five Year Plan serves as an illustration of national planning which is again divided into Annual Development Plan (ADP), and is visualized in different ways i.e.

- ✓ development of the nation in terms of its administrative and political system;
- ✓ development of its various levels in a hierarchic order either from top level to bottom level or from local level to national level;

- ✓ development of various economic sectors such as agriculture, fishing, physical planning, water supply, housing, etc.;
- ✓ development of various social sectors such as education, health and family planning, employment, recreation etc.

Most of the developing nations have accepted national economic planning as a means of accelerating the pace of socio-economic development, and as a developing country, Bangladesh is also following the same approach. In this approach, the Cabinet is the supreme and final authority to approve all kinds of policy including economic policy and planning.

The Planning Commission acts as the coordinating body in all matters concerning development planning and economic policy making of the country. Using a standard structured pro-forma and detailed interaction with government functionaries, sectoral needs and issues are prepared. For convenience of administration, the whole development activities of the country are divided into several sectors and according to priorities, annual development funds are allocated. At the highest national policy level, there is no separate “Urban Sector” in Bangladesh.

The planning of human settlement development including preparation of master plan, land use plan for the urban areas form a part of combined broad-based policy framework , where the planning and policymaking agencies of relevant Ministries and departments are involved and no separate treatment is given to the urban issues. As a result inter - urban and intra-urban inequality and other problems are outcome of such sectoral approach. On the other hand, multiplicity of several authorities has given rise to critical problems of coordination, wastage of resources, inefficient services and public inconvenience. At present as many as 36 different Ministries, agencies and departments and are directly and indirectly involved in the process of formulation and implementation of urban planning activities, where overlapping of functions are observed.

Although urban sector is vitally important sector and contributing more than 60% to the national GDP, but this sector does not have any separate identity. This sector could not draw attention to the highest decision making bodies. Urban population and urbanization is growing fast specially after the independence in 1971, and due to lack of proper attention and resource allocation for planned urban development, the urban problems are growing which created complex problems in terms of planning, implementation and sustainable urban development.

At the highest level, i.e. at the national policy making level, urban sector is recognized only as a part of social sector. It is not treated as an independent sector like agriculture,

industries etc. While cities and towns are the engine of rural as well as urban development but unfortunately at the national level urban sector is yet to be established as an independent sector of Bangladesh.

On the other hand, virtually no land use plan or physical plan was prepared for the rural areas of the country and the development work is undertaken and implemented without any integrated effort. Ministries or Divisions for the physical planning, water supply and housing sector cover a lot of activities but coordination among them is almost absent (Islam,1996).

6.5.3 Urban Planning at National Level

Generally an urban center is surrounded by rural areas and an integrated national planning is necessary for proper functioning of the towns and cities. For this purpose, surrounding villages should be linked up with suitable transportation facilities in an. integrated manner for achieving proper and balanced development of rural and urban areas of the country. It should be kept in mind that, in order to achieve balanced development of a country, urban and rural planning are complementary to each other and cannot be treated as two independent and separate entities.

But in case of Bangladesh, under the existing system for planning and management of urban centers, at the national level, a single agency is not responsible but it is a function of multiple organizations. Ministry of Housing and Public Works and the Ministry of Local Government Rural Development and Cooperatives are directly involved in urban planning and management of the country. UDD is responsible to assist government in formulation of policies on urbanization and preparation of master plans where development authority is absent.

In the backdrop of a rapid urbanization associated with population increase and economic development in the early sixties, it was keenly felt that a regional and central planning office was necessary. Accordingly, UDD was created in 1965 which is mainly responsible to assist government in formulation of policies on urbanization and preparation of master plans where development authority does not exist (First Five Year Plan. 1973-1978).

The functions for which UDD is responsible are mentioned below:

- ✓ To advise the Government on matters of policy relating urbanization, land use and land development;
- ✓ To prepare regional plans, master plans and detailed layout and site plans for the existing as well as the new urban centers excluding the areas covered by the

present urban development authorities of Dhaka, Chittagong, Khulna and Rajshahi.

- ✓ To undertake socio-economic research and collection of data for determination of the location.
- ✓ To prepare programs for urban development for execution by the sectoral agencies and secure approval of those from the National Council and assist the agencies in selection of sites for implementation of those programs;
- ✓ To act as a counterpart organization of the Government for all internationally aided physical planning and human settlement programs in the county;
- ✓ To organize seminar/workshops for creating better physical planning - awareness and to disseminate information through regular publication of the research materials on urbanization, human settlement, planning and development;
- ✓ To conduct in-service training of the officers and staff of organizations involved in spatial planning and development; and
- ✓ To advise the existing urban development authorities on their operations if they ask for it.

According to charter of duties UDD was given mandate to assist government in formulating policies on urbanization and urban development, support municipalities by preparing urban area master plans, conduct research and also perform related activities. But at present, it has become a week organization that cannot perform its standard very role for the planned development of urban areas for which it was created. Even the top management i.e. respective Ministry under which UDD is working does not have clear idea and background about the creation of this organization. As there is no parallel organization of UDD, the urban centers are growing in an unplanned manner and the urban environment of the country is deteriorating rapidly.

Bangladesh National Physical Planning Project was undertaken during the second and third Five Year Plan period during 1980s through the Urban Development Directorate with the support and finance from UNDP and UNCHS. The project has made analysis of the urbanization situation and projection on future urbanization trends but after partial implementation of phase I & II, the project was dropped. Under this project four regional offices were established at Chittagong, Khulna, Rajshahi, and Sylhet under qualified urban and regional planners but due to the financial problem these regional offices were closed (Alam, et.al, 2013).

Other than the UDD, there are some other national level agencies that provide services to the metropolitan areas, and in other urban centers. These are the National Housing Authority (NHA), Public Works Department (PWD) under the Ministry of Housing and

Works, the Department of Public Health Engineering (DPHE), under the Ministry of Local Government, Rural Development and Cooperatives, The Roads and Highways Department, under the Ministry of Communication, the Directorate of Environment under the Ministry of Environment and Forestry, and Power Development Board (PDB), under the Ministry of Energy and Mineral Resources.

6.5.4 Urban Planning at Regional Level

The term regional planning is generally used to include proposals in a region for the distribution of population, industries, transport and communication facilities and other essential services (Rangawala,2005). Urban centers cannot be isolated from its surrounding regions and hence regional planning helps in controlling the growth of major urban centers in the region and it also serves as a link of cooperation and coordination between the areas of the regions.

On the other hand, to reduce the regional disparity and to enhance the balanced development in a country, regional planning is an effective planning procedure. Through applying this planning technique, it is easy to establish economic, political and social integration of all regions within a country and it helps in easy mobility of resources.

The functions of regional planning are performed by the District Councils headed by Deputy Commissioners. The District Council is not an elective body; however, a lot of activities are carried out by these regional authorities (Islam, 1998). Realizing the importance of balanced regional development of the country, the Regional Planning Project (phase-1) of the UDD was approved by the government in1973. Under this project there were proposals to prepare plans for District Regions and Urban Regions. Thana Plan Book of LGED is a particular approach but there is no legislation by the Parliament by which the Thana Plans become the components of a District Plan.

In mid-1970's the government has pursued a new policy of regional development in order to promote socio-economic development activities on region and local basis, particularly in the backward or less developed areas which have not benefited from development programs undertaken by the national agencies. Two types of development boards were created and the first category was of general in nature to address the four administrative divisions that are Dhaka, Chittagong, Rajshahi, and Khulna. The second category of development board was of special in nature and it particularly addressed the need of backward areas. These were Chittagong Hill Tracks Development Board, the off -Shore Development Board, the Haor Development Board and the Barind Development Board which address socio-economic and infrastructure development. But due to lack of proper integrated planning mechanism these organizations could not fully achieve the goals and objectives for which these regional development authorities were established.

Similarly, the national physical planning project was started and operated during the 2nd and 3rd Five Year Plan period through the Urban Development Directorate and worked on the preparation of national physical plan. Under this project 36 master plans were prepared and its main objective was to plan the whole region but ultimately the program was terminated which is another drawback in the field of regional planning processes in Bangladesh.

6.5.5 Urban Planning at Local Level

Basically, the development plan of a city or of a town is prepared by the planning and development authority keeping in view the local condition. The principal objective is proper distribution of population density, distribution of industries, distribution of other various types of commercial functions, distribution of different types of social facilities and utilizing local resources and creating essential amenities for the dweller (Rangawala,2005).

In Bangladesh, the local level comprises all towns and cities of the country and it is a very potential area of the urban sector. According to the national Population Census, 2001, about 11346520 people are living in the Paurashava towns which comprise about 39.67% of the total urban population of the country.

At the local level, Paurashava were created for the planning and management of the local urban areas. By promulgation of the Municipal Administration Ordinance in 1960, the Municipal Administration Committees were formed with a wide range of responsibilities including planning and development, and other activities, such as public health, sanitation, water supply, sewerage disposal, maintenance of public infrastructures and providing amenities to the municipal dwellers.

As a Paurashava was not an elected body, the performance was not satisfactory and could not do anything impressive. After independence, Paurashava Ordinance of 1977 was enacted with the same and similar responsibilities.

Among these local urban centers, the big cities like Dhaka, Chittagong, Khulna and Rajshahi were given the status of metropolitan city for better management, as these cities are significantly large in terms of area, population and functions. Preceded by the enactment of Town Improvement Act 1953, the Dhaka Improvement Trust (DIT) was established in 1956 and it was renamed as Rajdhani Unnayan Kartripakkha (RAJUK) in 1987.Similarly, the Chittagong Development Authority (CDA) was created by an Ordinance promulgated in1957 and Khulna Development Authority (KDA) Ordinance was promulgated in 1961. The Rajshahi Development Authority (RDA) came into existence through the promulgation of RDA Ordinance in 1976.

For the planned development, each of these authorities has their own Master Plan and accordingly their planning and development activities are going on. But in case of implementation of Master Plan, these authorities have various problems. Recently Barisal,Sylhet and Mymensingh Paurashavas have been declared as City Corporations and preparation of their Master Plan is under process.

According to the Paurashava Ordinance, 1977, the Paurashava can prepare Land use/Master plan but the Paurashava are not able to perform the jobs, because they did not have technical personnel and other logistics support to prepare master plan. In the existing staffing pattern, only the 'A' class Paurashava has provision to appoint town planners. In most of the cases the Paurashava authorities could not appoint town planner because of three main reasons, such as:

- ✓ The existing procedure of appointment is cumbersome and after appointment of any officer it is the responsibility of the authority to pay their salary which is considered simply between them.
- ✓ The elected bodies are mainly interested in development works like construction and maintenance of roads, rather than planned development of their towns.

During the 1980's though the UDD prepared land use plan/master plan for 460 Upazila towns, but due to lack of legal status these were not implemented.Similar picture is observed for the Union Parishad (UP) centers and other growth centers of the country. These potential growth centers all over the country are developing in an unplanned manner, although LGED prepared Upazila and Union Parishad Development Plan Books but virtually this very important planning exercise remains on paper only.

Very recently at the local level towns, NGOs and CBOs are implementing some projects to improve the condition of slums and squatters settlements through external financial support of donors, which is also insufficient to meet the demand. Slum improvement activities are also going on in some Paurashavas by the government initiative, but it is quite insufficient for the need.

6.5.6 Metropolitan Planning

The metropolitan areas are defined to include the city -corporations and the adjacent areas having urban characteristics. These cities have some special characteristics i.e. comparatively large in areas, large population size, and with some other special administrative functions.

To manage the big cities of the country in a better way, the government has created four metropolitan planning and development authorities, i.e. RAJUK, CDA, KDA, and RDA for Dhaka, Chittagong, Khulna and Rajshahi respectively. The metropolitan development

authorities have their own master plans and also empowered to prepare and implement development plans in their areas of jurisdiction.

The first metropolitan planning document in the name of Master Plan was prepared by DIT in the year1959 under the Colombo Plan. In accordance with the provisions of the Master plan, development of Dhaka is carried out by taking up actual land development and construction programs and by controlling development through the enforcement of zoning and building construction regulation and preparation of Zonal Plans. Since 1959, RAJUK, has acquired about 4260 acres of land most of which were developed for residential purpose and some of these lands were also developed for industrial, commercial and recreational purposes.

During the 20 year plan period, the Capital Development Authority has not made impressive progress. After preparation of Master Plan, the authority, concentrated their work to acquire land and subdivide and sell to the potential purchasers like a land development organization. It did not give much importance top planning and development control of the city.

The Dhaka Metropolitan Area Integrated Urban Development Project was completed in 1981. Under this project a strategic plan was prepared for Dhaka. This plan was different than traditional master plan concept. The project was undertaken directly by the Planning Commission. The plan set out a long term urban development strategy to guide and regulate the future growth of the Dhaka Metropolitan Area (ADB,2009). In establishing the general principles for physical development within the metropolitan area, the plan took into consideration the demographic and socio-economic changes. A short term development program was also drawn up identifying priority projects and prototype proposals for low income housing schemes. The chief merit of the plan was that, specific projects, conforming to longer range strategy and national sectoral programs, could be designed when appropriate. This plan was appreciated by the segment of professional planners but due to some unknown reasons, the plan was not approved and implemented. The main drawbacks and shortcomings of this plan were :

- ✓ The poor, an important segment of the urban society has not been given due attention.
- ✓ The main target was to provide developed plots to the middle and upper income people of the society.
- ✓ Another important provision of the Master Plan was to review it in every five years. The plan has neither been implemented according to assumptions made, nor been updated to accommodate the physical and social changes occurred later.

- ✓ On the other hand, population forecasting with assumed growth rate was not correct. It was assumed that only 7% would be the annual growth rate but within 1974-1981 census period, the actual growth rate became 9.94 percent.
- ✓ Zonal plan could be prepared for most of the areas and it also failed to enforce the zonal plan which was prepared for Senpara Parbata.
- ✓ The assumptions made in the plan were not correct.
- ✓ The development authority acted as a land development profit seeking private organization and still they are working in the similar way rather than paying attention to the importance in planning and development control of the city.

In 1961, Master Plan was prepared for the Chittagong Development Authority for planned growth and development of Chittagong Metropolitan Area. The plan assumed a population growth rate of 2.25 percent but the actual growth rate was much higher. There was also a provision of review of the master plan in every five years which was not implemented. As a result haphazard and unplanned growth is now found all over the city especially in and around the edges of the city.

In 1961, a master plan was prepared for Khulna Metropolitan City. Recommendations were made in the plan regarding land use, transportation, public utility services planning administration, and implementation. The plan also assumed a modest population growth rate of 2.5 percent per annum during the planning period, which was far exceeded by the actual growth rate. The Master Plan was not enforced in the field properly. As a result congestion and unplanned development occurred. In 1998 Khulna Structure Plan Project was approved and with its own resource and expertise of Bangladesh, the Structure Plan was completed.

Similarly, a Master Plan was prepared for the Rajshahi Metropolitan Region in 1976, but the plan could neither be enforced in the field nor was updated. It caused unplanned development within the metropolitan area. Very recently, a Master Plan/Structure Plan has been prepared by DDC for Rajshahi Metropolitan Region which is under draft form.

The other two City Corporations were established in the year 2002 and still planning and development work is going on according to the previous Master Plan. In the last ADP, allocation has been made for the preparation of Master Plan/Structure Plan for Barisal and Sylhet City Corporation areas.

6.5.7 Paursahava Planning

Paursahava is recognized as local level planning and development institution (Islam et al., 1998). According to the Paursahava Ordinance 1977, the Paursahava authority is given power to prepare a Master Plan for development, expansion, and improvement of

any area within its jurisdiction, and impose restrictions, regulations, and prohibitions with regards to the development of sites, and the erection and re-erection of building (Paursahava Ordinance 1977, clause 95). But due to lack of technical manpower and equipment, no Paursahava authority in the country is capable to prepare a Master Plan, and no Paursahava authority has prepared any Master Plan yet.

In 1982, decentralization of administration program of government started to develop the upazila headquarters in a planned manner. Preparation of Master Plans received importance. The UDD which is a national level planning organization was given the responsibility to prepare Master Plans for upazila headquarters. Under this project, UDD prepared 392 upazila center Master plans. Most of these upazilas now are given the status of Paursahava. The LGED was also given responsibility to prepare 6 upazila shahar plans.

In fact, other than the above program, no additional efforts were made to prepare Paursahava Master Plan. The Paursahava authorities also could not take any initiative to prepare Master Plan/Land use plan or Development plan for planned development of their Paursahava.

Although Paursahava Ordinance, 1977 empowered the Paursahava authority to prepare Master Plan but due to the following limitations they could not perform the job.

- ✓ Only “A” class Paursahava has provision to appoint a town planner.
- ✓ Due to cumbersome procedure, no Paursahava could appoint any town planner.
- ✓ Most of the Paursahava Chairmen do not have any clear idea about planning and its importance.
- ✓ There is no coordinating body to look after the preparation and implementation of Master Plan.
- ✓ The administrative ministry also failed to realize the importance of the preparation of Master plans of Paursahava.

6.5.8 The Existing Planning Process

Systematic planning is not practiced in any of the Paursahava for physical development and urban management. Almost no effort was made to develop the town in a planned and systematic manner. With increasing urban population, complex and tremendous pressure is found on housing and other urban services and infrastructure. UDD had prepared master plans for these Paursahava towns, but these were not utilized because of various reasons mentioned below:

- ✓ To implement the plan Paursahava authorities require enough resources which are not available to them.

- ✓ The plans did not have any legal basis.
- ✓ Although Paurashava have provision to appoint Town Planner, but no Paurashava appointed any town planner.
- ✓ The Paurashava do not have any Town Planning section, and other technical man power to prepare or implement the master plan.
- ✓ The Paurashava Ordinance, 1977 did not lay due emphasis on preparation and implementation of Master Plans. It was included as an optional function.

The facts that emerged from the field visits are:

- ✓ The Paurashava authorities feel the need for professional town planners in the planning process and implementation of the development activities in their towns.
- ✓ They also agreed that the role of town planner is very important, for the proper and planned development of a town, but due to some reasons they have been unable to appoint town planner.
- ✓ The authorities also feel that induction of a town planner can accelerate the process of development.
- ✓ The enlightened inhabitants of the visited towns also feel that to provide proper guidelines for sustainable development and to reflect the hopes and aspirations of people in the development schemes and documents, input of professional urban planner is essential.
- ✓ However, the government policy and lack of financial capacity have prevented the Paurashava authorities to recruit a planner.

6.5.9 Zila and Upazila Planning

At present, all 64 zila headquarters are given the status of Paurashava and there is no separate planning institution to plan the zila headquarters. As a national institute, the Urban Development Directorate has been given the responsibility to prepare master plan for district towns. Under the National Physical Planning Project financed by UNDP /UNCHS, the preparation of development plans of urban centers, other than Dhaka, Chittagong, Khulna and Rajshahi was undertaken during 1980's. One of the objectives of the project was to establish physical planning as a rational way of developing human settlements through the enactment of appropriate planning legislation.

The whole project was divided into two phases. The 1stphase was 1978-1982 and second phase was1982 - 1985. The project was concerned with the formulation of an outline of National Physical Plan preparation for specific regional, settlements and growth centers.

The National Physical Planning Project, phase I and phase II were implemented during the 2nd and 3rdFive Year Plan periods. During phase I, outlines of land use plans of five district towns were prepared. In the second phase, structure plan of five district towns and regional plans of four Upazil as were prepared. This policy implied that all important urban centers should be developed according to official plans. However, this policy was neither adequately complemented nor considered seriously for implementation.

6.6 Agencies Responsible For Urban Planning At Different Level

'Urban Sector' is an important sector and its contribution to GDP is gradually increasing but still it is not being considered as an individual sector in national planning. At the highest policy level, urban area has been placed under the Physical Planning and Housing (PP&H) and Water Supply Division of the Planning Commission. The urban planning related activities are scattered among several Ministries/Divisions and a multiple number of authorities/agencies are involved.

The Ministry of Housing and Public Works, the Ministry of Local Government, Rural Development and Cooperatives are directly responsible for urban management of the country. Ministry of Land. Ministry of Environment and Forests are also important ministries that handle urban and physical planning related issues of the country.

6.6.1 Institutions Responsible At National Level

At the national level, government organizations which are dealing with urban planning affairs are the Physical Planning and Housing (PP&H) and Water Supply Division of the Planning Commission. The Urban Development Directorate (UDD), The Local Government Engineering Department (LGED), the Department of Environment, the Department of Public Health Engineering (DPHE). Bangladesh Road Transport Authority (BRTA) are also involved in urban planning activities in Bangladesh.

6.6.2 Institutions Responsible At Regional Level

There is no urban planning institution at the regional level in Bangladesh. Since the mid 1970's , the government has pursued a new policy of regional development , in order to promote socio – economic development activities on regional and local basis and two types of regional authorities/boards were created. These special boards were created to assist the backward and less developed areas in the country which were not benefited from the development programs undertaken by the national development agencies.

The second types of organizations were the Haor Development Board of Sylhet, established to undertake suitable development programs for improvement of socio-economic activities of this particular region. For regional development this organization will explore appropriate potentialities of the region.

Similarly, to address the socio- economic backwardness of the Chittagong Hill Tracts, the Chittagong Hill Tracts Development Board was created. The main responsibility of the Board is to prepare suitable projects considering the local potentialities.

The Barind Development Board and the Off -Shore Development Board were also created with similar objectives to address the need of backward areas. These Boards prepared and implemented development projects to improve the socio-economic conditions and infrastructure of the area.

6.6.3 Institutions Responsible At Local Levels

Planning and Development Institutions at the local level can be divided into the following way:

- ✓ institutions that are responsible for planning and development of the metropolitan cities
- ✓ institutions that are responsible for planning and development at the Paurashava level.

The Rajdhani Unnayan Kartripakkha (RAJUK), Chittagong Development Authority (CDA), Khulna Development Authority (KDA), and Rajshahi Development Authority (RDA) are responsible for planning and development of respective metropolitan cities. These organizations deal with certain aspects of urban development problems of their respective city i.e. preparation of land use plan, detail area plan and enforcement of town development regulations to control unplanned development. There is no city development authority for the two newly created City Corporations e.g. Barisal and Sylhet.

At the local Level, Paurashava is the basic planning and development authority. Through the Paurashava Ordinance, 1977, the Paurashava authorities were empowered to prepare Master Plan, implement development schemes and exercise building control. To do the planning jobs, a post of town planner was also created for the “A" class Paurashava only. But no Paurashava has appointed any town planner for preparation and implementation of the master plan. Due to lack of town planner, technical manpower, and other related facilities no Paurashava of the country has even the minimum capacity to prepare and implement the master plan.

The UDD, a national level planning organization was created in 1965, with the responsibility to prepare master plan/land use plan for the cities and towns where city development authority is absent. This organization was given the mandate to assist the government in formulating policies on urbanization and provide urban development support to municipalities in preparing urban master plans.

6.7 Urban Administrative Structure and Special Purpose Agencies

Municipal government is the primary organ of the urban administration in Bangladesh. However, there are some special purpose authorities to meet the growing demand of certain urban services. The existing urban administrative structure in Bangladesh is as follows:

6.7.1 Urban Administrative Structure in Bangladesh

A. Municipal Local Government Units

- ✓ City Corporation
- ✓ Paurashava
- ✓ Cantonment Board

B. Special Development Authorities

- ✓ Rajdhani Unnayan Kartipakkha (RAJUK)
- ✓ Chittagong Development Authority (CDA)
- ✓ Khulna Development Authority (KDA)
- ✓ Rajshahi Development Authority (RDA)
- ✓ Cox's bazar Development Authority (Cox DA)

C. Special Purpose Authority

- ✓ Bangladesh Road Transport Authority (BRTA),
- ✓ Dhaka Water Supply and Sewerage Authority (DWASA)
- ✓ Chittagong Water Supply and Sewerage Authority (CWASA)
- ✓ House Building Finance Corporation HBFC)
- ✓ Dhaka Electricity Supply Authority (DESA)

D. Special Government Bodies

- ✓ Public Works Department (PWD)
- ✓ National Housing Authority (NHA)
- ✓ Urban Development Directorate (UDD)
- ✓ Department of Public Health Engineering (DPHE)
- ✓ Local Government Engineering Department (LGED)
- ✓ Department of Environment (DOE)

6.7.2 Special Purpose Agencies

Municipal government is responsible for planning and development of their respective cities. There are also some special purpose agencies that provide special services to the city dwellers. These are Water Supply and Sewerage Authority, Electricity Supply Authority, Road Transport Authority, etc. There are two water and sewerage authorities

i.e. DWASA and CWASA presently working in two metropolitan cities of Dhaka and Chittagong respectively. DWASA was created by the East Pakistan Ordinance No. XIX of 1963. Under the Ordinance the main responsibilities of DWASA are, (i) construction, operation and maintenance of water treatment plants, water abstraction facilities and water distribution system for providing drinking water to public , industries and commercial organizations, (ii) Development , operation, and maintenance of sewerage systems and sewage treatment plants , (iii) Development , operation and maintenance of storm drainage system to remove water- logging, (iv) Collection and disposal of solid waste.

The main function of BRTA is to administer the Motor Vehicle Ordinance. It administers the regulation and licensing of motor vehicles and routes permits and is also responsible for traffic standards and accident analysis. The authority is responsible for developing new routes and services, licensing bus vehicles, and operating stations for testing vehicles.

Dhaka Electricity Supply Authority is mainly responsible for distribution of power to the residential, commercial and industrial areas.

The gas distribution authority is responsible to distribute gas to the residential, commercial and industrial areas.

Similarly BT&TE: provides telephone connection services to the residential, commercial and industrial areas. The functions of all these organizations are important in urban development.

6.7.3 Weaknesses of Institutional Arrangements

Urban Planning and administration in Bangladeshi are organized by multiple organizations under different Ministries and Divisions and work individually. The involvement of multiple organizations in urban development process results in uncoordinated and overlapping activities. Thus lack of coordination at the level of decision making, planning, implementation and maintenance of services are largely responsible for the growth of various socio-physical problems in the city.

- ✓ At the national level, Urban Development Directorate is empowered to prepare master Plan/Land use plan for all municipalities. This organization has been placed under the Ministry of Works. But Ministry of LGRD&C is the administrative ministry of all municipalities of the country. As a result, serious lacking of coordination is there and implementation of plan is hampered.
- ✓ At the metropolitan and city corporation level, the metropolitan planning and development authority (such as RAJUK) was given responsibilities for preparation

and implementation of master plan and development plans. This planning and development authority is working under the administrative control of the Ministry of Housing and Public Works while the City Corporations placed under the Ministry of LGRD&C. This overlapping of activities of these two organizations is responsible for the creation of serious socio-physical problems in the city. The overlapping of activities causes unplanned development and misuse of resources.

- ✓ The Dhaka Water and Sewerage Authority, Chittagong Water and Sewerage Authority, Bangladesh Power Development Board, Bangladesh Telephone and Telegraph Board were created to provide different types of special services to the city dwellers. But these organizations have been placed under different ministries. In case of decision making, planning and implementation there is no coordination among them which creates inconvenience to the city dwellers.
- ✓ Shortcomings of Act: Through this Act of 1932, the municipal authority was empowered to prepare land use plans and development projects for planned development of towns. The town administrative authority was not an elected body, and participation of civic society was absent.

6.8 Major Planning Related Laws in Bangladesh

6.8.1 The East Bengal Building Construction Act, 1952

Just after independence of Pakistan in 1947. The big cities were growing rapidly in an unplanned manner. At that time there was no other building control regulation existed except the Bengal Municipal Act 1932.Recognizing the situation, Government promulgated The East Bengal Building Construction Ordinance1951, which was later re-enacted as the East Bengal Building Construction Act, 1952. The main featuresof the Act. 1952 were the following:

- ✓ The Act was intended to apply all over the East Pakistan (present Bangladesh);
- ✓ The Act provided power to the authority for the prevention of haphazard construction of building sand excavation of tanks which were observed to have adverse effects on city planning and development;
- ✓ A municipal employee should be appointed as an authorized officer under the East Bengal Building Construction Act, 1952 but he would be responsible to the government;
- ✓ This Act has no planning provision but created the necessity of enactment of the Town Improvement Act of 1953;

- ✓ The 1952 Act was extended to the four big cities of Dhaka, Chittagong, Khulna and Rajshahi;
- ✓ To make any physical changes to land or building, except normal repairs, permission would be required from the authorized officer;
- ✓ The authorized officer had the power to approve, reject or refuse any application or plan for construction;
- ✓ The legal problems cropped up with respect to exercise of power between the Authorized officer and the municipal authority, where an authorized officer was appointed by the government;
- ✓ In case of appeal, government decision was treated as final; and
- ✓ The government was provided the direct control over individual buildings without repealing the Bengal Municipal Act, 1932.

The basic shortcomings of this act are

- ✓ The municipal authority was not given any power to prepare and implement master plan;
- ✓ The authority had development control power, but did not have any power to prepare and implement development scheme.

6.8.2 The Town Improvement Act 1953

The Town Improvement Act, 1953 is the first statute that recognized the need for planning in the country, although planning was not mentioned in the preamble. The following are the main features of the Town Improvement Act of 1953:

- ✓ This Act made provision for zoning in the city;
- ✓ It was designed to create a development agency for Dhaka city;
- ✓ The Act provided power to plan the areas which would be taken for improvement scheme;
- ✓ In this Act, it was an impression that a special agency could implement development activities more efficiently than a local authority like municipality. As a result, Dhaka Improvement Trust(DIT) was established in 1956;
- ✓ The Trust created a Board of Trustees consisting of not more than eleven members who were responsible for development, improvement and expansion of the city of Dhaka and Narayanganj;
- ✓ The Town Improvement Act, 1953 provided the Trust with power of review and veto the building plans which had already been approved by the municipality; and
- ✓ Over all planning of the city was not the aim of this act initially.

The main drawback of this act was that it was just a copy of the Calcutta Improvement Trust Act of 1911 and could not consider many local important issues.

6.8.3 The Town Improvement (Amendment) Ordinance, 1958

- ✓ This amendment to the Act established the DIT as a planning, controlling and developing authority;
- ✓ The DIT was given the responsibility of preparation of Master Plan for the area under its jurisdiction and building controls through the appointment of the authorized officer under EBBC Act from among the staff member of the DIT;
- ✓ The amendment provides DIT with powers to control both public and private developments;
- ✓ The amendment did not repeal the previous requirement of the Chairman's power (of the Trust), of review of the municipal building plan approvals; and
- ✓ The power of the Chairman of DIT to accept or refuse permission for the use of land in the contrary to the provision of zonal plan under the original Town Improvement Act, 1953 remained in effect.

Although, it is the first legal document which empowered the town development authority to prepare master plan but the highest power was vested to the Chairman of the organization who was appointed from non-planning cadre. As a result, the town planner cannot exercise their professional practice and in many cases the proper development and planning activities were hampered.

6.8.4 The Chittagong Development Authority Ordinance, 1959

- ✓ The Chittagong Development Authority Ordinance was promulgated in 1959; and
- ✓ The Ordinance was provided with power to prepare Master Plan, site development scheme, approval of building plans and development control of the city. The major shortcoming of the ordinance was that the head of the authority was non-planner resulting in strong obstacles for proper planning exercise.

6.8.5 The Municipal Administration Ordinance, 1960

The Municipal Administration Ordinance, basically repealing the previous Bengal Municipal Act of 1932was enacted in, I960, and was valid until the promulgation to Paurashava Ordinance, 1977. The main features of the Ordinance were:

- ✓ This Ordinance was basically a condensed collection of laws from the Bengal Municipal Act,1932;

- ✓ The Act empowered the Municipal Authority on public health, water supply, drainage, trees, park, forests, streets and gardens;
- ✓ The building controls were included in this ordinance;
- ✓ Two more additional chapters, “Town Plan” and “Development Control” were added in the ordinance;
- ✓ The municipal authority was empowered for preparation and execution of water supply and drainage scheme;
- ✓ It empowered the municipal authority with building plan approval;
- ✓ It empowered the authority to prepare development plan of the town; and
- ✓ The authority was empowered to undertake different kinds of development activities.

6.8.6 The Rajshahi Development Authority Ordinance (RDA), 1976

The main functions of RDA are similar to the CDA and KDA. The ordinance provided the authority with power of preparation of Master Plan, undertake site development schemes and approve building plans.

6.8.7 The Paurashava Ordinance, 1977

The Paurashava Ordinance, 1977 enabled the Paurashava authority to exercise similar power and functions which were given by the Municipal Administration Ordinance, 1960. In case of Town Plan Building Control, the Paurashava Ordinance of 1977 gave power to the municipal authorities to prepare master plan and site development schemes.

6.8.8 Major Weaknesses in Planning Related Laws In Bangladesh And Their Reforms

There is existence of a number of legal provisions for urban planning and building control in Bangladesh. For proper planning and building control such provisions are inadequate and weak to implement and guide the planning activities, practically in the field level. Due to rapid urbanization, the big cities of Bangladesh are overwhelmed by the presence of slums and squatters. But there is no slums and squatters settlements improvement or upgrading clause in these planning laws. To tackle the existing situation there is need for formulation of appropriate legislation or amend the existing one. The main weaknesses in the planning laws and legislation are highlighted below:

- ✓ The existing statute is not easy to understand. The main objective of planning law is to provide rules of society to govern the private property rights in the interest of the community, which needs the statutory system to be precise and more clear;

- ✓ In the administrative machinery of Bangladesh, there is lacking of trained manpower. Therefore, a relatively simple planning law should be introduced to provide the planning and development activities;
- ✓ Sometimes similar powers have been provided to the different agencies in same urban area, which create problems to implement the planning and development programme;
- ✓ There is no independent planning section/department in the planning bodies to prepare and implement the master plan and development project; and
- ✓ Paurashava ordinance empowered the Paurashava authority to prepare and implement the master plan but the authority cannot do the job, due to lack of Town Planner and other technical manpower in the organization.

6.9 Conclusion

Urban Planning practices in Bangladesh continue in a decentralized and uncoordinated manner. At present several ministries, divisions, agencies and organizations are involved in urban planning and urban development activities of the country. Lack of suitable system of urban planning with institutions at different levels is standing as a constraint to planned development of urban areas in Bangladesh. Different levels of urban local government units exist within the urban sector in a decentralized framework but lack of coordination and linkage make the urban sector inefficient and ineffective. Involvement of planning profession in the decision-making for systematic functioning of planned development and efficient functioning of the urban sector is almost non-existent in Bangladesh. There exist serious inconsistencies in the legal basis of urban governance especially of the Paurashava in Bangladesh.

Traditional formalist type of master plan is still in practice in Bangladesh and in most of the cases unsuccessful in implementation because of the following reasons:

- over-ambitious,
- lack proper legal and administrative framework,
- inadequate technical skills and financial resources,
- Unrealistic assumptions, emanating from the foreign base,
- lack of participation by the people in the planning process,
- lack of coordination between planning and financing agencies,
- Shortage of trained personnel.

To overcome the existing problems, proper urban policy is required for empowering the urban local government institutions. The fragmental decision making process currently being practices at the national level should be brought to single umbrella organization for effective role playing for urban planning and development control at various units of local government.

CHAPTER SEVEN

DEVELOPMENT CONTROL MECHANISM PRACTICES BY URBAN LOCAL GOVERNMENT ORGANIZATIONS IN BANGLADESH

7.1 Introduction

Local governance is given a high priority in Bangladesh. At present, there are 5428 elected local government institutions (LGI) with around 60,000 elected councilors. These include 4542 Union Parishads (UP), 487 Upazila Parishads (UZP), 327 Paurashava (municipalities) and 11 City corporations. Union and Upazila parishads, usually seen as rural local governments, are independent tiers. Paurashava and City corporations, seen as urban local governments, are not independent tiers but represent urban centres of smaller and larger sizes respectively. This chapter covers the analysis and discussion of the data that answer the research questions and objectives presented in the chapter one. In this analysis, development control shall consists of both the making of development plans and the practice of controlling physical development by local authorities through development plans and granting or refusing of planning permission.

7.2 Legislative Requirement

Development control mechanism of an urban area ranges from control of building construction, land use change, control on use of natural resources to control of investment size and nature. But at present, development control, in Paurashava and City Corporation level is limited to control of building construction only. Absence of planning setup and urban Planner in most Paurashava towns is the main factor behind this ineffective and limited form of development control.

There are few legal instruments exists in Bangladesh to control development. With the promulgation of Local Government (Paurashava) Act 2009, some of the development control issues at local government level have been tried to address.

In Local Government (Paurashava) Act, 2009, some guidelines are promoted for the preparation of Paurashava master Plan. Sections on various of other laws and regulations relevant to the preparation of Paurashava master plan and control on development in the Paurashava along with agencies entrusted with enforcement of such regulations have been listed in Table 7.1

Table 7.1: Legal Instrument for development control in Bangladesh

Legal Instruments	Relevant development control aspects	Implementing Agencies	Role of Paurashava
Local Government (Paurashava) Act, 2009	✓ According to section 32 of Local government act 2009, Paurashava may, and if so required by the by the prescribed authority shall draw up a Master plan for the municipality within five years of its establishment. ✓ According to section 45 (subsection 1) of local government act 2009, by government approval Paurashava can acquire adjacent or neighboring land of the road for greater public interest. ✓ According to the section 45 (subsection 2) Paurashava will bear all cost of land by the defined law in case of land acquisition under subsection 1. ✓ Also according to section 33 (2) of local government act 2009, Paurashava can acquire land for land development purpose within the Paurashava. ✓ Section 95, may, the government shall prepare & implement development plan, which will be subject to the sanction of the Prescribe authority and will provide for the prevention of environmental pollution. ✓ Section 35: no person can construct or reconstruct any building before approval of site selection and design of the building by Paurashava authority. ✓ If anyone violet the provision of law related to building construction under local Government (Paurashava) act, 2009, Paurashava can demolish that illegal structure by own Agency and Paurashava can impose the cost for the destruction of the structure as the tax to law violator.	Paurashava Authority	Should take appropriate measure for enforcement

Table 7.1: Legal Instrument for development control (Cont.)

Legal Instruments	Relevant development control aspects	Implementing Agencies	Role of Paurashava
Playground, Open Space, Garden and Natural Lake Conservation, 2000	According to the Act. Section 5, nobody can change the use or sell the marked play field, open space, garden, and natural lake. However, any Landowner having any land with above-mentioned use may apply to appropriate authority to have permission to change the use. If the structure is constructed by violating the Act, Paurashava has the power to confiscate the structure.	Paurashava Authority Department of Environment (DoE)	Regular monitoring under provision of Act. Take legal steps to ensure the enforcement of Act. Inform responsible authority in case of any violation of the Act.
Building Construction Rules, 1996	Section 3(1) of the act presents control on building construction in the country. Mostly approval system of the building plan prescribed in the Rules and punishment for the breach of regulation presented in the Act. But the approval system is lengthy and punishment is poor. Section 12(1) sets a formula for building height determination based on the weight of the front road. This Rule imposes a limit on the building height as long as the front road is less than 75ft. (22.87m). Indirectly this limits the number of families or the size of the population in a building. Setback rules of the building and approval system of the building plan also prescribed here.	Paurashava Authority	Regular monitoring under provision of Act. Take legal steps to ensure the enforcement of Act. Inform responsible authority in case of any violation of the Act.
Bangladesh National Building Code, 1993	It outlines the administrative requirements necessary for the enforcement of the code. The code illustrates general planning and architectural requirements of building with occupancy and fire resistance. The code also ensures the safety of life during construction and minimization of construction hazards. It sets specific requirements of governing structural design of buildings to ensure safety and service availability. It also sets the earthquake resistance design guideline.	Deputy commissioner, All development authorities and Local Authorities	Regular monitoring under provision of Act. Take legal steps to ensure the enforcement of Act. Inform responsible authority in case of any violation of the Act.
Conservation of Environment act, 1995	According to the act, government can declare ecologically critical area through Gadget Notification (Section 5(1)). Such critical environment may be created through human activities or climatic disturbances. Control on motorized vehicle who exhausts smoke dangerous for human health has prescribed in the section 6. Punishment for violation of any order presented in Act may be 5 years imprisonment or fine with Tk. 1,00,000 or with both.	Department of Environment (DoE) All development authorities and Local Authorities	Inform responsible authority in case of any violation of the Act.

7.3 Preparation of Master Plan

Introduction of this planned development always guided through a master plan prepared by the public authority within a regulatory framework. Bangladesh also practices the method of planned development through master plan. There are limited rules and regulations on the preparation and implementation activities of the master plan. Planned development should be confirmed with the establishment of guided regulations of the preparation and implementation of the master plan.

In Bangladesh, preparation of master plan was started from the year of 1917. Sir Patrick Geddes prepared a Master Plan for the Dhaka City, which, however, remained on paper only. From the year of 1917 to 1958, different types of plans were prepared in Bangladesh for different type of development activities. All of those plans were generally known as master plan, though they were micro-level development plan. Actually, preparation of the master plan with all of its process and procedures and legal framework was started from the year 1959 when the British firm completed master plan for the Dhaka City. Table 7.2 presents the master plan prepared in Bangladesh from the year of 1959 to 1984.

Table 7.2: Master plan prepared in Bangladesh from the year 1959 to 1984.

Master Plan for the city of	Year of preparation	Prepared by
Dhaka	1959	Minprio, Spencely and P.W. Macfarlane
Chittagong	1961	Minprio, Spencely and P.W. Macfarlane
Khulna	1966	Minprio, Spencely and P.W. Macfarlane
Rajshahi	1984	UNCHS/UNDP-UDD

Apart from the above condition in the field of urban planning, some other initiatives came up. For example, in the early 80's Upazila system was introduced and 460 upazilas were established. Master Plan/Land Use Plan for all these upazila and district headquarters were prepared by UDD and LGED.

Upazila master plans prepared during 80's has become outdated in the context of present situation. In 2008, the Local Government Engineering Department (LGED) has launched a project titled "Upazila Towns Infrastructure Development Project (UTIDP)". In this project LGED prepared 223 no. of master plan (2011-2031) for 223 Paursahava. The core objective of the project is to prepare Land Use Plan, Drainage Master Plan, Traffic Management plan and to provide necessary infrastructure facilities in order to ensure planned development and to meet the increasing demand of the citizen for basic services. These plans are supposed to be the most comprehensive plans ever prepared in Bangladesh. LGED also started preparation of master plan for district-level Paurashava in the same year under the project titled "District Towns Infrastructure Development Project (DTIDP)".

7.4 Planning Permission for Paursahava Area

Paursahava is the responsible organization for preparing plan for its town, ensuring development and controlling the future development. It is the legitimate public authority for issuing approval of any building construction. Before any sort of construction, land owners need to take the 'land use clearance' from Paursahava. Processing of planning permission involves two stages:

- ✓ Land Use Clearance
- ✓ Building Permission

For any kind of construction within Paurashava area taking the land use clearance is must before submitting plans for construction. Generally, land use clearances are of two types

Type 1: Direct land use permission can be given if the proposed criteria of land use in certain area matches to the criteria and standards set by the Master plan for that area.

Type 2: However, for any kind of deviation or mismatch to the Master plan there is no specific legal framework for Paurashava. Generally, the Paurashava Parishad takes decision on this matter.

Land use clearance is the step to check if the proposed use of land confirms with the prepared plan. Ideally, this clearance assures planners that land will be used as per the plan of the city. Any use of land or any type of construction needs approval or clearance from the Paurashava. Town Planning Section is responsible for issuing the land use clearance.

7.5 Plan Approval Committee

According to The Local Government Paurashava Act, 2009 section 50/1(Ga) the Paurashava is responsible for infrastructural development, building control and urban development plan implementation of any Paurashava area. Besides, in the same Act, the second schedule 35, 36, 37 state that building construction, re-construction, completion of building and building control is the responsibilities of Paurashava. In this context, the following committee has been constituted for the purpose of sanctioning the building / design of installations of the area under the jurisdiction of the municipality excluding the development authorities and to ensure the quality of the building;

7.5.1 Committee Formation

The Paurashava committee has a eleven member plan approval committee as shown in the Table 7.3

Table 7.3: Plan approval committee for Paurashava

1	Mayor, Paurashava	Chairman
2	Chief Executive Officer (Secretary of Paurashava in absence of Chief Executive Officer)	Member
3	Upazila Engineer , LGED	Member
4	Representative of Department of Environment	Member
5	Representatives of Fire Service and Civil Defense	Member
6	Urban Planner (if not available then urban planner from any adjacent local government organization)	Member
7	Representatives of Institutes of Engineers, Bangladesh	Member
8	Representatives of Institutes of Architects, Bangladesh	Member
9	Representatives of Institutes of Planners, Bangladesh	Member
10	Representatives of Institutes of Diploma Engineers, Bangladesh	Member
11	Executive engineer (in absence of executive engineer ,assistant engineer, if applicable sub-assistant engineer)	Member Secretary

7.5.2 JOB RESPONSIBILITY OF COMMITTEE

The job responsibilities of the plan approval committee are summarized below:

a. The committee will follow Building Construction Act 1992, Bangladesh National Building Code 1993 and other rules and regulations
b. The committee will endorse the design of the construction of non-high-rise buildings (7 floors or up to 75 feet) in the jurisdiction of the Paurashava excluding development authorities.
c. Minimum one meeting will be held in every three months
d. Quorum will be formed at the presence of majority of members, for forming quorums minimum 2 among the skilled person mentioned in 3 and 7-10 no. must be presented.
e. For taking decisions, if needed, it can seek advice from any other professional or experienced professional officer or specialist.
f. It must follow the Paurashava Master plan.
g. In order to quality confirmation of the buildings and approval of design of building/ installation at the area of Paurashava that is not under the town development authority, the following Instructions should be followed:

1. For building approval application must be submitted in the way mentioned in Building Construction Act 1996, schedule. After submitting the application committee will examine every papers and documents if the plan is contradictory with Paurashava Master Plan and then permit lay out plan.
2. Application cannot be drifted if the following papers are not submitted along:
    i. According to BNBC (Bangladesh National Building Code), the company's consent letter (if applicable), site plan, building plan, service plan, specification and the contractor's agreement with the supervision of the construction supervisor.
    ii. 7 cartulary list
    iii. Papers for proving ownership, Porcha, land development vat evidence.
    iv. Soil taste result from efficient engineer.
    v. If required, the land clearance.
3. Before construction the constructor will submit plan and one supervision engineer and will ensure implementation according to Architectural and Structural Design. The engineer will supervise construction work. An agreement will be submitted regarding that the responsibility will be on inspection engineer.
4. The designer must have proper technical skill and knowledge. Every design must contain signature of designer, professional organization and owner. Proper address of designer must be submitted for further steps.
5. The Paurashava authority related to planning cannot be related to plan implementation process.
6. The owner will ensure presence of supervision engineer at the time of giving building lay out after getting permission for building construction. After completing plinth level construction, the supervision engineer and owner will sign a particular form and send it to accusation committee.
7. After getting primary report if the committee finds any difference with field supervised plan, it will precisely notify the owner and supervision engineer to rectify. If the building owner does not take any action, then the committee can take action against him. In this context, the committee holds the power to break extension and cancel its permission.
8. After wielding every floor, the owner and supervising engineer will sign a combined form, final report and send it to committee.
9. Any nearby building, structure or people cannot be harmed during construction work.

10. According to BNBC (Bangladesh National Building Code) building service such as water supply, sewerage, drainage, gas supply, electric supply, air condition and other facilities must be provided.
11. The committee can take expert advice. If needed a panel of experts can be made and different plan permission, building construction, re construction measures can be taken according to their advice.
12. The owner / developer of the building will submit the Architectural, Structural, Electrical, plumbing and fire fitting designs by the expert architect, engineer or consulting firm. The committee will verify the signature and attestation of the expert, engineer, or consulting firm.
13. After completion of partial or complete construction of the building a certificate for living or using should be received. Regarding that a particular application must be filled and submitted. With the application following papers and designs must be submitted for conservation. Such as:
    I. Completion report by supervision engineer.
    II. Designs of building built on the basis of architectural design approved by the committee.
    III. Every design regarding building services, &
    IV. Test report regarding building construction. Such as: Cylinder Test Report and MS Rod Test Report and other results.

All the professionals will be responsible for the burden of the insufficiency and compatibility of designated designers (architects and engineers).

14. After visiting the newly constructed building the committee will permit authorization for living.
15. The building cannot be authorized for any other reasons except the permitted reasons.
16. The order will be effective from the date of issuing and from the date of issuing 46.063.03.01.00.001.2013-1171 of 11/08/2013 permission will be considered declined from the local government Paura-1 section.
17. With the permission of proper authority, the command is issued.

7.6 Performance Evaluation of Land Use Clearance

According to Citizen Charter of Paurashava, land use clearance should take maximum 3 weeks to get a land use order by a plot owner/ applicant. But from the field survey it was found that in most of the cases, Paurashava do not practice of land use clearances. Only those Paurashavas which have Town Planners try to practice land use clearance. This is being practiced only at 31 Paurashavas out of 327. In case of some critical issues,

clients or developers somehow manage the authority for land use clearances for particular areas where development is restricted for specific purpose. People claimed that the files/plans are not approved properly and sites are not inspected as per given parameters, which leave scope for violations of building rules.

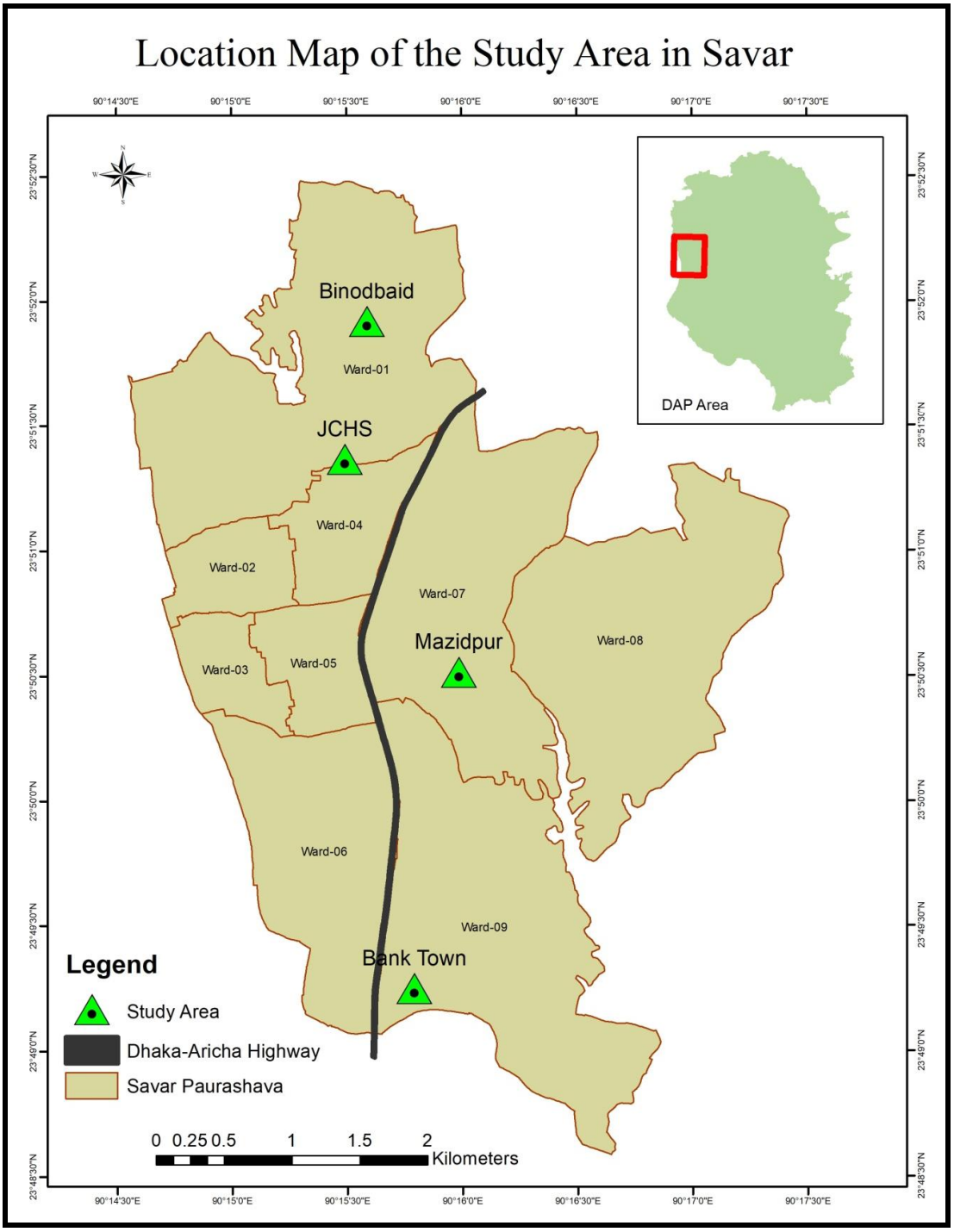
7.7 Building Permission

Building approval is the step where applicant apply fulfilling the requirements, like detail plans, sections, elevation etc of the proposed building as per the Building construction rules1996. There are some common provisions for seven or more storey buildings according to the Building Construction Rules 1996. There should be elevator, standby electricity generator and necessary arrangements for fire prevention and fire extinguisher in seven or more storey buildings. There are also some special provisions such as arrangements for security warning lights for the movement of airplane on the buildings of 45.70 meter or more height. The setback should be minimum 3.00 meter behind the building and 2.50 meter at each side if the building is ten or more storey and 5% of the total floor area should be kept for community space inside or in the premises of ten or more storey residential building.

7.8 Status of Application of BC Rules in Savar Paurashava

The modern name of Savar (Sabhar) is derived from the word *Sarbeshvar* or *Sambhara.* Savar has a long and glorious past. Early human occupation took place at Savar right from the 7th-8th century AD onwards. Local legends associate one Raja Harish Chandra with this area. Harish Chandra is believed to have migrated from *Radha* to Savar and established his capital on the bank of the Bangshi.

Savar Thana was established in 1912 and was turned into an Upazila in 1983. It is situated at a distance of about 24 km to the northwest of Dhaka metropolis city. In 1985 Savar was included with the greater Dhaka city and was declared as an industrial area by Rajdhani Unnayan Kartipakkha (RAJUK). Since then it is the biggest Upazila of Dhaka District. Since Savar is very near to the capital city Dhaka and Asian Highway passes through it, the importance of the area increasing gradually. It is also within the area covered by Dhaka Metropolitan Development Plan. As a Paurashava, its history is very recent. This area was declared as Paurashavaat 14th December 1991. Its activities were started at 16th March 1992. Savar Paurashava started as a C-Class municipality but it is declared as B-class from 11th July, 1995 and reached in A- class from 29th July, 2007.



Source: Prepared by Author from Savar Paurashava Data

Map 7.1: Location map of Savar Paurashava

Present situation of application of Building Construction (BC) Rule in Savar is not in a good position. BC Rules are found mostly violated in the most part of the city as well as spontaneous low income housing areas. Table 7.4 shows the situation of building construction rules violations.

Table 7.4: BC rules violation statistics in Savar Paurashava

Name of the Residential area	Total	No. of Violated Residential Units	% of Violation out of the Buildings in Respective R/A	% out of Total
Bank Town	111	65	58.56	22.41
JCHS*	92	52	56.52	17.93
Mazidpur	45	36	80.00	12.41
Binodbaid	42	42	100.00	14.48
Total	290	195	67.24	67.24

Note: *JCHS= Jahangirnagar Cooperative Housing Society Source: Field Survey, 2018

The highest number of violated residential units is found in the Mazidpur & Binodbaid 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 in the following section.

7.8.1 Application of Setback Rules

Set back rules are the important component of Building Construction Rules which need to be followed for building construction. As per rules residential unit has to leave the spaces in the following manner.

- Front 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 found to be weak in Savar Paurashava area. The field survey information in various Tables present a bleak picture in this regard.

Table 7.5: Status of the setback rules in different residential areas of Savar Paurashava

Types of Rule Violation		Name of the Residential Area							
		Bank Town		JCHS*		Mazidpur		Binodbaid	
		No.	%	No.	%	No.	%	No.	%
Violation of front and back	Front side inadequate space	17	15	4	4	1	2	0	0
	Back side inadequate space	34	31	23	25	3	7	0	0
	Both front and back side inadequate space	8	7	18	20	30	67	42	100
No violation of 1st rule		52	47	47	51	11	25	0	0
Violation of left and right-side setback rules	Left side inadequate space	8	7.2	0	0	3	7	0	0
	Right side inadequate space	5	4.5	0	0	6	14	0	0
	Both side inadequate space	33	29.7	52	57	23	51	42	100
No violation of 2nd rule		65	58.6	40	43	13	29	0	0
Violation of all setback rules	Both front, back, left and right-side inadequate space	28	25	05	5	21	47	42	0
Set back rules violated residential buildings		65	58	52	57	36	80	42	100
No violated buildings		46	42	40	43	9	20	0	0

Note: *JCHS= Jahangirnagar Cooperative Housing Society Source: Field Survey, 2018.

The Table 7.5 shows the violation status of the setback rules in the four sample areas of Savar Paurashava. Set back rules violation has been seen at Mazidpur and Binodbaid. It is found that 80 % residents of the Mazidpur area violate the setback rules and 100% residents of Bharampur area violate the setback rules. Bank Town and Jahangirnagar Cooperative Housing Society are the two planned residential areas and among the two residential areas, the residents of Bank Town are more violator than the residents of Jahangirnagar Cooperative Housing Society. Among all the residential areas, maximum residents of the Mazidpur and Binodbaid violated the 1st set back rules and about 70% residents of two residential areas did not keep adequate spaces in both front and back sidesat 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. The level of violation is presented in Tables.

Table 7.6: Leaving space at the front side of the building

Left space at the front side of the building		Name of the Residential Area							
		Bank Town		JCHS*		Mazidpur		Binodbaid	
		No.	%	No.	%	No.	%	No.	%
Violated	0.5-0.8 meter	20	18.0	37	40.2	32	71.1	33	78.6
	0.8-1.1 meter	23	20.7	7	7.6	2	4.4	7	16.7
	1.1-1.3 meter	18	16.2	5	5.4	0	0.0	2	4.8
	1.3-1.5 meter	4	3.6	3	3.3	2	4.4	0	0.0
	Total	**65**	**58.6**	**52**	**56.5**	**36**	**80.0**	**42**	**100.0**
Non-violated	1.5 meter & above	46	41.4	40	43.5	9	20.0	0	0.0
Grand total		111	100.0	92	100.0	45	100.0	42	100.0

Note: *JCHS= Jahangirnagar Cooperative Housing Society Source: Field Survey, 2018.

Table 7.6 shows space left at the front of the residential buildings in the four study areas. 58.6% of residential buildings of Bank Town, 56.5%of residential buildings of JCHS, 80 % of residential buildings of Mazidpur and 100 % residential buildings of Binodbaid 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 67.24 % 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 7.7: Leaving space at the back side of the building

Left space at back	Name of the Residential Area							
	Bank Town		JCHS*		Mazidpur		Binodbaid	
	No.	%	No.	%	No.	%	No.	%
0.5-0.8 meter	45	40.54	22	23.91	11	24.44	14	33.33
0.8-1.1 meter	5	4.50	9	9.78	4	8.89	7	16.67
1.1-1.3 meter	3	2.70	2	2.17	4	8.89	4	9.52
1.3-1.5 meter	1	0.90	3	3.26	3	6.67	1	2.38
1.5-1.83 meter	2	1.80	0	0.00	0	0.00	0	0.00
Total	**56**	**50.45**	**52**	**56.52**	**36**	**80.00**	**42**	**100.00**
1.83 meter and above	55	49.55	40	43.48	9	20.00	0	0.00
Total	111	100	92	100	45	100	42	100

Note: *JCHS= Jahangirnagar Cooperative Housing Society Source: Field Survey, 2018.

Table 7.8 shows the space left at the back of the residential buildings in the four study areas. 50.45 % residential buildings of Bank Town, 56.52 % residential buildings of JCHS, 80 % residential buildings of Mazidpur and 100 % residential buildings of Binodbaid 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 the same.

Table 7.8: level of violation at the left of the building

Left space at the left side of the building		Name of the Residential Area							
		Bank Town		JCHS*		Mazidpur		Binodbaid	
Violated		No.	%	No.	%	No.	%	No.	%
	0.5-0.8 meter	32	23	25	26	58	35	83	32
	0.8-1.1 meter	21	15	16	6	13	5	12	21
	1.1-1.25 meter	6	14	15	4	9	2	5	6
	Total	**52**	**57**	**36**	**80**	**42**	**100**	**52**	**57**
Non-violated		40	43	9	20	0	0	40	43
Total		92	100	45	100	42	100	92	100

Note: *JCHS= Jahangirnagar Cooperative Housing Society Source: Field Survey, 2018.

Table 7.8 shows the level of left side violation. Left side violation of setback rule is seen in all the four residential areas and the figure is more than 62 %. 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 7.9: level of violation at the right side of the building

Left space at the right side of the building		Name of the Residential Area							
		Bank Town		JCHS*		Mazidpur		Binodbaid	
		No.	%	No.	%	No.	%	No.	%
Violated	0.5-0.8 meter	33	29.73	21	22.83	25	55.6	36	85.71
	0.8-1.1 meter	21	18.92	13	14.13	8	17.8	4	9.52
	1.1-1.25 meter	11	9.91	18	19.57	3	6.7	2	4.76
	Total	**65**	**58.56**	**52**	**56.52**	**36**	**80.0**	**42**	**100.00**
Non-violated		46	41.44	40	43.48	9	20.0	0	0.00
Total		111	100	92	100	45	100	42	100

Note: *JCHS= Jahangirnagar Cooperative Housing Society Source: Field Survey, 2018.

Table 7.9 shows the level of right side violation. Right side violation of setback rule is seen in all the four residential areas and the figure is more than 67 %. 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.

7.8.2 Permissible Building Height

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

Maximum Building Height = 2 x (road width + Front side setback space)

According Building Construction Rules, permissible height is in the following

Table 7.10: 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 7.11: 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 23.00 meter the above restriction will not be applicable	

Source: Building Construction Rules 1996

Table 7.12: Violation of building height restriction

Standard Road width (including property line) Permissible height			No of Residential Building							
			Bank Town		JCHS*		Mazidpur		Binodbaid	
			No	%	No	%	No	%	No	%
7.60-10.59 meter	Below 9.50 meter	Non violated	2	1.80	0	0	2	4.44	11	26.19
	9.50 meter		10	9.01	0	0	1	2.22	7	16.67
	9.50 meter and above	**Violated**	0	0.00	0	0.00	0	0.00	**15**	35.71
Total			12	10.81	0	0.00	3	6.67	33	78.57
10.60-13.59 meter	Below 12 meter	Non Violated	10	9.01	2	2.17	2	4.44	0	0.00
	12-12.5 meter		7	6.31	3	3.26	4	8.89	0	0.00
	Above 12.5 meter	**Violated**	0	0.00	**14**	15.22	**14**	31.11	**9**	21.43
Total			17	15.32	19	20.65	20	44.44	9	21.43
13.60-16.59 meter	Below 15 meter	Non Violated	17	15.32	15	16.30	4	8.89	0	0.00
	15-15.5 meter		31	27.93	22	23.91	6	13.33	0	0.00
	Above 15.5 meter	**Violated**	**34**	30.63	**36**	39.13	**12**	26.67	0	0.00
Total			82	73.87	73	79.35	22	48.89	0	0.00
Grand Total			111	100.00	92	100.00	45	100.00	42	100.00

Note: *JCHS= Jahangirnagar Cooperative Housing Society Source: Field Survey, 2018.

The Table 7.12 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 Mazidpur and Binodbaid, 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 Bank Town and JCHS, violation figure is 28.97%.

7.8.3 Rules and Regulations on the Construction of Boundary Wall

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.

Among the two planned residential areas, boundary walls are existed in every house of the study area. In the Bank Town, 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 JCHS, 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 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 JCHS and less than 10% violators exist in rest of the housing areas.

7.8.4 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.

Bank Town and JCHS 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.

Mazidpur and Binodbaid are two unplanned residential areas. They occupy 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.

7.8.5 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. Bank Town and JCHS residential Area 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 (Field Survey, 2018).

Mazidpur and Binodbaid 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 (Field Survey, 2018).

7.9 Reasons of Violation of BC Rules and Its Consequences

Before going to the detail discussion about the causes and consequences of violation of BC rules here the figure 7.1 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

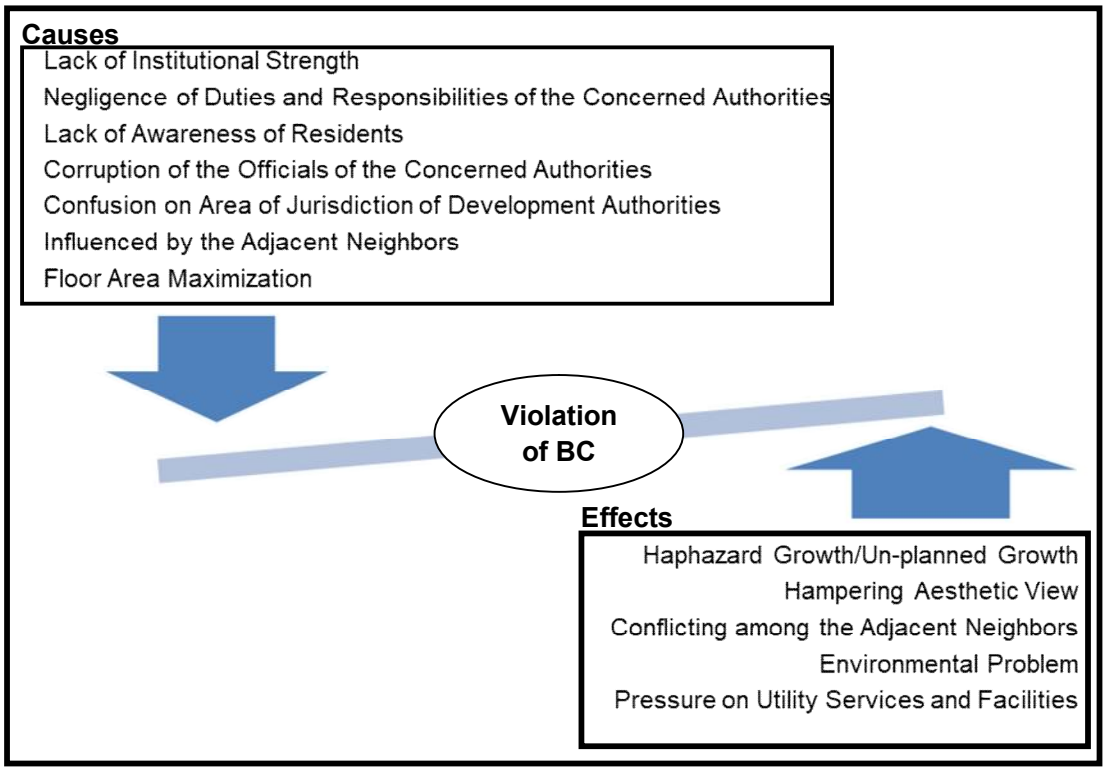


Fig 7.1: Reasons and effect of the violation of BC rules

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 Binodbaid. Some of the constructed buildings in Bank Town Residential Area are not constructed according to setback rule provided by the Government.

Table 7.13: Percent of responses of dwellers on the reasons of violation of BC rules

Residential area / Reasons	Bank Town (%)		JCHS* (%)		Mazidpur (%)		Binodbaid (%)	
	Yes	No	Yes	No	Yes	No	Yes	No
Lack of institutional strength	63	27	54	46	43	57	10	90
Negligence of duties and responsibilities of the Concerned Authorities	83	17	76	24	68	32	38	62
Corruption of the Officials of the Concerned Authorities	48	52	58	42	73	27	18	82
Confusion on Area of Jurisdiction of Paurashava & RAJUK	90	10	74	26	34	66	10	90
Lack of awareness of the residents	69	31	58	42	77	27	80	20
Influenced by the adjacent neighbors	81	19	73	27	89	11	80	20
Floor area maximization	64	36	78	22	58	42	75	25

Source: Field Survey, 2018.

It is found that about 12 % new owners have entered into the older part of the Paurashava 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 RAJUK, 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.

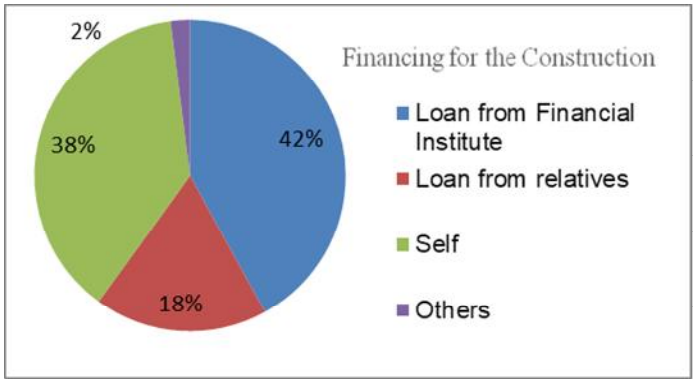


Fig 7.2: Source of the financing of the construction

Fig 7.2 designates that 42% population of the study area have taken loan from various financial institutions to construct their house. Only 18 % populations of the study area have taken loan from their relatives to construct their house. About 38 % population of the study area constructs their house with their own income and about 2 % 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 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. Above graph designates that only 17 % people who have taken loan from financial institutions did not follow BC rules.

Lack of Institutional Strength

There are no building inspectors in Savar Paurashava and for this reason Paurashava cannot keep monitoring the new constructions and constructed buildings always. It is really a hard task for the one personnel (Town Planner) to maintain the whole city.

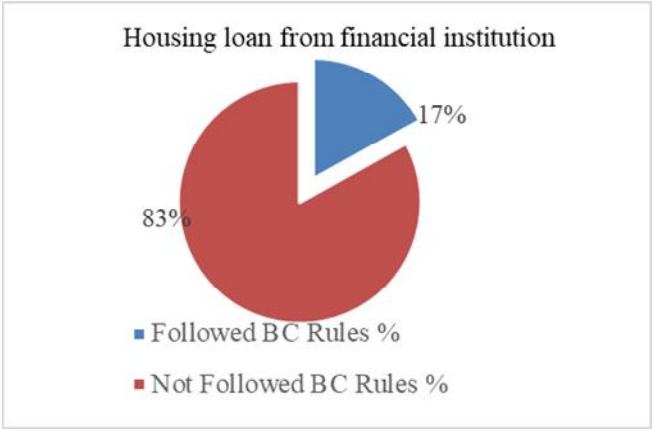


Fig 7.3: Source of the financing of the construction

Negligence of Duties and Responsibilities of the Concerned Authorities

Engineering Department of Paurashava is responsible to appropriate implication of Building Construction Rules. For the negligence of duties and responsibilities the responsible persons of Paurashava do not always remain strict to the execution of the BC rules.

Table 7.14: Number of visit by officials during building construction

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

Source: Field survey, 2018

Table 7.14 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.

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.

Confusion on Area of Jurisdiction of RAJUK

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.

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.

Table7.15: 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
Bank Town	12	88
JCHS*	10	90
Mazidpur	06	94
Binodbaid	5	95

Source: Field survey, 2018

Table 7.15 designates that, in the Bank Town residential area only 12% populations know about the BC rule and 88% population do not follow the BC rule, in the JCHS only 10 % populations know about the BC rule and 90 % population do not follow the BC rule, in the Mazidpur residential area only 6% populations know about the BC rule and 94% population do not follow the BC rule and in the Ghoramara residential area only Binodbaid 5 % populations know about the BC rule and 95% population do not follow the BC rule.

Influenced by the Adjacent Neighbors

In the study area about 38 % 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. Their neighbors said them that the officials overlooked this matter by taking bribe. Above graph reveals that 38 % inhabitant violated the BC rules by the "influenced of the Adjacent Neighbors Above graph reveals that 38 % inhabitant violated the BC rules by the "influenced of the Adjacent Neighbors

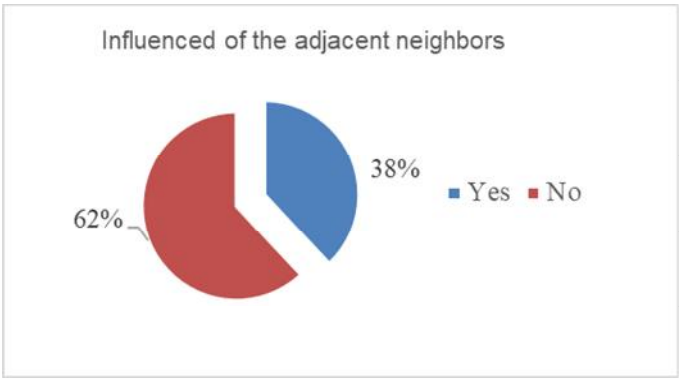


Fig 7.4: Influenced of the adjacent neighbors

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.

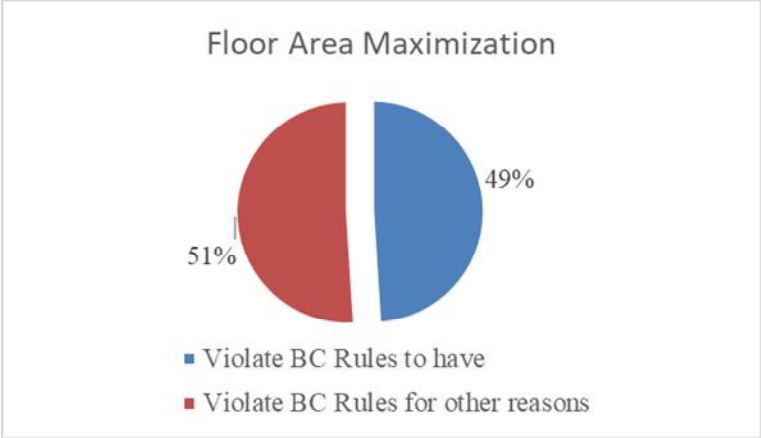


Fig 7.5 Floor Area Maximization

The above figure shows that about 49 % of the owners violate setback rules to have larger floor area and other 51% percent violate rule for another reason.

7.10 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 7.16: Type of problems faced by the people

Type of Problems	Percent
Environmental	75%
Social	32.08
Aesthetic	8.00
Lack of Utility services	37.25
Total Responses	290

Source: Field survey, 2018

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 75 % response that they face environmental

problem in the study area, about 32% response that they face social problem in the study area, about 8 % response that they face aesthetic problem in the study area, about 37.25 % response that there are lacking of utility services in the study area.

Haphazard Growth Unplanned Growth

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

Hampering of Aesthetic View

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

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.

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.

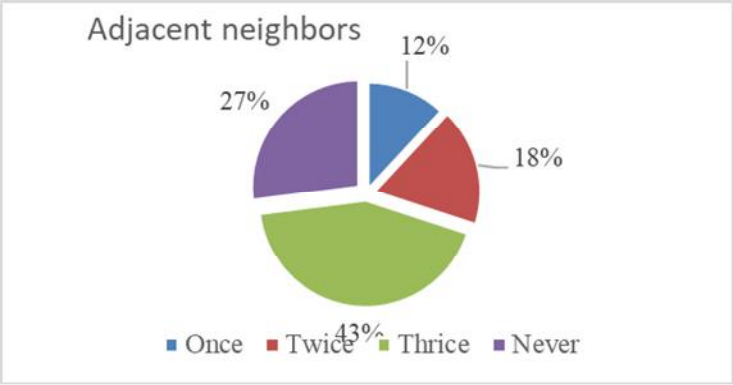


Fig 7.5 Floor Area Maximization

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 7.17: Type of environmental problems faced by the people

Type of Environmental Problem	Percent (%)
Inadequate Air Circulation Problem	38
Insufficient	42
No problem	20
Total	100

Source: Field survey, 2018

Table 7.17 reflects that 38 % said due to rule violation they face inadequate air circulation as well as 42 % of the owners said that they get insufficient sunlight for this reason.

Pressure on Utility and Services Facilities

Extra population creates pressure on utility and services facilities. The Table 7.18 designates that 74% respondent said be rule violation cause's pressure on utility services.

Table 7.18: Type of utility problems faced by the people

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

Source: Field survey, 2018

7.11 Development Control Practices at Upazila Level

To ensure the construction / installation of buildings under the jurisdiction of the upazila and union parishad (excluding the development authority's area) and ensuring the quality of the building recently GOB circulated a order and form a committee in each Upazila. Now this committee is responsible for development control in its jurisdiction.

It is being informed that in the second schedule, 22nd serial of The Local Government (Union Parishad) Act, 2009, has the responsibility of the union parishad for the construction of new buildings, construction or reconstruction and the management of the dangerous buildings of the union. In this context, a committee has been constituted to ensure the building/ design of the construction under the jurisdiction of the Upazila and Union Parishad excluding the development authorities and to ensure the quality of the building.

The structure of the committee for approval of design / installation of buildings under the jurisdiction of the Upazila and Union Parishad is show in Table 7.19

Table 7.19: The structure of the committee for approval of design

1.	Chairman, Upazila Parishad	Chairman
2.	Upazila Nirbahi Officer	Member
3.	Assistant Commissioner (Land)	Member
4.	Upazila Engineer LGED	Member
5.	Chairman of the concerned Union Parishad	Member
6.	Representatives of Fire Service and Civil Defense	Member
7.	Representatives of Institutes of Engineers, Bangladesh	Member
8.	Representatives of Institutes of Architects, Bangladesh	Member
9.	Representatives of Institutes of Planners, Bangladesh	Member
10.	Representatives of Institutes of Diploma Engineers, Bangladesh	Member
11.	Assistant Engineer/ Sub Assistant Engineer (in absence of Assistant Engineer)	Member Secretary

7.11.1 Work Procedure of the Committee

The building permit approval committee is established with the following tasks and responsibilities:

a. The committee will follow the provisions of the other common rules including Building Construction Act 1952 and Bangladesh National Building Code 1993.

b. The committee will endorse the design of the construction of non-high-rise buildings (7 floors or up to 75 feet) in the jurisdiction of the Upazila and Union Parishad under the coverage of development authorities.

c. There will be at least one meeting of the committee within every three months.

d. In the presence of the majority of the committee, the quorum of the meeting will be formed and for the formation of quorum, the technical persons mentioned in the order of 5-9 are required to attend the quorum minimum 2 people of them.

e. In order to facilitate its decision, the committee will be able to seek advice from any other professional or experienced professional officer or specialist.

f. The following instructions have to be followed for approval of building / installation and confirming the quality of the building:

1. To construct the building, apply to the application form mentioned in schedule-1 of Building Construction Rules, 1996. After submitting the application form, the committee will examine all the papers and appropriate qualifications of the design holder and give approval for the lay-out plan.

2. The application cannot be accepted unless at least the following documents are attached with the application:

- ✓ According to BNBC (Bangladesh National Building Code), the company's consent letter (if applicable), site plan, building plan, service plan, specification and the contractor's agreement with the supervision of the construction supervisor.
- ✓ Seven-fold design
- ✓ Proof of ownership of the land, (if applicable) documentation, document of land development tax payment of that year etc.
- ✓ Characteristics of soil carrying capacity by qualified engineer.
- ✓ Relevant cases land use clearance.

3. Before the construction of the building, the creator will plan the formation and appoint supervision engineer and ensure the construction work according to the architectural and structural design. Appointed engineer will supervise the construction work. All responsibility for this matter will be on the builder/appointed engineer, affidavit on this regard should be submitted to the contractual committee

4. Designers should have appropriate technical qualifications. Every design must have signature of the master, the professional organization's identification number and owner's signature. Contact of the designers must have the address. The committee will take the next step after checking the accuracy of the designers and other signatories.

5. The concerned Upazila / Union Parishad officials involved in the plan approval process will not be able to engage with planning in any situation.

6. After getting the building permit, owner of the building will ensure the presence of the building supervisor while providing the layout of the building. After obtaining the permit of the building till the splint level, the supervision engineer and the owner of the building will send a report to the committee in the prescribed form.

7. After receiving the initial report of the committee, if any deviation is detected with the approved plan of supervision, then the owner and Supervisor Engineer will be informed in written to correct it. If the building owner does not take any action accordingly, he will take legal action against him. In this case, order to remove illegal parts or to cancel the license will be charged.

8. After casting of each floor, the owner and supervisor engineer jointly will have to submit a report on completion of work.

9. No damage to the surrounding buildings, infrastructure and the public can be done during construction.

10. According to the code of BNBC (Bangladesh National Building Code) various building services including water supply, sewerage, drainage, gas supply, electric installations, air conditioning etc. should be implemented.

11. The respective Upazila / Union Parishad can take expert opinion in the applicable cases. If required, the expert panel will be formulated and based on their opinion plan approval, building construction, re-construction, remove, etc. measures will be taken in to action.

12. The owner / developer of the building will submit the Architectural, Structural, Electrical, plumbing and fire fitting designs by the expert architect, engineer or consulting firm. The committee will verify the signature and attestation of the expert, engineer, or consulting firm.

13. After completion of partial or complete construction of the building, residence or use certificate will be accepted. You have to apply in the prescribed form for this. The application must submit the following documents and designs for preservation.

14. By visiting the newly constructed building, the committee will give permission to use the building namely:

- Completion report by supervision engineer.
- Designs of building built on the basis of architectural design approved by the committee.
- All the designs related to building service and
- Test report related to building construction such as cylinder test report with MS rod test report.

All the professionals will be responsible for the burden of the insufficiency and compatibility of designated designers (architects and engineers).

15. The building cannot be used for any other purposes other than the own purpose of the building.

7.11.2 Status of Present Practices

After 1.5 years of circulation of GOB (December,2018) order it is observed that the building design approval committee has not yet been formed in most Upazila of the country.

7.12 Generalization on Major Problems of Development Control Mechanism at Urban Local Government

High price and the small parcel of land: Municipal areas attract people from its surroundings instead of employment, business, communication and other basic services like education, health care etc. that's why the land price is relatively higher than other places. Furthermore, land parcels are too small that application of construction rules becomes a challenging job for the planners.

Lack of master plan: A greater number of the paurashavas do not have any Master Plan to guide the development. On the other hand, the municipality which has Master Plan cannot implement it because it has not received gadget notification. 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.

Lack of awareness: Citizens are not responsive enough about the benefit of planned urbanization. Because of that, they are not following construction rules which are leading to haphazard development at the municipal area.

Inadequate monitoring: As the municipalities do not have sufficient manpower they cannot monitor the development activities properly. On the other hand, they are dependent on other law enforcement agencies to take any action against the illegal establishment. Moreover, the high influence of local politics interferes the monitoring process.

National-Local mix-up: National level agencies like UDD, Planning Commission, etc. have been created to oversee the issues of the whole country. But in practice, they had seen to be not performing due to the matter of planned development in the urban areas of Bangladesh although some major urban centers receive some support.

Lack of skilled manpower: The qualified planner is not yet posted in the organogram of development framework of divisional, district and municipality due to the lack of awareness of political leaders and top bureaucrats in the administration.

Slow planning progress: It is notable that most of the plans are not completed within time. The quality of the completed projects is also questionable.

Lack of public participation: There is very little to no scope for public participation in the current planning process.

Corruption and lack of transparency: It is reported that various authorities are affected by corruption and thus shows a low level of transparency.

CHAPTER EIGHT

INSTITUTIONAL, PLANNING AND LEGAL FRAMEWORK FOR DEVELOPMENT CONTROL IN DHAKA

8.1 Introduction

Development control is defined as the mechanism through which entire process of urban development is regulated to achieve the objective of promoting overall benefit of the society and creating a distinct image of the city. It includes guiding the development and use of land, curbing misuse of land and promoting rational and orderly development of built environment. Development controls are required to meet situations and contexts which are generally static. In this context they tend to become to rigid and complex. Looking at the far reaching impact and implications of the development controls on the growth and development, character, fabric and personality of a city, they need to be framed with great care and abundant caution. Considering the larger public interest and general welfare of the community, formulation of the development control should satisfy the basic requirements of the health, safety convenience, economy and amenity.

In this context, this chapter deals with analyzing the development control mechanism of Dhaka, the capital of Bangladesh and a rapidly growing mega-city with limited financial resources. In doing so, growth scenario context of Dhaka city, politico-bureaucratic structure in planning for the Dhaka, legal footing of urban management institutions, institutional linkages, coordination issues etc. have been analyzed. The urban planning wing of the Capital Development Authority (RAJUK) is at the core of this investigation. The chapter concludes with the identification of challenges and opportunities of RAJUK.

8.2 Institutional Setting for Dhaka Metropolitan Development Area Planning

At least 51 Governments institutions are involved in Dhaka city affairs means every organization is responsible for many things. For all practical purposes, the Rajdhani Unnayan Kartipakkhya (RAJUK) (Capital Development Authority) is the planning and land development authority for Dhaka megacity. Development control, in its planning sense, is exercised by RAJUK. An application is needed for the grant of an exception where it is proposed to use land in nonconformity with the Master Plan. An official of RAJUK is also designated as the authorized officer for the purposes of the East Bengal Building Construction Ordinance 1952, which relates to the construction of buildings.

8.3 Rajdhani Unnayan Katripakha (RAJUK)

Rajdhani Unnayan Katripakha (RAJUK) meaning Capital Development Authority is an autonomous unit under the Ministry of Housing and Public Works. It is a special urban development body within the country's urban administrative structure. It owes its origin to the Dhaka Improvement Trust (DIT) which came into existence in 1956 under the Town Improvement Act, 1953 with a view to developing and expanding the town of Dhaka, Narayanganj and certain areas in the vicinity by opening up congested areas, laying out streets, constructing new roads, providing open spaces for purposes of ventilation and recreation, demolishing or reconstructing buildings, acquiring land for housing and for re-housing of people displaced by recession or development schemes.

DIT was governed by a Trustee Board, constituted with seven members as per provisions of the Town Improvement Act 1953. Two other members included when the district of Narayanganj incorporated within the jurisdiction of DIT. The Chairman and three other Trustees were appointed by the government notification. The members of the Trustee Board were chosen from different service agencies and different professions to involve and contribute in the development process of Dhaka. The Chairman of Dhaka Water Supply and Sewerage Authority, the Deputy Commissioner of Dhaka, the Chairman of Dhaka Municipal Committee, the Chief Engineer of Public Health and Engineering Department, and the Chairman of Narayanganj Municipal Committee were ex-officio trustees.

The Trustee Board was involved in policy making, planning and development control of Dhaka. Conventionally, the Board called on general and special meeting to take decisions and actions on raised problems. The major functions of the organization dealt with preparation of development plans, widening roads and reduce congestions, lay out plans for better traffic circulation, providing open spaces for recreation, demolishing or constructing buildings and construction of roads, bridges and culverts. Other functions included acquisition of land under Town Improvement Act 1953 for area development, providing urban facilities and services for public uses and for improvement schemes (RAJUK, 2011). RAJUK has emerged through the ongoing crisis of planned and controlled development of Dhaka City. RAJUK was established in April 30, 1987 by replacing Dhaka Improvement Trust (DIT). The prime intension of the organization was to develop, improve, extend and manage the city and the peripheral areas through a process of proper development planning and development control.

RAJUK is the only agency with clear responsibilities for planning and management at the metropolitan scale. RAJUK also got an extended area to deal with from former DIT area

of 320 square miles to 590 square miles. It is entrusted with the responsibility of controlling the construction of houses and buildings in accordance with a Master Plan encompassing Dhaka City, Narayanganj, Tongi, Gazipur and Keranigonj. It has responsibility to allocate land and establish new industrial, commercial and residential areas in this greater area. It has to earmark open space for parks, widen the narrow old roads, make new planned roads, and remove congestion from overcrowded localities and to that end, RAJUK is empowered to acquire fresh land and also pay compensation to the displaced people and rehabilitate them in other areas. RAJUK has occupied this central position (since its creation as the Dhaka Improvement Trust in 1956) by virtue of its powers of master planning, development and building control, and development through land and estate development, area improvement and major road improvement.

8.4 Organizational Structure of RAJUK

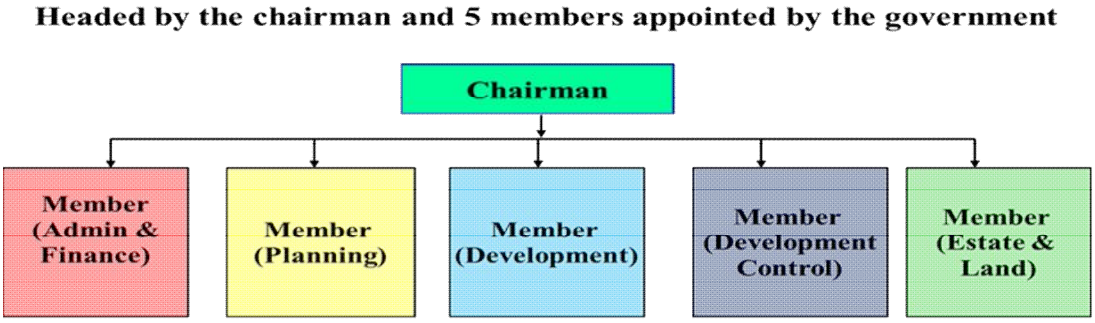
RAJUK is structured and governed by the Chairman and five other Members appointed by the Government. They are full time officials and the Chairman is the Chief Executive of the Authority. The overall responsibility and functions of the Chairman and the Members are prescribed and assigned by the government. The agenda of board meeting includes issues related to development policies, development projects and development controls; land acquisitions, land disposals and organizational matters. RAJUK has five departments headed by a member in each department who reports to the Chairman (A detail organogram of RAJUK has been attached in Annex 4.5). The departments are:

i) Administration
ii) Finance, Budget and Accounts
iii) Planning and Architecture
iv) Development and Engineering and
v) Estate and Land

The administration wing is composed of two branches. One looks after personnel issues, the other is responsible for recordkeeping and procurement. Finance, Budget and Accounts department deals with finance, and pay and allowances. Planning and Architecture department is vested with the responsibility of actual planning work, while, Development and Engineering Department looks after implementation. Transport, another component of logistic support, also is under Development and Engineering Department. The Estate and Land wing acquires land for new schemes and allocates RAJUK plots to applicants. It also approves building construction permission, hence responsible for development control.

Like all other government agencies, the organizational structure of RAJUK is hierarchical and the chairperson holds supreme power and authority in all decision-making activities of its board. The chairperson is appointed by the government for a limited period of time that usually varies from 1 to 3 years. The chairman is appointed nowadays from the bureaucracy and therefore political consideration plays a significant role in this appointment (Ahamad et.at,2010). High ranked public official deputed from other departments may not have sufficient or relevant academic and professional qualification, which was the case in all previous appointments. There are many appropriately qualified professionals in the bureaucracy to lead RAJUK, somehow they are not considered as politics play the final role.

The next tier in the structure, in terms of power and authority, comprised of the members heading five divisions. These second tier officials are also appointed indirectly for a limited period by political influence within the government (i.e., 1-2 years). In addition, many of the members may not have relevant experience or enough expertise to execute their assigned responsibilities at RAJUK. The members usually come from other governmental departments, like Bangladesh Railway, Planning Commission, Department of Land Record and Survey and so on. Though the members are the heads of their respective divisions, the final decision is generally influenced by the chairman. It is the norm that the chairman assigns responsibilities and distributes tasks to the members and accordingly they perform and convey the instructions to the subordinate level as in a typical hierarchical organization. The top administrative and management structure of RAJUK is shown in Figure 8.1.



Map power in present organogram (2013)
1980 nos.

Fig 8.1: Organogram of RAJUK

The chairman reports to the Ministry of Housing and Public Works and as a result, the ultimate power lies with the Minister of that portfolio. According to the organizational structure and official decorum, though the chairman holds the supreme authority in accepting or rejecting any decision for RAJUK, in reality, he has to depend on the will of the supreme authority of the concerned minister.

8.5 Functions and Mandates of RAJUK

RAJUK's current mandate was recently reconfirmed as part of its proposed re-organization and strengthening and consists of the very wide range responsibilities. The mandates are as follow:

- ✓ To review of the structure plan and detailed area plans of Dhaka mega city at relevant periods.
- ✓ To prepare architectural and structural designs, together with implementation and maintenance of government buildings and other structures.
- ✓ To prepare and update: policies, laws, codes and rules to promote and develop planned residential development areas.
- ✓ To be responsible for planned urbanization, proper use of land and development activities. To build and develop satellite towns for planned urbanization.
- ✓ To carry out research and technology development relating to urbanization, housing, structural development, construction materials use and technologies.
- ✓ Implementation of roads, culverts, bridges, fly-over, underpasses, multi-storied car parking facilities, lake development and improvement, and protection of water reservoir within RAJUK controlled areas of the metropolitan city as per the plan.
- ✓ Maintenance of RAJUK's own structures and buildings.
- ✓ Creation of opportunities to solve the problems of urbanization and housing by associating with the private sector.
- ✓ To adopt and prepare policies, guidelines and rules, and to carry out reforms and implementation works with respect to building construction.
- ✓ To control unplanned buildings and construction activities without approval which are in violation of the prevailing construction rules and codes, so as to ensure a satisfactory environment for planned housing in the city.
- ✓ To demolish and remove buildings without approval and those structures which deviate from approved plans through mobile courts.
- ✓ To maintain the allocation of plots and flats via the allocation of units in current and future projects, to confer title, make changes, and effect transfers, and to approve power of attorney as necessary and to collect service charges.

Land development is arguably the part of its mandate that RAJUK carries out most successfully. Major areas of the city (Gulshan, Banani, Dhanmondi, Baridhara, Nikunja, Uttara and now Purbachal) have been developed by RAJUK. Since 1959, RAJUK has acquired about 4,260 acres (1,725 hectares) of land. Most of the land has been used for residential purposes and these areas now accommodate a substantial proportion of the city's population24. Plots are allocated to individuals, via lotteries, who then develop as they see fit, nowadays mostly for 5-7 storey apartments. This is a tremendous achievement and due to the revenue from land sales, RAJUK is essentially self-funding. As planning authority RAJUK has also overseen the preparation and legal approval of both the DMDP and the DAP. Positioned institutionally and legally as central, RAJUK has not succeeded in maintaining its function of strategic planning over the period since the 1959 Master Plan, and its primary function has been that of a land development and development control agency.

Ahamed and Hasan (2010) argued that 'RAJUK's development activities are to a degree multi sectoral and coordinated, but only at the project level, between project components within a designated project area. Its coordinating role at the citywide scale, geographically and at the inter-sectoral level functionally, has declined with its declining role in the master planning function. It has exercised strategic influence through initiating major projects and determining their location, and it continues to do so. Nevertheless, some of these initiatives have been contrary to metropolitan wide physical and infrastructure planning interests, and generally, in terms of policy and clientele they have not been directed at wider social interests. A further factor is that RAJUK has considerable freedom since it is only dependent on government funding for its major road improvement projects and not for its estate developments, which are self-financing. However, this means it is focused on development projects rather than on comprehensive strategic planning'.

RAJUK is now regarded as a land development agency. Other agencies take initiatives without reference to RAJUK and regard themselves as equal in status. This includes DCC as well as government directorates such as HSD and parastatals such as DWASA. In certain cases, though certainly not all, relationships appear to have deteriorated to the level of deliberate lack of cooperation, competition, defensiveness and lack of mutual respect. There is a particular problem between RAJUK and DCC arising from the differing rank of the persons heading the two organizations: the Mayor, elected by popular franchise, holds Ministerial status, whereas RAJUK is being headed by a high-ranking government civil servant (Islam, 2000).

8.6 Development Planning as Broad Framework for Development Control

Under the current legal framework, guided development policy is being followed for the development of Dhaka city. This guided development and control is administered with development plans, development permissions, zoning instruments and approval of building plans and construction. Section 73 of the Town Improvement Act, 1953 empowered RAJUK to make zonal plans with regard to any area under its jurisdiction. Any violation of zoning regulations imposed by RAJUK is liable to legal action. However, in reality, the authority does not have clear cut zones of development nor such restrictions have been strictly enforced (Islam 1998). Sub-division of land is another regulatory measure, which is only imposed in residential, commercial and industrial areas developed by the city development authorities in Dhaka and Chittagong. Nevertheless, these authorities do not have any legal authority for imposing restrictions on land sub-division.

8.6.1 Development Planning in Dhaka

In spite of having a bundle of laws and regulations, a big number of institutions and prepared master plans since 1917, it can be safely said that Dhaka is growing actually without an enforcing and guiding plan document. The Master Plan and its contents today remain constrained within theoretical definitions of structure plans, master plans and area development plans. The first formal plan for Dhaka was made in 1917 by Professor Patrick Geddes, the much-respected British town planner, based on the concept of a Garden City. Big Ramna Park located in the heart of the city is till now the product of that plan. However, this plan was not that detailed and is not relevant to the current context.

Current Dhaka is the product of spatial development plans prepared in 1960, 1981 and in 1995 with a view to ensure proper development of the city and control haphazard urban growth. Nevertheless, these plans are not very effective either in terms of contents or its implementation. Highlights of these plans are discussed below:

8.6.2 Land Use Planning for Dhaka

Land use policies as stated in various previous planning initiatives throughout the history of Dhaka. In this section some critical analysis of previous planning initiatives are highlighted along with various planning strategies.

Major land use development planning initiatives are:

- ✓ Master Plan for Dacca, 1959
- ✓ Dhaka Metropolitan Area Integrated Urban Development Plan, 1981

- ✓ Land Study for Dhaka City, 1993
- ✓ Dhaka Integrated Flood Protection Project- FAP 8A and FAP 8B
- ✓ Dhaka Metropolitan Development Plan (DMDP), 1995-2015

8.6.3 Master Plan for Dhaka, 1959

Master plan for Dacca (Dhaka Improvement Trust area) was prepared in 1959 and approved in 1960 covering an area of 220 sq. miles with a population a slightly exceeding one million encompassing Dhaka municipality over a 20 year planning horizon (1958 to 1978). A number of recommendations were followed and it still remains the legal basis for controlling development in areas covered by the Dacca master plan. The Dhaka master plan provided for major expansion area at Mirpur, Tongi Gulshan, Bannani, Badda and proposed large scale reclamation at Keraniganj, Poastogola and part of DND Triangle. This plan has continued importance on the Buriganga River for transport purposes and on old Dhaka as a business core. It was estimated that these area would accommodate a population increase of 250000 between 1958 and 1978. The assumption of growth rate, areas of various land uses for this master plan deemed invalid. Recommendation made to formulate a national planning policy for Bangladesh to encourage the expansion of industry and commerce in other towns. 1959 Master Plan can mainly be criticized for its rigid type of planning policies.

8.6.4 Dhaka Metropolitan Area Integrated Urban Development Plan, DMAIUDP (1981)

DMAIUDP is the first planning initiative to control urban development of Dhaka after the liberation war. DMAIUDP was undertaken in 1980 and the report is submitted in June 1981. The study was funded by jointly by ADB strongly recommended that further flood protection investment should await the outcome of a broad multi- sectoral strategic study to evaluate metropolitan planning options.

The main objective of this project was to provide a long term growth strategy for urban expansion of greater Dhaka. In doing so, the plan considered growth options through multiple evaluation stages and proposed several recommendations, while considering flooding and drainage are persistently major problems. The recommendations were mainly served to become a reference work, although many of the assumptions later provided a comprehensive basis for the future urban growth. Micro level land use planning related proposals were not entertained in this planning initiative. For the macro level, eight broad growth options were identified and evaluated, leading to three alternative strategies. A more rigorous evaluation is to be made prior to selecting the preferred strategy. DMAIUDP proposals at different stages are given in the following:

Evaluation of growth options (1st Stage)

(i) Continuation of current trends- sustained peripheral growth, limited expansion towards Tongi-Joydevpur

(ii) Peri-urban development- low density resettlement with intensive agricultural production surrounding city

(iii) Comprehensive flood control- protection of the city and development areas by embankment

(iv) Comprehensive flood control- protection for Keraniganj and DND triangle

(v) North expansion- development of Tongi/Joydebpur by concentrating jobs, infrastructure, services plus improved transport link Joydebpur-Narayanganj

(vi) New satellite city

(vii) Sub-regional dispersal- decentralization of urban development to maximum number of existing towns in the region

(viii) Limiting urban growth by reducing investment in favor of rural areas.

Evaluation of growth options (2nd Stage)

Strategy 1: Providing full flood protection for sufficient land for city growth

Strategy 2: Small scale land filling, mounding and building on piles/posts to make provisioning maximum urban capacity through capitalizing existing peripheral development.

Strategy 3: Development of land that do not need large scale flood protection.

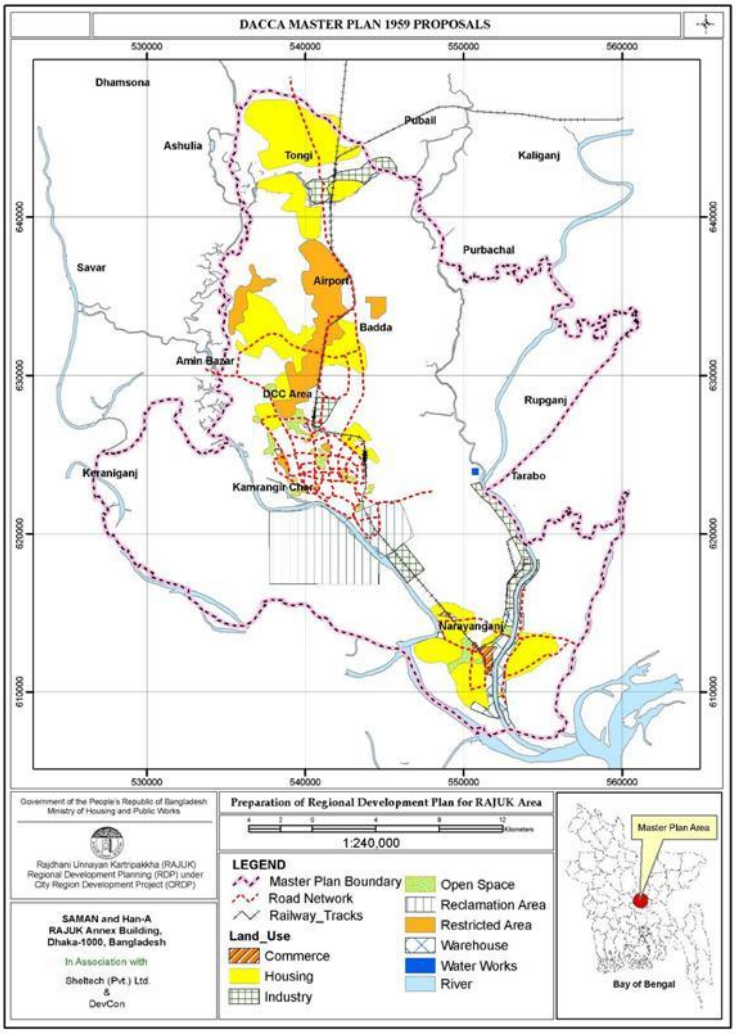
Evaluation of growth options (3rd Stage)

A combined peripheral growth and northern expansion strategy (strategy 2+ Strategy 3 at 2nd stage evaluation) was preferred

Though DMAIUDP was not formally executed or adopted as policy, the natural tendency of spatial growth was in line with the policies expressed in the report. The city took its own course of spontaneous development without any guidance or direction. However, DMDP was prepared in the light of the DMAIUDP. There was recommendation in the DMAIUDP that it should be followed by a structure plan for the city with more specific recommendations. Since northern periphery of the city is made of flood free high land supported by major highway, spatial growth took that direction. The major emphasis of growth was on north bound corridors of Gazipur and Savar. The eastern and western fringe areas were low and inundated during monsoon. In 1988 severe flooding forced

government to build western embankment to protect the city. This created an opportunity for development of low lands within the embankment. Being very close to the city, when embankment made the lands free of flooding land value shoot up and quick development started in these areas. The eastern fringe was, however, remained unprotected. The growth here was slow but not static. Private land developers created housing estates with massive land filling. Individual developers also joined them, but with a slower pace. Intensive high density spontaneous development took place in areas closer to the major thoroughfare where urban infrastructure and services were available in a better scale.

Thus, under the strict implementation of development control mechanisms, huge urban expansion especially industrial growth is going on the flood protected areas. Northern expansion is also not stopped.



Source: RAJUK, 2010

Map 8.1: Dhaka Master Plan 1959

8.6.5 Report of the Task Force on Bangladesh Development Strategies for the 1990s

The strategy proposed by the task force aim to keep Dhaka population within a quarter of national urban total. The report of the task force proposed;

- ✓ Discouraging investments in new large industries within Dhaka City Corporation limits.
- ✓ Dispersing population from the city by the establishment of new satellite towns or accelerated growth of existing satellite towns.
- ✓ Improving the transport network with existing satellite towns and nearby secondary cities and small towns.

8.6.6 Dhaka Metropolitan Development Plan (DMDP), 1995-2015

Dhaka Metropolitan Development Plan (DMDP) was prepared in 1995 by RAJUK under the ministry of housing and public works for its entire 1528 sq.km area. The project was funded by UNDP, World Bank, Asian Development Bank and executed by UNCHS/HABITAT in Dhaka. The project document was approved in November 1990 with completion in December 1995.

It was a package of three plans-

- ✓ Structure plan.
- ✓ Urban area plan
- ✓ Detailed area plan.

Each plan category was designed to meet particular need.

8.6.6.1 Structure plan

The Structure Plan provides a long term strategy for future metropolitan region development to the 2015. The plan identifies the magnitude and direction of spatial growth within DMDP area and sets forth spatial and sect oral policies over a longer period of time (1995-2015). Regarding contents of the structure plan the explanatory report, “A structure plan differs from older style master plan by concentrating on the broad structure of the city. It is not concerned, as are master plans, with either detail physical layout of the city, or with detail of individual development areas which cannot be implemented until the later stages of the plan period”. Among seven broad issues covered by structure plan, particularly land use related issues are:

- ✓ Shelter and housing
- ✓ Social facilities and open space

- ✓ Transport
- ✓ Flood control and drainage
- ✓ Utility services.

To optimize Dhaka's existing urban land resources, the report recommended two tools-consolidation of population and spatial accelerated development. The sub-strategy called for further densification of established urban areas in order to optimize use of land resources. It also laid down some policy strategies in this regard. The full list of strategies suggested by DMDP structure plan is as follows:

- ✓ Densification of existing built-up area
- ✓ Accelerated development within existing fringe area
- ✓ Development of planned new area
- ✓ Development of dispersed new satellite towns at flood-free locations
- ✓ Conservation and promotion of high quality agriculture land
- ✓ Promotion of winter cropping and fisheries expansion
- ✓ Discourage development in the flood flow area
- ✓ Conserving the flood retention ponds
- ✓ Keeping special areas uninterrupted
- ✓ Maintaining locational tendencies of manufacturing industries
- ✓ Not to designate new general industrial areas.
- ✓ Designating special zone for foot-loose industries
- ✓ Relocating highly polluting (e.g. tannery) industries
- ✓ Gradual dispersal of commercial activities to existing suburbs and new growth areas.
- ✓ Augmenting, identifying and securing sites for major recreational uses
- ✓ Developing long term primary road network, national link commuter rail network
- ✓ Accelerating flood protection and drainage (FAP-8B) project

8.6.6.2 The Urban Area Plan (UAP)

The DMDP Urban Area Plan (UAP) provides an interim mid-term strategy for the 10 years from 1995 to 2005 and covers for the development of urban areas within Metro Dhaka management area. The geographic boundaries comprising the Urban Area Plan are the areas within proposed Flood Action Plan (FAP) components 8A and 8B as well as Tongi-Gazipur and Savar-Dhamsona areas.

The DMDP Urban Area Plan has several parts consisting of an explanatory report, resources maps, interim management report, interim planning rules, Urban Area Plan map, and a multi-sectoral investment programs.

- ✓ **Explanatory report –** explains the basis for the Urban Area Plan and describes the salient features for each of the 26 Spatial Planning Zones (SPZ).
- ✓ **Resource maps –** record existing infrastructure locations, along with public and private sector developments.
- ✓ **Interim management report –** describes basis and approach taken towards urban land use management.
- ✓ **Interim planning rules –** state in legal formats the rules for urban land use management within the Urban Area Plan.
- ✓ **Urban area plan map –** designates various land use management zones.
- ✓ **Multi-sectoral investment program –** integrates and priorities urban development investments over the next three-five years.

As an interim plan covering a period of 10 years, the Urban Area Plan is intended to be gradually superseded by the various detailed area plans, which cover specific geographic sub-areas of the city.

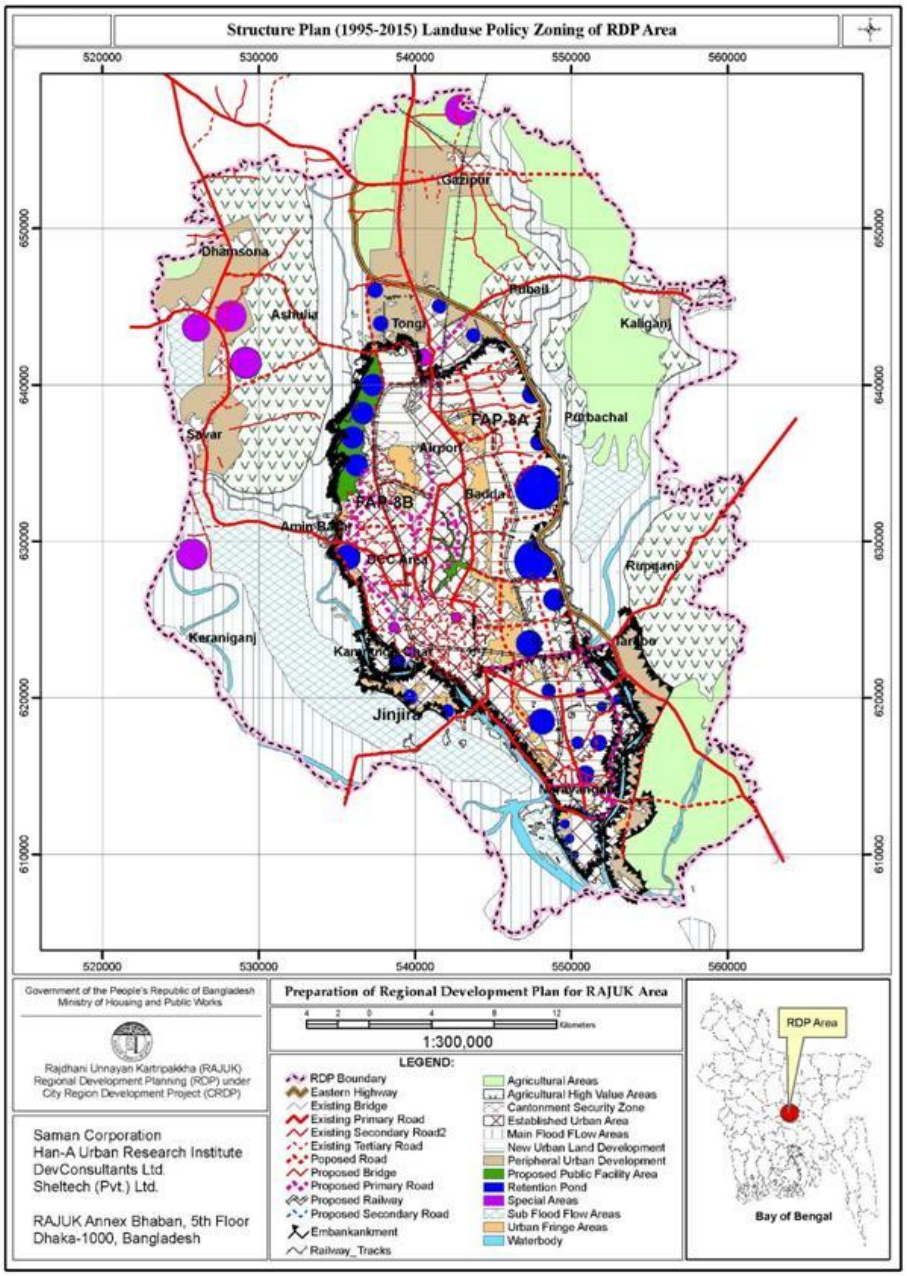
8.6.6.3 Detailed Area Plan (DAP)

The Detailed Area Plans were to provide detailed planning proposals for specific sub-areas. The areas for which the detailed area plans (DAP) were to be prepared should have been high priority areas having faced with urgent problems, or should be in a process of rapid change. However, the DMDP project could not produce a single detailed area plan as the project was cut short due to resource constraint. It was presumed that DAPs would be prepared in next five years (1995-2005) to replace the urban area plan.

As spelled out in the DMDP, the DAPs were to be prepared, setting priorities for those areas, where the pressure for growth was intense, and gradually move to areas, where the pressure was low. Overwhelming spatial growth was marked in those areas that were to be conserved as flood flow zone, sub-flood flow zone, and water retention areas. This situation laid more responsibility on RAJUK, to impose control on those areas to save the overall environment in these areas through preparation of detailed area plan. The Detailed Area Plan project area was divided into 5 groups and 11 locations on the basis of geographical location and settlement pattern. These sites were allotted to four consulting firms for preparation of DAP. This two year project started in 2004 and was finally completed in 2010.

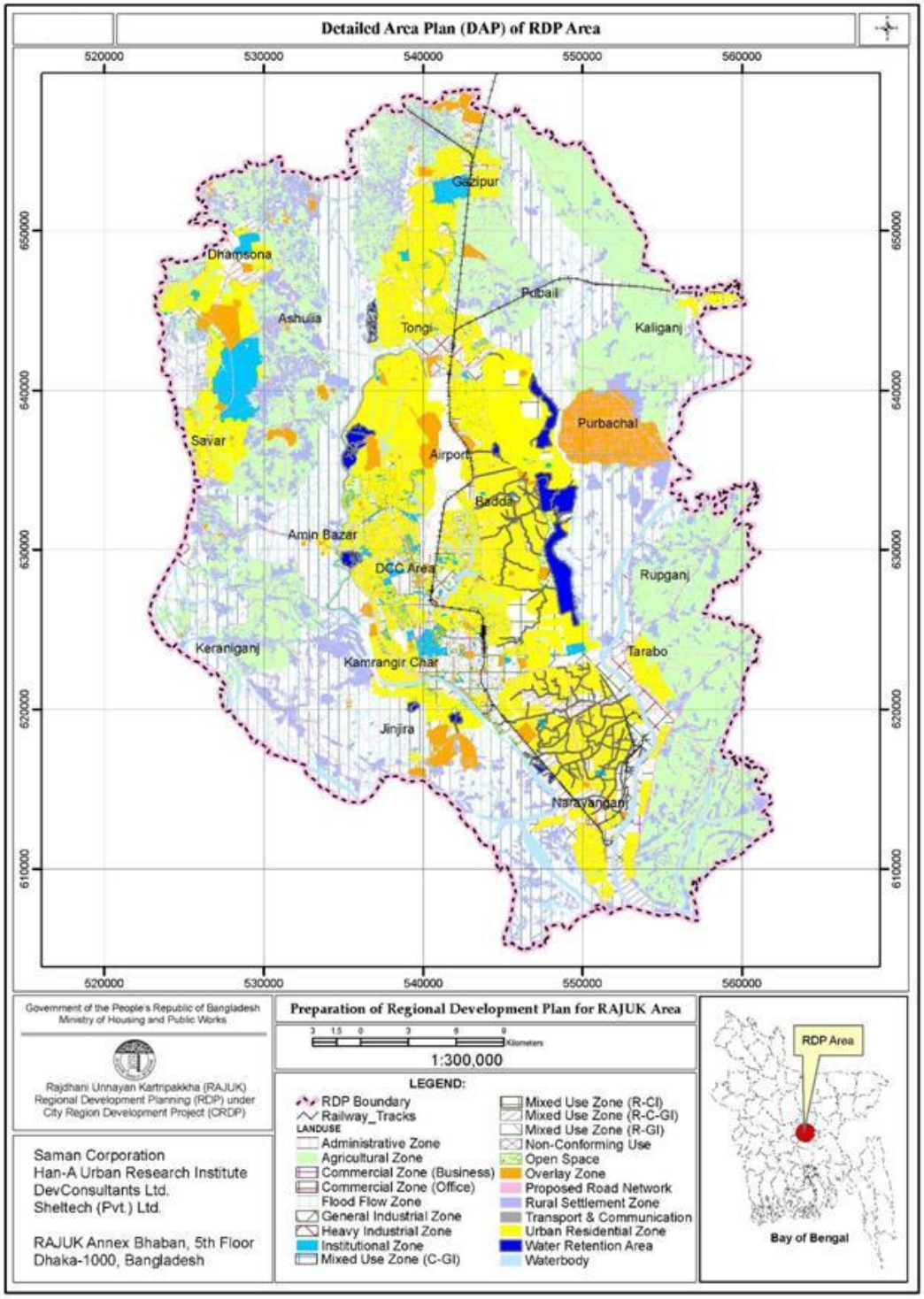
Although urban transportation is a component of urban planning, the policies and proposals relating to the transportation component of DMDP have not been discussed in this paper. Urban transportation planning is intricately and integrally related with urban

land use planning. One cannot be separated from the other. This vital component of the plan has been taken away from RAJUK and has been vested with DTCA (Dhaka Transport Co-ordination Authority). Under the present situation, RAJUK is an organization for town planning without the responsibility of transportation planning, and at the same time, the DTCB (Dhaka Transport Co-ordination Authority) is an organization for transportation planning without the responsibility of town planning. The result is likely to be disastrous.



Source: RAJUK,2010

Map 8.2: Structure Plan (1995-2015) of RDP Area



Source: RAJUK, 2010

Map 8.3: Detailed Area Plan (1995-2015) of RDP Area

8.6.6.4 Detailed Area Plan (DAP) Gazette

A Master Plan for 1538 sq. km. (590 sq. mile) under the jurisdiction of RAJUK has been prepared exercising the power in section 73 of Town Improvement Act 1953 (EB Act XIII of 1953) where Detailed Area Plan is a part of Dhaka Metropolitan Development Plan. Government accordingly approved the DAP after some correction and notified the approval of Master Plan (Detailed Area Plan for Dhaka Metropolitan Development Plan) under sub-section 74 of the Act.

DAP proposals, including land use zoning made in this report, should be periodically reviewed to fit the plan with the need of the time until 2015. The purpose of the review will be to take an overview of the level of implementation of the DAP, review changing physical growth pattern, development of infrastructure, trend of public and private sector developments. Necessary changes should be made in DAP proposals in the light of the findings of the review.

For environmental pollution control, Bangladesh Government approved the Environment Conservation Act in 1995 and Water-Bodies and Wetlands Protection Act in 1999. Both of these legal instruments have implications for housing development. But RAJUK itself flouts its rules from time to time by filling in water bodies to build houses for the influential people. Other government agencies are also seen to disregard rules and legal obligations. Private real estate companies violate the act unscrupulously. All major housing or residential development projects are obligated to obtain 'No Objection Certificates' from the Department of Environment before getting permission from RAJUK. They normally manage such permission without much problem.

8.7 Major Planning Tools for Development Control

For an effective implementation of the detailed provisions in the Master Plan/Detailed Area Plan, the basic principles of physical planning in a city scale are required to be followed to support and strengthen the more detailed mechanism/techniques to be executed for development control. Unfortunately, the existing DAP of RAJUK seriously lacks such provisions in its documents. However, the on-going preparation of DAP for the period of 2016-2035 is likely to adopt such provisions. Some basic planning tools are discussed here.

8.7.1 Zoning

Dhaka City does not have any clear zoning policy, or at least there is no proper implementation of the concept of zoning. The 1959 master plan had kept provisions for residential areas with some commercial and institutional uses. The residential areas were identified with income groups and density standards. Gradually most of the

residential areas have become mixed-use areas and to some degree mixed-income areas too. Some areas were zoned as low-income group area in the 1960s, but some of these were also transformed into middle-income or became mixed middle and low income group areas. Settlements or neighbourhoods of the poor (slums) are not normally recognized by RAJUK and therefore are absent in their planning maps. In the absence of any strong zoning regulation or restrictions, the poor enjoy some degree of freedom in being able to locate themselves at various points in the city. DMDP plan is also not accompanied by any zoning plan or map. It may only be possible after Detailed Area Plans are completed.

8.7.2 Subdivision

In Dhaka, RAJUK plans and controls residential and housing development. All plans must obtain permission from RAJUK. This is applicable for both individual home builders as well as for large and small real estate and housing developers. 'Residential estates', 'model towns', 'new towns' or individual buildings all come under the Building Construction Act and Town Improvement Act, set back rules etc. and the DMDP (1995-2015). RAJUK rules stipulate that all residential estates should develop only up to 65 percent of the land for housing purpose and the rest would be used for roads, open space, community purpose and other uses. However, in reality the private developers hardly comply with the rules and RAJUK is not able to fully monitor these. Obtaining building permission from RAJUK is a tedious and often unpleasant experience for individual home builders due to red tape and corruption.

8.7.3 Density Control

Density zoning is a tool to regulate the development intensity of any specific area. Usually it is applied in residential and mixed use areas. The 1959 Dhaka Master Plan had introduced density control in residential areas. However, in the new plan (1995-2015) has no such control. As a matter of fact, RAJUK itself keeps changing or revising density standards even in its own planned areas every few years, disregarding capacity of utility services, roads, and social or community needs. Government planned squatter resettlement projects were implemented with the density of 600 persons per acre in Dhaka.

Density zoning' has been incorporated in the Detailed Area Plan (DAP), 2016-2035, aiming to reduce pressure of population in the Dhaka core and make it livable. "Under density zoning, there'll be a process of identifying area-wise population density, the usage of land as per population density and putting emphasis on providing civic

amenities. Currently, DAP and Building Construction regulations such as Dhaka Imarat Nirman Bidhimala (2008) are used to control the development activities in Dhaka Metropolitan area. Current practice of FAR is not so effective to control the population density in residential area. As there is no fixed or standard size of residential apartment in our country, number of dwelling unit varies according to plot size and FAR. However, FAR does not have any direct role to control the population density maintaining its environment properly in residential area. Besides, current FAR value is flat, at times higher than required and used equally within Dhaka Metropolitan Area, which does not consider local character, existing potentials and scenarios etc.

8.8 Planning Laws for Development Control

Some of the necessary Laws related to urban planning and urban development control are discussed in this section for understanding the scope and provisions for urban development control in Bangladesh and RAJUK area in particular.

8.8.1 The Town Improvement Act 1953

This act is the parent act for RAJUK as RAJUK was created based on this act. The objective of The Town Improvement Act 1953 is to develop, improve and expand the city of Dhaka by opening up congested areas, providing new streets, open space, demolition or construction of buildings, land acquisition, housing for displaced persons etc. The act is the first statute to recognize the need for a planning approach in the country. RAJUK exercises development control function as per provisions laid down in the East Bengal Building construction Act, 1952 and its subsequent Amendments and the Rules & By-laws framed there under. Every construction /erection /excavation within the jurisdiction of RAJUK requires permission /approval from the Authorized Officer or Building Construction Committee appointed under the provision of the Town Improvement Act, 1953. Any type of building construction, housing, commercial, industrial and whatsoever need planning permission and they must be in conformity with the land use provision of Master Plan /Urban Area Plan /Detailed Area Plan of different micro areas.

The objectives of the TI Act intend to improve the physical and urban conditions of Dhaka City (RAJUK 2011). The Town Improvement (TI) Act 1953 for Dhaka controls proposed building development through the preparation of master plans and improvement schemes, along with their implementation and development controls (Zaman & Laing 2013). Using the provisions of the TI Act 1953, the Rajdhani Unnayan Kartripakkha (RAJUK) has been mandated as the legitimate authority to prepare land use plans and oversee plan implementation, control development and manage the growth of Dhaka City (Mahmud 2007b). The major aim was to ensure planned

development, promote a healthy urban environment, and prevent development of conflicting land use (among other things) and above all, to ensure the sustainable development of Dhaka City (Mahmud 2007b).

8.8.2 Building Construction Act 1952

The act provides regulations regarding setbacks, building heights etc in urban areas. The act also provided for prevention of haphazard construction of buildings and excavation of tanks which are likely to interfere with the planning of certain areas in Bangladesh and enables government through section 16 to make any substantial rules for carrying out the purposes of this act. The prime objectives of the act are to control building construction.

8.8.3 Bangladesh National Building Code (BNBC)

The Bangladesh National Building Code (BNBC) is the legal document that governs building construction (Seraj, 2013). With a view to bringing under control and ensuring a uniform standard of building construction practice in the country, the BNBC was prepared in 1993 and was formalized as a law in 2006 (Seraj, 2002). A new section 18A empowered the government to promulgate Building Code as legally binding instrument.

The Code is supposed to establish standards for the design, construction procedures, construction material, building use (occupancy), location and maintenance of all buildings within Bangladesh (Sera, 2013). The Code considers planning, administration and enforcement, general building controls and regulations, including requirements for different uses, fire protection and services, building density and building height. The installation and use of the necessary equipment for utilities are also regulated by this Code.

8.8.4 National Housing Policy 1993 and 2016

In response to the United Nation's (UN) declaration in 1988 for the formulation of Housing Policy by Nations, and the 1992 Rio de Janeiro Declaration on Environment and Development (also by the UN), the Government of Bangladesh formulated the first ever Housing Policy for the country in 1993 (Islam 2014). The Revised National Housing Policy of 1999 outlines the future role of the government as that of a "facilitator" or "enabler", rather than as a "provider", in order to increase access to land, infrastructure, services and credit, and to assure the availability of building materials at a sensible price and encourage housing finance institutions (Islam 2014; Seraj 2013). A draft of the National Housing Policy was also developed in 2008 by the Ministry of Housing and Public Works (Islam 2014). The aim of the Housing Policy

2008 was to provide appropriate housing to all citizens and to develop houses, settlements and workplaces on a sustainable and equal basis, with the intention of providing all citizens access to health facilities, safe residential and other utility services at a minimum cost (Islam 2014). The National Housing Policy has been further updated in 2016, which is currently in practice.

8.8.4 Private Residential Land Development Rules 2004 (Amended 2012 & 2015)

The contents focus on registration requirements, general obligations, control and bindings of private land development, consultancy for private housing project, final approval procedure of private housing project, miscellaneous (committee formation, special control, issue of notice, report against completion of project) etc. This rule specifies population density (maximum 350 persons per acre) as well as population standards for various land uses, e.g. kitchen market/ market/ community center/ religious center/ graveyard etc which will be handed over to the local authorities. In addition, the rule preserves the right for environmental conservation, e.g. securing natural water body and mandatory provisioning of solid waste management and waste water treatment plant.

8.8.5 Real Estate Development and Management Act, 2010

The Real Estate Development and Management Act 2010 is a new statute to streamline real estate development and bring it under control, and this statute is applicable to all development control authorities (Seraj,2013). The act is focused on the developers' irregularities in handling sold plots, registration, transfer and land development. A considerable amount of land in and around Dhaka city has been grabbed by the real estate developers for profit maximization, much of which without proper approval from RAJUK/ concerned authorities. This act is enacted to control and manage the activities of real estate companies to secure public interests. However, this act shall not be applicable to the real estate development and management activities initiated purely by government. A large portion of urban land in the metropolitan areas are owned by government and autonomous bodies like RAJUK, PWD, Railway, City Corporations, Development Authorities, Paurashava, BTTB, RHD, WASA, BADC, M/O Health, Cantonments, Universities, many Government Colleges and other related institutions etc. According to EBBC Act 1952 (amended in 1978), each public building needs approval from the concerned Development Authorities, which is hardly adhered. There is no information to the Development Authorities about public agencies development programs and activities causing drawbacks in plan preparation and implementation. However, the act is not concerned with the ecologically critical areas, has no provision for punishing the violators, and the law does not include any price control mechanism (Alam & Ahmad 2011; Haque 2004).

8.8.6 The Greater Dhaka Building (Construction, Development, Conservation & Defoliation) Rule 2008

This statute is applicable only within the RAJUK jurisdiction and it superseded the earlier set of rules framed in Building Construction Act 1952, Building Construction Rules 1984, Building Construction Rules 1996, Dhaka Metropolitan Building Construction Rules 2006 and Dhaka Metropolitan Building Construction Rules 2007 (Seraj, 2013).

The Building Construction Rules 1996, promulgated for the whole country, was at the same time too simplified and ambiguous to be imposed for a megacity like Dhaka (Seraj 2013; RAJUK 2011; Shafi 2010; Mahmud 2007a). The Dhaka Metropolitan Building Construction Rules 2008 provided more authority to RAJUK in the following ways (Mahmud 2007b):

- ✓ By spelling out the responsibilities of professionals like urban planners, architects, structural engineers, mechanical engineers, electrical engineers, geo-technical engineers, site supervisors and plumbing engineers;
- ✓ By specifying the responsibility of who was to monitor development of the city; and
- ✓ By spreading out the responsibilities to various actors.

The Building Construction Rules 2008 addresses the issues of Floor Area Ratio (FAR), ground coverage, setbacks, road widths, access and parking facilities according to site area for development; minimum room dimensions and community spaces according to building usage pattern; protective measures for constructing in environmentally vulnerable sites, as well as requirements for light and ventilations, water sanitation and drainage facilities, waste disposal, fire safety measures and universal access for acceptable living conditions (Zaman,2007; RAJUK 2008). One of the most important improvements is the introduction of FAR which manages the growth of the city by providing rules of the building coverage area and allowable floor space in relation to building height, road width and plot size (Shafi, 2010). FAR is the ratio of the total floor area of a building to the area of the plot, where it is located. As a formula, FAR can be expressed as follows:

$$Floor\ Area\ Ratio\ (FAR) = \frac{Sum\ of\ areas\ of\ all\ floors\ of\ the\ building}{Area\ of\ the\ plot}$$

FAR is directly related to the ground coverage of a building, while the ground coverage can be defined by the following expression:

$$Ground\ Coverage = \frac{Land\ area\ covered\ by\ building\ \times 100}{Gross\ area\ of\ Land}$$

FAR provides a trade-off between the ground coverage and the building height (number of floors). If the floor area (or ground coverage) of the building is higher, the height of the building will be lower. This can be understood from the following expression by rearranging the first expression:

$$No\ of\ floors = \frac{Area\ of\ the\ plot\ \times\ FAR}{Ground\ coverage}$$

To ensure access to natural ventilation and daylight in the building, ground coverage and the floor area ratio (FAR) have been fixed on the basis of the plot area as outlined in the following table 8.1:

Table 8.1: Maximum ground coverage and FAR based on plot size

Plot size (in Katha)	FAR	Maximum ground coverage (%)
2 and less	3.15	67.5
More than 2 to 3	3.35	65
More than 3 to 5	3.5	62.5
More than 5 to 7	3.75	60
More than 7 to 9	4.0	60
More than 9 to 10	4.25	57.5
More than 10 to 12	4.5	57.5
More than 12 to 14	4.75	55.5
More than 14 to 16	5.0	52.5
More than 16 to 18	5.25	52.5
More than 18 to 20	5.25	50
More than 20	5.5	50

(Source: RAJUK 2008)

Setback Distance:

Rules regarding setback distance are discussed below (RAJUK 2008). The mandatory setback from the back or sides of the plot for buildings up to 10 floors are shown in Table below:

Table 8.2: Setback distance from the back and side of the plots

Land area (square metres)	Front setback (metre)	Back setback (metre)	Side setback (metre)
Less than 134	1.5	1	0.8
135-201	1.5	1	1
202-268	1.5	1	1
269-1340	1.5	2	1.25
>1340	1.5	2	1.5

(Source: RAJUK 2008)

For any land area, if the height of the building to be constructed is more than 10 floors or 33 meters, side and back setback is minimum 3 meters and front setback is 1.5 meters.

Two buildings in one site must be situated at least 4 meters away from each other if in line and 2.5 meters away if they are side by side.

The rules deal with application for clearance, approval and issuance of use certificates. The important ones are:

(a) Land use clearance
(b) Special project permits for large and specialized projects
(c) Building permit and
(d) Occupancy certificate.

It also describes formation of different Committees like

(a) Building Construction
(b) Large and Special project approval
(c) Town Development Committee and
(d) Any other Committee as necessary.

In addition, these rules explain the list and classification of concerned technical persons indicating their qualifications and experiences to ensure standard and quality services. It deals with the rules of building construction in terms of compulsory open space in a project /building, set back from the boundary, land coverage, rules regarding Floor Area Ration (FAR). Application of these rules will depend on type of use of building, width of road, traffic density, population density, parking demand, utility services, fire protection, HVAC system and so on.

It further deals with landscaping and parks / conservation and preservation / development and construction in flood prone zones, near water sheds and hilly areas and special control (defense area, airport, radio/ television centers, areas of national importance) etc. However, RAJUK failed to implement the Building Construction Rules 1996 which was easier and straight forward to execute. So, it would be very unrealistic and optimistic to implement BCR 2008 without the rearrangement of the institutional capacity of RAJUK which was the major constraint in the successful implementation of BCR 1996.

8.8.7 Natural Water Body Protection and Preservation of Open Space and Play Ground Act, 2000

The act will be applicable to all Paurashava (municipalities) in the country including district towns, divisional towns, city corporations to preserve play ground, open space, parks and water bodies etc. The act was to protect and conserve natural drainage system and water bodies from land grabbers with the ultimate objective to safeguard environment. But the authorities are experiencing problems with respect to some definitions like *pukurs* (ponds). As such they are unable to prevent filling up of ponds. Play ground, open space, park and natural water bodies as demarcated shall not be reclassified, or changed into other use or be transferred/ rented/ leased out without conformity of this rule (section 5 of the act). According to this act, all the lands, which contain flood water and rain water, are also included in wet land. In this regard, most of the land in Bangladesh falls in the category of wet land which has been severely criticized.

8.8.9 Environmental Conservation Rules (ECR) 1997

According to the section 20 of the Environmental Act 1995, the government introduced the Environmental Conservation Rules 1997. The matters which should be considered in declaring an area as ecologically critical and the way of obtaining environmental clearance certificate have been described here. In this Rule, all activities have been classified in 4 categories; Green, Orange A, Orange B and Red. Different industrial projects have been classified according to their effects on environment and location. Standards have been described for air, water, smell, sound and gas emission from motor vehicles and industries, waste and waste water disposal from industries and factories. Based on the industry types, the rules ask for different levels of 'environment certificates' prior to securing permission for the industry.

8.10 Conclusion

This Chapter has discussed the broad framework of institutional, planning and legal provisions that can be applied in the control of development in the RAJUK Area. On the basis of the discussion made in this Chapter, Chapter 9 deals with the operation of development control process and mechanism in RAJUK area.

CHAPTER NINE

EFFECTIVENESS OF THE PRACTICES OF DEVELOPMENT CONTROL MECHANISM BY RAJUK

9.1 Introduction

This Chapter discusses the practices of executing development control mechanism by RAJUK. The aim is to explore the process and tools for executing the development control measures within RAJUK's jurisdiction. An analysis of the outcomes of the practices of development control mechanism is made here in general and with an analysis of case study situation in Dhanmondi and Savar within RAJUK.

9.2 Development Control Process Followed by RAJUK

In 1956, the Dhaka Improvement Trust (DIT) was formed under Town Improvement (TI) Act, 1953. DIT was named as Rajdhani Unnayan Kartripakkha (RAJUK) on 30 April 1987 with special power of development, improvement and expansion of capital city Dhaka.

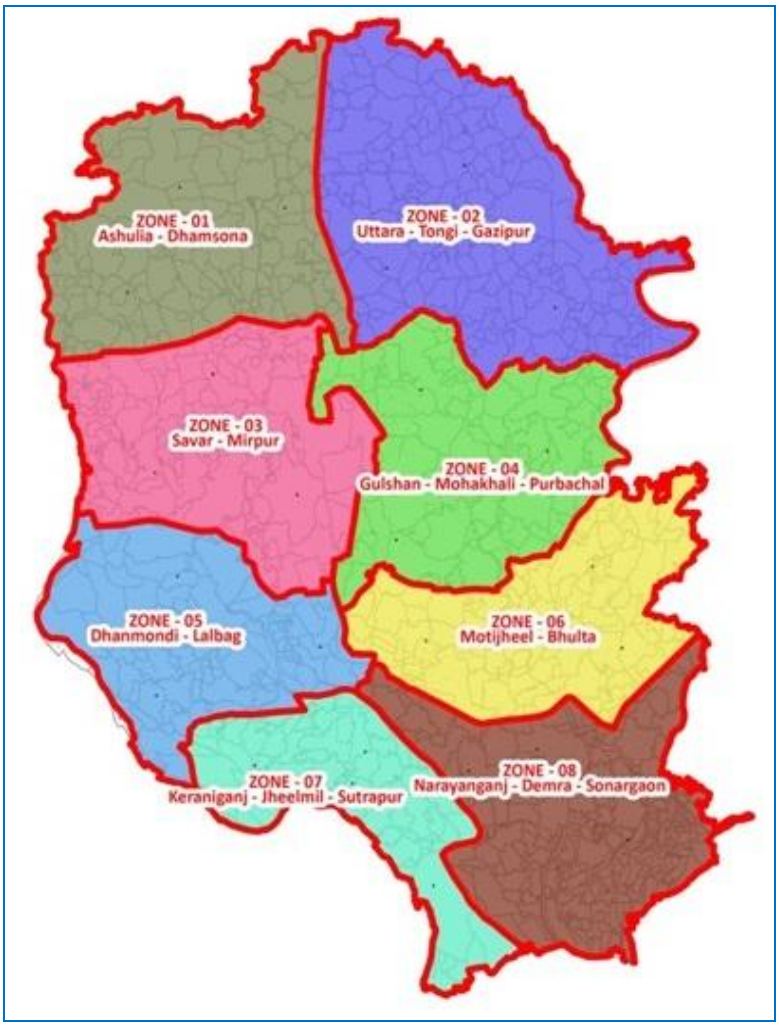
Vision of RAJUK is to be an apex planning authority to build a healthy and livable capital city Dhaka and its mission covers Planning, Development and Development control to manage the growth of Dhaka city (RAJUK, 2016).

RAJUK exercises development control function as per provisions laid down in the East Bengal Building Construction Act, 1952 and its subsequent Amendments. Every construction/erection/excavation within the jurisdiction of RAJUK requires permission/approval from the Authorized Officer or Building Construction Committee appointed under the provision of the Town Improvement Act, 1953. Any type of building construction, housing, commercial, industrial and whatsoever need planning permission and they must be in conformity with all acts and Rules, the land use provision of Master Plan/Urban Area Plan/Detailed Area Plans of different SPZ's.

After the approval of new organogram of RAJUK, a separate development control wing has been set up under Member (Development Control). The institutional structure and functions of this wing has been discussed in Chapter 8. The 1528 Sq. Km. area of RAJUK has been divided into 8 zones and 24 sub zones to facilitate planned development as per its Detailed Area Plan (DAP) as shown in Table 9.1. The location of 8 zones can be seen in Map 9.1.

Table 9.1: Name and Area of RAJUK Zones

Name of Zone	Major Area	Area (sq Km)
Zone 01	Ashulia, Dhamshona and adjacent areas	220
Zone 02	Uttara, Tongi, Gazipur and adjacent areas	291
Zone 03	Savar, Mirpur and adjacent areas	202
Zone 04	Gulshan, Mohakhali, Badda, Purbachal and adjacent areas	163
Zone 05	Dhanmondi, Lalbagh and adjacent areas	168
Zone 06	Motijheel, Vulta and adjacent areas	186
Zone 07	Keraniganj, Jhilmil, Sutrapur and adjacent areas	148
Zone 08	Narayanganj, Demra, Sonargaon and adjacent areas	168



Source: RAJUK, 2018

Map 9.1: RAJUK Zone Map

9.2.1 Development Control Wing of RAJUK

For development control, RAJUK has a separate wing headed by a Member as shown in Figure 9.1. The development control wing has a list of functions assigned for execution as listed in the scope of work in section 9.2.2.

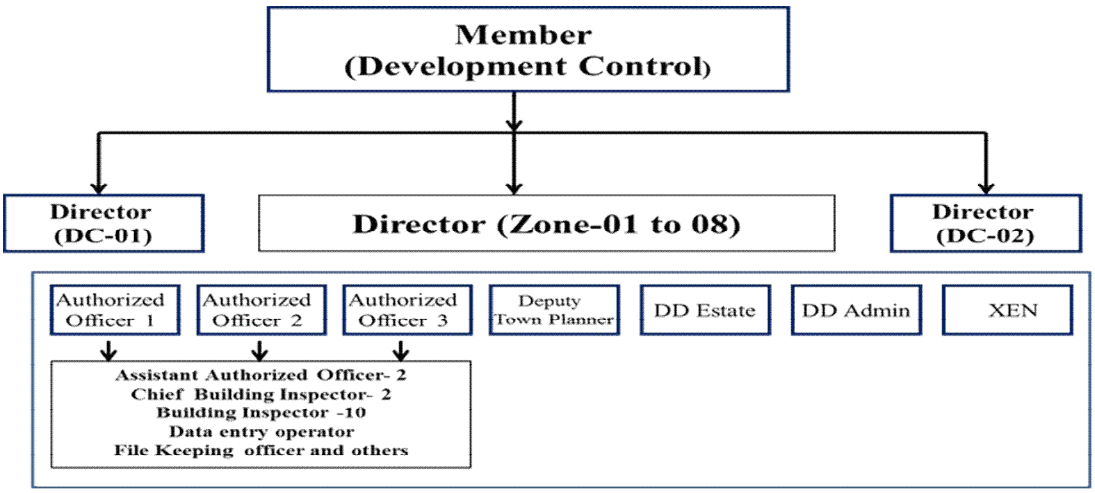


Fig 9.1: Manpower of Development Control Section of RAJUK

Development control wing consist of ten sections. These are

a) Director (Development Control- 1)
b) Director (Development Control- 2)
c) Director (Zone- 1,2,3,4,5,6,7,8)

Office of the Director (Development Control) 1 & 2 are responsible for policy making and coordination with the other zonal offices. The zonal officers are responsible for implementation of plans and programs designed by RAJUK authority. Zonal Director is the head of the zonal office. The Director monitors, controls and co-ordinates all the functions of development control sections in association with three Authorized Officers of each zone.

9.2.2 Scope of Work of the Development Control Wing

a) Development Control wing of RAJUK is entrusted to regulate building construction activities, taking initiative for enactment of laws/rules and subsequent revision and amendment regarding building construction and development.

b) The wing is authorized to approve building construction plans as per instructions maintained in the Greater Dhaka Building (construction, development, preservation and demolition) Rules, 2008.
c) Demolition/Removal of unauthorized structure and deviated portion of structure by conducting mobile court and eviction activities.
d) Registration of developer companies as per 'Real Estate Development and Management act, 2010' and subsequent 'Real Estate Development and Management rules, 2011'
e) To communicate and coordinate with other development agencies, like DNCC, SDSC, WASA, DPDC etc. and the different ministries and committees concerned with the development control functions of RAJUK.
f) Any other task assigned by the government/RAJUK Katripakkha.

As in Chapter 8, RAJUK is legally mandated to operate development control within the physical boundary of jurisdiction following its plan documents, laws and rules. The building permission is one of the most important activities of the development control mechanism that RAJUK follows and performs through its Development Control Wing.

9.3 Building Permission Process for Dhaka

RAJUK is the legitimate public institution issuing approval of any building construction. Before any sort of construction a land owner need to take several permission from RAJUK.

Under the Dhaka Metropolitan Building Rules 2008 the process of building approval is divided into the following four steps:

a. Land use clearance
b. Development permit
c. Building permit
d. Occupancy certificate

9.3.1 Land Use Clearance

Application for land use clearance for the proposed use of land or site shall have to be submitted in specified form (Form-101) along with necessary documents relating to ownership of land. Ten copies of application duly signed by applicant and accompanied with a survey map of the sight drawn to a scale of 1:5000 or 1:10000 having a rough location map to identify the land.

No approval to building plan or any development proposal shall be given on any land obtaining under the jurisdiction of the authority but outside the domain of the planned

area prior to land use clearance certificate from the authority before the submission of the application for development permit and building permit.

Generally planned residential areas developed by Ministry of Housing and Public works or any department under the Ministry and or land developed by private organizations under site and services projects like; Gulshan, Banani, Uttara, Dhanmondi and other private housing areas that already have the approval of RAJUK for developing as residential area are not subject to take the 'land use clearance' from RAJUK, Because they are already been approved as residential area for whole project. For other areas taking of the land use clearance is a must before submitting plans for construction.

9.3.1.1 Approval, Rejection and Appeal of Application for Land Use Clearance

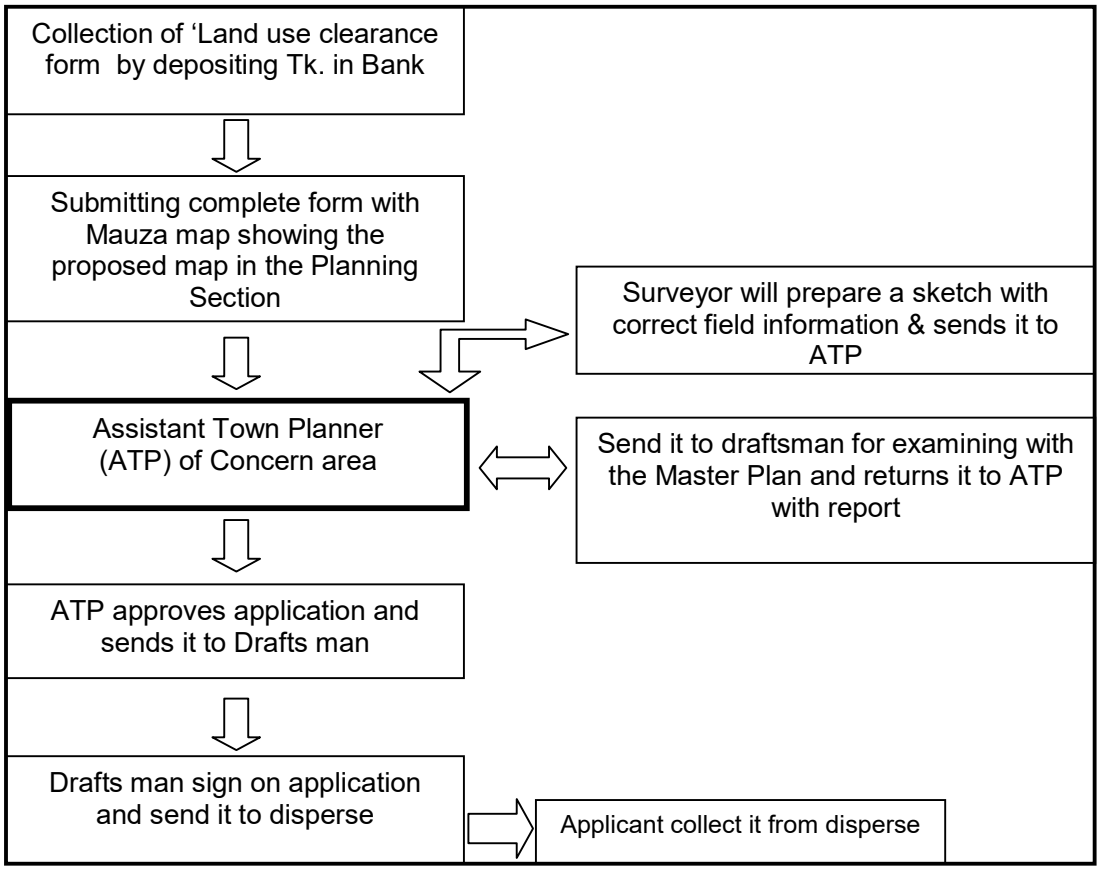
The authority may approve the application by imposing any condition if necessary according to form-102 or reject the application showing reasons according to form-103 within 30 days from the receipt of application. The processing of application is shown in Figure 9.2.

If the application is rejected under sub-rule (1), the applicant may apply to the chairman for reconsideration land use clearance according to form-104. The chairman of the authority may accord approval of land use clearance as perform 105, or may reject as per land use clearance form 106.

If the application is rejected under sub-rule (2), the applicant may appeal against rejection of land use clearance to Urban Development Committee in form-107. The committee shall recommend ask for approval or rejection of the application to the authority within 30 days of receipt of application.

After receiving the recommendations, according to sub-rule (3), the authority may approve the application as per Form-108 or reject the application as perform-109. The decision of the authority in this respect shall be considered as final.

The applicant shall have to submit application for renewal of land use clearance certificate as per Form 110 and clearance shall be given as per Form 111.



Source: Prepared by Author (on the basis of information from RAJUK)

Figure 9.2: A General Land use Permission Process

General Condition for Approval of Land Use Clearance Certificate

Land use clearance certificate is not an approval for development or construction and does not authorize an applicant or a person neither the right to start nor accomplish such activities.

Land use clearance certificate shall not affect the imposition of additional conditions on the approval of development or construction permits.

Validity of Land Use Clearance Certificate

The land use clearance certificate shall remain valid up to 24 (twenty four) months from the date of approval.

Within the time period defined sub-rule (1), application may be submitted to the authority on the prescribed form for the extension of land use clearance certificate. If the authority considers it as acceptable, the duration of clearance may be extended for a period of 12 months from the date of expiry of the extended period.

9.3.2 Development Permit

As per rule 12, development permits shall have to be obtained from the competent authority prior to obtaining building construction permission for various types of projects or project development.

Application for development permit shall have to be submitted in prescribed form (from-201) with appropriate fees prescribed in by-law (1).

An application shall have to be submitted for development permit along with the following documents;

I. Copy of land use certificate or no objection certificate (as applicable).
II. Four copies of site plan
III. Ownership right, holding number, CS/SA/RS, metropolitan survey or recently published survey, plot number, location identification in case of planned and any other documents specified by the authority, settlement record schedule etc.
IV. The total number of floors total approximate floor area and total number of residential units of the proposed building.
V. The approximate floor area according to use in each floor.
VI. The estimation of FAR.
VII. The approximate requirements of necessary water and its source and supply system for the proposed development.
VIII. The approximate demand of electricity and its distribution system for the proposed development.
IX. The phases of construction beginning and approximate time frame of complementation.

The application for development permit shall be signed by the applicant and at least one architect and one civil engineer who is a member of the relevant professional organization enlisted in according to rule 31.

The authority shall return two copies of site plan other approved or unapproved with seal of the authority and the remaining copies shall be filed for record.

9.3.2.1 Development Projects

Development permit shall have to be obtained for the following different kinds of development projects:

a) Residential building containing more than 40 dwelling units.
b) Office building etc. with floor space of more than 7000 square meters.
c) Markets with more than 5000 square meters of floor space.
d) Any type of project on a site with more than 2600 square meters.

e) Any projects directed connected to a highway.
f) Development of any site for recreational development over an area of 1 hector or more.
g) Any industrial factory including brickfield that creats environmental pollution and health hazard.
h) Any construction and development within 500 meters of architectural or historically important buildings or site.
i) Any construction and development authority acivity within 500 meters ofa place of natural beauty.

Plans and Documents: Any drawing of development plan shall have to be drawn to the minimum scale of 1:1000 and the following elements shall have to be incorporated or marked on the plan:

- Boundaries of the site along with measurement of the roads and the adjacent land under ownership of the applicant.
- A symbol indicating the North of the site.
- Name of the adjacent road or name of the from where the private road has originated if it is linked to the site.
- Holding number, plot number, road number or mouza name & number of the proposed project site.
- Width of all the adjacent roads and location and width of footpath if any.
- Average height of the site with respect to all roads within a radius of 100 meters.
- External measurements and distance of the existing or proposed buildings or the location of
- The other structure with respect to the project site and there uses thereof.
- Location, height and distance of the existing buildings or infrastructure from the boundary of the site.
- Location of entry and exit for vehicles and pedestrians to the site.
- Road side drain, natural water flow channel, water flow and proposed water drainage system.
- Location of existing electric distribution line, water supply line , sewerage line and proposed connections.
- Location of all existing natural features (water body ,open space ,garden ,hills etc.) and of historical importance within 500m distance from the site and location of the site.
- Location of proposed garbage collection bin within the site.
- Existing trees and proposed plan for plantation of trees and innate natural plan
- Twenty copies of drawings with the application.
- Waste disposal management in case of industries.

9.3.2.2 Approval of Development Permit

Within 45 days of the receipt of application for the approval of development permit, the authority in its own decision or accepting the recommendation of the city development Committee may approve the application in form-203 or reject as per prescribed form-202. Notwithstanding anything contained in sub-rule in order to simplify and speedy finalization of the development permit by the authority and different relevant departments, the authority may dispose of the application through the one window service cell, formed under rule-33.

Projects related to national interest or project which may create adverse impact to the environment, may display the drawings for public application and comments and after a period of 15 days and then sent those comments to the City Development Committee. If any person thinks that any project doesn't follow these rules or any other existing act or rule or ordinance or any hamper the public or the environment or then that particular person shall be given the opportunity to examine the map or drawing of that particular project on this application.

Legality of Development Permit

Legal validity of the development permit shall be of 24 months from the date of issue. Application for the development permit shall have to be submitted within this period. If the application fails to apply the construction permit within the period of validity development permit, he shall have to apply again for the development permit.

Rejection of Development Permit

No development shall be done in violation of any condition of the development permit. Development permit may be rejected by the authority for any of the under mention causes (i) If any condition of the development permit is violated (ii) If any provision of the rule is violated (iii) If there is any mistake in the submitted application or false information furnished or concealed.

Appeal Regarding Development Permit

An applicant may appeal using the prescribed form to the City Development Committee within 45 days from the date of rejection of the application of the development permit. The committee may approve or reject the submitted appeal in sub rule after consideration within 45 days from the day of submission.

9.3.3 Building Permit

Interested person or group and government or non government organization shall have to obtain for building permit in order to build new building or infrastructure or to alter anything in the existing building or infrastructure. For this obtaining building permit under sub rule application shall have to be submitted using prescribed form with necessary documents specified in rule 20 and application have to be submitted with 8 sets of drawings. The applicant and appropriate qualified person as per description of under rule 31 shall put their signature on the map. Technical personnel shall have to mention their professional membership number in the specified place of the map and documents. The Legal framework for providing building construction approval is based on the compliance of the following:

- ✓ Building Construction Act 1952
- ✓ Town Improvement Act 1953
- ✓ Dhaka Mohanagar Imarat (Nirman, Unnayan, Songrokkhon o, Oposaron) Bidhimala, 2008.
- ✓ Bangladesh National Building Code (BNBC)
- ✓ Real Estate Development & Management Act 2010
- ✓ Mobile Court Act 2009

9.3.3.1 Building Construction Approval Process

The building construction approval process (Figure 9.3) is executed on the following conditions:

- ✓ According to the act, an application should be approved or rejected within 45 days of its submission. But recent experience shows that the procedure can be completed within 20 days.
- ✓ An online submission and approval of plan has started only in zone 3 & 4 as a pilot project.

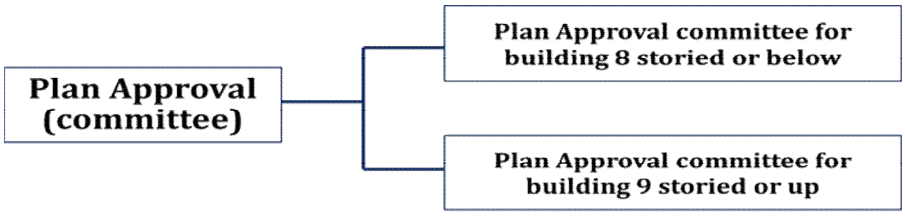
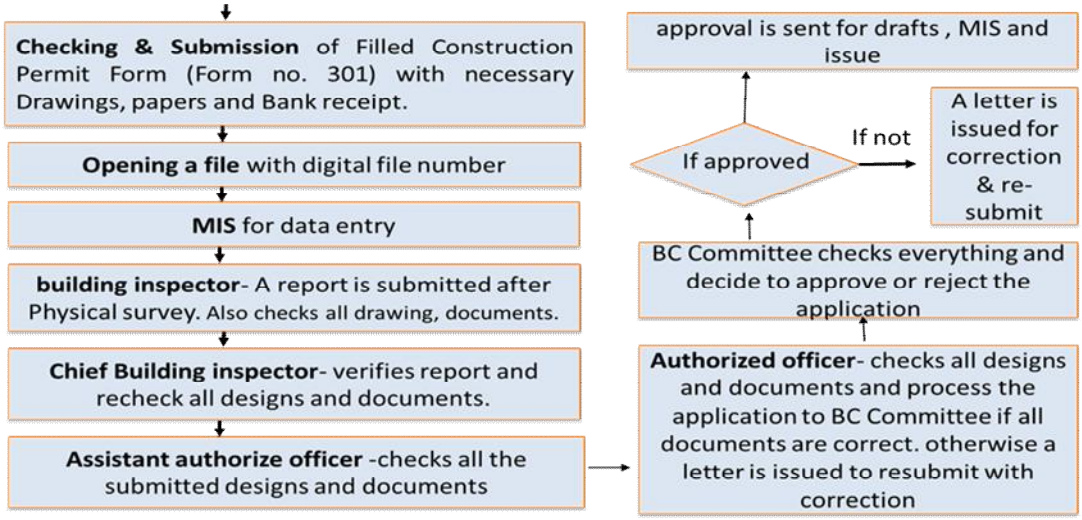


Fig. 9.3: Committees for building construction approval process.

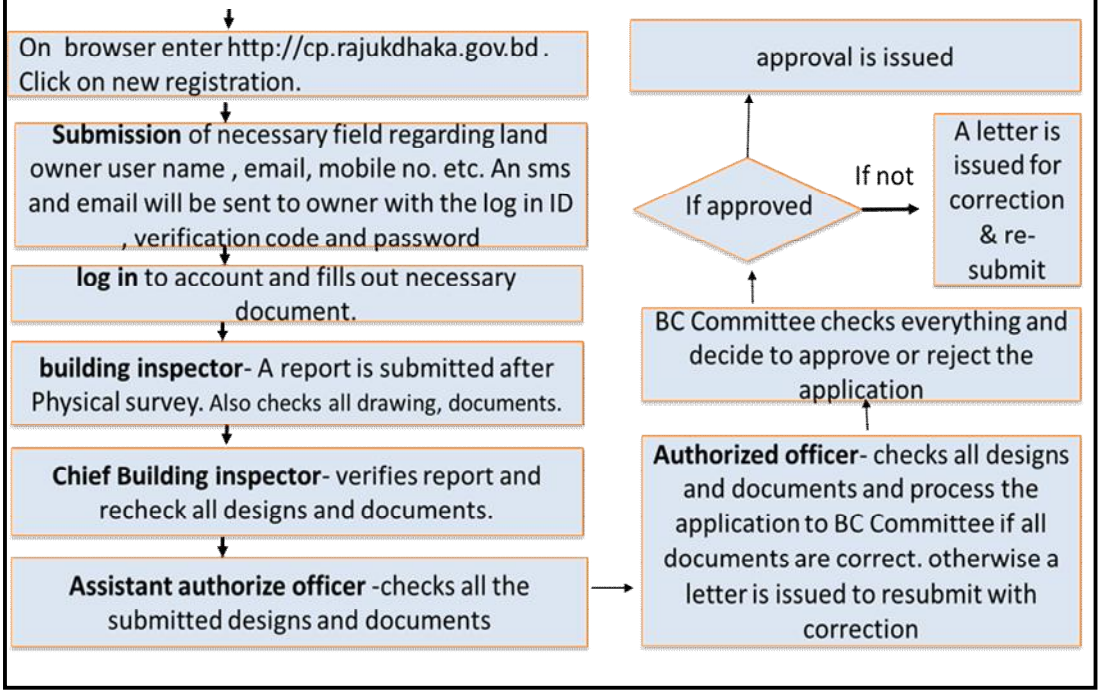
Building construction approval process: (manual)



Source: Prepared by Author (on the basis of information from RAJUK)

Fig 9.4: Building construction approval process: (manual)

Building construction approval process: (online)



Source: Prepared by Author (on the basis of information from RAJUK)

Fig 9.5 Building construction approval process: (online)

Figure 9.4 and 9.5 show respectively the full process of manual and online building construction approval process of RAJUK. The process seems to be attentive to the detailed requirements for approval of the application.

9.3.3.2 Necessary Documents for Approval of Application

For the purpose of obtaining building permit, the under mentioned documents and maps shall have to be attached with the application forms.

- ✓ Land Use Clearance for planned and unplanned area
- ✓ CAAB Height, KPIDC & SSF clearance, special Dap clearance for hatirjheel project, special committee clearance (If applicable)
- ✓ Attested copies of all Ownership documents (khatiyan, Deed, tax document, DCR, namjari, joma vag er prostab etc)
- ✓ NID of land owner
- ✓ Bidhimala form 301
- ✓ Bank Receipt
- ✓ Indemnity bond
- ✓ FAR Calculation
- ✓ IAB/IEB certification of Architect, Engineers etc
- ✓ Drawing in 8 sets (Site plan, Layout design, floor plan, cross sections, elevations etc.)
- ✓ For high-rise building, NOC of different agencies (DOE, Fire service, DTCA, DESA/DESCO, Civil Aviation, WASA, DMP, DSCC, DNCC, Paurashava) is required.

Necessary architectural drawings

All drawings need to be prepared in metric measures in international A series (A0 to A4) papers. The following information shall be required to be included:

a) Name of the applicant, address and signature along with the title of the drawing.

b) Name of urban planners architect and engineers along with the name , signature and the membership number of the relevant professional organization.

c) Purpose of construction and proposed use.

d) For government developed land, details of sides and services development and details of individual private construction on allotted plots are required.

e) Name of the police station in which the site is located.

f) Name of mouza, CS/RS/SA to plot number.

Site and layout plan

Site plan shall be drawn to a minimum scale of 1:4000 and it shall incorporate the following information:

- ✓ The C.S map of the mouza within which the site is located along with the location of the site and necessary parts of R.S. or S.A. maps. In case of development project by the government or any approved non government organization, parts of the drawing of the project area along with the location of the site.
- ✓ The location indicator of the plot in the site and adjacent plots and
- ✓ Specially indentified site or land under considerations.

Lay out plan shall be drawn to a scale of 1:200 and it shall incorporate the following information:

- ✓ Boundaries and dimensions of all sides of the site
- ✓ Where applicable, perimeter external dimension, height, number of floors of the existing buildings on the site and the amount of open space compulsorily preserved.
- ✓ Where applicable, location of existing and proposed buildings and structures on the site ,water bodies ,gardens and other aesthetic areas , low land ,forest etc.
- ✓ Name of the area and of roads.
- ✓ Direction of the site/plot from the viewpoint of the adjacent streets, width of the streets within a distance of 100 meters on both sides of the site and the length of the entire street in case of private streets.
- ✓ Location of the entry and exit gates to the from the streets.
- ✓ Location of the drains around the existing and proposed buildings, direction of water flow, size of the drain through which water drains out from the site.
- ✓ Underground tank, septic tank and soak pit, location of the connection with the sewerage line(if any).
- ✓ Location of the garbage collecting place within the site.

In case of large project with several buildings and other infrastructure and installations, a Key plan in an appropriate scale shall have to be prepared which shall show the location and perimeter of all the buildings and infrastructure, street layout, entire landscape and geographical elements such as trees, hills, pond, land excavation, land filling etc.

9.3.3.3 Building Construction Approval, Correction and Alteration Fees

- ✓ A prescribed fee at the rate of Tk./sq.m of floor area shall have to be paid for approval of newly construct buildings.
- ✓ A prescribed fee at the rate of Tk./sq.m of floor area shall have to be paid for modification and alteration
- ✓ The additional attested copies of approved building construction permit and other documents may be collected with a payment of prescribed fee
- ✓ All the fees under this rule have to be deposited through pay order or bank draft from the branch of any scheduled commercial bank under Bangladesh Bank within the jurisdiction of Dhaka metropolitan area in favor of ‘’Chairman. Rajdhani Unnayan Karti Pakkhaya,Dhaka-1000’’.

Validity of building permit

The validity of building permit shall be three years and the construction works have to be started within the schedule time period of approval. If the applicants fail to start construction with the validity of building permit, a fresh building permit shall have to be obtained.

9.3.3.4 Amendment of Building Construction Plan

In case of any amendment of the approval plan, the following conditions shall have to be fully met:

- ✓ After the building plan is approved if any alteration or modification is required within the validity of the approval, application with 8 copies of modified layout plan have to be submitted.
- ✓ Fresh approval shall not be required if only for rearrangement ; while no change is made in total floor area , FAR , ground coverage ,perimeter and method of vertical circulation or position of passageway.
- ✓ No approval is necessary for derivation of the height of the room within the limit of 20 cm, if other related restriction remain the same.
- ✓ If change or modification of floor area of the building is required in conformity with permissible FAR ,set back ,ground coverage , then fresh application has to be submitted for approval with an additional fee of 25% along with the normal fee on floor area basis.
- ✓ If the modified part is constructed before approval of revised layout plan and if the modification is acceptable under the rules, an additional fee of ten times of regular fees shall have to be paid as penalty for new approval of construction.

Under section (d) of sub-rule (1) approval for layout plan of construction will be given at the time of issuing modification and occupancy certificate. The legally approved layout plans before starting of enforcement of these rules shall remain valid.

Application Procedure

1) If the authority finds that the application is incomplete then the authority may request the applicant in writing to submit necessary information and documents within 15 days of receipt of the application.
2) If the applicants fails to submit necessary information and documents required under sub-rule (1) to the authority within 30 days of receiving the request within the specific time, the application shall be deemed to be rejected .
3) The authority may approve the proposed development project with or without any condition according to rules within 45 days from the receipt of application or within 30 days in case of receipt of additional information and documents.
4) The applicant shall have the right to get 4 copies of approved plans and documents with the signature and seal of the authority if the application is approved under sub rule (3).
5) The authority shall inform the applicant in writing with reasons if the application is rejected.

9.3.3.5 Limitation of Building Construction Approval Process

There is shortage of manpower for building construction approval. Other limitations include logistic support, such as transportation and technical support (computer, printers etc.). The online submission and approval process suffers a great deal due to Internet and server problem. Software are also not fully developed and supportive.

All departments of RAJUK are not online based. To check any anomalies between different departments again need to precede the file manually. A more advanced integrated system must be introduced to fasten the process eliminating current loop wholes of the whole process.

9.3.3.6 Construction Monitoring Process

In any case, any builder (approved applicant) shall not violet any provision of the approved plans and documents and follow the procedures:

- ✓ everyone must submit 307 form 15 days before constructions start.
- ✓ everyone must submit 309 form after completion of plinth.
- ✓ everyone must submit 310 form about all technical personal info after casting slab.
- ✓ Building construction permit is valid for 3 years unless it's construction is done up to plinth level

The responsibilities before starting construction are as follows:

In case of any extension, change or to suspension or completion of incomplete construction, the applicant shall have to fulfill the followings:

a) The applicant shall ensure that the approved plan documents are within the time frame of the approved building permit and the approved plan shall also be displayed at side so that it is easily visible
b) At least 15 days before starting of construction or restarting the incomplete construction, the concerned authority should be informed in writing in Form 501.
c) The preparation of design and drawing shall have to be ensured with calculation of infrastructural, electrical, mechanical, needs by technical personnel approved in accordance with the Table 1 under the rule 31.
d) According to proper procedure, name with address and consent of all technical personnel responsible for the project's architectural design ,structural ,electrical , and mechanical designs supervision (whichever is applicable) shall be brought to the notice of the authority

In case of any change of technical personnel appointed in the project or any new appointment, must be informed in writing within 15 days in a prescribed form to the authority. The project shall remain suspended till the responsibilities are taken over by the newly appointed technical personnel and also confirm his consent to the authority. The Construction monitoring process can be observed in Figure 9.6.

Completion up to plinth level

The applicant and the concerned technical personnel shall inform the authority about the completion up to plinth level by filling up the form (form 502 and form 503).

The authority shall arrange inspection within 7 days from the receipt of information of completion of the building up to plinth level and the approval or consent shall be given in form 504 otherwise the construction work will continue.

Safety and the security during construction

Construction work of the project has to be supervised by technically skilled persons according to Rule

The applicants shall ensure the following:

a) That all works of construction and development are conducted by the technically skilled personnel whose particulars have already been submitted to the authority.

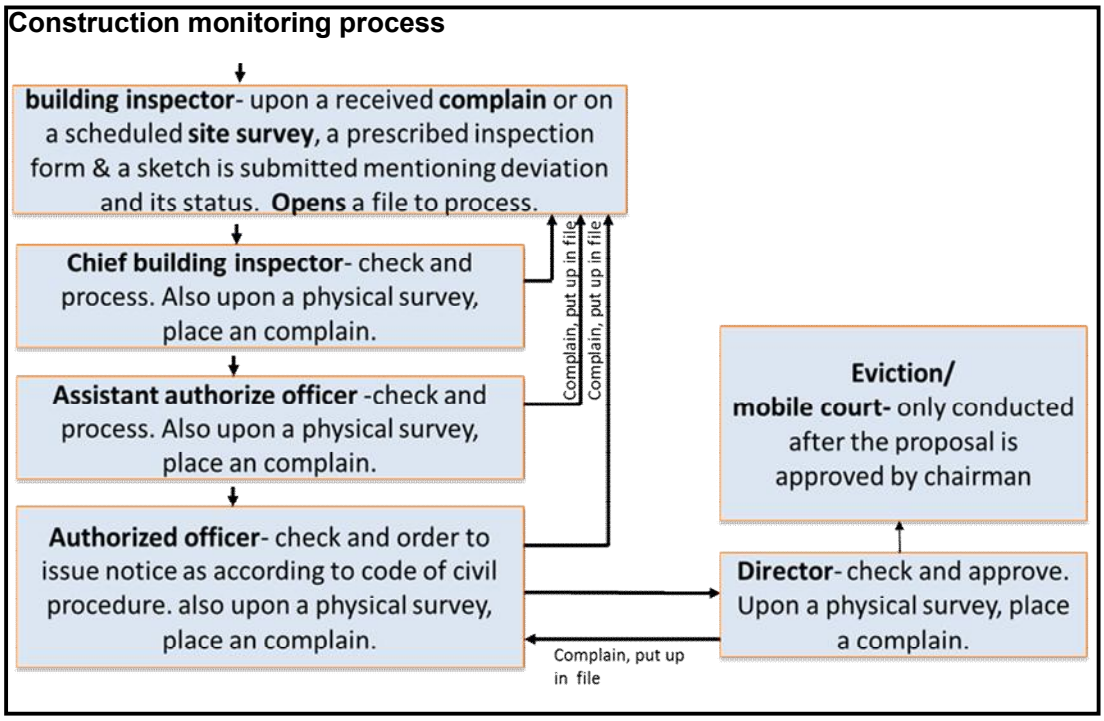
b) That work of any skilled personnel or technical expert(s) is suspended, the matter shall have to be informed to the authority within 15 days.
c) That the construction work remains suspended until the authority is informed about employment of new skilled the personnel or technical expert(s) and
d) That necessary and appropriate security is place at the construction site and it's surroundings

If the construction works create problem for public on any road or construction site, the applicant by building temporary fence, protective shield and alternative paths for passage of general public, shall ensure the security of people.

The materials and equipment used in the construction site shall not be stored the public road or footpaths that hamper the movement of people.

In residential areas no construction works through use of mechanical equipment shall create objectionable noise pollution in the construction or project site from 6 am to 6 pm and stone-crushing machine shall not be used at the site regardless of day or night.

As and when necessary, the applicant will assist the by technical experts; of the authority with required information, drawing and other papers and tests results obtain with his own expenses.



Source: Prepared by Author (on the basis of information from RAJUK)

Fig 9.6: Construction monitoring process

9.3.3.7 Limitations of the Construction Monitoring Process

Limitations of construction monitoring process include shortage of manpower, and lack of logistic support, such as Transportation and equipments for eviction and excavation.

No proper training/manual on how to conduct an inspection or eviction. Eviction/mobile court depends on various other governmental departments, such as police, DESCO, WASA etc. thus making the process lengthier for execution. Online data base is not yet available satisfactorily to check and verify plan at site visit.

9.3.4 Completion Report and Occupancy Certificate

The applicant shall submit report on partial or full completion of the construction works in specified Form (Form 601) and shall apply to the authority for partial or full occupancy certificate and the building structure shall not , under any circumstances parts or parts of that construction be used before obtaining the occupancy certificate from the authority. The building occupancy Certificate process is shown in Figure 9.7.

The following information have to be enclosed with the application for notice of completion of construction and living or occupancy certificate, such as:

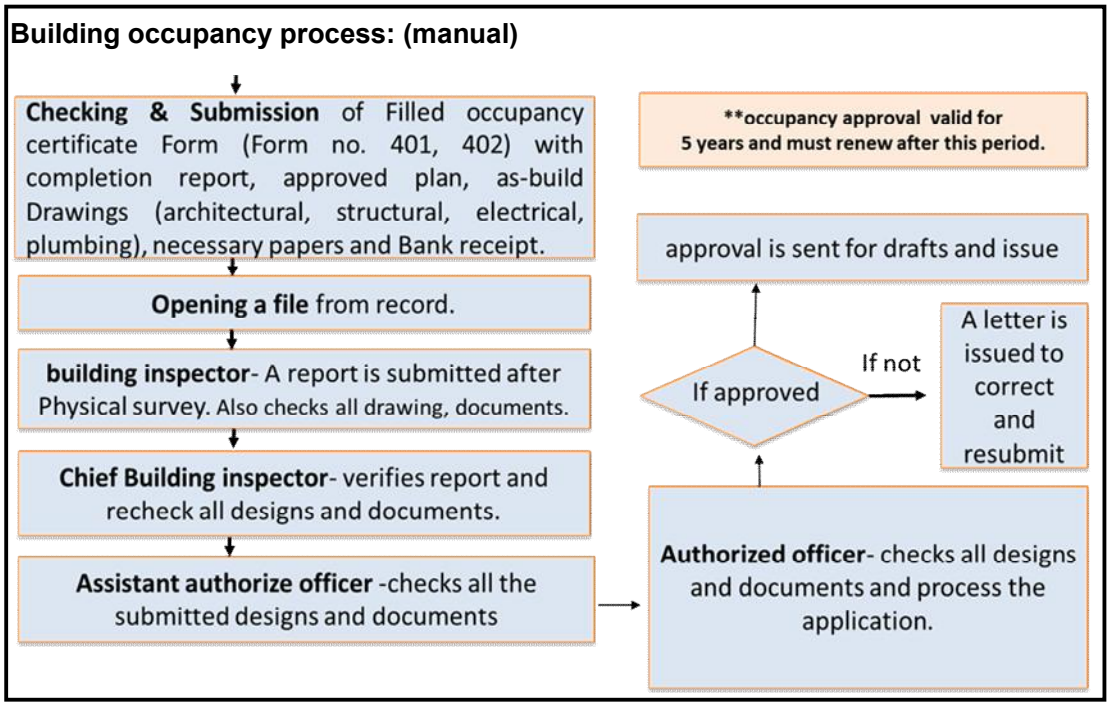
- ✓ Attested copy of certificate of the deputed technical expert (if applicable) which will include a statement that the construction work has been completed according to the specified rules under his/their supervision.
- ✓ Supervision report by the previously deputed technical expert during the period over which he carried out his responsibilities.
- ✓ Four copies of drawings of specified size (the size of the drawing that has been approved) which contain construction drawing / plan containing lay out plan , all floors/floor plans ,elevation , at least 2 critical sections (one vertical along original circulation) , all construction /structural drawings and one copy of the approved plan of the relevant building have to be included.

The authority shall arrange inspection the building within 15 days of receipt of application in presence of applicant and technical experts.

After inspection it will ascertain that whether the buildings has been constructed accordance with the approved plan and result will be documented and the occupancy certificate will be provided in specified form (Form 603) along with the sanction of complete building plan.

If the building or the project is constructed with any deviation from the approved plan the authority may not issues any certificate endorsing it use. In that case the authority will inform the reasons for not giving occupancy certificate within 15 days of inspection and also instruct the applicant to take necessary measures to build it according to the approved plan within a specified time.

The applicant as per order of sub-rule (5) may, after remedying all kinds of irregularities and fulfilling other relevant conditions (if any) apply for the residency permit or for occupancy certificate within a specified time. For public information reference number of the occupancy certificate shall have to be posted at a suitable place.



Source: Prepared by Author (on the basis of information from RAJUK)

Fig 9.7: Building occupancy certificate process (manual)

Partial occupancy certificate

The authority may issue partial occupancy certificate for the partially constructed building to the owners and users on submitted of application by the owners, with condition if it is considered that the construction is not injurious for users, general public ,neighbors or the environment.

The renewal of occupancy certificate

The duration of the residence permit of a building or installations issued under rule 39 shall be five years from the date of issue and the certificate have to be renewed every five years. Application for the renewal of occupancy certificate referred to in sub-rule (1) have to be submitted to the authority in the prescribed form at least 90 days before the date of expiry.

According to sub-rule (2), the authority shall conduct inspection of the underused building within 15 days of receiving the application and during inspection, if any deviation

from rules and regulations or unauthorized use is detected, then it will be recorded and for that unauthorized use or deviation, the authority may reject the application for renewal by taking legal action thereafter against the applicant. Otherwise, the application shall be granted and the occupancy certificate shall be renewed .

9.4 Stakeholders and Their Responsibilities

In the building permission process, a number of tasks are involved as discussed under section 9.3. The major tasks are – land use clearance, development permit, building permit and occupancy certificate. A number of stakeholders are involved in the process, such as:

- ✓ Applicants (Building/Land Owner)
- ✓ Architects
- ✓ Engineers (Structural, Electrical, Mechanical and related)
- ✓ Developers
- ✓ Contractors
- ✓ Service Providers
- ✓ RAJUK

The above stakeholders have various responsibilities in the whole process of development control of RAJUK. These responsibilities are briefly discussed and listed below:

9.4.1 Responsibilities of Building Owners (Rule 15)

1. The applicant who gets permit for building construction may not violate the design approved by the authority in any case.
2. S/he will be responsible to hire technical persons as per rule 43 (Table-1) to monitor and implementation of construction works.
3. S/he will inform the authority 7 days prior the construction work through submission of form-307.
4. S/he will inform the authority within 15 days occurs through submission of form-308 in case of changing/new recruitment of technical persons
5. The constructions work will be remained postponed until informing the authority regarding new recruitment of technical persons.

9.4.2 Responsibilities of Architects & Engineers (Rule 16)

1. Technical Personnel (Architects/Engineers) will inform the authority within 15 days through submission of form-313 in case of termination of his/her agreement before completion of the constructions work.
2. Technical Personnel (Architects/Engineers) will be responsible for all the construction work until issuing the occupancy certification of the building.
3. The S/he provides misleading information regarding structural design, fire extinguisher and other building safety services.
4. S/He will be guilty if s/he provides misleading information regarding design and specification of the building without any reason.

9.4.3 Responsibilities of Architects & Engineers (Rule 18)

Occupancy Certification

1. Occupancy certificate should be taken after full/partial construction of the building.
2. All the liabilities of design adequacy and accuracy will be conceded by the related architects and engineers.

9.4.4 Responsibilities of Architects & Engineers (Rule 19)

1. Applicant will submit the completion report of construction works (full/partial) through form-401 and s/he will apply for the occupancy certificate. S/he may not use the building until receiving the occupancy certificate.
2. Related architects and engineers will provide written endorsement of their liabilities, monitoring report related to design and construction works through form-402.
3. Authority will visit the building with 15 days after receiving the application in presence of applicant, architects and engineers.
4. Authority will issue occupancy certificate through form-403 within 15 days after the visit if the building construction comply the design.

9.4.5 Responsibilities of Architects & Engineers (Rule 21)

1. Structural Design should be provided in appropriate scale.
2. Structural Design should be provided considering seismic design.

Structural Design includes:

i. Detail foundation design based on soil report

ii. Detail measurement and location of basement wall, other walls, beam, column, floor, roof as well as information regarding construction materials.

iii. Plans of water tank, septic tank, soak pit and others.

iv. Detail information regarding safeguard system of piling or foundation trench cutting activities.

9.4.6 Responsibilities of Architects & Engineers (Rule 22)

1. Building services plans.
2. Layout plans and designs of water supply and sanitation, Drainage, gas supply.
3. Layout plans, designs and specifications of electric supply, sub-stations, electric circuit diagrams.
4. Plans, designs, layout of air condition services, lift and escalator (if provided).
5. Detail plans of all others services.

9.4.7 Responsibilities of Architects & Engineers (Rule 41)

1. List and Category of Technical Professionals
2. Technical professionals associated to building's design, drawing, monitoring, reporting or any other woks shall be listed in respective professional institutes.
3. Respective professional institute will update the list and inform the concerned authority.
4. Professional institute will maintain the database related signature, pictures, contact address, contact number of the related professionals.
5. Listed professionals will be able to design, drawing, monitor, report and endorse of the buildings by these rules.

9.4.8 Responsibilities of Architects & Engineers (Rule 43)

1. In case of group work /firm/developers, all the technical professionals must have qualification to design, drawing or monitor the construction work of the building.
2. In case of group work /firm/developers, all the technical professionals shall provide completion report of respective works.

3. Professional institute will monitor the quality and standard of the works, skills, integrity of the professionals and will inform concern authority regarding punishment, cancellation, termination of membership of the professional.

4. If any listed professional violate any rules, then the authority will inform respective professional institute and the institute will take necessary action against the respective professional.

9.5 General Issues Related to Plan Submission

1. Land use clearance
2. Land related documents
3. Maximum Ground Coverage
4. Floor Area Ration
5. Mandatory Setback
6. Use of the building and occupancy type.
7. Dropping Bay
8. Improper scale
9. Technical professionals do not provide detail contact information, number, signature.

9.5.1 Construction of Building or Project

For any type of building or construction project, rules regarding mandatory open space, setback, ground coverage, FAR etc. shall have to be followed and determination of these shall have to be made on the basis of building occupancy type road width , traffic density, population density, parking demand, utility services, fire protection etc in accordance with the provisions provided in the rules .

9.5.2 Mandatory Open Space

Mandatory open space for every building according to set back under rule 50 and maximum ground coverage under rule 52 from the existing boundary of land shall have to be formulated.

9.5.3 Consolidation of Plot

For the development of, number of plots may be consolidated but the plots have to be considered as a single plot though with its distinct individual character.

9.5.4 Plot Subdivision

1) In case of sub dividing any vacant plots or plot with buildings into two or more plots. Roads and vehicular entry shall have to be ensured for each subdivided plots or building
2) Set back, ground coverage and FAR have to be applied separately for each building or buildings as per rule for sub divided new plots with building or buildings.
3) In lands subdivision, only one plot the minimum width of private road shall have to be 3.6 meter and these exceptions is applicable for residential use only.
4) For more than one plot, the private road shall have be at least 6 meter wide.
5) Land development or plot sub-division by private organization, the road width has to be accordance with the land development for Private Sector Residential Building Construction Rules of 2004.

9.5.5 Minimum Set Back from the Boundary Line

In each individual building a minimum set back or open space front , site , and rear ; of have to be ensured and the definition front ,side and rear of the plot have to be followed the conditions according to rule.

Whatever the width of road no building shall be constructed within the minimum distance of 4.5 meter from the center of the existing road or within 1.5 meter from the boundary of plot whichever is greater (after leaving land necessary for the future expansion of the road).

Minimum set back shall be determine for building up to 33 meter height or 10 stored building according to specification in rule.

Whatever may be the size of the plot, side and rear setback of building shall be minimum 3 m from the boundary of the plot for more than 33m tall or 3 storied building.

For any particular road, the authority may be permit different or greater distance proposal or direction in accordance with the “Detailed Area Plan”.

For the application of maximum ground coverage for compulsory ground coverage the following relaxation and extension shall be applied.

Maximum of 50% of the compulsory open space of the surroundings of a structure may be used as an extension of roof at 3 m height from the finished ground level which is measured from the entry passage or highest point of the plinth level and the covered area have to be preserved only for parking and security booth.

According to the provision of the section (a), the covered area (except security booth) shall not be blocked by solid wall and there shall have to be sufficient provision for air

circulation into the plot and the roof of the covered area may be used as terrace garden only.

Minimum of 50% of the compulsory open space shall have to be always kept as exposed earth surface so that the rain water can be easily absorbed.

The frontal balcony of the first and other floors above of the building, will be considered as an additional area of ground coverage in relaxation of the maximum ground coverage with following conditions, such as

- ✓ If the length of the two arms of the balcony is to be at least 1 m.
- ✓ If no solid wall shall is used in balcony.
- ✓ If the maximum height of the balcony is 1200 mm.

But this relaxation is limited only to 30% of the length of frontal side of the building from the measurement of maximum ground coverage and up to a width of 1.2 m of the balcony.

a) The extended part of the roof (carnish) may be added up to maximum 1 m over the set back of the main part of the building and such extension is applicable to the front side of the building and it shall never be less than 8 m from the ground level.
b) If the building is constructed keeping more space than the set back, then the extended part of roof (carnish) may be added up to maximum 2m from the building and if it is extended more, then the additional part shall be included in the ground coverage measurement. But the aforesaid conditions for the extension within setback shall never be violated.
c) For the protection of the building from the effect of the nature, the sun shades or the additional parts parallel to the ground may be extended up to maximum 0.5 m from the boundary line of the building within the set back, but it shall not be fenced and this cannot be used as verandah or balcony and the entrance is prohibited except for the purpose of maintenance. If the side and rear set back is less than 1.25 m, the above extension shall be limited within 0.3m.
d) If the building is constructed keeping more space than the minimum set back , the extent of the sun shade may be maximum 1.5 m from the building and if it is extended more, then the additional part shall be included in the ground coverage measurement. But the aforesaid conditions for the extension within set back shall never be violated.
e) In any level of the building outside of the external face, no store duct or other box like extension shall be permitted within the set back or compulsory open space.
f) Vertical Fin may be conducted outside the external face of the building the sun shade and in no case, it shall hamper the air flow.

g) Mechanical air flow, exhaust or drainage system shall not be made having opening to the nearest plot.
h) The external portion shall not be used for the purpose of increasing the floor area.
i) Minimum distance between two or more buildings construction in the same plot shall be a minimum of 4 m.
j) The proposed building having a dead end road shall be built in such a way that the distance from the building in front is shall be 4m apart or 2m apart from the frontal boundary whichever is greater.

9.5.6 Basement Set Back

1) Basement may be extended within the compulsory open space and this extension shall be limited up to 50% of the compulsory open space.
2) If the security of the neighbor is ensured, the basement may be extended up to the boundary line but set back towards the road shall be maintained.
3) The roof of the basement may be constructed at a maximum of 1.5 m height from the maximum surface level of the adjoining road unless it causes any harm to the adjacent plot.

9.5.7 Highest Permissible Ground Coverage

1) Maximum approved ground coverage of buildings shall be determined on the basis to the size of plot, occupancy type and the width of the road.
2) Except as referred to in rule 50 no part of the building shall be extended beyond maximum approved ground coverage within the compulsory open space.
3) Compulsory open space shall be considered as an invisible part of the construction of the building and a criterion of building permission and will not be separately divisible for sale or construction.

9.5.8 Height of Building

1) Rules relating to the building height shall be applicable as mentioned in the master plan.
2) The height of buildings in proximity to the airport, microwave station, structure shall be limited to the rules of the responsive authorities.
3) Authority may impose restrictions on the height of the buildings on the river banks, large water bodies ,gardens, historical sites and on areas special as important .If any buildings is 45.70 m or higher , the red security light has to be installed on the top of the roof.

9.5.9 Highest Permissible FAR

a) Highest admissible FAR shall be determined on the basis of plot size ;use classification and width of the road by table 4 in this rule (see annexure).

b) In calculating FAR highest room height may be 4.25 m which will be measured from the top surface of the finished floor to the under surface of the roof highest average height may be 4.25m.

c) In calculating FAR, if the room height is within 4.25 to 6 m 50% shall be added with the total floor area which shall be limited up to 10% of the total floor area of the building but in case of room height exceeding 6m ,100% shall be added with the total floor area.

d) In case of calculating floor area, the amount of Mezzanine floor shall be added.

e) In calculating floor area for FAR the following portions shall not be considered.

f) The highest floor of stair which is not larger than floor area of the typical area of stair.

g) The machine room of the lift shall not be larger than the combined area of lift and lobby of the typical floor.

h) In case of overhead water tank:

i. The overhead water tank located may be over the stairs or above the lift room but highest shall be limited to 5m from finished surface of the roof of the top floor.

ii. Any part of the roof height the structure which does not exceed 1m and the height of the structure does not exceed 2.5m in both cases measured from the top surface roof of the finished top floor.

i) Mechanical and electrical machine rooms applicable for a specific building.

j) Parking area, where highest number of car does not exceed more than 50% of the minimum requirement as per rule. Driveway shall be considered as the part of the parking area and such parking area shall not be enclosed by boundary wall.

k) If there is parking facility, the waiting for the drivers with toilet facility shall have to be maximum 5% of the compulsory parking area.

l) The security booth placed in the ground floor shall not exceed 5 sq m.

m) The balcony which under any circumstances is not extended outwards in area; enclosed by solid wall, exceed 50% of its total area and the area does not exceed 5% of the total area of the relevant floor.

n) The floor area referred to under any section (h), balcony of only in front surface of the building in the 1^{St} floor and above which is open in three sides not extended more than 1 m from the main building and does not exceed 30% of the frontal width of the building may get benefit of extra 5% of the floor area. If then width the open balcony is extended more than 1m, the extra benefit will be available.

o) In case of exterior wall, the outer part of 11cm from the inner part of the wall not exceeding more than 16cm.
p) Light and air ventilation duct which cannot be squeezed.
q) Only the open space in the ground floor of educational institution which has roof but open on the sides.
r) Terrace or roof opens to sky.
s) Privately owned road.
t) Loft area which cannot be converted into room.
u) Necessary emergency exit stairs.
v) Structures without wall for collection of rain water and solar energy the height of which cannot exceed more than 1.5 m.

9.5.10 Boundary Walls

a) In case of residential building, the height of the boundary wall shall not exceed 3m measured from the highest point of adjacent road and which may be made of solid materials up to maximum of 1.75m height on the side and the rear the remaining may be made of net ,grill or lattice for air circulation and at least 30% of the frontal wall shall not be made solid.
b) If boundary wall is required for government or special building primarily net or grill shall have to be used for visual convenience.
c) Except the provision of the sub rule (1) and (2) the height of the boundary wall shall not be more than 2.75 m which shall be measured from the highest point of the road surface and is made solid up to 1.75 m by the side and rear. The remaining portion may be made of net grill or lattice for their air circulation .In the frontal side maximum 1m may be made solid and net or grill shall have to be used in the remaining part used for air circulation and visual aid.

9.5.11 Parking Provision

1) For development project or building permission, maps shall have to be submitted in accordance with the conditions in schedule 1 and schedule 2. But the conditions remain that the area aforementioned schedule 1 and schedule 2 circulation area, internal road and driveway shall not be included.
2) The layout plan of the parking area shall be such that each vehicle can enter directly from driveway or area of circulation without requiring movement backwards towards the road.
3) For using ramp , the maximum slope shall be 1:8 which cannot begin within 4.5m from the entrance

9.5.12 Necessary Arrangements for Roads

1) For building permission the road width shall be of a minimum of 6 m with footpath.
2) If the road width is less than (including footpath), at the time of applying for new development project, alteration and extension an understanding in writing to the authority concerned to the effect that for making the road width 6m, necessary land (equally divided on both sides) shall be handed over to the authority concern free of cost until the handling over process is completed construction work cannot be started.
3) After the process is completed handing over the required land for road ,on the basis of the reduced size of the plot FAR necessary set back and maximum ground coverage shall be cancelled.
4) For road requirement for every .3 m land rated with at the front shall get the advantage of FAR of maximum of .2 at the rate of .05 m and this advantage is only applicable to under sub-rule(2).
5) For the minimum width of the external roads the housing area or complex developed by private developer shall be according to the provisions of the Non-Governmental Land Development Rules for Residential Project 2004. If the road width of the approved residential project is less than 7.62m the road width shall have to be corrected at the time of applying for this building permission.

9.5.13 Arrangement of Footpath

1) Provision of footpath shall have to be made for all new connecting roads.
2) If there is no footpath in the road in front of plot on the adjacent road the authority direct the users to construct and maintain footpath for the purpose the authority will provide necessary procedure and measurements.

9.5.14 Corner Simplification

1) The boundary wall or fencing corner of the boundary of the building situated at the junction of two roads shall have to be in the shape of curve or to be located in specific distance and height which has to be adequate for safety and security of pedestrians.
2) The radius of the connecting point of two roads will depend on road width and traffic pattern. For this reason at the corner portion of land 1.5m X 1.5 m area on the ground and above shall have to be kept vacant and no construction work shall be done there.
3) If user leaves more area than the area specified in sub-rule (2) for public interest, the user may get benefits of FAR for at the rate of .01 for every sq.m of land spared for the purpose.

9.5.15 Mixed-Use Development

1) If the residential use mixed with the commercial use, then the rules for residential use shall be applicable.
2) Except the mixed use described in the sub-rule (1) for the development of all other mixed uses ,the ones stringent of the requirements of rules for different categories shall be applied such as minimum FAR ,ground coverage, maximum road width and set back . If any one type of use occupies 90% or more of the floor area, than rules for special use shall be applied.
3) Not restricted (NR) system shall be applicable only when the use of the building occupies at least 95% (including parking) of total floor area.
4) Those lands , which are transferred into mixed use from residential use due to existence of wide road , the entry of the non-residential use shall be only from the wide road
5) For the construction of mixed use buildings adjacent to residential land 0,3m set back shall have to be kept from the boundary line of the residential land.
6) For the mixed use if there is residential use window or verandah may be kept at the direction of adjacent residential area towards the adjacent residential area but if there is non-residential use verandah shall not be constructed but providing window personnel privacy shall have to be ensured for the adjacent landS

9.5.16 Health and safety

With respect to health and security ,detailed provisions regarding livable rooms ,kitchen bathroom and toilet ,stair hall ,common space ,community space , light and air circulation electric distribution line ,fire safety , have been included in section 62 of the rules .

9.5.17 Community Space

1) For the use of the residents in such buildings as have a total floor area of more than 3000 sq.m at least 5% space of the total floor area shall have to be kept reserved for various types of community gathering.
2) In order to conduct apartment building on1300 sq.m or more residential land shall have to be kept as playground for the residents of the apartment ,half of which may be covered but shall not be enclosed by any kind of wall and the area will not be considered in FAR calculation

9.5.18 Light and Ventilation

1) Every building shall have proper natural ventilation of light and air by windows, skylights, fanlights and doors or any other natural process.

2) The area of windows of residential or commercial building should be at least 15% of the floor area of that room on which at least half shall be kept open and for kitchen, toilet etc. the rule 62 should be followed.
3) If there is an appropriate provision for air conditioning, mechanical air flow or artificial lights in the building, in that case natural lighting and air circulation is not necessary.
4) In the basement appropriate provision for light, water, waste disposal and air flow (natural or artificial) system should be ensured and in case of air flow each and every basement will have separate arrangement.
5) If interior courtyard becomes the main source of light and air of any building. then the dimension shall have to be in accordance with the table 6 in the Rule of 65.
6) The window of kitchen and toilet can open in interior courtyard or ventilation shaft provided that the proper light and air is naturally or artificially ensured.
7) For the amount and standard of natural and artificial light and air flow should be in accordance with the Table 7 in the rule 65 should be followed

9.5.19 Miscellaneous

Under the miscellaneous sub-heading, regulations and provisions with respect to water supply, sewerage, drainage, waste disposal, conservation and preservation of environment, landscaping and parks, and publicity have been provided.

Water Supply, Sewerage and Drainage

1) There shall have to be adequate provisions for water supply and health facilities in all the buildings.
2) Where there is public sewerage system, all the waste water and sewerage lines of buildings shall have to be connected with that public sewerage system.
3) Where there is no sewerage system or if any but the concerned authority does not allow to link directly with the public sewerage system, then by using septic tank of definite size and location, waste of the building shall have to be disposed of and soak-pit shall have to be used for the draining out of the dirty water. In that case to get building permission the location of septic tank and soak-pit shall have to be used for the draining out of the dirty water .In that case to get building permission the location of septic tank and soak pit shall have to be shown in the layout plan of the building.
4) There shall have to be adequate facilities for drain out left for rain water from roof and plot to roadside drain or by other drainage system (or for reuse and storage), so that base or wall of that building or the adjacent buildings are not affected by humidity or any type of damage and the water from roof shall not fall on the adjacent property or public place or roads.

Waste Disposal

(1) In the yard of the site, there shall have to be a specified place for the collection of domestic
(2) The institutions like hospital. laboratory, industry etc which produce solid chemical wastes shall have adequate system to collect and safe disposal of the waste.
(3) Any type of waste shall not to be thrown into water bodies, canals, beels or rivers and rivulets directly.
(4) Chemical and poisonous waste shall not to be disposed without treatment.

Heritage Conservation and Preservation

1) For proper preservation of the listed heritage buildings and important places, the rules of Annexure (As per rule 70) shall have to be followed.

2) For any alteration, extension and addition of the listed buildings to ensure common accessibility and participation of people in function inside the building the rules in schedule-3 shall have to be followed without affecting the heritage of the buildings.

Landscaping and Park

For construction of all government, commercial building and large building or complex there shall be a proper landscape plan. To construct any building in Public Park or open space, permission has to be obtained. In such places, except the following structure no other frame of building construction shall be permitted. a) Sports related structure b) Structure related to public facilities not exceeding 4.0 meter and which do not exceed 5% of the area of the park or the other open pace.

In the following cases the permission or recommendation of Town Development Committee shall be required

i. Construction of any sculpture.
ii. Construction of underground structure inside the park for parking or any other public facility having more than 1000 sq.m, if the structure is environment friendly or does not create any problem for the vehicular movement.

Publicity

a) Before obtaining planning permission, no advertisement or notice shall be released related to the building or project.
b) The buildings which will be built for commercial purposes, any advertisement, signboard or billboard and all kinds of communication, brochure and in allotment letters of those buildings shall have to mention the building plan permission number and date.
c) For all buildings the design architect, engineer and name of the builder, registration no. etc public important information shall have to be preserved and exhibited in appropriate place in front of the ground floor.

9.5.20 Special Control

1. In any special area any kinds of restriction notified by the Government such as defense control, key point installation. National security, air transport, telecommunication restrictions etc. shall be applicable for the building construction of those areas. In case of building construction besides the VIP roads defined by the Government. for public welfare any restrictions provided by the Government shall be applicable.
2. In the special areas identified and specified in the Master Plan or as National Martyrs Monument, cantonment Area, Takshal, Lalbagh Fort, Radio, Television Transmission Centre etc., and building height restrictions in the surrounding as recommended in the Master Plan and restrictions imposed by the Government from time to time shall be applicable.
3. In Airport and in the surrounding areas earmarked for air funnel, the height restriction rules for all kinds of building construction imposed by the Civil Aviation Authority shall remain valid.
4. For construction of building in every important road, node or junction in the capital city Dhaka for integration and development of transport system. the Dhaka Transport Coordination Board Act. 2001 (19 No. law, 2001) shall be applicable.

9.5.21 General Issues Related to Monitoring of Construction

1. No/inadequate monitoring from technical persons after approval of building plans.
2. Prepare working drawing violate/alternate the approved design/plan.
3. Monitoring construction work violating/alternation the approved design/plan.
4. Not informing authority prior construction.
5. Technical professionals terminate agreement after approval of building plans.
6. Occupancy certificate could not be issued due to inappropriate uses of FAR, and MGC and violate the mandatory setback, open spaces.
7. In spite of being responsible for the construction work as the designer, often technical professionals do not want to take the responsibilities after approval of the building plan.
8. Technical persons get pressurized by land/building owner.
9. Do not inform the authority regarding cancellation of agreement/construction monitoring/completion report in respective forms.
10. Transfer of the floor/unit of the building or the building for uses without informing the authority.

9.6 Effectiveness of Development Control Measures by RAJUK

This section observes the overall experience of development control measures by RAJUK to understand the effectiveness of those measures in urban development control.

9.6.1 Building Height

From the year of 2006 to 2016, number of built structures increased by 927,948 an average of approx. 90,000 per year *(Source: DAP Survey report, 2017, RAJUK)*. Building plan approval of RAJUK (2014-2016) about 7,500 - an avg. of 3,750 per year Figure 8.4 is showing the percentage of total structure of Dhaka city in respect of story which is also showing in table above. It can be seen that, 84% of structure of Dhaka city is of 1 story or can be said that single story building. Second most story building is of 2 storey which is 6% of total structure. 10% of structure of Dhaka city is more than 2 storey but not greater than 7 story. And the sum of the percentage of the structure of more than 8 storey is only 0.36 percent. So, from the table and the graph, it can be said that most of the structure of Dhaka city is single or double storied. Number of structures more than 2 story is very high in number than the previous ones. Table 9.2 classifies buildings of Dhaka as per height and Figure 9.8 shows the percentage of buildings as per building height/storey.

Table 9.2: Classification of Building of Dhaka city in respect of Building Height

Floor	Total	
	Nos.	%
1 Storey	1,807,425	83.52
2 Storey	125,415	5.96
3 Storey	59,452	2.85
4 Storey	46,350	2.25
5 Storey	39,462	1.86
6 Storey	42,450	2.01
7 Storey	10,597	0.50
8 Storey	3,302	0.16
9 Storey	2,302	0.11
10 and above	3,254	0.15
Total	2,140,009	100

Source: Annual Report (RAJUK), 2015-16

9.6.2 Building Plan Approval

From the year of 2006 to 2016, number of built structures increased by 927,948 in an average of approximately 90,000 per year. 55% of the private sector housing structures are supplied by the informal sector, mostly by individual developer (DAP Survey report, 2017, RAJUK).

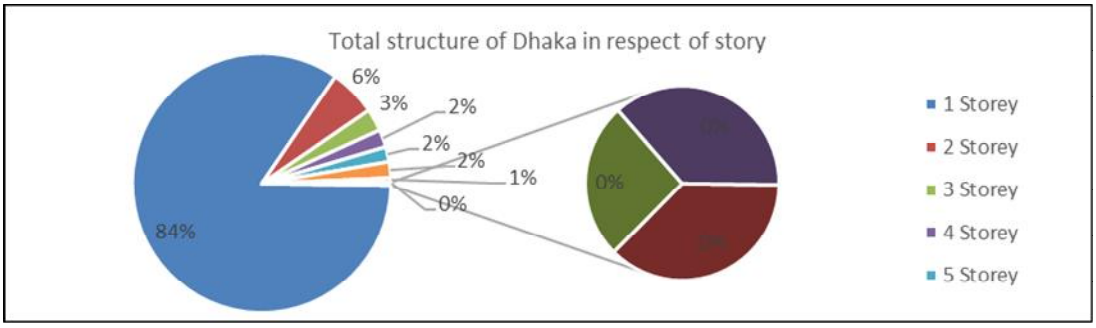


Figure 9.8: Total structure of Dhaka in respect of building height (storey)

Table 9.3 and Figure 9.9 explain the building received, approved and rejected by RAJUK in different years at different zones. It has been found that in the year 2014-15, the building approval percentage by RAJUK is the highest than other two years which is about 96%. Building approved by RAJUK in the year 2015-16 and 2016-17 is about 89% and 92% respectively. In the year 2014-15, 2015-16 and 2016-2017, the building rejected by RAJUK is about 3%, 1% and 7% respectively. Table 9.3 explains in more details about the zone wise approval. In 2014-15, 2015-16 and 2016-17, the highest building approval in the three zones were 02, 05 and 05 respectively.

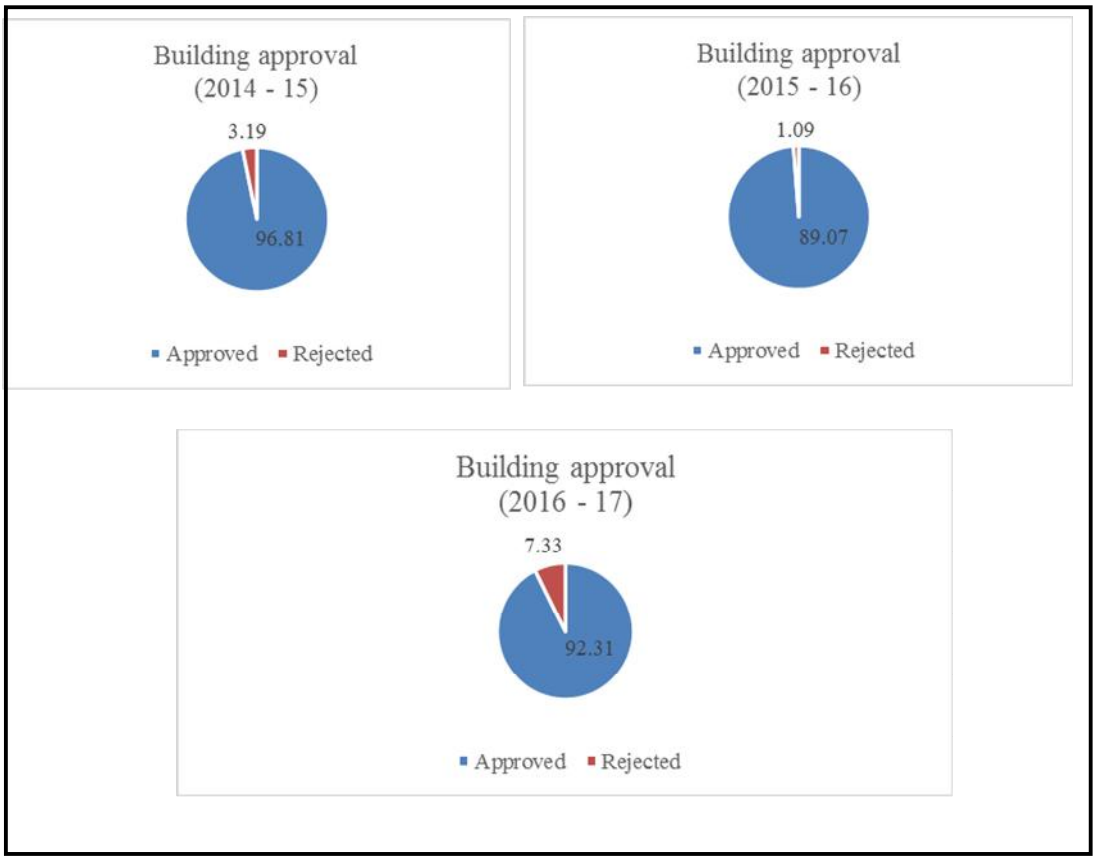


Fig 9.9: Percentage of building plan received, approved and rejected by RAJUK in different years

Table 9.3: Number & Percentage of building plan received, approved and rejected by RAJUK in different years at different zones.

Year	2014-15					2015-16					2016-2017				
Name of Zone	Received	Approved		Rejected		Received	Approved		Rejected		Received	Approved		Rejected	
		No.	(%)	No.	(%)		No.	(%)	No.	(%)		No.	(%)	No.	(%)
Zone 01	45	44	97.78	1	2.22	181	174	96.13	7	0.39	335	323	96.42	12	3.58
Zone 02	644	632	98.14	12	1.86	562	420	74.73	142	2.53	529	484	91.49	45	8.51
Zone 03	736	705	95.79	31	4.21	531	487	91.71	44	0.83	1346	1208	89.75	138	10.25
Zone 04	725	698	96.28	27	3.72	1041	1006	96.64	35	0.34	1227	1184	96.50	43	3.50
Zone 05	466	456	97.85	10	2.15	249	245	98.39	4	0.16	229	226	98.69	3	1.31
Zone 06	732	712	97.27	20	2.73	1176	1009	85.80	167	1.42	1290	1140	88.37	150	11.63
Zone 07	158	151	95.57	7	4.43	155	138	89.03	17	1.10	137	133	97.08	4	2.92
Zone 08	251	239	95.22	12	4.78	330	284	86.06	46	1.39	441	429	97.28	12	2.72
Total	**3757**	**3637**	**96.81**	**120**	**3.19**	**4225**	**3763**	**89.07**	**462**	**1.09**	**5554**	**5127**	**92.31**	**407**	**7.33**

Source: Analyzed by Author, (Data from RAJUK annual Report 2014-15, 2015-16, 2016-17)

9.6.3 Type of Structure at Different Land Use Zones

Table 9.4**:** Permitted and non-permitted structures at different Land use Zone

DAP Land use Zone	Total Structures	Non-permitted structures (%)	Permitted Structures (%)
Administrative Zone	1200	66.75	33.25
Agricultural Zone	84887	91.28	8.72
Commercial Zone (Business)	5244	49.54	50.46
Commercial Zone (Office)	170	77.06	22.94
Flood Flow Zone	72181	99.98	0.02
General Industrial Zone	15383	67.54	32.46
Heavy Industrial Zone	4980	66.99	33.01
Institutional Zone	8675	66.99	33.01
Mixed Use Zone (Commercial-General Industrial)	3071	72.94	27.06
Mixed Use Zone (Residential-Commercial)	38063	5.01	94.99
Mixed Use Zone (Residential-Commercial-General Industrial)	23285	0.13	99.87
Mixed Use Zone (Residential-General Industrial)	6691	0.16	99.84
Open Space	12291	99.54	0.46
Overlay Zone	25930	73.76	26.24
Urban Residential Zone	450427	1.76	98.24
Rural Settlement Zone	306850	86.66	13.34
Water Retention Area	4790	99.94	0.06

Source: DAP physical feature survey, 2015-16 & DAP 2010, RAJUK

Note: Permitted and Non-permitted are determined according to ‘Permitted’ & ‘Conditional’ table defined in DAP, 2010

Table 9.4 shows the total number of structures of different land use and also the percentage of permitted and non-permitted. From Table 9.4, the overall condition of permitted building of different zones can be easily identified. The scenario of agricultural, flood flow, open space, water retention zone is found to be very worse condition as more thn 90% of the structures of these zones are non-permitted by the relevant authority. On the other hand, the structures of mixed use and urban residential zone are found in a moderate condition as a good percentage of the structures of these zones are permitted. But this is an alarming situation for the city as the most important zone’s structures are in a very worse condition. Necessary steps need to be taken by the authority.

Table 9.5: Eviction of unauthorized structured structure from July 2015 to June 2016

S.L.	Name of Zone	Ramp Eviction	Eviction of unauthorized structure instead of residential building	Eviction of unauthorized use of parking place	Fine (in lakh)
01	Zone-2 Uttara	116	12	98	85
02	Zone-4 Gulshan	208	25	49	86
03	Zone-5 Dhanmondi	9	14	89	234.7
04	Zone-Banasree	113	10	01	3.20
	Total	**446**	**61**	**237**	**408.9**

Source: RAJUK Annual Report 2015-16

Table 9.5 shows the eviction of unauthorized structures form July 2015 to June 2016. The eviction of unauthorized structure is found highest in zone 4 which is Gulshan and this is about 41% of the total eviction. But the scenario of the eviction of unauthorized use of parking place is different as the highest eviction is highest in Uttara which is situated in zone 1. Second highest in this respect is in Dhanmondi (zone 5). As the eviction of zone 5 is the highest for both that's why the fine is also found to be the highest in this zone.

9.6.4 Citizens' Awareness of the City Plan Making Process

According to DAP physical feature survey, 2015-16 only 25% of people have no idea about City Plan making process, 25 % have only familiar with the name of DAP, 36% basis to fair idea. Only rest 14 have significant understanding on DAP. Figure 9.10 shows the overall scenario of citizens' awareness.

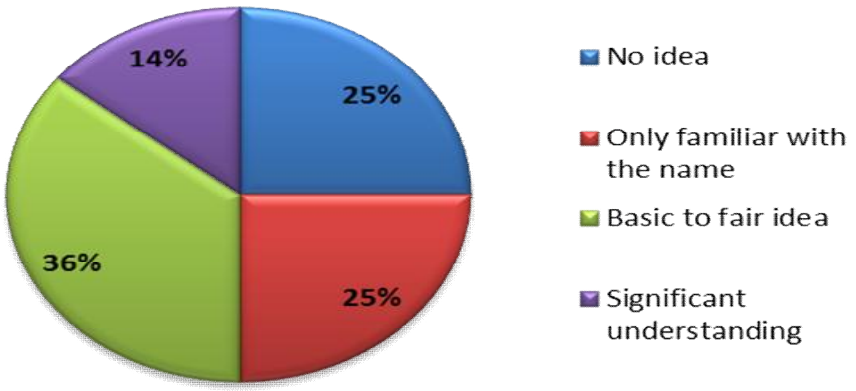


Fig 9.10: Citizen's awareness about the City Plan making process, 2010

9.6.5 Corruption in RAJUK Building Approval Process

RAJUK is the legitimate authority for issuing approval of any building construction and it controls all the development activities of Dhaka City under the provisions of various acts and rules within the area under its jurisdiction. In order to have approval for the construction of any building, the process of obtaining approval involves the following two stages (Mahmud 2007b): Land use clearance & Building Permission

Generally, planned residential areas of RAJUK that already have the approval of RAJUK do not need to have the “land use clearance” from RAJUK. For other areas, the “land use clearance” must be obtained prior to submitting plans for construction. Land use clearance is the stage in which the proposed use of the land is crosschecked to confirm with the prepared plan by RAJUK.

Land use clearances are of two types. In the first type, direct land use permit can be given if the proposed criteria of land use in a certain area match the criteria and standards set by the master plan for that area. In the second type, if there is/are any deviation/s to the master plan, the application has to be assessed through the Town Improvement TI Act 75(I)/ (II).

Building permits Building approval is the stage where the applicant submits an application, fulfilling specific requirements such as detailed plans, sections and elevations of the proposed building as per the Building Construction Rules. In the case of applying for building permissions for large and specialized projects such as residential building/residential cum commercial building more than 6 storeys high, RAJUK demands prior clearance certificates from the following organizations: Department of Environment (DoE), Dhaka Electric Supply Authority (DESA), Dhaka Water and Sewerage authority (DWASA), Titas Gas, Dhaka Transport Coordination Board (DTCB), Dhaka City corporation (DCC), Civil Aviation Authority Bangladesh, Bangladesh Fire Service and Civil Defence Authority (BFSCDA) and RAJUK itself (Mahmud 2007b; Seraj 2005).

9.6.5.1 Violation of Development Control Rules and Acts / Land Use Plan and Building Regulations

Mahmud (2007c) claims that even though the official time to acquire a land use clearance is about 3 weeks, in reality, the process is so lengthy and complex that people seldom take the standard procedure of planning permission; rather, they prefer to deal with illegal agents by giving them “extra money” (Mahmud 2007c). He also found that laxity in duties, intention to waive some specific cases, poor inspection and reporting, and political influence has made the Authorized Section of RAJUK a frightening part of the organization. He also adds that in some cases, clients or developers somehow manage the authority for land use clearances for particular areas where development is restricted for specific purposes.

In some cases, the progress of a plan or building construction approval is delayed due to some indefinite situations, which leads people to seek alternative solutions (Mahmud

2007c). Misuse of power as claimed by the clients, generates unnecessary harassment and delay (Mahmud 2007c). The provisions of the Rules clearly define that plans should be forwarded for clearance or approval within 45 days, and any objection made in the plan must be notified within 30 days after submission for approval (Mahmud 2007c). In fact, this process sometimes takes more than the specified time in the Rules, and in many cases, it actually takes years to get the necessary approval. As a result, to evade such hassle and unnecessary delay, people tend to look to other means (bribe, deploying illegal agents) for obtaining planning permits that bypass planning laws (Mahmud 2007c).

According to Mahmud (2007c), in addition to the above-mentioned violations, deviation or the violation of plans can occur at the following three different levels: i) Micro level ii) Intermediate stage: deviation in area plan iii) Macro level: deviation in the proposals of structure plan

9.6.5.2 Micro Level

On the micro level, plot owners deviate from the building plan by constructing the building in such a way that it violates from the plans that were permitted by RAJUK The most serious types of plan violations are:

- ✓ Not maintaining the required distance of the building from the adjacent road;
- ✓ Not maintaining the building height as per the plan;
- ✓ Not maintaining the required setback rules of building; and
- ✓ Altering the land use of the building.

9.6.5.3 Intermediate Stage: Deviation in Area Plan

Land use change is a violation of a local plan or the plan of the city, and the most common way this occurs is changing land use, with or without the permission of the authority (Mahmud 2007c). Without the amendment of the plan of the city, changing land use is a crime. Mostly, corruption and socio-political pressure is responsible for this plan deviation. Some different forms of deviation in area plan include:

- ✓ Converting the land use characteristics of whole/part of the plot;
- ✓ Increasing the height of buildings from the permitted height limit;
- ✓ Subdividing the plots; and
- ✓ Changing the amount of land use of the area.

9.6.5.4 Macro Level: Deviation in the Proposals of Structure Plan

The DMDP structure plan for Dhaka city was completed in 1995. Within the last 10 years, the proposals of this structure plan were violated by the private companies, individuals and even by the RAJUK authority itself through filling in the low land and wetland area that surrounded Dhaka city, and which served the city as a flood retention area and ground water recharge zone (Mahmud 2007c).

9.7 Effectiveness of Development Control Mechanism of RAJUK: Case Study on Dhanmondi Residential Area

Dhanmondi is one of the high-class residential areas of Dhaka City. The area was planned and developed in the early fifties with large plots, wide roads and good environment. Dhanmondi Residential Area is located in west-south part of the Dhaka city. Geographical location of this area is 23°44.3'N 90°23.1'E. It has total area of 9.74 km². This area is bounded by Hazaribagh, Rayerbazar, Kathal Bagan, Panthapath, New Elephant Road etc areas in all four sides.

9.7.1 History of Dhanmondi Residential Area

Dhanmondi was planned and developed by the Public Works Department (PWD) according to the order Dhaka No. 11413 requ.-9th December 1952. Using section 3 of the East Bengal (Ernergency) Requisition of Property Act 1948 (8.B. Act XIU of 1949), seven mauzas (strme fully and some partially) were acqufted" Dhanmondi, Taleperbag' Idgah' Shubabad, Shibputi Sarai.lafrabad and Sarai Begumput.

Project in Dhanmondi area was initiated in 1949 to meet the housing need of high profile government officials. A total 500 acres had been acquired by the Construction and Building Department of the erstwhile Government of East Pakistan 10 develops the area as a high-income, posh residential area. Necessary public facilities like building roads, water supply was later provided by Dhaka Improvement Trust (DIT). Initially the area was divided into blocks, after which area was again sub-divided into individual plots of approximately 0.33 acres each. Road network of the area was developed according to grid iron pattern with the plantation in both sides (Banglapedia, 2012).

Primarily total number of plots was 1000 and the sizes of those plots were varying from 15 to 33 decimal but afterwards the plot number increases to 1084 (Talukdar et al., 2004). Initially it could be classified as a neighborhood but now from population perspective Dhanmondi Residential Area can be classified as a community. Population limit for a neighborhood is 6000 (1200 families) and 50,000 (10,000 families) for community. But Dhanmondi Residential Area it has a total population of 58,968 (Section 3.5.1).

According to a study of Housing and Building Research Institute (HBRI), in 1984 about 28 percent of the houses in this area were used for non-residential purpose although the area was planned as a residential area. Changes in land uses highlighted after independence in 1971, because of the extreme high pressure of land scarcity after the liberation war (Rana, 2011). Present scenarios of Dhanmondi Residential Area are quite different from its initial design. At present, nearly half of the plots in Dhanmondi Residential Area are used for non-residential purposes. Thus the original plan of keeping Dhanmondi Residential Area a purely residential area has now given way to free play of market forces and unwitting decisions of the concerned authorities.

9.7.2 Growth Pattern of Dhanmondi Residential Area

From three perspectives growth pattern of Dhanmondi Residential Area has been analyzed. Those are as stated below:

- Design Criteria
- Land Use Pattern
- Amenity Facilities

9.7.2.1 Design Criteria

Historically Dhanmondi has been developed as a residential area following grid iron pattern. Plot sizes were basically 1 bigha and rectangular in shape. The area is bounded by two arterial roads, Satmasjid Road and Mirpur Road. On the west and on the east number of sub-arterial roads connect the whole area with arterial roads. In the initial stage, Dhanmondi area did not have any market, school, club, comer shop facilities required for the proper functions of a residential area. Whole area was divided into plots without thinking about community facilities required for the residents. People had to travel outside the neighborhood for buying daily necessities and educational purposes. So gradually local people began to put up small shops, medical stores, and clubs soon various schools, colleges and universities began to appear drastic in Dhanmondi. Main reason behind this drastic change was the lack of strict enforcement of rules and regulations.

In the initial development stage people hardly built houses beyond two-storey. After 1971, with increasing demand for housing, heights of houses were increased to four stories. Later RAJUK gave approval for five stories. But this law lost its validity after 1984, when a powerful Colonel were penalized only 1, 00,000 BDT by mistake of RAJUK for constructing six storey building. Number of six storey building started to increase after this incidence, because a penalty of 1, 00,000 BDT seemed meager compared to the amount of profit house owners can make by constructing a extra floor (Nazem,2011) At present, nearly of 509 six storey building are located in Dhanmondi Residential Area Dhaka Metropolitan Development Plan: Detailed Area Plan, 2010). Dhanmondi Residential Area is also virtually surrounded by high rise shopping malls, hospitals, restaurants, banks etc of Satmasjid Road and Mirpur Road and Road no. 27 are . Number of non-residential land uses started to increase in these areas, after RAJUK declared Satmasjid Road and Mirpur Road 2000 (Nazem,2011). as commercial roads in Width of Satmasjid Road and Mirpur Road is more than 85 feet. Dhanmondi Residential Area is divided in two sections by a central lake. Two bridges of nearly 30 feet width connect both sections and facilitate vehicular movement.

9.7.2.3 Land Use Pattern

A total 500 acres had been acquired by the Construction and Building Department of the erstwhile Government of East Pakistan. The total number of plots in the area is 1504. Most of the present lot owners of Dhanmondi are second or third generation descendants of the original owners. In most cases the number of successors is more than one. About one-fifth of the total lots are now physically fragmented. Some of the

fragmentations are due to transfer by selling to outsiders. From the study, it was found that the original layout plan proposed by Public Works Department for Dhanmondi residential area contained 1,083 residential lots. Some of the plots were fragmented by the owners themselves later on. The share of physically fragmented plot is 21.47 percent. The total number of plots after fragmentation was 1131 in the year 1984 and the number rose to 1,382 in 2000 (Nilufar,2010). Present Land Use Pattern of Dhanmondi Residential Area is shown in Table 9.6.

Land use pattern in Dhanmondi Residential Area is dominated by residential land use. Majority of the people live in flat buildings in this area. Nearly 43% land is under residential use in this area. Second dominant land use in this area is commercial land use. In case of mixed use land use, the lower two-three floors of building are used for commercial purposes. Upper floors are generally used for residential purposes. A high number of educational buildings, clubs, cinema hall, cultural organizations is included in institutional zone of Dhanmondi Residential Area. Amount of area for open space and water body are higher compared to other parts of Dhaka city, but accesses to these are not satisfactory.

Table 9.6: Land Use Pattern of Dhanmondi Residential Area

Land Use Pattern	Area (acre)	Percentage (%)
Commercial Zone (Business)	68.62	12.91
Institutional Zone	31.74	5.97
Mixed Use Zone (Residential-Commercial)	15.76	2.97
Open Space	37.02	6.97
Overlay Zone	6.00	1.13
Proposed Road	1.63	0.31
Transport & Communication	97.58	18.36
Urban Residential Zone	228.15	42.93
Water Body	44.96	8.46
Total	531.46	100.00

Source: Dhaka Metropolitan Development Plan: Detailed Area Plan (DAP), 2010

9.7.2.4 Amenity /Facilities

Although Dhanmondi Residential Area has been designed as a neighborhood, but no importance has been given by the authorities to control population increase according to neighborhood design principle. Huge numbers of high rise apartment buildings have increased density in Dhanmondi Residential Area. In a neighborhood, total population is supposed to be 5000. But more than 58,000 people live at present in Dhanmondi Residential Area (Huda, 2014). Although numbers of educational institutes are quite high, according to the amenity standard of Bangladesh less area has been utilized for educational institutes. If population of the area was controlled, the present problem would not have been created. Dhanmondi area was first designed for purely residential area and maximum six floors were allowed, but there are now too many high rise or multistoried building. These also create a huge traffic jam on the adjacent roads. Table 9.7 shows the condition in community facilities.

Table 9.7: Amenity Facilities in Dhanmondi Residential area

Type of Amenity Facility	Number
Medical Centre	50
Restaurants	38
Community centers	9
Others	11
Primary School	15
Secondary School	51
College	23
University	1

Source: Analyzed by Author, (Data from Detailed Area Plan, 2010)

Table 9.8 shows the number and area under educational facilities in Dhanmondi. Huda (2014) claims that according to international neighborhood design principles, total population of Dhanmondi must be within 5000 people or 1200 families in a neighborhood. Development of the neighborhood must be in a centralized pattern surrounding a elementary school. No senior high school or junior high school will be located in a neighborhood. When population will cross 36000, it must be developed in a community pattern. Community must support a central senior high school and two junior high schools. Universities must not be present at a neighborhood or community. It has to be located at city scale, away from major residential area.

Table 9.8: Area Utilized for Educational Facilities in Dhanmondi Residential Area

Educational Institute	Number at Present	Area (acre)	Area (acre/1000 people)	Total Area Required (acre)
Nursery/Elementary School	3	0.88	0.08	4.71
Primary School	21	5.46	0.08	4.71
Secondary School	17	4.53	0.10	5.89
College	2	0.54	0.08	4.71

Source: Analyzed by Author (Data from Detailed Area Plan, 2010)

In case of development in Dhanmondi Residential Area, these principles are completely absent. Dhanmondi must have at least 12 elementary schools (58968/5000=11.79) to support, its 58968 people. At present, number of elementary schools are 15 in Dhanmondi. Number of senior high school and junior high school was required to have approximately 2 (58968/36000=1.68-2) and 4 ((2*58968)/36000=3.36~4) sequentially. But unfortunately, 30 junior high schools and 51 senior high schools are located in Dhanmondi, violating design principles. Dhanmondi should have even one university. At present, 19 universities are located at Dhanmondi without maintaining any population based design principles (Field Survey, 2014).

These increased numbers of people are not only increasing vehicular movement in residential area, but also increasing the need for community facilities in Dhanmondi Residential Area, Neighborhood characteristics of the area are decreasing day by day for

these reasons. Nearly 23.5% of 2152 buildings have height more than 6 storey (DAP, 2005).Presence of excessive number of educational institutes (62 schools, 23colleges, 19 universities) is major violation of the neighborhood design (Field Survey, 2014). From the neighborhood design perspective only one elementary school has to be located in neighborhood covering 1.5 mile walking distance. No university and college should be located in area. Presences of excess number of schools are creating over lapping influence /walking areas in neighborhood and consequently, concentrating traffic in specific area.

9.7.3 Existing Land Use

About fifty percent of the plots of the area are being used for non-residential activities. The three major non-residential activities i.e. offices, clinics and educational institutions are scattered all over the areas of Dhanmondi. The spatial distribution of the appartment buildings was also found to be scattered. The distribution of fragmented plots does not have any relation with the location of arterial roads. The whole Dhanmondi residential area has now become a very potential area for the location of apartment buildings and for nonresidential activities. Geographical centrality of the area, better environmental quality' greater accessibility, availability of large houses within large plots have made this area suitable for non-residential activities. The total number of plots in the study area is 1504. In the residential area (Dhanmondi), the number of residential plots 972 in which various floors of Structure. The number of commercial plots 156, educational plots 97, the mixed and commercial land use tendency in the study area especially in the Satmosjid Road and Mirpur Road both side are common tendency. The numbers of mixed plots are 121 and recreational plot number 41. Map 9.2 shows the situation of land use pattern in Dhanmondi and Table 9.9 shows the number of plot and their percentages according to their uses.

Table 9.9: Land Use/Structure Use

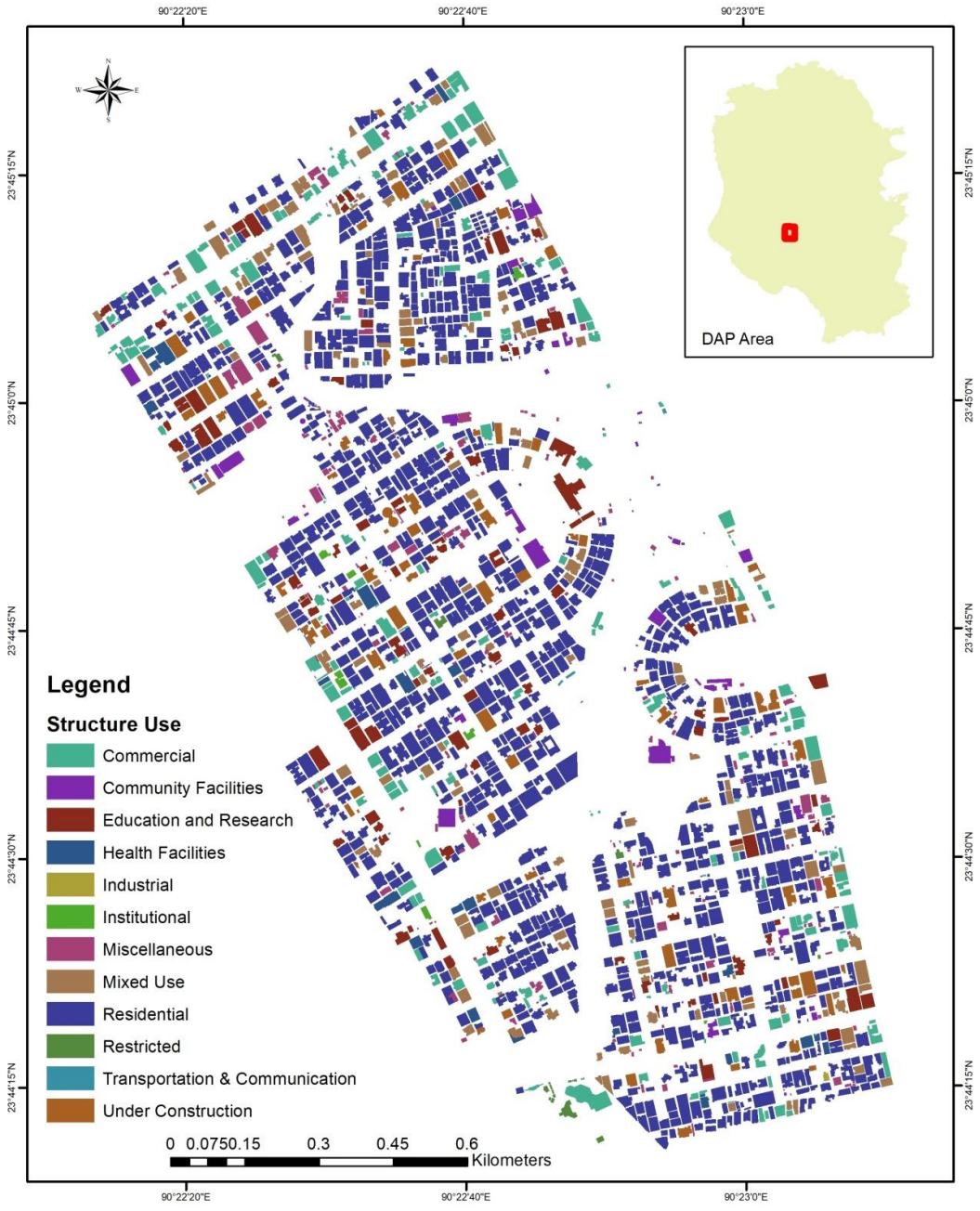
Use	Number of Plots	Percentage (%)
Commercial	156	10.37
Educational	97	6.45
Health	52	3.46
Institutional	26	1.73
Mixed	121	8.05
Open Space	5	0.33
Others	2	0.13
Playground	4	0.27
Recreational	18	1.20
Religious	4	0.27
Residential	972	64.63
Under Construction	41	2.73
Vacant	6	0.40
Total	1504	100.00

Source: Analyzed by Author (Data from Detailed Area Plan, 2010)



Source: Prepared from GIS database, RAJUK, 2018

Map 9.2a: Existing Land use of Dhanmondi area



Source: Prepared from GIS database, RAJUK, 2018

Map 9.2b: Use of Structure of Dhanmondi area

9.7.4 Structure Heights

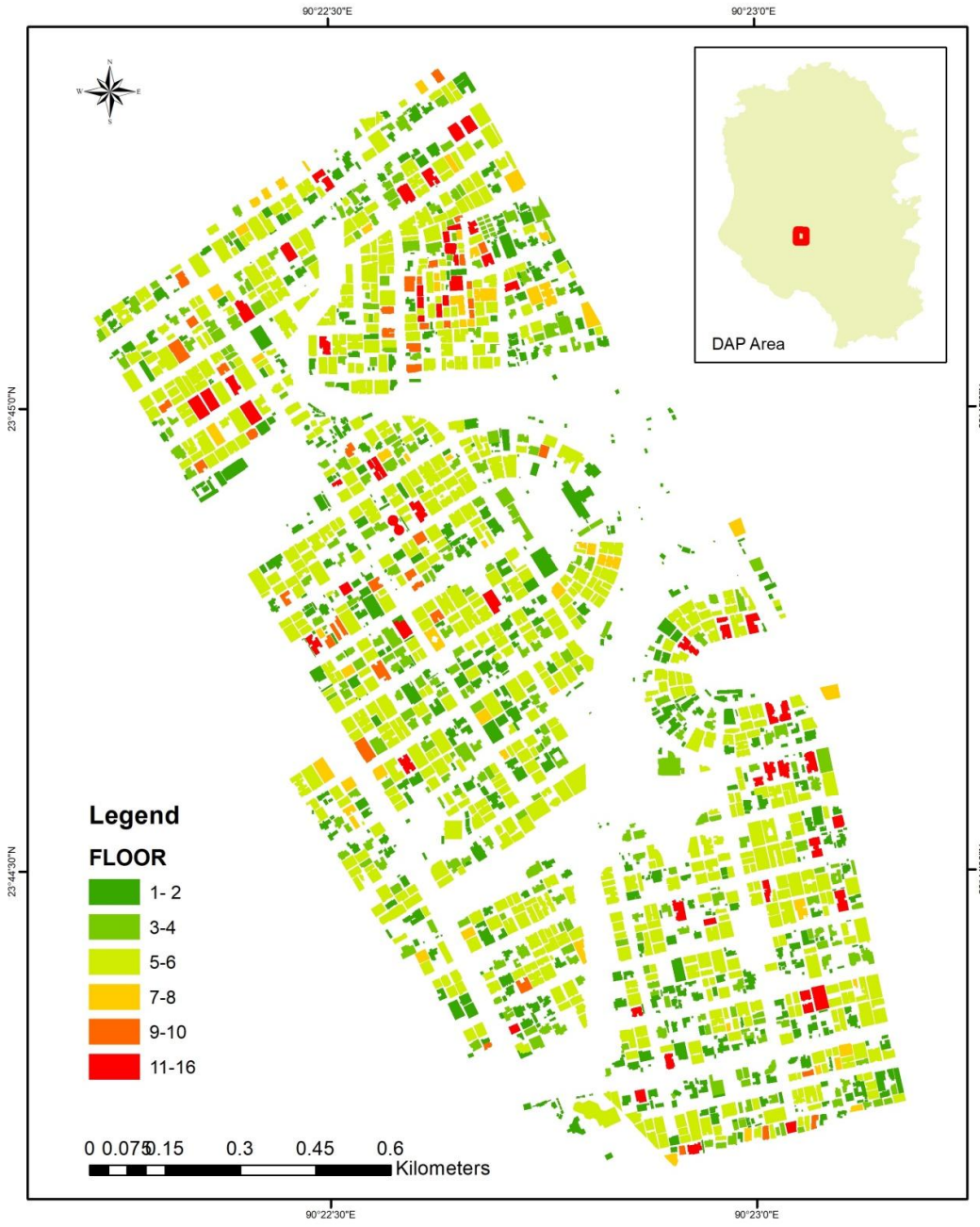
In 1962, most of the houses in Dhanmondi Residential Area were single storied (72.9 percent). Two storied houses were 24.3 percent and only 2.7 percent houses were more than two storied. In 1984 one storied buildings were 24.7g percent, two storied buildings were 51.34 percent and more than two storied structures were only 3.54 percent. Before 1990 there were no six-storied buildings in Dhanmondi. The present law of plot fragmentation does not allow physically fragmented plots to be smaller than five kathas. In this situation the successors having title of land smaller than five kathas have common ownership over the plot. They cannot sell or mortgage individually; every action has to be taken through group approach. This creates some operational problems while selling or redeveloping the plot. On the other hand owners of the apartments are free to have their title on the plot individually. Ownership of their subdivision would be undivided and not demarcated over the land. But they may sell or mortgage their title over the land individually. They do not have to take group initiative. This law of land fragmentation induces apartment housing as a remedy to the complicated situation of tenancy in common.

In the study area, the total structure is 1618. Number of 3 stories, 2 stories and single stories are 201, 101and 41 which are 12.42 %, 6.24% and 2.53% of the total number respectively. The number of 5 stories structure is 25.52% of the structure. 4 stories building are 330 which are 20.39% of the total structure. The number of 6 stories structure is 427 which are 26.4% of the total structure. The number of structure above the 6 stories is 6.48% of the total structure. Table 9.10 and Map 9.3 show the information.

Table 9.10: Number of floor of Buildings in Plots

No. of Stories	No. of Buildings	Percent in number
1	41	2.53
2	101	6.24
3	201	12.42
4	330	20.39
5	413	25.52
6	427	26.4
7	21	6.48
8	17	
9	23	
10	11	
12	26	
13	7	
Total	1618	100

Source: DAP physical feature survey, 2015-16 RAJUK



Source: Prepared by Author from DAP physical feature survey, 2014

Map 9.3: Existing Buildings Height of the Study Area

9.7.5 An Investigation of Initial Form of Dhanmondi Residential Area

Over the years, transformations in urban areas have taken place in varied forms, including those pertaining to size of form, land use, encroachments, structure heights, floor area coverage in other words illegal constructions etc. This has also occurred in the

formal developments of the city very much outside the legal framework. However, the growth may not be in accordance with the planning norms of the city, but its very existence highlights its magnitude. Some of the key transformations occurring in urban areas in general and Dhanmondi in particular are summarize in subsequent paragraphs

9.7.5.1 Use Affiliation

This is a type of transformation that pertains to extent and enhances non-residential use in residential areas and of other uses in areas meant for open spaces. This phenomenon is very evident along the main transport routes and in the developments with smaller plot sizes/ dwelling units. In other words, it can be stated as invasion of stronger land use over weaker in terms of prevailing demand, which is acting as an impetus for growth of a particular land use. For example at several places in Dhanmondi, the residential buildings along the road or streets near a planned market or business areas are converted to commercial spaces, open areas are being encroached upon for houses, shops etc. The prime reason of this type of transformation is pressure exerted by economic forces, where in the importance of economics prevails over that of habitation.

9.7.5.2 Built Form

The transformation is in terms of extent of consolidation, horizontal coverage, encroachments, condition of structures, streetscapes. To fulfill their need of habitable space people tend to increase the covered area of the plot. There are encroachments on the common open spaces or the road to accommodate their needs. The dwelling units are converted to commercial uses for retail shops etc. and the residential activities are accommodated on the additional floor which contributed to the height transformation occurring in the planned developments. This type of informality is seen in formal settlements having very small areas of dwelling units which with passing time becomes difficult to manage with. Social pressure is the main reasons for this type of transformation where an increasing population, needs to be accommodated in the limited planned space.

9.7.5.3 Time Affiliation

This type of transformation pertains to the changes that happen over a period of time. In terms of time relationship, the informal growth may be of temporary nature (which have become permanent over time), permanent nature or appearing before its envisaged time. For example, increasing area use by periodic markets, roadside petty sales, gets converted into permanent markets etc. The permanent nature of informality refers to the developments fully or partly, those covered under land use or ownership related

informality. Social and economic issues both are involved in pushing such type of transformations.

Dhanmondi Residential Area has been experiencing changes in its form as a result of the deviations brought to the neighborhood development and related aspects. After independence from British colonial rule in 1947, the city of Dhaka started growing northwards. In 1960, the Department of Building and Communication (C&B), Government of East Pakistan acquired around 600 acres of rice fields in *Dhanmondi* to establish a new high class residential area and this is how the present *Dhanmondi* was created. The total area of *Dhanmondi* is about 472.63 acres. At that time the Public Works Department (PWD) developed the area according to a planned layout for the high and higher-middle income group. Initially a total number of 1000 plots were developed and the sizes of those plots varied from 16 to 33 decimal (i.e. 0.6 to 1 *bigha).* But afterwards, the number of plots was increased to 1084 and the distribution of plots was as shown in Table 9.11.

The design population for the neighborhood was around 6420 which conformed to the population size of neighborhood unit suggested by Clarence Perry. The plots were rectangular shaped and the road pattern was grid iron. Three types of roads were designed for the area; i.e. major thoroughfare *(Mirpur* Road and *Satmasjid* Road) of more than 30 meter width, secondary roads of 16 meter width and access roads of 10-16 meter width. In case of secondary and access roads one third of their total width were metal led and have provision of footpath on both side of the road (Nilufar,2010)

Table 9.11: Distribution of different sizes of plots in the original plan of *Dhanmondi*

Plot size	Number
1 bigha or larger than 1 bigha	800
Less than 1 bigha and larger than 10 katha	194
Less than 10 katha (various sizes)	90
Total	1084

Source: DAP physical feature survey, 2015-16 RAJUK

Initially, the height of buildings in Dhanmondi was limited to two stories. The area of plots was large enough to allow sufficient spaces around the house. Most of the buildings were centrally located in the plots. The initial plot owners were interested to build small and beautiful houses for their personal use. For this reason there remained a considerable amount of open spaces around the building of each plot and on average only 30% of total plot area was used for building. These open spaces were used as lawns, and front and back gardens. Low fences around the houses merged open spaces and gardens into large green spaces within the neighborhood and the flow of natural light

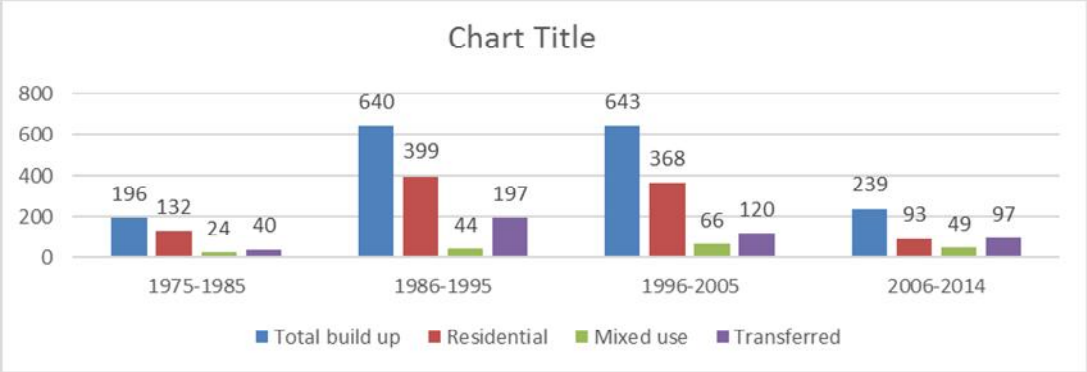
and air was undeterred. Also the mix of gardens and low-height buildings created a serene and tranquil environmental characteristic of an ideal neighborhood. The existing canal was expanded and extended to create the present lake and it was a much desired break away from the monotony of a grid-iron pattern. Bridges connected parts of Dhanmondi and later lakeside development increased the aesthetic and socio-cultural quality of Dhanmondi (Hasan, 2014).

9.7.6 Buildings Construction and Transfer

Table 9.12: Year wise total numbers of buildings were constructed in the study area

	1975-1985	1986-1995	1996-2005	2006-2014
Residential	132	399	368	93
Mixed use	24	44	66	49
Transferred	40	197	120	97
Total build up	196	640	643	239

Source: Prepared by Author (on the basis of information from RAJUK)



Source: Source: Prepared by Author (on the basis of information from RAJUK)

Fig 9.11: Year wise total numbers of buildings were constructed in the study area

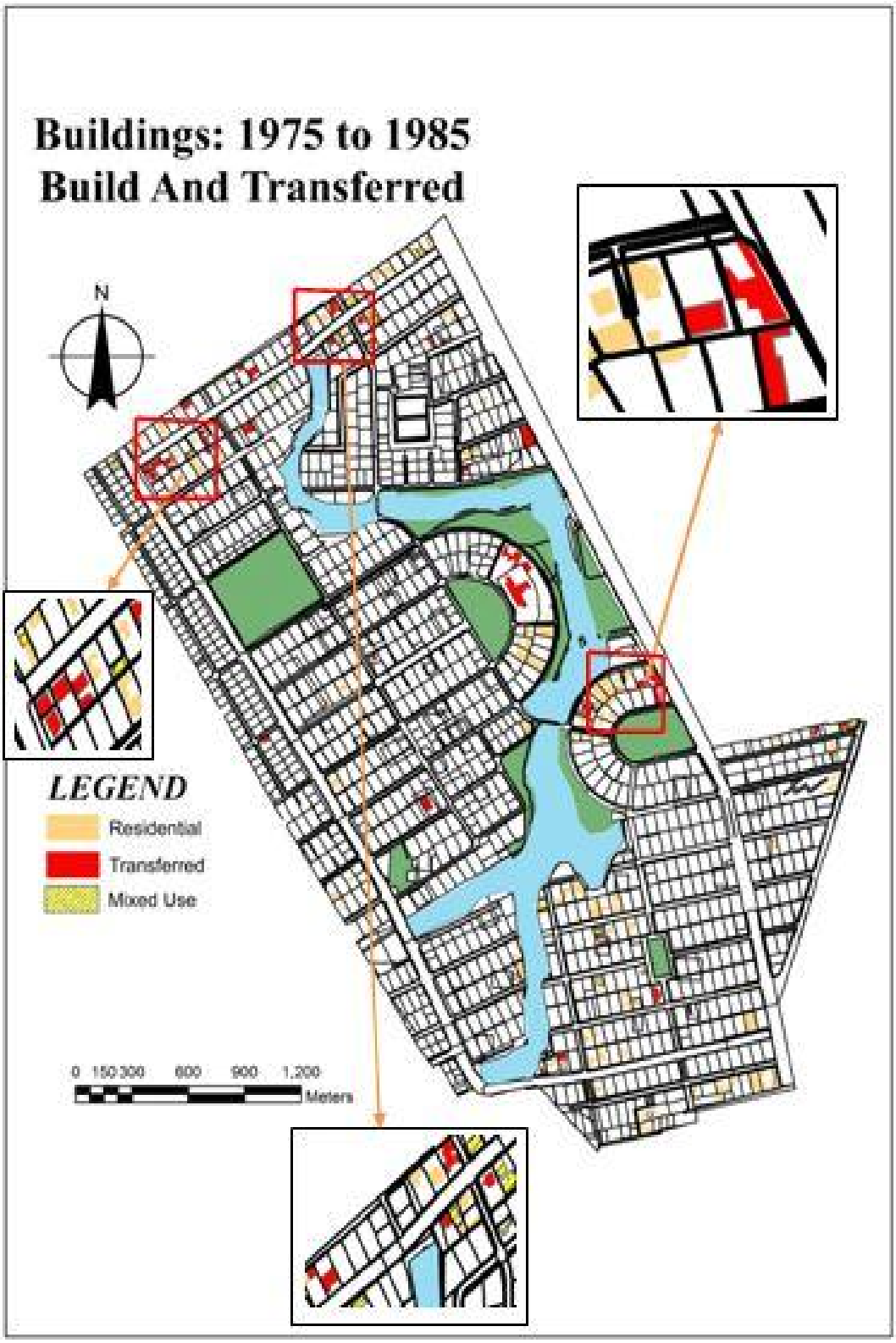
Table 9.12 and Fig 9.11 show the year-wise construction of buildings in Dhanmondi area. It is observed that in the year 1975 to 1985, a total of 196 buildings were constructed in the study area, in which 132 buildings were used for residential purposes. Among those buildings, 24 structures were mixed used (both residential and commercial or residential and educational). Last of all, 40 buildings were transferred into non residential uses without the prior approval of the authority. In the year 1986 to 1995 a total of 640 buildings were constructed in the study area, in which 399 buildings were used for residential purposes. Among those buildings 44 structures were mixed-use (both residential and commercial or residential and educational). Last of all, 197 buildings were transferred into non residential uses without the prior approval of the

authority. From 1996 to 2005, a total of 643 buildings was constructed in the study area, in which 368 buildings were used for residential purposes. Among those buildings 66 structures were mixed used (both residential and commercial or residential and educational). Last of all 120 buildings were transferred into non residential uses without the prior approval of the authority. A total of 239 of buildings was constructed in the study area from 2006 to 2014, in which 93 buildings were used for residential purposes. Among those buildings 49 structures were mixed-use (both residential and commercial or residential and educational). Last of all 97buildings were transferred into non residential uses without the prior approval of the authority. Both the mixed use and transferred tendency in the following year is greater than any previous road and the Mirpur Road. The situations during various periods are shown in Maps 9.4 to 9.8.



Source: RAJUK, 2010

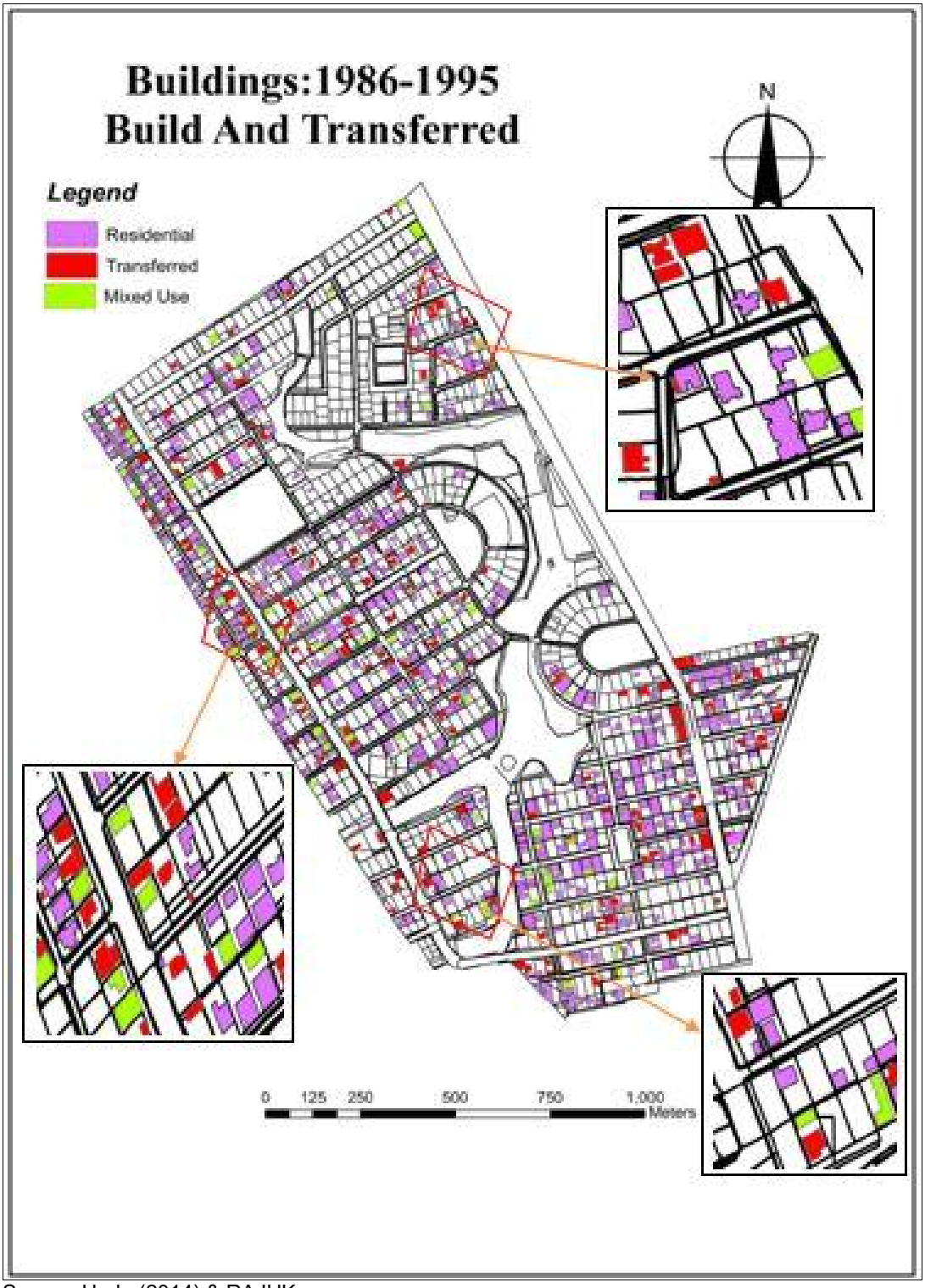
Map 9.4: Original layout of Dhanmondi Residential Area



S

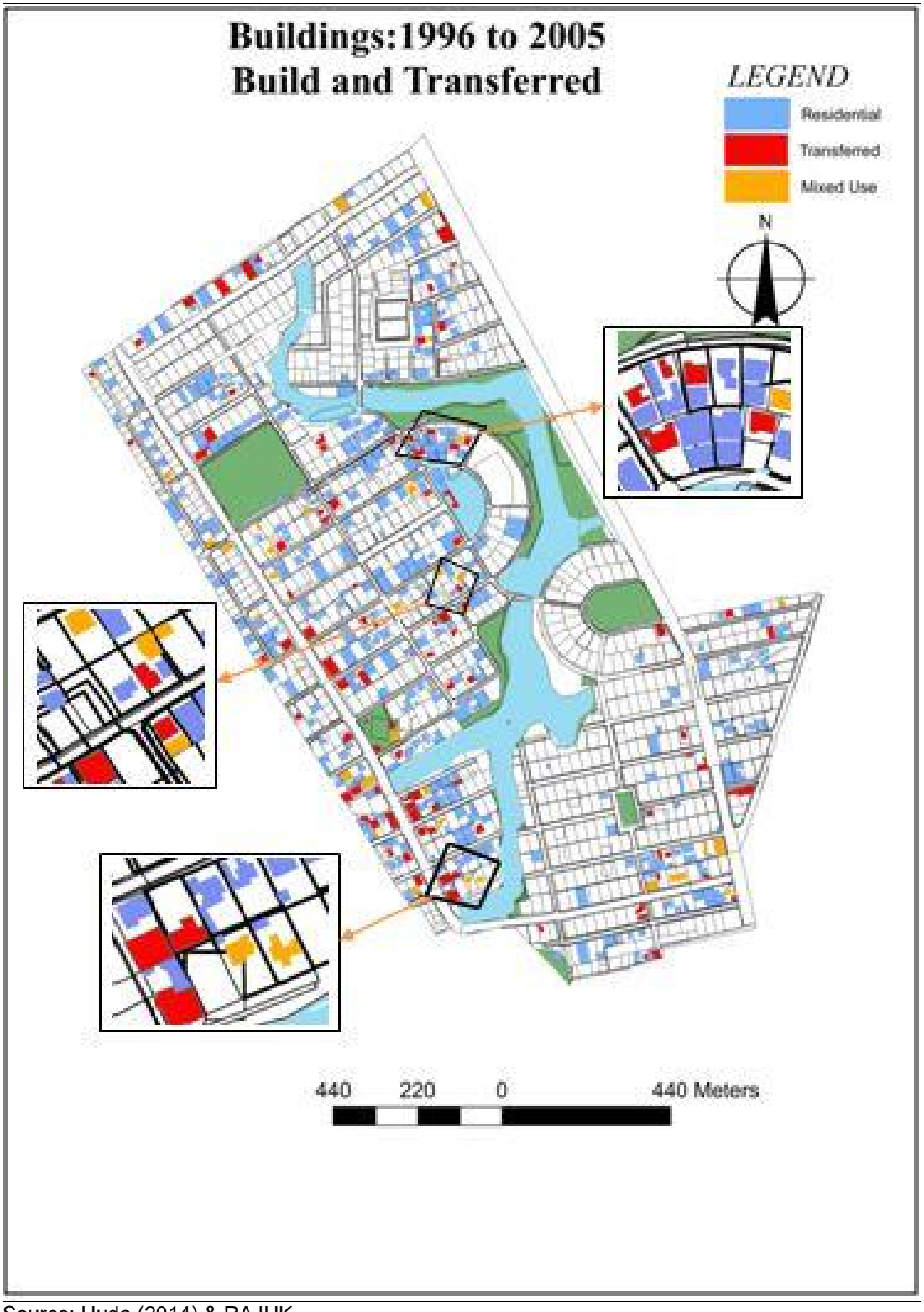
Source: Huda (2014) & RAJUK

Map 9.5: Building: 1975 to 1985 (build and transferred)



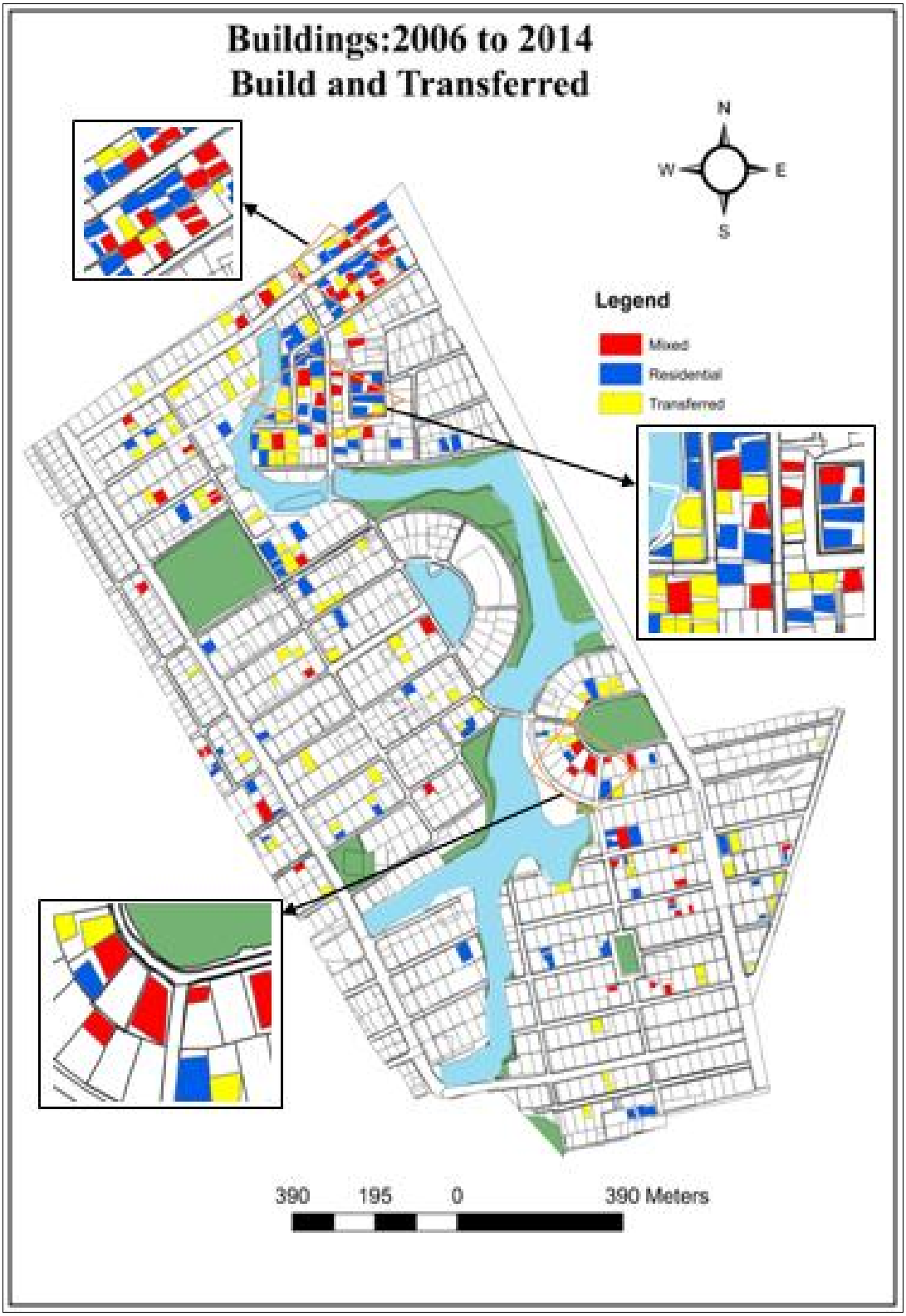
Source: Huda (2014) & RAJUK

Map 9.6: Building: 1986 to 1995 (build and transferred)



Source: Huda (2014) & RAJUK

Map 9.7: Building: 1996 to 2005(build and transferred)



Source: Huda (2014) & RAJUK

Map 9.8: Building: 2006 to 2014 (build and transferred)

9.7.7 Deviations in the Original Plan Emerging from Dhanmondi

Once a plan is drawn, it is rarely changed except for making further improvements to it so as to enhance good living environment for the residents. As evident, the original plan was changed not to improve it but to create more plots by deleting spaces demarcated as open space and water bodies. When a plan of a residential area is made, factors like its livability and sustainability and the social context of implementation should be considered. Otherwise, the residential area will lose its residential characteristics and become unlivable. If the plan is changed without thinking of the consequences then various problems may arise as seen in the case of *Dhanmondi,* which is losing its livability and residential characteristics day by day.

9.7.7.1 Re-subdivision of Plots

At present, the total number of plots in *Dhanmondi* is 1604 (Field Survey, 2016), compared to1084 in the original plan (Hasan, 2014) and so a total of 420 extra plots were created through re-subdivision and using up open spaces and water bodies. Re-subdivision of plots is allowed only in Bangladesh and countries of similar status and is not seen in any developed country. A plan is a well-thought strategy to provide accommodation to people and the reason to preserve and protect it from adverse changes is to ensure good living environment for generation of residents. But, this has not been the case with *Dhanmondi* or other residential areas in Dhaka. Table 6.8 and 6.9 show the scenario of re-subdivision and increase in the number of plots. From the questionnaire survey it was found that 46.6% of the total plots were re-subdivided bringing about significant and undesired changes in the form of Dhanmondi.

Table 9.13: Change in number and subdivision of plots in Dhanmondi

Subdivision (1976-1986)[1]		Re-Subdivision (1986-2000[2]		Re-Subdivision (2001-2007[3]		Re-Subdivision (2008-2014)[4]	
No of plots subdivided	Total plots	No of plots re-subdivided	Total plots	No of plots re-subdivided	Total plots	No of plots re-subdivided	Total plots
1084	1084	862	862	808	808	779	779
		196	392	219	438	246	484
		24	72	60	160	63	169
		10	40	11	44	14	66
				2	10	4	20
		2	12	1	6	1	6
		1	14				
Total	1084		1382		1466		1604

Source: 1 and 2 (Hasan, 2014, 3(Chowdhury, 2006) and 4 (Huda) 2014

From Table 9.13, it can be seen that there is significant change in the number of plots in Dhanmondi residential area. This number is increasing and will increase and in near future all plots may be subdivided. One of the main causes of re subdivision of the plots of Dhanmondi was the subdivision of plot among the inheritors. Most of the present plot owners of Dhanmondi are the second or third generation of original owners. From the questionnaire survey it was found that 64.6% plots were subdivided because those were divided among the inheritors.

9.7.7.2 Changing Scenario of Building Heights and Form

At the initial stage the building height in Dhanmondi residential area was to two stories. But over time, building height was allowed up to four stories. At present the building height in Dhanmondi can go up to six stories. This relaxation of height was approved by the circular of the Ministry of Housing and Public Works, Government of Bangladesh January, 1996 in (Hasan, 2014). This means that a single plot which accommodated only one family nom accommodates at least 4 families considering 1 family per family. A previous studies that in 1962, 72.9% of the houses in Dhanmondi were single storied Two storey houses constituted 24.3% and only 2.7% houses were more than two storey. At that time most of the houses (89.1%) houses were single family dwellings (Hossain 2008). Dhanmondi has somewhat retained the low density characteristics up to around 1996. But when the height restriction was relaxed building heights changed dramatically. These changes are evident in Table 9.14.

Table 9.14: Increasing Building Heights and Present Form of Dhanmondi

Building Height (Storey)	1975-1985 ' (%)	1986-2000 ' (%)	2001-2007 [2] (%)	2008-2014 [4] (%)
1	24.78	11.32	6.78	2.63
2	51.33	34.6	26.78	6.24
3	20.34	19.38	17.71	11.42
4	3.55	9.03	10.53	20.21
5		6.14	8.53	26.62
6		19.53	26.55	26.4
Above 6			3.12	6.48
Tatal	100	100	100	100

Source: 1 (Hasan, 2001, 2(Chowdhury, 2005) and field survey, 2018

9.7.7.3 Increasing Ground Coverage

The developers who build apartments intensify this problem. As their main aim is to gain maximum profit, they use the highest amount of land and construct their apartments.

The increase of ground coverage of buildings the building height is creating many problems for the residents. At the initial stage when 70% of the space is left after the construction of buildings and the height of the buildings were two storey's; then there was enough space for the flow of air into the plots, the buildings have available sunlight and there was no issues related to the privacy of the residents of the buildings. The ground coverage of buildings is increasing with time. From the previous studies it was found that in 1962 the building coverage was 28.3% which increased to 36.1% in 1984. In the year 2000 the ground coverage of buildings in *Dhanmondi* was around 60% of the plots (Hossain,2008). But at present the scenario is worse. From the questionnaire survey, it was found that the ground coverage of buildings at present has increased up to 72-86% (field Survey, 2014).

Initially, 70% of the space is left after the construction of buildings that means 30% spaces of plots was used (Hossain,2008). In 1962, the building coverage was 28.3% which increased to 36.1% in 1984. In the year 2000, the ground coverage of buildings was 60% of the plots (Hossain,2008). At present, it has increased to 72-86% (field Survey, 2014).

9.7.7.4 Land Use Transformation

Dhanmondi area experienced a high rate of land use transformation in recent years, which can be observed in Table 9.15 and Map 9.9 and 9.10.

Table 9.15: Land use transformation of Dhanmondi area

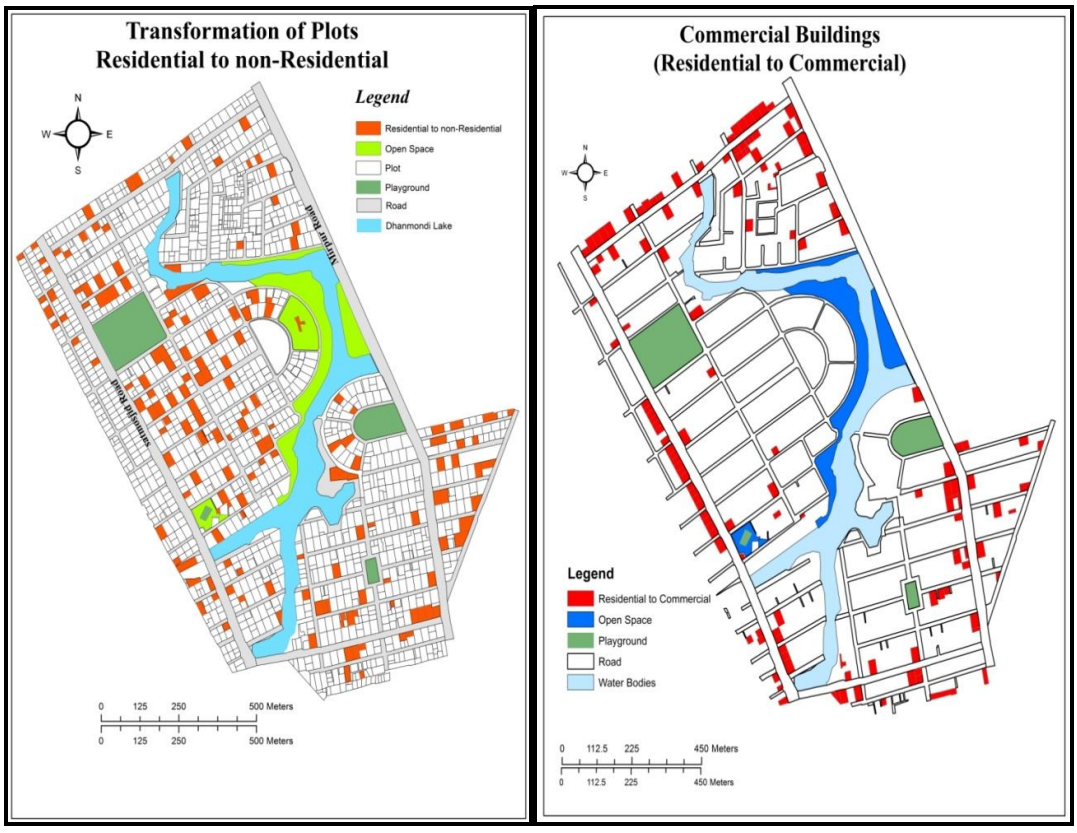
Transformed Category	No. of Structure	Area (Katha)	Specification
Residential to non residential	1201	801	
Residential to Commercial	168	670	
Residential to Recreational	24	79	
Residential to mixed use	137	512	
Residential to Educational	111	474	Primary school 15, Secondary school 53, College 23, University 19
Residential to Hospital	52	210	Government Hospital 3, Private Hospital 22, Clinic 19, Health centre 8

Source: DAP physical feature survey, 2010, RAJUK

In the study area layout plan, there is no provision for educational purposes. It excludes playground. In the study sectors there were no provisions of university and madrasha but reality will show you a drastic change.

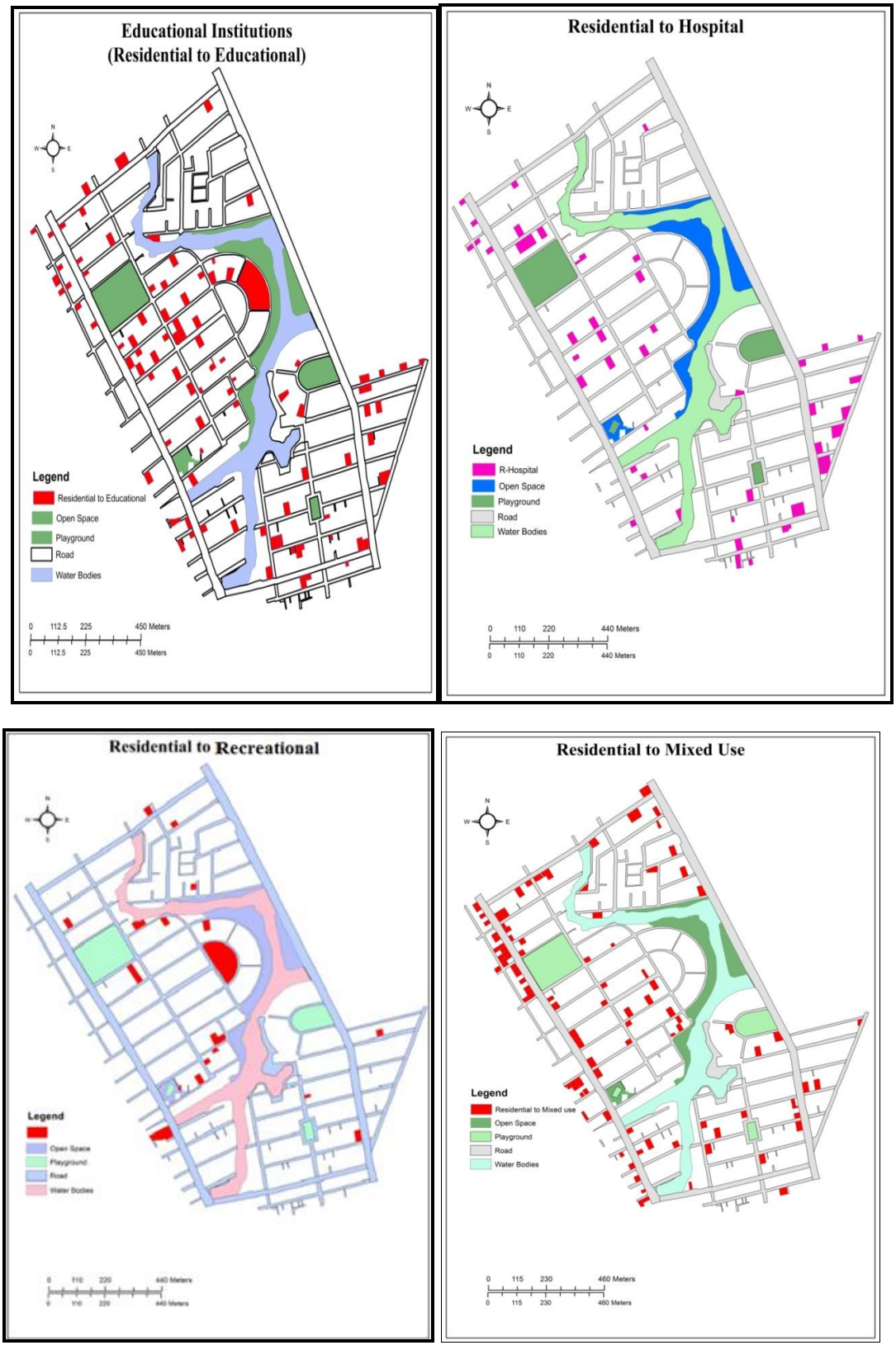
Generally, we know educational institutions are provided on the basis of population size. For example, according to the private residential land development rules, 2004 for each 10,000 population .8 acre nursery, 1 acre primary school, and 1.2 acre secondary school are to be kept in a neighborhood design. For each 20,000 population 1.7 acre college .8 acre madrasha need to be established.

In the study area, there are 72,449 population (according to projection based on unit). There are about 108 educational institutes including Nursery, primary school, secondary school colleges, university and coaching centers. Though the number of educational institutes is high all the institutes are full of students.



Source: Prepared by Author from DAP physical feature survey, 2014

Map 9.9: Land use transformation of Dhanmondi area

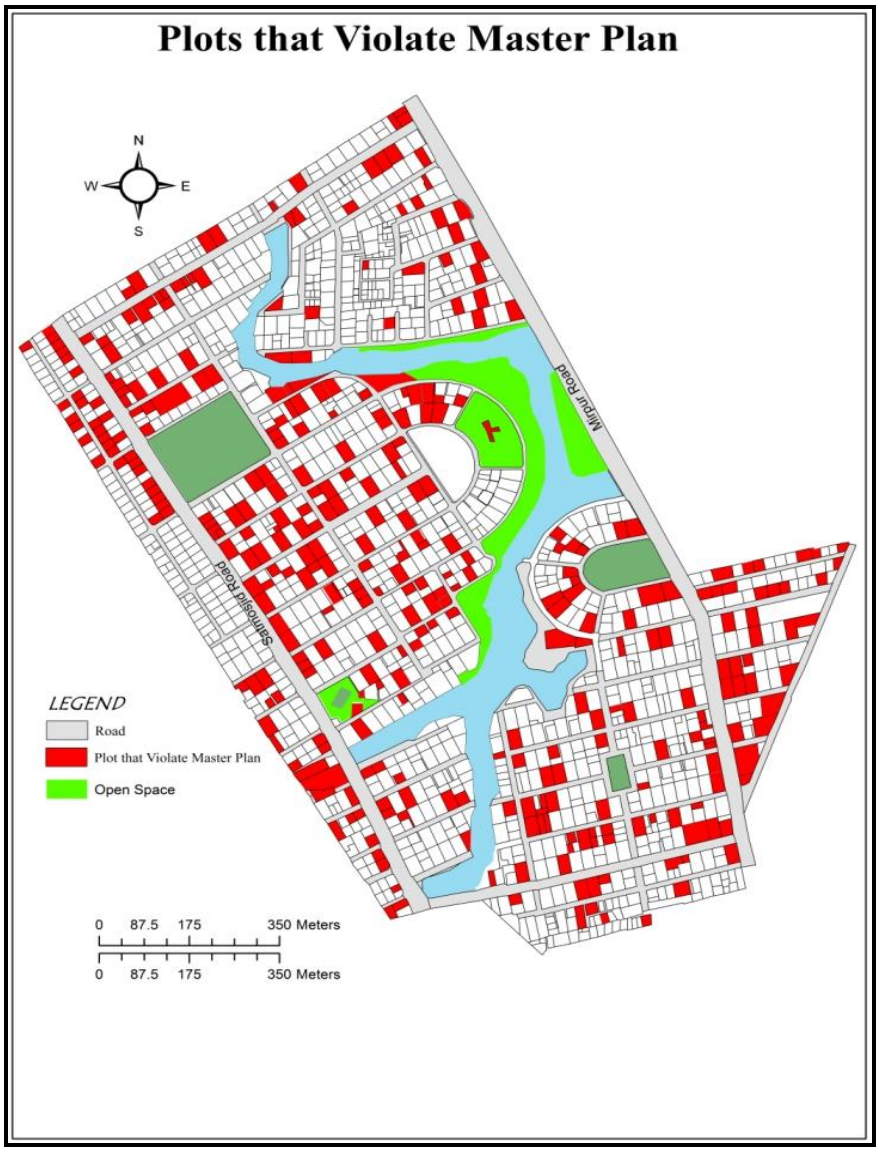


Source: Prepared by Author from DAP physical feature survey, 2014

Map 9.10: Land use transformation of Dhanmondi area

9.7.8 Investigation of Violation of Planning Laws

In the study area (Dhanmondi) it is seen that there is a dramatic transferred in land use has been occurred in the last two decay. Although Dhanmondi is one of the high class residential area in Dhaka city, in the layout plan of Dhanmondi we have seen that there has no provision of, commercial, schools, colleges, mosque and other necessary plots. Out of a total of 1504 plots, 354 plots violated the planning and development control rules (Filed survey, 2016). It is evident that violation in building construction occurred in the Master Plan provisions, floor Area Ratio (FAR), set back rules, parking, etc. These violations can be observed in Maps 9.11 to 9.14.



Source: Prepared by Author from DAP physical feature survey, 2014

Map 9.11: Plots that violate Master Plan

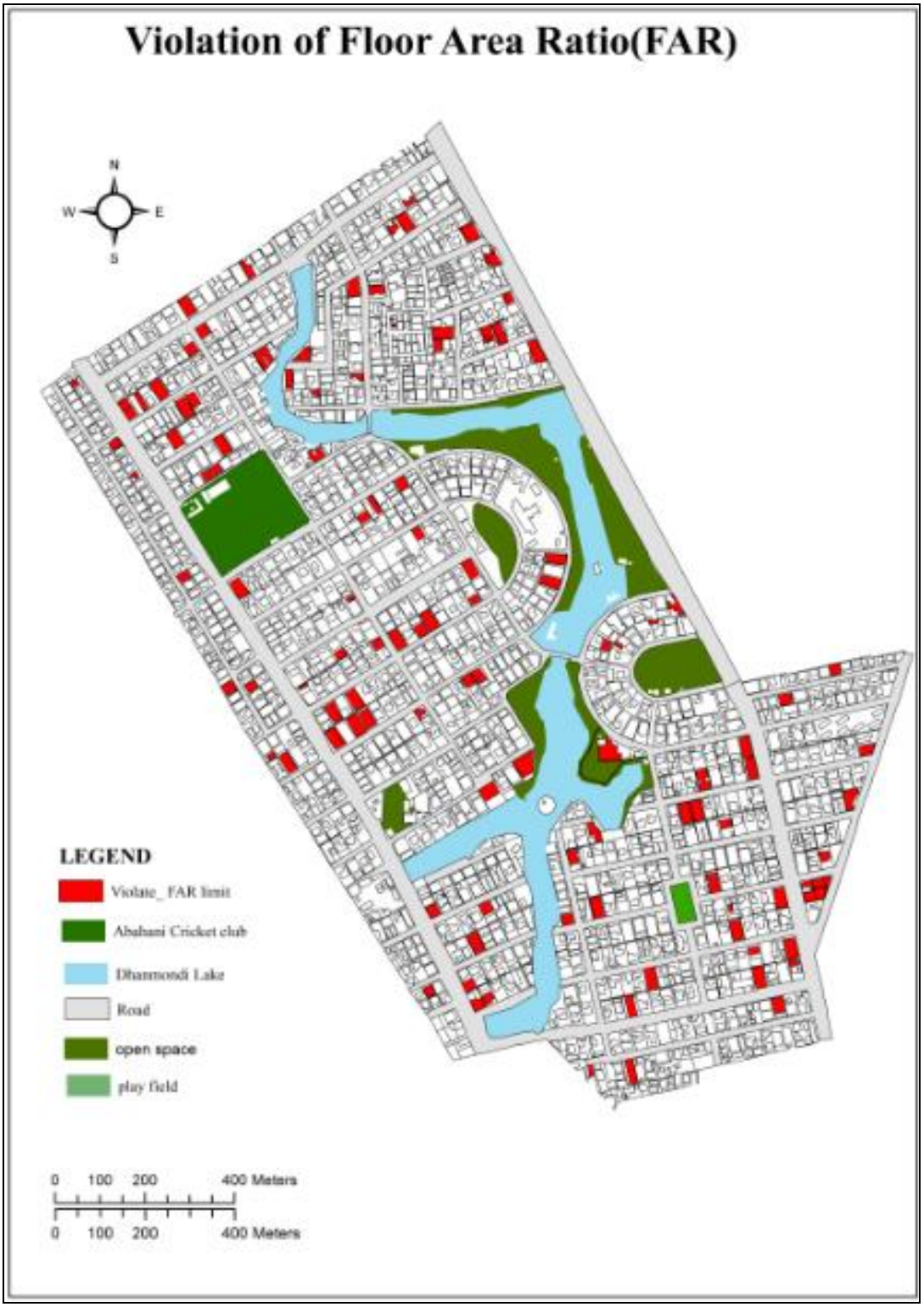
Floor Area Ratio

Dhaka Mohanagar Imarat Nirman Bidhimala 2008 provides Floor Area Ratio (FAR) for development control. In terms of FAR measurement, 218 buildings exceed the limit of FAR standard.



Source: Prepared by Author from DAP physical feature survey, 2014

Map 9.12: Floor area map of Dhanmondi area



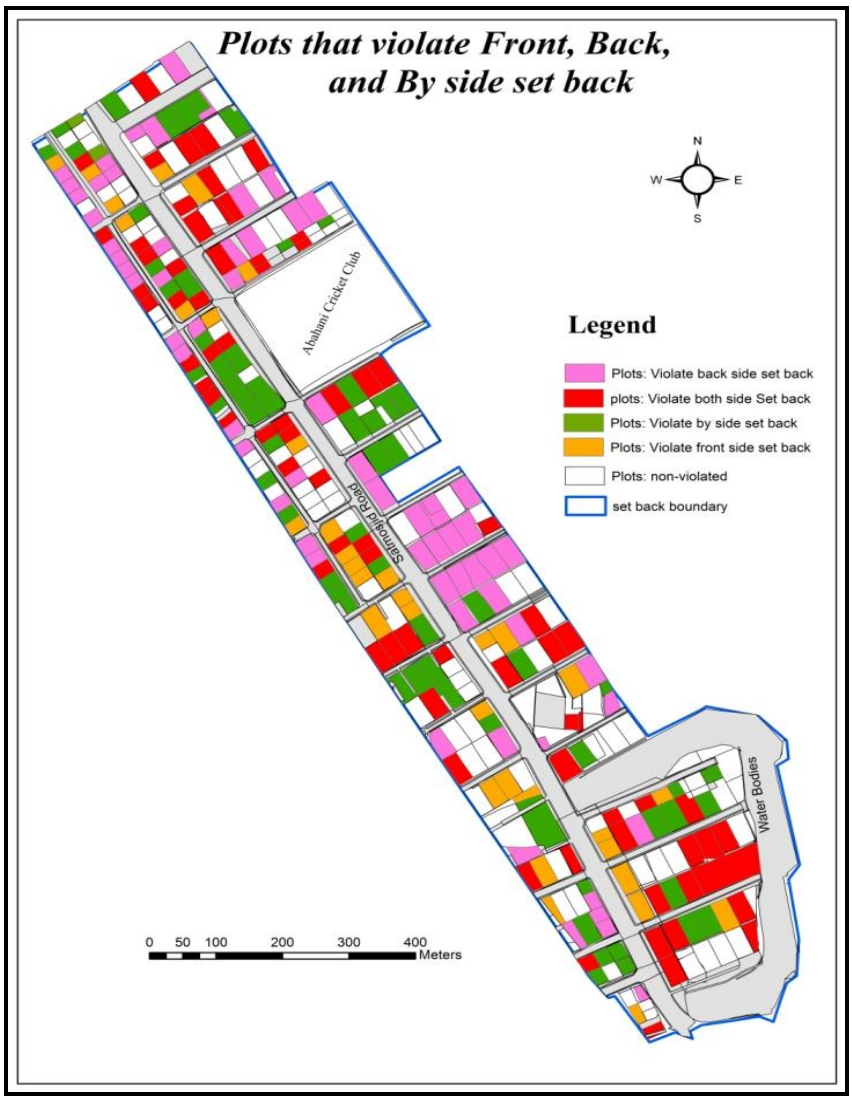
Source: Prepared by Author from DAP physical feature survey, 2014

Map 9.13: Floor area violation map of Dhanmondi area

Set Back Rules

In a study Huda (2014) surveyed both side of Satmosjid Road. Huda claimed that out of 371 plots 73 plots violate the bayside setback, 35 front set back, back setback 77 and 77 plots both side setback rules. 120 plots do not violate the law.

There were about 35 plots that violate front side open space or setback that means the plots or buildings possess less than 1.5 feet open space in the front side. There are also 77 plots that possess less than 1.5 feets in the back side of the buildings. Majority of the plots that violate the side distance rules are also violate the backside distance rules.



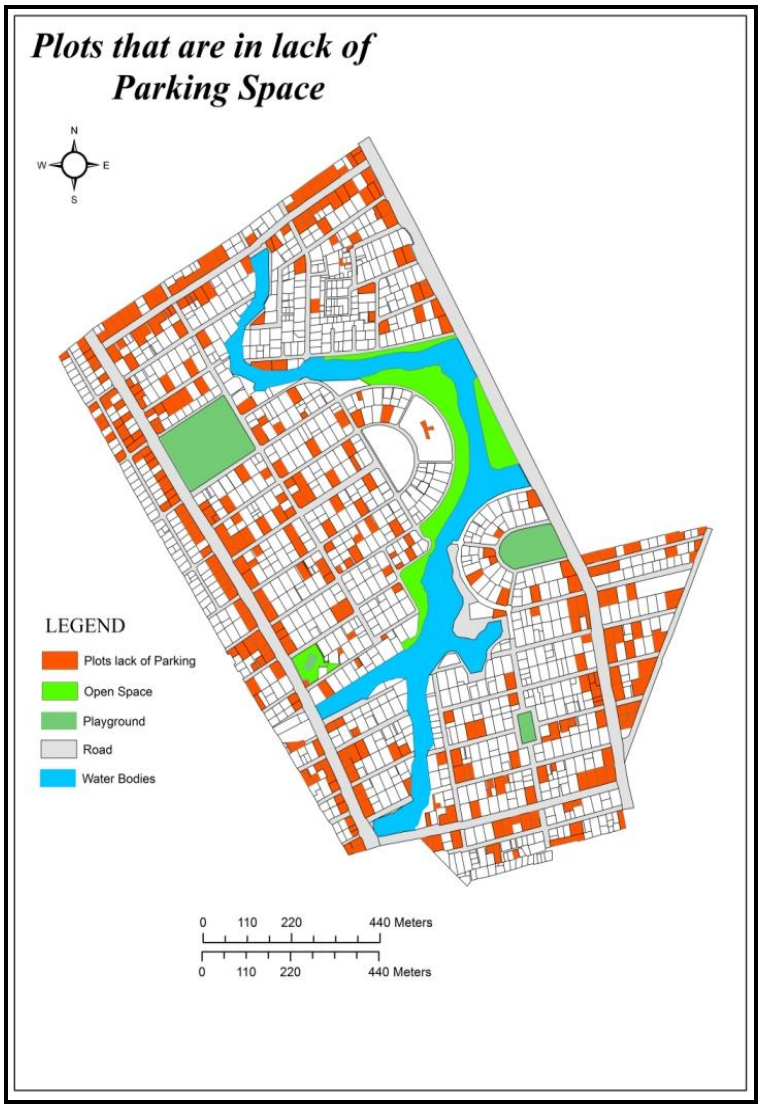
Source: Huda (2014)

Map 9.14: Sep back rules violation of Satmosjid Road of Dhanmondi area.

Parking area

Parking standard differs for different type of land use. But in the study area, all the structure is constructed for requiring the parking standard as residential purposes. According to the DMINB, 2008, each 200 sqm for each unit of residential area should have at least 1 car parking space. For commercial plot each 100 sqm should have at least 1 car parking space.

There are about 394 plots that violate DMINB, 2008 by in lack of parking space. These plots possess fewer parking spaces than that of necessary. Majority of the study area of Dhanmondi have enough parking spaces though there are also some plots that possess not enough parking spaces. The main causes of this occurrence are the plots either commercial or mixed or educational do not have car in proportion to the buildings.



Map 9.15: Parking space rules violation of Dhanmondi area.

9.8 Conclusion

It is evident that the development control mechanism of RAJUK is not strictly followed within RAJUK area and even in the core city area. The Savar Paurashava situation in Chapter 7 has also shown the similar outcomes in the practices of development control mechanism. Violations are commonly observed in private development. The public bodies including RAJUK itself also violates the rules. These evidences and experiences suggest that urban development control mechanism is not effectively working in Bangladesh to achieve the desired results, which also indicates that an improvement in the existing development control mechanism is necessary along with approaches of its implementation. An attempt is made in Chapter 10 to make some recommendations on the overall improvement of urban development control mechanism in Bangladesh in general and RAJUK in particular.

CHAPTER TEN

RECOMMENDATIONS AND CONCLUSION

10.1 Introduction

This research focuses on the conceptual and legal framework of urban development control mechanism in Bangladesh and tries to examine the current practices of urban development control mechanism in Bangladesh in general and Dhaka City in particular. Moreover, it investigates and analyzes the existing problems, constraints and future scope and potentialities of improvement in urban development control mechanism for Dhaka city and additionally trying to recommend for the improvement in the current urban development control mechanism in the context of legal framework of Bangladesh

This Chapter has discussed on the major findings of the research and is intended to provide the basis for discussion of the guiding principles in order to address the present as well as the future problems that are yet to happen. It also suggests some policy guidelines which could be helpful in preventing the current condition. This chapter also provides recommendations for further research.

10.2 Challenges of Development Control Mechanism in Dhaka City

10.2.1 Preparation and Implementation of Development Plan

Dhaka is very vulnerable to severe flooding from upstream during the monsoon season. This vulnerability will be increased should sea levels rise as a result of climate change. Currently there is around 15 million population living DMDP area and growing at 3-4% annually means that there are very high development pressures across the DMDP area. The resulting annual increase in households is in the order of 100,000. Even with reduced rate of migration, a population increase to around 25 million is quite possible over the next 20 years.

Much of the DMDP area is still undeveloped, yet much is also low-lying making it hard to develop. This is evidenced by rocketing land values and very high densities, averaging over 40,000 per km2 and much higher in the old city, slums and some new development areas, where provision for non-residential uses is very low. Densities are also increasing in many areas with the replacement of detached houses by multi-storied apartments, very few single houses are being constructed. Simultaneously pressure on fringe areas is increasing resulting in the loss of flood retention areas; overall between 1988 and 2005, the built up area doubled in the Dhaka Metropolitan Area and now accounts for almost half the total land area.

The DMDP 1995-2015, covering the entire RAJUK area, completed in 1995 and legally approved in 1997, is the current structure plan. Considerable stress was given to the importance of infrastructure development, especially flood control works and road construction as a means of guiding the private sector and ensuring a coherent urban structure, particularly in fringe and new development areas. The plan also gives emphasis to providing for the needs of low income households but, conversely, pays little heed to the economic issues and the development of new employment areas.

The Dhaka Urban Area Plan (DUAP) was completed at the same time and provided a more detailed series of policies for the main urban area. The DUAP, which had a time horizon of 10 years (2005), was intended as an interim measure until the Detailed Area Plan (DAP) envisaged by the DMDP was completed. In most other respects, however, the DMDP should be seen as a failure: over densification of previously low density residential areas (Dhanmondi, Gulshan, Banani); the failure to protect the flood retention areas envisaged in both the DMDP and the DUAP;

The absence of any initiatives to provide land for poor and low income housing thus perpetuating the extension of existing slums and the creation of new ones, not withstanding RAJUK's substantial land development activities in Uttara and Purbachal;

- ✓ an absence of planned growth in the designated growth areas;
- ✓ a general failure to provide/ upgrade infrastructure, especially roads and water supply networks; and
- ✓ the absence of any new planned industrial/ employment areas

The DAP is designed to provide the primary tool for development control at the local level by providing both maps on a cadastral based and a written policy statement. DAP preparation started in 2004 and was completed in 2009.

The DAP was also criticized for failing to:

- ✓ Protect watershed areas from industrial pollution by not providing for zoned industrial areas; and
- ✓ have sufficient input from sectoral agencies including those have a statutory right to be consulted by RAJUK.

As a result of these criticisms, the DAP was revised to show the majority of deviations as illegal development. In 2010, despite a legal challenge from developers, the revised DAPs were accepted by the government and gazetted as a single document.

10.2.2 Conflict of interest between RAJUK's land development and planning roles

RAJUK has received strong and continued criticism concerning its dual roles. RAJUK acts as both 'system regulator' and 'system user'. It acts as regulatory plan-maker and regulatory plan-user, as arbitrator and applicant, as planner and developer. This gives raise to inconsistent decisions RAJUK flouts its own planning policies yet refuses developers' proposals than contravene planning policy – and makes RAJUK open to charges of self-interest, double-standards and inconsistency. The dual roles have enabled RAJUK to concentrate on its land development projects and neglect its role as planning authority.

10.2.3 RAJUK as land developer

Some RAJUK's developments are deviations from the approved DMDP and include with insufficient provision for flood retention areas. Allocations for non-residential purposes (community facilities, employment, etc.) are low preventing the development of self-contained communities with a wide provision of ancillary facilities. By concentrating on these developments, usually located in low-lying areas, RAJUK is failing to promote development in DMDP-identified better located growth areas and Residential plots (unlike commercial ones). Windfall profits are made by plot recipients rather than by RAJUK (i.e. GoB). Most RAJUK plots go to higher income families, often at the behest of influential persons. Few poor, low income or even middle income households benefits. Eligibility criteria are not observed. The plot allocation procedure is thus seen as both unfair and inequitable. Substantial deposits are taken from all applicants yet these deposits are often kept for a long time (accruing interest for RAJUK) and then are returned after often protracted negotiations.

10.2.4 RAJUK as Strategic Planning Authority

Although the DMDP overall strategy has largely been followed, most other DMDP policies have not been materialized. Strategic planning capacity in RAJUK has not been strengthened over the years to deal with Dhaka's many faceted problems and the agency appears to have no credible strategy to deal with inter alia: urban infrastructure planning and upgrading for a megacity of 15-20 million; environmental degradation; shelter for poor and low income groups. RAJUK has failed to develop relationships with other key agencies in order to enable a coordinated approach to DMDP implementation to be established. RAJUK has not maximized its revenue from its land sales so as to provide funds for infrastructure development elsewhere in the metropolitan area. Up till now, the planning function remains technically deficient and chronically understaffed.

10.2.5 Development Control and Enforcement

The lengthy consultation process means that it takes an average of 2 years to process a single application – representing a major cost to developers and a major incentive to both avoidance and corruption. The great majority of construction occurs without either planning permission or any building control inspections. Ineffective enforcement is common.

Almost all developments approved by RAJUK prior to 2007 are in gross violation of the planning permit conditions in terms of building heights, setbacks and encroachments. This has led to unacceptably low planning standards in many private developments – minimal gaps between buildings, windows on side facades, lack of open space either on-plot or within the development.

RAJUK's enforcement operations mostly occur only when contraventions are brought to RAJUK's notice by a third party, the press or a high court decision is made. There is little enforcement in lower income areas where construction standards are likely to be worse, in city's outer areas of its jurisdiction, or against illegal land–filling in lowland areas. Inspections and enforcement are hampered by lack of transport.

Planning standards can be changed with little advance warning thus prejudicing developers' project business plans.

Staff shortages mean that despite there being laws and regulations for building control (the Bangladesh Building Construction Rules 2006, amended 2007 and 2008), this essential aspect of public health and safety is currently being waived. The lack of transport further reduces the potential for inspections, compliance or enforcement operations.

10.3 THE LEGISLATIVE CONTEXT

10.3.1 The Town Improvement Act (TIA), 1953 and Subsequent Amendments

The TIA has provided the legislative backing to RAJUK's operations since its creation over 20 years ago. It has long been recognized that this Act requires substantial revisions to incorporate necessary changes to RAJUK's modus operandi and to establish a planning system that is capable of addressing Bangladesh's urban problems of the late 20th and early 21st centuries. RAJUK too is aware of the TIA's shortcomings and, in all discussions, have stressed that the TIA needs to be amended.

Criticisms of the TIA arising from the Key Informative Interviews (KII) are summarized below:

- ✓ the main provisions of the TIA are based on the Calcutta Improvement Act 1911, adapted for use for Dhaka in 1953. A law which was apt for the planning and management of a relatively small provincial city some sixty years ago is no longer adequate for the planning and management of a mega-city which is the capital of Bangladesh.
- ✓ there are no provisions in the law which would allow for the development of a regional economic planning context to urban plans, or for any kind of strategic overview to provide an appropriate context to detailed planning.
- ✓ there are no clear principles of urban planning or development set out in the law for instance, no references to sustainability; to positive planning to stimulate and encourage economic growth and development; or to justice and equity in development.
- ✓ the law is very vague and general on the mechanics of the implementation and enforcement of a master plan. So it is by no means clear that the detailed arrangements and Interim Planning Rules set out in the Dhaka Metropolitan Development Plan 1995–2015 (DMDP) could be provided for under the provisions of Section 74 and 102 TIA. In the event, no legal arrangements have ever been made to bring the Interim Planning Rules into operation so that such attempts as are made to apply the provisions of the Plan may be found to have little or no legal backing.
- ✓ there are other laws, particularly the Dhaka Metropolitan Building (Construction, Development, Conservation and Removal) Rules 2008 which contain powers that overlap with the TIA so that issues of who may do what impede coherent implementation of the law.
- ✓ there are no provisions for any citizen involvement or participation in the planning of the city. Once there was the possibility of citizen input via elected local authorities, the substitution of RAJUK for the Dhaka City Council (and equivalent urban development authorities in three other cities in Bangladesh) has eliminated that avenue for citizen participation in plan preparation and implementation.
- ✓ the provisions of Chapter III of the TIA on Improvement and Re housing Schemes are not adequate for the need to address the challenges of informal urban settlements in Dhaka.
- ✓ there are inadequate provisions for transparency in the operations of RAJUK and for the accountability of RAJUK to the citizenry.
- ✓ there are no effective provisions in the TIA on the land development and land transactions functions which RAJUK has assumed over the years.

10.3.2 Dhaka Metropolitan Building (Construction, Development, Conservation and Removal) Rules 2008

Special Project Permit for large and specialized projects- (1) Special project permit has to be taken for the following projects:

(a) Residential building with more than 40 dwelling units;
(b) Any projects consisting floor area of more than 7500 sq.m. (under FAR);
(c) Any shopping mall with more than floor area of 5000 sq.m. (under FAR);
(d) Any project directly linked with national highway or primary road;
(e) Brick manufacturing factory or other factory causing environmental pollution;
(f) Any construction or development within 250 meter of Archeological or historical important place;
(g) Any construction or development within 250 meter of naturally aesthetic area;
(h) Any construction or development project in hilly area or in area seems as hilly or within 50 metre of such area;
(i) Any development project within 250 meter of river side.

Recommendation

- ✓ Traffic Impact Assessment (TIA) is compulsory for large project.
- ✓ Provision of certain open space for the usage of community has to be made for large project.
- ✓ Special establishment such as for any construction within 250 meter of archeological or historical important place, density zoning rule mentioned in DAP must be followed.
- ✓ Special establishments, such as for any construction within 250 meter of archeological or historical important place, provision of rule for transfer of development right has to be made for affected establishment by normal height.

10.3.2.1 Width of the road, FAR and MGC for building [Type: A (A1-A5): Residential Building and Hotel

Table 10.1: Existing Rules for road, FAR and MGC for building

Amount of Plot		Class of the Building : (A1-A4) (Residential House)			Class of the Building: (A5) (Residential House)		
Sq. m.	Katha	Width of the Road (m)	FAR	MGC (%)	Width of the Road (m)	FAR	MGC (%)
134 sq. m. or below	2 katha or below	6.0	3.15	67.5	6.0	2.50	67.5
Above 134 sq. m. to 201 sq. m.	Above 2 katha to 3 katha	6.0	3.35	65.0	6.0	2.75	65.0
Above 201 sq. m. to 268 sq. m.	Above 3 katha to 4 katha	6.0	3.50	62.5	6.0	3.00	62.5
Above 268 sq. m. to 335 sq. m.	Above 4 katha to 5katha	6.0	3.50	62.5	6.0	3.25	62.5
Above 335 sq. m. to 402 sq. m.	Above 5 katha to 6 katha	6.0	3.75	60.0	6.0	3.50	60.0
Above 402 sq. m.to 469 sq. m.	Above 6 katha to 7 katha	6.0	3.75	60.0	6.0	3.75	60.0
Above 469 sq. m. to 536 sq. m.	Above 7 katha to 8 katha	6.0	4.00	60.0	6.0	4.50	57.5
Above 536 sq. m.to 603 sq. m.	Above 8 katha to 9 katha	6.0	4.00	60.0	9.0	5.50	57.5
Above 603 sq. m. to 670 sq. m.	Above 9 katha to 10 katha	6.0	4.25	57.5	9.0	6.00	55.0
Above 670 sq. m. to 804sq. m.	Above 10 katha to 12 katha	9.0	4.50	57.5	9.0	6.50	55.0
Above 804 sq. m. to 938 sq. m.	Above 12 katha to 14 katha	9.0	4.75	55.0	9.0	7.00	52.5
Above 938 sq. m. to 1072 sq. m.	Above 14 katha to 16 katha	9.0	5.00	52.5	9.0	7.50	52.5
Above 1072 sq. m. to 1206 sq. m.	Above 16 katha to 18 katha	9.0	5.25	52.5	9.0	8.00	50.0
Above 1206 sq. m. to 1340 sq. m.	Above 18katha to 20 katha	9.0	5.25	50.0	9.0	8.50	50.0
Above 1340 sq. m.	Above 20 katha	12.0	5.50	50.0	12.0	9.50	50.0

Recommendation

A4- low housing shall fulfill the following conditions:

- ✓ Living of 4 or more families
- ✓ Common toilet, bathroom and kitchen
- ✓ Katcha or semi pacca establishment
- ✓ Maximum 3 floors

For this establishment, minimum width of road, FAR and MGC are not required.

- ✓ While erecting buildings, no certain width can be set for road.
- ✓ Whatever is the width of the road, approval must be given for erecting building based on the width of the road. No approval is given for erecting building on proposed road in the plan.
- ✓ The height of the residential building shall be fixed according to the proposed Density Zoning described in the Detailed Area Plan (2016-2035).

10.3.2.2 Setback of Building

Table10.2: Existing Set Back rules

Height of the building: Up to 33m or 10 floor				
Plot Size		Minimum Setback		
Sq. m.	Katha	Front (m)	Rear (m)	Each side (m)
134 sq. m. or below	2 katha or below	1.50	1.00	.80
Above 134 sq. m. to 201 sq. m.	Above 2 katha to 3 katha	1.50	1.00	1.00
Above 201 sq. m. to 268 sq. m.	Above 3 katha to 4 katha	1.50	2.00	1.00
Above 268 sq. m. to 335 sq. m.	Above 4 katha to 5katha	1.50	2.00	1.25
Above 335 sq. m. to 402 sq. m.	Above 5 katha to 6 katha	1.50	2.00	1.25
Above 402 sq. m.to 469 sq. m.	Above 6 katha to 7 katha	1.50	2.00	1.25
Above 469 sq. m. to 536 sq. m.	Above 7 katha to 8 katha	1.50	2.00	1.25
Above 536 sq. m.to 603 sq. m.	Above 8 katha to 9 katha	1.50	2.00	1.25
Above 603 sq. m. to 670 sq. m.	Above 9 katha to 10 katha	1.50	2.00	1.25
Above 670 sq. m.804 sq. m.	Above 10 katha to 12 katha	1.50	2.00	1.25
Above 804 sq. m. to 938 sq. m.	Above 12 katha to 14 katha	1.50	2.00	1.25
Above 938 sq. m. to 1072 sq. m.	Above 14 katha to 16 katha	1.50	2.00	1.25
Above 1072 sq. m. to 1206 sq. .	Above 16 katha to 18 katha	1.50	2.00	1.25
Above 1206 sq. m. to 1340 sq m	Above 18katha to 20 katha	1.50	2.00	1.25
Above 1340 sq. m.	Above 20 katha	1.50	2.00	1.50
Height of the building: Above 33m or 10 floor				
Any amount	Any amount	1.50	3.0	3.0

Recommendation

Whatever the size of the plot of A4 low housing is, the minimum setback (front 1.50m, rear 1.00m and 0.80m on each side) is required for plots of 2 kathas or below.

10.3.2.3 Minimum Parking Space Requirement for Different Classes of Buildings

Table 10.3: Existing Parking space rules \

Use of Building/ Type of Occupancy	Minimum Parking Requirement
Residential Building (Occupancy Type- 'A') Single Family/ Row House/ Not more than 200 gross sq. semi-detached residential building	1 car parking
Single Family/ Row House/ above 200 gross sq. semi -detached residential building	2 car parking
In case of multi-family residential building, more than 200 sq.m. gross area flat	1 car parking for each 1 unit
Above 140 sq.m. to 200 sq.m. gross area flat	2 car parking for each 3 unit
Above 90 sq.m. to 140 sq.m. gross area flat	1 car parking for each 2 unit
Above 60 sq.m. to 90 sq.m. gross area flat	1 car parking for each 4 unit
Up to 60 sq.m. area flat	1 car parking for each 8 unit
Up to 90sq.m. area flat (Additional car parking)	2 motor cycle parking for each 5 unit

Recommendation

- ✓ Compulsory provision of parking for residential building has to be removed.
- ✓ The provision of parking for residential building shall depend on the owner of the building.
- ✓ Alternative arrangement can be initiated for community level parking.

10.3.2.4 Height of the Building

All types of height related rules described in master plan will be applicable. Master plan means any plan which is entitled, passed, approved and operative as Dhaka Metropolitan Development Plan (1995-2015), Structure Plan, Urban Area Plan and Detailed Area Plan.

There is provision of rules related to height according to Dhaka Mohanagar Building (Construction, Development, Protection and Removal) Rule 2008, but if there is other rule in master plan that shall be applicable. For this, rules shall be applicable according to Density Zoning in the Detailed Area Plan (DAP).

10.3.2.5 Building Construction Committee

Review of the documents concentrated on the provisions for committees as these are important in the overall planning process and as a potential approach to providing outside oversight of the RAJUK board. In short, there are some concerns about the two committees provided for in the Rules.

The Building Construction Act 1952 provides by section 18 that:

> "18. (1) The Government may make rules for carrying out the purposes of this Act.(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 constitution of a Building Construction 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 meetings."

It is difficult to see how the two committees referred to in the 2008 Rules – the Town Development Committee (TDC) and the Large Development Committee (LDC) - can be brought within the scope of the Building Construction Committee (BCC), which the Act permits to be established. Given that the Act is about building construction and its regulation, must necessarily follow that any committee established under the Act must also deal with the same subject matter. But these two committees go way beyond just the regulation of building construction. In particular, the Town Development Committee has the following functions:

a. As a high powered committee it will recommend on future principles of all development and development control of the Dhaka Metropolitan City.

b. Supervising the co-ordination of construction and development work with Building Construction Rules.

c. Provide directions of such matters which are not covered by these Rules

d. Secure the transparency, quality of all building construction activities under the RAJUK master plan area.

e. Implementation of the rules and establishment of equality and justice

f. Disposing appeals.

It is mentioned that (a) and (f) certainly cannot be brought within the scope of building construction and regulation and (c) is also doubtful since it seems to be providing for the TDC to add to the regulations made under the Act which would contravene section 18 of the Act. It is principally for this reason that the two committees have been reconstituted under the TIA and in doing so, tidied up and in the case of (f) above greatly expanded the provisions since they did not provide any proper arrangements for appeals.

More to the point, however, is how does the TDC fit into the structure of urban governance in the RAJUK area? It has been established under Rules which are specified as being applicable to the "planned area of Dhaka Metropolitan city". It might be queried whether in these circumstances, the Rules apply to the RAJUK area (despite paragraph (c) of Rule 35 which is probably itself ultra vires) so to the extent that they are being so applied and actions adverse to landowners and developers are being taken outside the limits of Dhaka Metropolitan City (whatever that is) by RAJUK. These actions are probably ultra vires the body that is taking the action

The TDC seems to have been established as a kind of counterweight to RAJUK. But it may be more than an advisory committee to RAJUK. Paragraph (a) of Rule 35 does not refer to RAJUK; the DC is a "high powered committee which will recommend on future principles of all development and development control of the Dhaka Metro City" but there is no indication as to which body the TDC is to make its recommendations, nor what attention is required to be paid to such recommendations. It might also be noted that if the TDC is to make its recommendations to the Government, this does rather conflict with some of the functions of the Urban and Regional Planning Council under the proposed Urban and Regional Planning Act.

The TDC's other principal function is the supervision and control of construction and development as to which Rule 37 states "(1) a complaint or sue motto committee with competent professional may inspect the constructed or under construction building under this rule, (2) during inspection if any discrepancy found in that event applicant/ planner/ architect/ engineer/ owner of land will be brought to the justice and the committee will recommend for punishment which will be mandatory for the authority to execute, (3) for discrepancy under sub rule-(2), any negligence by the supervising staff of the authority will also be brought to justice and the recommendation of the committee is binding upon Authority to take action."

This is just about comprehensible but it is in no way realistic. The TDC itself can not go round checking on constructions; its membership is not technically qualified to do this

and they are not employed full-time. There is no provision in the Rules for the TDC to employ technical staff nor are there any provisions for linkages with e.g. RAJUK or Dhaka Metro City to use their staff to carry out the TDC functions on this. So the TDC has an important function, but not it seems to be the wherewithal to implement it.

Establishing the TDC and the approval committee for LDCs in the TIA will remove the taint of probable illegality from these two committees. The approval committee for LDCs is a good innovation and some slight amendments are made to the provisions to ensure that RAJUK is not approving its own LDCs.

10.3.3 Private Residential Project Land Development Rules 2004 (Revised 2012, 2015)

For the Private Residential Project, Land Development Rules 2004 (Revised 2012,2015) is working as a legal foundation for taking up the housing projects and implementation through the 'Site and Service Scheme' at the private developer level. In many countries of the world, land and infrastructure development of any area is undertaken by the government through the 'Site and Service' schemes and then the land is leased/allotted for the development of apartments or housing complex by private sector. Although such schemes are running at the government level in Bangladesh, private sector developer level schemes have been provided for the development of land or plots allotted to the individual or organization. However, there is no direction to establish a block-based apartment complex in land development rules. Due to the provision of plot allocations instead of the dwelling unit supply, these rules have not played an effective role in resolving the housing crisis.

For revision of the land development rules, some recommendations are made:

- ✓ According to the guidelines and standard, it has been indicated that it is generating accommodation for the upper class, but it is not suitable for the middle or lower-class households. In this law, it is mentioned that the construction of internal roads like primary road 80 feet, secondary road 60 feet, tertiary road 40 feet and access road 25 feet for each housing project. According to the provision, a housing project has to reserve 25-30% land for the road, whereas in Dhaka city it is only 6%. According to the rules, the responsibility of building the internal road is the responsibility of the project's developers but the cost of building the roads are imposed on the plot consumers. So, the prices of the developed plots are likely to go beyond the purchasing power of the general people. In this case, a low/moderate standard can be followed for the benefit of the citizen of the lower-class or middle-class people. For

example, for small-scale housing (less than 30 acres), primary road can be 30 feet, access road 12 feet and the provision of the secondary road can be omitted.

- ✓ In the statutory rules of 2015, it is to be noted that the amount of school, college, open space etc. is kept less than the 2004 norm according to the standard of citizen facility. However, there is no mention in the rules about the number of residential plots for the lower/middle class. Some projects of higher standard types may be accepted but all projects should not be of the same standard. Again, one or more blocks of the same project may have different standards.
- ✓ In the Private Residential Project Land Development Rules, private developers have developed road infrastructure in their own cost, but the utility infrastructure (water, gas, electricity) is being constructed by the government agencies, which act as a kind of incentive for private developers. On the contrary, the private developers are notified to allot the plots at a lower price, but the rules do not mention any conservancy of plots for low- or middle-class people. In this case 20-25% of the plot may be reserved for low or middle class people at low cost.
- ✓ In the housing development rules, there is no mention for keeping the livelihood of the affected people who are displaced as a result of the project. For example, in order to keep their economic activity in the areas which were previously used as land for agriculture, there should have been a provision for allocation of rehabilitation plots that they can use commercial or light industries as mixed use. But there is no provision for the protection of livelihood of the original residents in the rules.
- ✓ The rule has made arrangements for the allocation of plots instead of creating residential units/flats through private developers, which in turns motivates land-based business. There is no mention of how long the construction of the building should be started by the plot recipients. It is to be noted that in the four (04) years of the contract for allocated plots for the housing project taken by the RAJUK, there is a compulsion to complete the construction of the building. But in the case of private developers, there is no such deadline mentioned. So that the plot recipients have kept the plots empty without constructing the buildings in order to increase the land price. It encourages Land Speculation instead of solving the housing crisis. Over time, the price of land multiplied. As a result, the price of the flat increased later. In order to discourage Land Speculation, the required deadline can be determined between the purchase and construction of the rules. If the construction cannot be completed within the timeline, then the government may be given compensation or the provision of Higher Land Development Tax/ Higher Sales Tax can be made.
- ✓ The law does not encourage a small area (less than 20/30 acres) for housing projects or co-operative housing. Besides, there is no mention of community

participation in the rules. Some people in an area want to invest their small savings of money in the housing project, but they are discouraged because of the high standard and the complication of the process. In order to meet the needs of the housing, they sometimes invest in the housing project without the government's approvals. For example, in Narayanganj and Savar, several co-operative housing projects have been developed without government's approvals. In many cases, these areas have been grown in an unplanned way. For co-operative housing, there is a need for separate guidelines. In reality, the co-operative housing is one of the most effective ways to resolve the housing crisis.

- ✓ The provision of 25% of land which is not owned by the developer of the project has been allowed to sell to others by the developer with the permission of the authority, which encourages illegal activities. Population density according to land development rules and FAR determined in the Dhaka Metropolitan Building (Construction, Development, Conservation and Removal) Rules 2008 is not compatible. As a result, the density considered during the approval of a housing project, is not maintained at the time of accepting approval for the construction of the same project. As a result, density control is not possible in private housing projects.
- ✓ There is no mention of what will be the determinant of the sale price at the time of handing over the development plots in the rules. As a result, the project developer sells plots at a higher price for greater profitability. The rules should have the obligation to submit the ledger of the expenses of construction of land and other infrastructure to the government/RAJUK from time to time by the project developer. With the experience of implementing similar projects by the government/RAJUK, it is easy to verify the actual cost of land development and infrastructure development. Based on this, by discussing with the project developer, government/RAJUK can set up the sale price of reserved plots for the purpose of allocating between the lower and middle class and supervise whether plots are being transferred accordingly.
- ✓ According to rules, arrangements for the sale of schools, colleges, hospitals, etc. within the housing project have been kept as a community facility plots by the developers of the housing project. It was advisable to undertake the project approval for the conditions of construction of community facilities by a housing developer in their own initiative. This would lead to the creation of responsibility and liability of the project developer, reduce the cost of community facilities, management would be easy and the gradual decline in the implementation of the project would be reduced. It is currently seen that the developers of many housing projects are selling community facility plots as residential plots. For preventing such irregularities, the

lawbreakers need to be brought under the law, including the cancellation of the project.

- ✓ Regulations include the procedure for making private housing projects (counseling, DC certification, approval) a long-term process. Many times the project developer takes a long time to purchase land, so project execution is prolonged. Sometimes, the governmental institutions adopt a long-term agreement at different levels of conformance. It is to be noted that, if there is any restriction in the implementation of the project, the applicant must have to consulted within sixty (60) days but despite the obligation, in many cases it is not properly followed. The experience shows that some projects took 6/7 years or even longer for the approval. From the Deputy Commissioner's Office, it takes a lot of time to get the ownership certificates of the land through verification of relevant documents, like CS/RS/MS records of all of the land covered under the project. Of course, this is a complex and time-consuming task. Apart from this, the power of final approval of the project is under the jurisdiction of the ministry, which takes a lot of time to approve the project. Meanwhile, due to the delay in the approval of the project, the project developer is encouraged for the transfer of plots, before the project is passed and at one point the price of the plots increase manifold. It has been found that the price of plots of an approved project is much more than the unauthorized project. The estimated plot cost is 40-50 lakhs taka per katha on an approved project, whereas it is 10-15 lakhs per katha on the unauthorized project. That is, the price of plots in approved projects is beyond the general affordability.
- ✓ There is no mention of the rules about how the project will be monitored after the approval of the project. One or more monitoring committee should be constituted to verify whether the project is implemented according to the approved layout plan. There should be details about which members from which departments will be in the monitoring committee and what the monitoring method will be. There should be detailed information about what legal action will be taken against, if there is an exception of an approved layout plan.

Government can do acquisition of land only to serve wider interest of general people, to provide basic facilities, such as educational institution, hospital etc. but no land will be taken under acquisition for non-government or private land business project. No plots allocated for the provision of citizen's facilities, such as educational institutions, health facilities, park, playground and community facilities under private residential projects can be altered for any purpose violating the laws.

10.4 CONCLUSION

10.4.1 Research questions answered and research objectives achieved

The overarching research question of this thesis “How the existing laws, rules and regulations followed for urban development control in respect of urban planning exercises are appropriate for urban development in Bangladesh?” could be answered by addressing five major research inquiries (as sub-questions) and four research objectives (Chapter 1). A summary of the objectives and research questions in conjunction with the findings are outlined as follows:

- *Research question 1:* What are the concepts that might be considered for urban development control mechanism in the present urban planning context of Bangladesh?

In order to investigate the urban development control mechanism in the present urban planning context of Bangladesh, an extensive literature review was conducted to understand the concepts of development control mechanism. The development control mechanisms that exist globally were identified as: land use planning, zoning and sub divisional regulation. Land use planning such as open space, visual privacy, distance between buildings and flexibility in internal arrangement, education and awareness, safety and security and employment of local people. Similarly, sustainable urban development parameters for urban area that exist globally were identified as: ecological balance/impact, impacts on air, land and water, day-lighting, natural ventilation, construction practice, building materials, resource management (energy & water), waste management, site selection and site development and construction practice.

Another literature review was conducted to investigate the current development control mechanism practiced in Bangladesh especially on Dhaka city. This review found that efforts have been made so far to development control through master plan preparation and implementation in Dhaka city.

- *Research question 2:* How effective are the existing laws, rules and regulations for urban development control mechanism in Bangladesh?

Current planning exercise in Bangladesh more or less follows the old version of British planning system. The rapid and enormous but disorderly urban growth, however, makes it difficult for these rigid old planning structures to adequately handle the situation. More flexibility and agility is required in the planning process. Delayed process and poor governance often leads to unauthorized wayward developments.

It is, therefore, suggested that government maintain the Structure Plan approach for defining broader conceptual scheme, and development strategy or directives. However, for lower level land use plans and their implementation, simplified but transparent zoning system needs to be utilized. It is to prevent excessive delays in reviewing planning applications and subsequent illegal sporadic developments.

It is obviously natural to expect the local municipal planning authority (MPA) to carry out the tasks stated above. But an improper role-differentiation among different levels of government in Bangladesh makes it difficult for them to carry out the job. Further, critical lack of adequate personnel as well as the available expertise among them, currently but also in near future, do create serious bottleneck in carrying out the responsibility. Unfortunately, it requires a lengthy period of time to enhance the capacity of the local governing bodies and it should be necessary to consider an interim arrangement to successfully carry out the responsibility.

The research question of “how effective are the existing laws, rules and regulations for urban development control mechanism in Bangladesh” was addressed through physical and questionnaire survey in which 429 household were surveyed in Savar Paurashava area and 1504 plots physically survey at Dhanmondi residential area. In Savar area 58 % and in Dhanmondi area 23% of the buildings were found to violet the existing rules related to urban development control.

- *Research question 3:* Are there any variations in the practices of urban development control mechanism for different urban areas (such as metropolitan cities and municipalities) in Bangladesh or elsewhere?

This research question was addressed through intensive literature review on planning law, rules and regulations. From the intensive literature review it was found that there is variation of urban development control mechanism for different urban areas in Bangladesh. The Greater Dhaka Building (Construction, Development, Conservation & Defoliation) Rule 2008 is applicable for only Dhaka city. It introduces the concept of FAR for building construction at Dhaka city area. But for others urban area building construction permission based on Building Construction Rules 1996.

- *Research question 4:* What are the roles of different government agencies regarding development control of Dhaka city?

In this context, the research dealt with analyzing the development control mechanism of Dhaka, the capital of Bangladesh and a rapidly growing mega-city with limited financial resources. In doing so, growth scenario context of Dhaka city, politico-bureaucratic

structure in planning for the Dhaka, legal footing of urban management institutions, institutional linkages, coordination issues etc. have been analyzed. At least 51 Governments institutions are involved in Dhaka city affairs means every organization is responsible for many things. For all practical purposes, the Rajdhani Unnayan Kartipakkhya (RAJUK) is the planning and land development authority for Dhaka megacity. Development control, in its planning sense, is exercised by RAJUK. The urban planning wing of the Capital Development Authority (RAJUK) is at the core of this investigation.

Here are a large number of public sector development agencies working in RAJUK area and in its surroundings. RAJUK falls under the Ministry of Housing and Public Works whereas the Paurashava/ small towns/ rural local government bodies come under the domain of the Ministry of Local Government, Rural Development and Cooperatives (MoLGRDC). Likewise, other development agencies, engaged in RAJUK jurisdiction belong to different other ministries. There is hardly any coordination among these agencies working in the same area. This leads to a host of problems in executing the development control mechanisms. Often repetition of activities takes place and causes wastage of national resources in the one hand and brings misery for the citizens on the other. The common picture of involvement of agencies digging a city street frequently for providing respective services testifies the situation. Effective coordination would result in integrated approach to development work reducing wastage of resources. There should be elaborate provisions in the Act for such coordination with the specific responsibility of RAJUK. The relevant legal documents should address the issue of coordination.

Urban/ rural local government bodies including City Corporations within RAJUK area should be more independent, mutually supportive and accountable to perform their responsibilities with special reference to Master Plan implementation by RAJUK. There are many activities, for example, development control function is contained, both, in Town Improvement Act and Local Government (Paurashava) Act. This often leads to conflict between the Paurashava and RAJUK as to who is actually responsible for development control function. The problem should be resolved through amendment of the relevant acts.

Accountability of these organizations to the government and people regarding implementation of Master Plan has to be ensured through legal framework of urban / rural local government bodies/ RAJUK. The legal provisions have to be consolidated and simplified and make them compatible to changing circumstances. Scope for privatization of service providing activities should be created.

- *Research question 5:* What are the pros and cons of Dhaka city in applying and improving urban development control mechanism for planned development?

Public Participation in Plan Making Process and its implementation is an important aspect of planning. The planning and development acts contain articles enabling RAJUK to seek public opinion on their city plans prepared before they are sent to the government for final approval which is a bare minimum opportunity for public participation in the plan making process. This minimum provision of public participation in the plan making process should be more elaborated and encouraged through their incorporation in the legal documents.

Innovative approach like 'advocacy planning' by beneficiary groups may be encouraged so that any plan (by RAJUK or others) may be debated and replaced by a better alternative plan. This will create provisions for private owners to hire consultant groups to press their idea in a better way than what RAJUK plan has produced.

The other important aspect in planning is the legal basis to control land use and development through acts supported by rules and Dhaka Master Plan. These actually set up institutional framework, establish rules and standards and describe the procedures by which development is controlled in Dhaka.

Law is necessary for dealing with the urbanization problems, but sometimes they may be underutilized or over utilized. Sometimes, the existing laws are not being utilized satisfactorily, either through ignorance of law or the political pressure prevented the law being used. But laws should be there as safeguards against irregularity and mismanagement causing weak implementation of urban development control mechanism.

10.4.2 Limitations of this research

The research has achieved the overall aim of formulating strategies for improving development control mechanism of Dhaka. However, due to the limited time frame and funding of this research, the strategies developed could not be tested for feedback by the beneficiaries. A review process was undertaken, in which the draft strategies were presented to the stakeholders for their feedback, and the final strategies were formulated based on their recommendations.

Another limitation of this research was that this research only dealt with the laws related to land use and building permission. Laws related to natural and environmental aspects which have connections with the development control measures were not taken into serious consideration due to constraints of time limiting the scope of research.

10.4.3 Recommendations for the strategies

It should be noted that while this research is the first step towards achieving improvement in development control mechanism for Dhaka city. However, the lessons learnt from this research indicate that any new suggestion must be evidence-based. It is anticipated that in the future, the proposed strategies would need to be updated and modified based on the new requirements of occupants. If the strategies outlined in this research are to be implemented, it is recommended that they be adjusted over time.

10.4.4 Recommendations for further research

The following areas are recommended for further study of development control mechanism in Bangladesh:

- Based on the literature survey and empirical investigation into the practices of urban development control mechanism in Bangladesh with special reference to the RAJUK area, it is imperative that the legal instruments of urban development control mechanism in Bangladesh be reviewed for improvement.
- In order to establish stronger outcomes in development control mechanism in Bangladesh, district and upazila level Paurashava of different regions / divisions could be a possible realm of further investigation.
- Focus group discussions in the beginning of this research could have confirmed and refined the questions asked in the survey. This could not be done in this research due to time constraints and location of the research. However, in this research, a pilot study was conducted to test the survey questions. Further studies on such research may benefit from using a research design that considers input from focus groups at the early stages of the research.
- A close monitoring of the usage of all kind of land uses and structures for a period of time to study the combined influence of design characteristics, household characteristics (with socio-economic parameters) and household behaviour in respect of building design and construction could be further investigated. The Dhaka Metropolitan Development Plan (DMDP) area of RAJUK requires to be further studied in this respect to understand the urban development control mechanism from user perspectives.
- The influence of the enforcement officials for implementing urban development control mechanism in the metropolitan cities of Bangladesh including Dhaka city can be further investigated for more detailed measures in development control.

- The role and responsibilities of RAJUK in planning and development control also remain to be critical area for further research.
- Above all, the culture of planning practices by implementing agencies and beneficiaries is an important area of investigation that need to be researched for recommending changes in the process of implementing urban development control mechanism in Bangladesh.

Overall, it is believed that this research has explored some critical area of investigation for recommending on the improvement of existing development control mechanism in Bangladesh in general and Dhaka in particular. It is expected that the research would be a valuable source of information and guidance for the urban policy makers in the country and the future researchers in the field of urban development control mechanism in Bangladesh.

References

Adams, M. and Annum, J. D. (2005), Statistical Information Resources and Development Planning in Ghana, Information Development, Vol. 21, No. 2, 138-145

Adarkwa K.K. and Post J., 2001, Development Control in Kumasi, in The Fate of the Tree, Planning and Managing the Development of Kumasi, by Adarkwa, K.K. & Post, J, Woeli Publishing Services, Accra

Adarkwa, K.K (2012). The changing face of Ghanaian Towns; African Review of Economics and Finance, 4 (1): 1-29, accessed on 16th January, 2014 from http://www.ajol. info/index.php/aref/article/download/87230/76962

ADB. (2009). Urban sector and water supply and sanitation in Bangladesh retrieved from https://www.oecd.org/countries/bangladesh/47148619.pdf

Adjei- Mensah, C., Acheampong, P.K. and Antwi, K.B. (2010). Living in Beehives: The Growth of Unauthorised Structures in the Kumasi Metropolis, Ghana. Department of Geography and Regional Planning, Faculty of Social Science, University of Cape Coast. Accessed on 8th February 2015 from http:/www.eur.edu/uaps2011.princeton.edu /papers/110464

Ahamad, S & Hasan, MM (2010). 'Planned development for urban growth management: A case study on two wards of Dhaka city', Journal of Bangladesh Institute of Planners, vol. 3, pp. 113-127.

Ahmad, B. and Bajwa, R. (2005), Effects of arbuscularmycorrhizae (AM) and effective microorganisms (EM) on various plants under allelopathic stress, accessed on 16th January, 2014 https://www.researchgate.net/publication/288430252_Effects_of_arbuscular_mycorrhizae_AM_and_effective_microorganisms_EM_on_various_plants_under_allelopathic_stress

Ahmed, A and R.D. Dinye (2011). Urbanisation and the Challenges of Development Controls in Ghana, A Case Study of WA Township. Journal of Sustainable Development in Africa, 13(7) 210-235, accessed on 11th November, 2013 from http://www.jsdafrica.com/Jsda/Vol13No7Winter2011A/PDF/Urbanisation%20and%20the%20Challenges%20of%20Development.Abubakari%20Ahmed.pdf

Ahmed, H. S. (2010). Development of KM model for knowledge management implementation in construction projects. (Unpublished PhD thesis) submitted to the University of Salford. Salford.

Ahmed, S. U. (1986). *Dacca: A Study in Urban History and Development*. London: Curzon Press.

Ahmed, S. U. (1997). Urbanization and Urban Classes. In S. Islam (Ed.), *History of Bangladesh 1704-1971 Social and Cultural History* (pp. 159-160). Dhaka: Asiatic Society of Bangladesh.

Alam, M &Rabbani, MDG 2007, 'Vulnerabilities and responses to climate change for Dhaka', Environment and Urbanization, vol. 19, no. 1, pp. 81-97.

Alam, MJ & Ahmad, MM 2010, 'Analysing the lacunae in planning and implementation: spatial development of Dhaka city and its impacts upon the built environment', International Journal of Urban Sustainable Development, vol. 2, no. 1, pp. 85-106.

Alam, MJ & Ahmad, MM 2011, 'Impacts of environmental laws on land development and developers in Dhaka City, Bangladesh', International Journal of Environment and Sustainable Development, vol. 10, no. 2, pp. 169-188.

Alam, MJ & Ahmad, MM 2013, 'Public facilities in public and private housing projects in Dhaka, Bangladesh', Urban Policy and Research, vol. 31, no. 2, pp. 190-207.

Alam, MJ 2014, 'The organized encroachment of land developers—Effects on urban flood management in greater Dhaka, Bangladesh', Sustainable Cities and Society, vol. 10, pp. 49-58.

Alden, J. D. (1984). Metropolitan planning in Japan. *Town Planning Review*, *55*(1), 55.

Ali, R (2001). Tarikh-i-Dhaka. In Syud Hossain, *Echoes from Old Dhaka*; Dhaka: HakkaniPublishers, 2001.

Alluko, O. (2011). Development Control in Lagos State: An Assessment of Public Compliance to Space Standards for Urban Development, Department of Urban & Regional Planning. International Multidisciplinary Journal 5(5): 169 – 184

Angeles, G, Lance, P, Barden-O'Fallon, J, Islam, N, Mahbub, AQM &Nazem, N 2009, 'The 2005 census and mapping of slums in Bangladesh: design, select results and application', International Journal of Health Geographics, vol. 8, no. 1, pp. 1-19.

Baoke, T.M. (2006). Regulatory Determinants: The Impact of Development of Planning and Zoning. <http://www.architecture.uwaterloo.ca/ faculty_projects /terri/ images/ course_pdf/172-ch2.pdf>. Accessed on 2010 March, 8.

Bari, M. A. (2012). Shatgumbad Mosque. In P. SirajulIsalm (Ed.), *Banlapedia- the NationalEncyclopesia of Bangladesh*. Dhaka: Asiatic Society of Bangladesh.

Bayard, D. (1990). God help us if we all sound like this: Attitudes to New Zealand and other English Accents. *Clevedon: Multilingual matters, pp. 67-96.* In a Bell and J.Holmes (Eds), New Zealand ways of speaking English.

BBS 1998, Population census 1991, Analytical findings, Bangladesh Bureau of Statistics, Ministry of Planning, Dhaka.

BBS 2000, Statistical Year book of Bangladesh 2000, Bangladesh Bureau of Statistics, Ministry of Planning, Dhaka.

BBS 2001, Population census 2001, Zila series, Bangladesh Bureau of Statistics, Ministry of Planning, Dhaka.

BBS 2008, Population census – 2001, Bangladesh Bureau of Statistics, Ministry of Planning, Dhaka.

BBS 2010, Compendium of environment statistics of Bangladesh 2009, Bangladesh Bureau of Statistics, Ministry of Planning, Dhaka.

BBS 2011, Household Income and Expenditure Survey (HIES) – 2010, Bangladesh Bureau of Statistics, Ministry of Planning, Dhaka.

BBS 2012, Population and housing census 2011, Community series – Dhaka, Gazipur, Narayanganj, Bangladesh Bureau of Statistics, Ministry of Planning, Dhaka.

BBS 2013, Statistical Yearbook of Bangladesh 2012, Bangladesh Bureau of Statistics, Ministry of Planning, Dhaka.

BBS 2014, *Bangladesh Population and Housing Census, National Report, Volume-3, Urban Area Report*. Dhaka: Statistic and Informatics Division, Ministry of Planning, Government of the People's Republic of Bangladesh.

BBS, 1997, Bangladesh Population Census 1991, Volume 3, Urban Area Report. Ministry of Planning, GoB.

BBS,2008, Bangladesh Population Census 2001, National Series, Volume 3, Urban Area Report. Ministry of Planning, GoB.

Beer A.R. (1983), 'Development control and design quality Part 2: Attitudes to design', Town Planning Review, Vol.54, pp.383-404.

Begum, A 2007, 'Urban housing as an issue of redistribution through planning? The case of Dhaka city', Social Policy & Administration, vol. 41, no. 4, pp. 410-418.

Bertaud, A. (2002). The economic impact of land and urban planning regulations in India. Unpublished manuscript. Available at: http://www. alain-bertaud. com/images/AB_% 20India_, 20.

Beverley, H. (1872). *Report of the Census of Bengal 1872*: H. Beverley.

Bhattacharyya, P. K. (1996). Growth and Development of Urban Centers in Early Medieval Bengal. In A. M. C. and. F. Alam (Ed.), *BanglarItihash o Sangskritite Nagar* (pp. 33- 39). Dhaka: Centre for Advanced Research in the Humanities.

Boeije, H. (2010). *Analysis in Qualitative Research.* London:Sage.

Booth, P. (1998). Decentralization and land-use planning in France: a 15-year review. *Policy & Politics*, *26*(1), 89-105.

Brace, I. (2004). *Questionnaire design: How to plan, structure and write survey materials for effective market research.* London. Palgrave Macmillian.

Brantlinger, E. A. (1977). Knowlegde , position and agency:activism and in ward gaze as a natural Next step in local inquiry. meeting of american education research association. San Diego C.A.

Brooks, M.A. (2009). *Speech by Barrack Obama in Accra*. Accessed on 18th November, 2013 at 15:13. blogs.america.gov

Brunick, N. (2003). The Impact of inclusionary zoning on development. Business and Professional People for the Public Interest Accessed on 13th February 2015 from www.bpichicago.org/documents/impact_iz_development

Bryman, A. C., D. (2001). *Social Research Methods.* Oxford: Oxford University Press.

Bryman, A. C., D. (2001).*Quantitative Data Analysis with SPSS Release 10 For Windows:A guide for social scientists.* Hove and New York: Routledge.

Buckley, RM & Kalarickal, J 2006, Thirty years of World Bank shelter lending: What have we learned?, eds RM Buckley & J Kalarickal, World Bank Publications, Herndon, VA, USA.

Castells, M. (1979). *The Urban Question: A Marxist Approach*. Combridge, M.A: The MIT Press.

Champika, L. (2006). *The Role of Facilities Management in the Control of Healthcare Associated Infections (HAI).* (Unpublished PhD Thesis) submitted to the Glasgow Caledonian University.

Chandira, S.M. (2007). Development Control Rules and Byelaws in Tamil Nadu. Journal of Institute of Town Planners of India (ITPI). 4(1): 37-43.

Chomsky, N. (2006). Institutional Analysis vs. Conspiracy Theory. Z-Communications. Retrived April 8, 2010 from http://www.zcommunications.org/9-11-institutional-analysis-vs-conspiracy-theory-b-noam-chomsky.

Chotani, M.L. (2012). Urban Development Planning Regulatory Framework: A perspective, Proceedings of 60th National Town & Country Planners Congress. Institute of Town Planners of India (ITPI). New Delhi: 141-149.

Chowdhury, A. M. (2012d). Dhaka. In P. S. Islam (Ed.), *Bangla pedia - the National Encyclopedia of Bangladesh*. Dhaka: Asiatic Society of Bangladesh.

Chowdhury, R. H. (1980). Urbanization in Bangladesh. Centre for Urban Studies

Clingingsmith, D. & William, J. G. (2004). *India's De-industrialization under British Rule:New Ideas, New Evidence*, NBER Working Paper Series. Working Paper 10586. Massachusetts Avenue, Cambridge, MA 02138: National Bureau of Economicm Research

Collis, J. & Hussey, R. (2003). Business Research: a practical guide for undergraduate and postgraduate students. Basingstoke: Palgrave Macmillan.

Coulanges, F. d. (1956). *The Ancient City*. New York: Doubleday Anchor Books.

Creswell, J. W. (2003). *Qualitative, Quantitative and mixed method approaches,* London: SAGE.

Creswell, J. W., Vicki L. & Clark, P. (2011). *Designing and Conducting Mixed Methods Research*. London: SAGE.

Crotty, M. (2003). *The foundations of social research: Meaning and perspective in the research process.* CA: SAGE.

Das, A. K. (2007). Urban Planning in India. pp 106-119. Rawat Publications, Jaipur.

Davies, H. W. E. (1988). The control of development in the Netherlands. *Town Planning Review*, *59*(2), 207

Davies, H.W.E. (1989), "Development Control in England" in Department of the Environment, U.K.(1989), Planning Control in Western Europe, London: HMSO.

Davis, K. (1969). The Urbanization of the Human Population. In Richard T. LeGates and Frederic Stout (Ed.) *The City Reader,* Routledge Taylor and Francis Group, 2011.Changing Patterns of Urbanization in Bangladesh / 58

Dawson, C. (2009). *Introduction to Research Methods: 4th edition.* United Kingdom: Spring Hill House.

De Soto, H. (2001). *The Mystery of Capital: Why capitalism Triumphs in the West and fails Everywhere else.* New York: Black Swan Book.

Denscombe, M. (2007). *The Good Research Guide for small-scale social research Projects.* New York: McGraw-Hill Press.

Devaus, D. A. (2002). *Surveys in social research.* London: Routlegde.

Development Control Process in Malaysia. The law Review, International University of Malaysia 559-584.

Dewal, S. (2006). Master Plan for Delhi: 2021 - A Critical Analysis. CCS Working Paper no. 160. Summer Research Internship Programme. Centre for Civil Society. New Delhi: 1-40.

Dewan, A. Yamaguchi, Y. & Rahman, M.Z. (2012), 'Dynamics of land use/cover changes and the analysis of landscape fragmentation in Dhaka Metropolitan, Bangladesh', GeoJournal, vol. 77, no. 3, pp. 315-330.

Dewan, A.M. Kabir, M.H. Nahar, K. & Rahman, M.Z. (2012), 'Urbanisation and environmental degradation in Dhaka Metropolitan Area of Bangladesh', International Journal of Environment and Sustainable Development, vol. 11, no. 2, pp. 118-147.

Dewey, R. (1960). The Rural-Urban Continuum: Real but Relatively Unimportant. *AmericanJournal of Sociology, 66*(1), 60-66. doi: 10.2307/2773223

Dillman, D. A. (2007). *Mail and internet surveys: the Tailored design method.* Hoboken: WILLEY.

Dordaa, F. (2012). Urban Planning and management through Effective Development Control System: A Case of Bolgatanga, Ghana. A Thesis submitted to the Department of Planning in partial fulfilment of the award of Master of Science, Kwama Nkrumah University of Science and Technology, Kumasi.

Doublet, J.A. (2002) The scoping process in the Extractive Industry in Malta, A case study for soft stone and hard stone quarries. MSc thesis, University of Wales, Aberystwyth. 129 pp.

Edwards D. (1988), 'The planning system and the control of development in Denmark', Town Planning Review, Vol.59, pp. 137-158.

Enemark, S. and McLaren, R. (2008): Preventing Informal Development – through Means of Sustainable Land Use Control. Proceedings of FIG Working Week, Stockholm, 14-19 June 2008. http://www.fig.net/pub/fig2008/papers/ts08a/ts08a_01_enemark_mclaren_2734.pdf

Erikkson, P. & KOVALENI., A (2008).*Qualitative methods in Business Research.* London: SAGE.

Ewing, R. H. (2008). 'Characteristics, Causes, and Effects of Sprawl: A Literature Review.' Urban Ecology: An International Perspective on the Interaction Between Humans and Nature. J. M. Marzluff, E. Shulenberger, W. Endlicher et al. Boston, MA, Springer US: 519-535.

Fadare, O. (2004). Administrative Framework for Planning in Nigeria. . *In:* AGBOLA, T. (ed.) *Readings in Urban and Regional (pp.120-164).* Ibadan, Nigeria: Macmillan.

Faludi A. (1984), 'Planning theory', Pragamon press, Oxford.

Farvacque, C. and McAuslan, P. (1992). Reforming urban land policies and institutions in developing countries. Urban Management Programme Policy Paper 5. World Bank. Washington, DC

Fellmann, J.D., Getis, A. and Getis, J. (2005). Human Geography, Landscapes of Human Activities- 8th Edition. McGraw-Hill, New York. 355

Forkuor, G (2010) Smallholder Shallow Groundwater Irrigation Development in the Upper East Region of Ghana http://www.iwmi.cgiar.org/Publications/IWMI_Research_Reports/PDF/PUB143/RR143.pdf

Freire, M. (2006). Urban Planning: Challenges in Developing Countries. *International* Congress on Human Development, Madrid, retrieved on 13 November, 2013 from http://www.reduniversitaria.es/ficheros/Mila%20Freire(i).pdf

Friedmann J. (1989), 'Planning politics and the environment', Journal of American Planning Association, Summer, Vol.55, pp.334-338.

Gang, C. Y. (2008). *The Utility Knowledge mapping as an approach to improving corporate and project performance. A case study of a large South Korean consulting firm.* (Unpublished PhD Thesis) to the University of Salford. Salford.

Giddens, A. (2000). *The Third way and its Critics. An important contribution to the debate' Tony Blair.* USA: Polity Press in association with Blackwell publishers.

Gilson, L., ED. (2012). Health Policy and Systems Research: A Methodology Reader Alliance for Health Policy and Systems Research. World Health Organization 162.

GoB 2004, Private residential land development rules 2004, Government of Bangladesh, Dhaka.

Gold. H. (1982). *The Sociology of Urban Life*. Englewood Cliffs, N. J: Printic Hall, Inc.

Government of India. (1996). Urban Development Plan Formulation and Implementation Guidelines (UDPFI Guidelines), Ministry of Urban Affairs and Employment, New Delhi

Grix, J. (2001). *Demystifying Postgraduate Research from MA to PhD.* Edgebaston: University of Birmngham Press.

Grix, J. (2004). *The building blocks of research.* London: Palgrave Macmillan.

Guba, E. A. & Lincholyn, Y. (1994). *Competing paradigms in qualitative research.* London: Sage.

Gummesson, E. (2003). All research is interpretive. *Journal of Business & Industrial Marketing.* 18 (6/7), 482 - 492.

Gupta, J.K. (2002). Issues related to Plan Enforcement. spatial Economic Development Record. 9(2): 21-24.

Gupta, S.C. (1992). Unauthorized Development in Delhi: Zoning regulations and Building Byelaws violations. Journal of Institute of Town Planners of India (ITPI). New Delhi. 10(4): 71-75.

Guy, S. and Henneberry, J. (2000). Understanding Urban Development process: Integrating the Economic and The Social in Property Research, Urban Studies, 37(13) 2399 – 2416.

Hakim, C. (2000). *Research Design: Successful Design For Social and Economic Research*. New York: Routledge.

Haque, J.M. (2004), 'Impact of private land development on the environment of the eastern fringe area of Dhaka', Department of Urban and Regional Planning, PhD thesis, Bangladesh University of Engineering and Technology (BUET), Dhaka.

Harding, A. (2011). Overview of the Property Development Process, Retrieved on 13 January, 2016 from http://www.successfulcities.co.nz/publication/govrnance

Harris, J. (2001). *Ferdinand Tönnies: Community and Civil Society*: Cambridge University Press.

Harvey, D. (1981). The Urban Process Under Capitalism: A Framework for Analysis.Inc

Hasan, S. & Mulamoottil, G. (1994), 'Environmental problems of Dhaka city: A study of mismanagement', Cities, vol. 11, no. 3, pp. 195-200.

Hay, C. (2002). Political Analysis, *In:* PALGRAV, B. (ed.) *Manuscript.*

Hermunen, T (2004). Landuse Policy in Kenya, accessed on 27th January, 2015 http://www.helsinki.fi/science/taita/reports/Land_use_policy_Kenya_Taita_Hermunen.pdf

Hesse-Biber, S. N. (2012). *Mixed method research. Merging theory with practice.* London: The Guilford Press.

Hossain, S 2008, 'Rapid urban growth and poverty in Dhaka city', Bangladesh e-Journal of Sociology, vol. 5, no. 1, pp. 1-24.

Huda, K.A. (2014), Illegal land Use Trends and Consequences: A Case Study on Dhanmondi Residential Area. BURP Thesis, Department of Urban and Regional Planning, Jahangirnagar University, Dhaka.

Humbly, G. R. G. (1982). Mughal India. In TapanRaychowdhuri and Irfan Habib (Ed.). *TheCambridge Economic History of India: Vol 1: C.1200-C.1750*, Cambridge University Press.

Hutchison, R. (Ed.). (2010). *Encyclopedia of Urban Studies.* Thousand Oaks, CA: SAGE Publications, Inc.

Islam N (2000). Settlements of the urban poor in Bangladesh. US Bull Urban Development 2000; 38:2-4.

Islam, MM & Adri, N 2008, 'Fire hazard management of Dhaka city: Addressing issues relating to institutional capacity and public perception', Jahangirnagar Planning Review, vol. 6, pp. 57-67.

Islam, MS 2014, 'Inclusive urban development in Dhaka: Review of the national housing policy', paper presented at World Town Planning Day-2014.

Islam, N 1998, Dhaka city: Some general concerns, Asian cities in the 21st century: Contemporary approaches to municipal management. Reforming Dhaka city management, Asian Development Bank (ADB), Manila.

Islam, N 2005a, Improving the lives of slum dwellers in Bangladesh, CUS bulletin on urbanization and development, Center for Urban Studies, Dhaka.

Islam, N 2009, 'Dhaka in 2025 AD', in SU Ahmed (ed.), Dhaka: past, present and future, The Asiatic Society of Bangladesh, Dhaka, pp. 608-622.

Islam, N 2009, 'Dhaka in 2025 AD', in SU Ahmed (ed.), Dhaka: past, present and future, The Asiatic Society of Bangladesh, Dhaka, pp. 608-622.

Islam, N, Shafi, SA & Moniruzzaman, M 2009, ‘A comprehensive housing development programme’, The Daily Star, 26 June 2009.

Islam, N, Shafi, SA &Moniruzzaman, M 2009, ‘A comprehensive housing development programme’, The Daily Star, 26 June 2009.

Islam, S. (2008). Business History of Dhaka upto 1947. In D. Hassan (Ed.), *CommercialHistory of Dhaka* (pp. 3). Dhaka: Chamber of Commerce and Industry.

Jahan, S. (1994). Urban Planning in Bangladesh: A Review. Urban Research in Bangladesh

Jain, A.K. (2010). Innovative Concepts of Planning Building and Development Controls, <http://www.ashahabitat.com/knowledgebase/pdf/ planning4.pdf>. Accessed on 2009 August, 30.

Jain, R.K. (2002). Massive Urbanization and Urban Governance. spatial-Economic Development Record. 9(2): 25-27Jain, 2002;

Jankowicz, A. D. (2000). *Business Research Projects.* Thomas Learning.

Jefferson, M. (1939). The Law of the Primate City. *Geographical Review*, *29*(2), 226–232. http://doi.org/10.2307/209944.

Jogulu, U. D. & Pansiri, J. (2011). Mixed methods: a research design for management doctoral dissertation. *Management Research Review.* (34)**,** 687-701.

Joseph D.T. and Pathak V.K. (1995), 'Master plan approach', Key papers, National workshop on master plan approach: Its efficacy and alternatives, Ministry of Urban Development Govt, of India, New Delhi.

Kabir, A. and Parolin, B. (2011) Dhaka Mega City: Growth, Congestion, Environment and Planning for a Sustainable Future, accessed on 16th January, 2014 https://www.researchgate.net/publication/327474092_Dhaka_Mega_City_Growth_Congestion_Environment_and_Planning_for_a_Sustainable_Future

Kagioglou, M., COOPER, R., AOUAD, G., HINKS, J., SEXTON, M. & SHEATH, D. (1998). Generic Design and Construction Process Protocol Final Report. Salford: The University of Salford.

Karim, A. (1964). *Dacca The Mughal Capital*. Dhaka: *Asiatic Society of Pakistan*, p.4-8.

Karim, K. M. (1991). Urban History Writing: Problems and Prospects of Writing the History of Dhaka. In S. u. Ahmed (Ed.), *DhakaPast Present Future* (pp. 607). Dhaka: The Asiatic Society of Bangladesh.

Kawu, A.M., A. Ahmed, and A.S. Usman (2012). Learning from Tradition: Elements and Practice of Urban Development Control in Zaira City, Nigeria. *American International Journal of Contemporary Research,* 2 (7), 205-213, accessed on 25 February, 2014 from http://www.aijcrnet.com/journals/ Vol_2_No_7_ July_2012/ 25.pdf

Keeble, D. (1983). The Urban-Rural Manufacturing Shift in the European Community, accessed on 16th January, 2014 from https://journals.sagepub.com/doi/abs/10.1080/00420988320080771

Keeble, L. B. (1983). Town planning made plain. Addison-Wesley Longman Limited.

Keith, D. (1972). *Human Behavoiur at work :OrganisationalBehavour. U.S.A:* McGraw-Hill Inc. pp.61-82.

Keraminiyage, K. P. (2009). *Achieving high process capability maturity in construction organisations.(Unpublished* PhD Thesis) submitted to the University of Salford. Salford.

Khan, M. H. (2012b). Sonargaon. In P. SirajulIsalm (Ed.), *Banglapedia: National Encyclopedia of Bangladesh*. Dhaka: Asiatic Society of Bangladesh.

Kidambi, P. (2013). South Asia. In Peter Clark (Ed.), *The Oxford Handbook of Cities inWorld History*. Oxford University Press.

Klosterman, R.E. (1996). Arguments for and Against Planning. *Town Planning Review,* 56, (1)5-20, accessed on 13th March, 2014 from http://www.urban-is.de/Annex/HTML/Kap1/FFCr&Wider-Planung/Klosterman.pdf

Kshirsagar, J.B. and Srinivas, R. (2012). Planning and Development 2025: Professional and Academic Challenges. Proceedings of 60th National Town and Country Planning Congress. Institute of Town Planners of India (ITPI). New Delhi: 8-20.

Leary M., Rodriguez A. and Bachiller (1988), 'Expert systems in Development Control, Progress so far and the way ahead', The Planner, October, pp.26-28.

Levy J.M. (1992), 'What has happened to planning?', Journal of American Planning Association, Winter, Vol.58, pp.81-84.

Lichfield, (1979), accessed on 27th January, 2015 London gazette https://www.thegazette.co.uk/London/issue/47954/page/11669/data.pdf

Lincoln, Y. S. A. G., E. G. (2000). *Paradigmatic controversies, contradictions, and emerging confluences.* CA: Thousand Oaks.

Lord, A. (2012). *The Planning Game. An information economics approach to understanding urban and environmental management.* London & New York: Routledge.

MacLaran, A. & McGuirk (2003) 'Planning the city'. In A.MacLaran (ed.) *Property Development and Urban Planning.* New York: Arnold, 63-94.

Mahmud, MA (2007a), 'Sound planning permission process as prerequisite for development control in the urban areas: A case study on Dhaka city', Jahangirnagar Planning Review, vol. 5, pp. 15-26.

Mahmud, MA (2007b), 'Management of growth and planned development of Dhaka city: The necessity of proper enforcement of planning standards, S Jahan & KM Maniruzzaman (eds), Urbanization in Bangladesh: Patterns, issues and approaches to Planning, Bangladesh Institute of Planners, Dhaka, pp. 43-54.

Mahmud, MA 2007c, Corruption in plan permission process in RAJUK: A study of violations and proposals, Transparency International Bangladesh, Dhaka.

Maidin, A.J. (2011). Access to Public Participation in the Land Planning and Environmental Decision Making Process in Malaysia. Centre for Promoting Ideas, USA.

Majumdar, R. C., & Sarkar, J. (1963). *The History of Bengal*, *Vol 2, Hindu Period*. Dhaka: University of Dhaka.

Marx, K. (1975). *The British Rule in India*. Moscow: Progress Publishers. Mohit, M. A. (1991). History of Urban Growth and Concentration in Dhaka: An Analysis of Spatial Organization of Power and Authority. In S. u. Ahmed (Ed.), *Dhaka PastPresent Future* (pp. 617). Dhaka: The Asiatic Society of Bangladesh.

McCann, B.A and R. Ewing (2003). Measuring the Health Effects of *Sprawl*; A National Analysis of Physical Activity, Obesity and Chronic Disease. Smart Growth America Surface Transportation Project, accessed on 11 October, 2014, from http://smart growth. umd.edu/assets/ewingmccann_2003.pdf

Mcloughlin, J. B. (1973). *Control and urban planning*. Faber & Faber.

McLoughlin, J.B. (1973). Control and Urban Planning, accessed on 16th January, 2014 https://journals.sagepub.com/doi/abs/10.1080/00420987420080471

Mehrotra, R., Dwivedi, S., & Mulla-Feroze, U. (1995). Bombay: The cities within. India Book House, Mumbai.

Michael Dear and Allen J. Scott (Ed.), *Urbanization and Urban Planning in Capitalist Society*, New York: Methuen & Co. Ltd.

MOHPW and RAJUK 2010, Preparation of Detailed Area Plan (DAP) for DMDP:Location-10, Final Plan Report, Ministry of Housing and Public Works and RAJUK, Dhaka.

Morris, R. W., G. (2005). *The Cognitive Psychology of Planning.* Hove, East Sussex Psychology Press.

Muraya, P.W.K. (2006), ‘ Urban Planning and small-scale enterprises in Nairobi, Kenya’, *Habitat International* , Vol. 30 pp.127–143.

Nahrin, K 2012, 'Informality of housing and environment in Dhaka: Causes, effects and urging actions', in CiCe Seventh Annual Research Student Conference, York University, York.

Nallathiga, R., 2009. From Master Plan to Vision Plan: The changing role of plans and plan making in City Development (with reference to Mumbai). Theoretical and Empirical Researchers in Urban Management, Volume 4(13), pp. 141- 157.

Nazem, N. I, 2011, 'Urbanization in Bangladesh: Pattern and process', in Bangladesh Urban Forum, Research and Publication Sub-Committee, Bangladesh Urban Forum, Dhaka, Bangladesh, pp. 1-9.

Nazrul, I. (2012), Urbanization and Urban Governance in Bangladesh.

Ngetich, J. K., G. P. Opata and L. S. Mulongo (2014). A Study on the Effectiveness of Urban Development Control Instruments and Practices in EldoretMunicipality. Journal of Emerging Trends in Engineering and Applied Sciences (JETEAS) 5(2): 132-138, accessed on 13th March, 2015, from http://jeteas.scholar linkresearch .com/articles/A%20Study%20on%20the%20Effectiveness%20of%20Urban%20D evelopment.pdf

Ngetich, K.F, Muna, M.M, Mugwe, J.N (2014). accessed on 27th January, 2015 https://www.sciencedirect.com/science/article/pii/S0168192313003304

NHA 2015, History, National Housing Authority Bangladesh, viewed 20 July 2015, <http://www.nha.gov.bd/history.html>.

Njoh, A. J. (1995). Building and urban land use controls in developing countries: a critical appraisal of the Kumba (Cameroon) zoning ordinance. *Third World Planning Review*, *17*(3), 337.

Notridge, H. E. (2007). *The Sociology of Urban Living*. London: Routledge and Kegan Paul.

Nuhu, H.T and P. Yohanna (2013). The Geospatial Pattern, Problems and Prospect ofDevelopment Control in Mubi Metropolis, Adamawa State, Nigeria. Global AdvancedResearch Journal of Geography and Regional Planning, 2(3): 047-053,

Nuruzzaman, M. (2015). Urban Heat Island: Causes, Effects and Mitigation Measures - A Review. International Analysis. Vol. 3, No. 2, 2015, pp. 67-73.

Obabori, A.O. Obiuwevbi, D.A. and Olomu, J.I. (2007). Development Control an Important Regulator of Settlement Growth: A Case Study of Ekpoma, Nigeria. J. Hum. Ecol., 21(4): 285-291

Obeng-Odoom F, 2010, 'Is decentralisation in Ghana pro-poor? Commonwealth Journal of Local Governance, issue 6, July, pp.120-126.

Obeng-Odoom, F (2009). Oil and Urban Development in Ghana. *African Review of Economics and Finance,* 1 (1): 18-39, accessed on 20th May, 2014, from http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID1524563_code905668.pdf

Ogundele, A.T. (2011), EFFECTS OF CHARCOAL PRODUCTION ON SOIL IN KILN SITES IN IBARAPA AREA, SOUTH WESTERN NIGERIA, Ethiopian Journal of Environmental Studies and Management EJESM Vol. 5 No. 3 2012

Oppenheim (2000). *Questionnaire Design, interview and Altitude measurement (new edn).* London: Continuum international.

Owusu, G. (2011), 'Indigenes and Migrants Access to Land in Peri-Urban Areas of Ghana's largest City of Accra', International Development Planning Review (IDPR), 30/2: 177-198

Ozmen, E. (2012). *A Buying Behaviour Framework for SME's in Turkey*. (Unpublished PhD thesis) submitted to the University of Salford, Salford.

Pallant, J. (2010). *SPSS Survival Manual 4th Edition. A step by step guide to data analysis using the SPSS program.* England Berkshire: Open University Press McGraw-Hill House.

Patton C.V. and Sophoulis C.M. (1983), 'Great expectations: Illegal Land Development in Modem Greece', Ekistics, Vol.50, pp.259-264.

Philip, E. (2007). Urban planning and development control regulations: Case study Kerala

Pirenne, H. (1939). *Medieval Cities*. Princeton: Princeton University Press.

Plan, S. F. Y., & Planning Commission. (1956). Government of India. New Delhi, 37.

Plowright, D. (2011). Using Mixed Methods: Frameworks for an Integrated Methodology. Hull: Sage.

Pogbekuu E. B. (2007). Land use planning as a tool for environmental management: a case of the Tamale Metropolis." Unpublished MSc. Thesis Submitted to the University of Cape Coast, Cape Coast, accessed on 20th February 2015 from www.academia.edu/

Poulose, T.K. (2007). Inadequacies and Infirmities in Development Control Regulations. Proceeding of 55th National Town and Country Planning Congress. Institute of Town Planners of India (ITPI). New Delhi: 150-156

Pountney, M. T., & Kingsbury, P. W. (1983). Aspects of development control, part I: The relationship with local plans. Town Planning Review, 54(2), 139.

Preece, R. (1990). Development control studies: scientific method and policy analysis. Town Planning Review, 61(1), 59.

Procos D. and Harvey A.S. (1977), 'Modelling for local planning decisions', Ekistics, Vol.44, pp.257-266.

Punter, J. V. (1988). Planning control in France. *Town Planning Review*, *59*(2), 159.

Qian, Zhu (2009). Without zoning: Urban development and land use controls in Houston. Ontario, Canada N2L 3G1. Cities Journal 27 (2010): 31 – 41

Rabe, BT N. S., *A. A. Sarkawi, M. M. Osman, S. Bachok*(2011*).* Development Control in Sabah within the Context of Planning System in Malaysia. *APSA Congress*, accessed on 28th March, 2014, from https://www.academia.edu/1787539/ Development_ Control_ in_ Sabah_within_a_Context_of_Planning_System_in_Malaysia

Rahim, M. A. (1969). *An Apprisal of Census Population of East Pakistan from 1901 to 1961*,*Research Monograph No. 2*. Dhaka: ISRT.

Rahman, G 2008, Town planning and the political culture of planning in Bangladesh, A H Development Publishing House (AHDPH), Dhaka.

Rahman, M. M. (2004). Regionalization of urbanization and spatial development: planning regions in Bangladesh. J Geo-Environ, 4, 31-46

Rahman, S.M. et. al. (2012a).Wari-Bateshwar. In P. SirajulIsalm (Ed.), *Banglapedia: National Encyclopedia of Bangladesh*. Dhaka: Asiatic Society of Bangladesh. Changing Patterns of Urbanization in Bangladesh / 59

Raina, A. S., & Madapur, A. B. S. (2018). The Potential and Relevance of Indigenous Knowledge System of City Planning Principles in Shaping Contemporary Urban Milieu.

RAJUK 1995. *Dhaka Metropolitan Development Plan (DMDP)*. Ministry of Housing and Public Works, Government of Bangladesh.

RAJUK 2008, Dhaka Mohanogor Imarot Bidhimala 2008, RAJUK, Dhaka.

RAJUK 2015, About us, viewed 12 July 2018, <http://www.rajukdhaka.gov.bd/>.

RAJUK, 2014. Draft Plan Report for 'Preparation of Structure Plan for RAJUK under CRDP', Rajdhani Unnayan Kartipakkha. Dhaka.

Rakodi, C. (2001). Forget planning, put politics in developing countries. International Journal Geoinformation (JAG). 3(3): 209-223

Ramanathan, S., 2011. Shaping Vibrant Cities. Business Standard India, pp. 155-179.

Ramesh, K.B (2000) ed. *Metropolis Now; Urban Cultures in Global Cities*. 1st Edition, Springer, New York, 220.

Rana, MM 2011, 'Urbanization and sustainability: Challenges and strategies for sustainable urban development in Bangladesh', Environment, Development and Sustainability, vol. 13, no. 1, pp. 237-256.

Rangawala, S., 2005. Town planning. 19th ed.s.l.:Charotar Publishing House.

Raychaudhuri, T. (1983). The Mid Eighteenth Century Background. In Dharma Kumar (Ed.), *The Cambidge Economic History of India, Vol 2: c.1757-c.1970*, Cambrige University Press.

Read, D.C. (2008). Inclusionary Zoning: A Framework for Assessing the Advantages and Disadvantages. Prepared for Homes for Working Families. Centre for metropolitan Studies, accessed on 15th March 2015 from http:/www.ssrn.com/abstract

Republic of Ghana (2011). New Spatial Planning System in Ghana, Ministry of Environment Science and Technology, Town and Country Planning Department

Risbud, N. (2011). State level case studies, Cost reduction by regulation and guidelines. Paper presented at National Workshop on Town Planning Parameters for

Housing the Urban Poor. Ministry of Housing & Urban Poverty Alleviation. School of Planning & Architecture, New Delhi

Rivkin M.D. (1978), 'Some perspectives on urban land use regulations and control', From Urban Land Policy issues and opportunities, Vol. II, World Bank Staff Working Paper # 283, Washington.

Rizvi, S. N. H. (1975). *Bangladesh District Gazetteers Dacca*. Dacca: Government of the People's Republic of Bangladesh.

Robson, C. (2002). *Real world research* (2nd edn) Oxford: Blackwell.

Robson, C. (2011). Real world research (3rd Edn) Real World Research: A Resource for Social Scientist and Practitioner-Researchers. Oxford: Blackwell.

Rowntree, D. (1991). *Statistics Without Tears: A Primer for Non-Mathematician. London:* Penguin.

Roy, M. (2009). Planning for sustainable urbanisation in fast growing cities: Mitigation and adaptation issues addressed in Dhaka, Bangladesh. Habitat International, 33(3), 276-286

Saldana, J. (2009). *The Coding Manual for Qualitative Researchers.* London:Sage.

Samaratunga, T. 2011. ''Planning for Quality Urban Living and Sustainable Community.'' Paper presented at the PIA international planning conference, Hobart, Australia.

Sapsford, R. (2006). *Survey research.* London: Sage.

Saunders, M. Philip, L. & Adrian, T. (2009). *Research method for business students* Harlow: Financial Times prentice Hall.

Saunders, M., Philip, L. & Adrian, T. (2003). *Research method for business students,* Harlow: Financial Times prentice, Hall.

Sengupta, B.K. and Banerji, H. (2012). Issue for Future Urban Development and Reform Agenda in Planning and Regulatory Framework. Proceedings of 60th National Town and Country Planning Congress. Institute of Town Planners of India (ITPI). New Delhi: 150-158

Seraj, TM & Islam, MA 2013, 'Detailed Area Plan: Proposals to meet housing demand in Dhaka', in S Jahan& AKMA Kalam (eds), Dhaka metropolitan development area and its planning: Problems, issues and policies, Bangladesh Institute of Planners (BIP), Dhaka, pp. 1-11.

Seraj, TM 2002, Housing development: private sector prospects and initiatives, REHAB Publication, Dhaka.

Serkin, C. and Wellington, L. (2013). Putting exclusionary zoning in its place: affordable housing and geographical scale Essay. Accessed on the 3rd December, 2013 from scholar.google.com/citations?user=F9x3REwAAAAJ&hl=en

Sexton, M. (2000). *Sustainable built environment and construction activity through dynamic agendas.* (Unpublished PhD.thesis) submitted to the University of Salford. Salford.

Shoup D.C. (1995). 'An opportunity to reduce minimum parking requirements', Journal of the American Planning Association, Winter, Vol.61, pp. 14-28.

Shryock, H. S. S., Edward G.; and Siegel, Jacob S. (1976). *The Methods and Materials of Demography*. New York: Academic Press.

Siidiqui, T. (2005). International Labour Migration from Bangladesh: A descent work perspective. Working Paper No. 66. Policy Integration Department, National Policy Group, International Labour Office, Geneva.

Silverman, D. (2001). *Interpreting qualitative data.* London: Sage.

Silverman, D. (2007). *Interpreting qualitative data.* London: Sage.

Simmel, G. (1903). Metropolis & Mental Life: In Gary Bridge and Sophie Watson, (Ed.). *TheBlackwell City Reader*. Oxford and Malden: Wiley Blackwell, 2002.

Sinthia, SA 2013, 'Sustainable urban development of slum prone area of Dhaka city', World Academy of Science, Engineering and Technology, vol. 7, pp. 3-20.

Sorensen, J.B (2000). Aging, Obsolescence, and Organizational Innovation, accessed on 16th January, 2014 from https://journals.sagepub.com/doi/abs/10.2307/2666980

Spash, C. L., & Simpson, I. A. (1993). Protecting sites of special scientific interest: Intrinsic and utilitarian values. *Journal of environmental management*, *39*(3), 213-227.

Sridhar, K. S. (2010). Impact of land use regulations: Evidence from India's cities. Urban Studies, 47(7), 1541-1569.

Stewart, C. T., Jr. (1958). The Urban-Rural Dichotomy: Concepts and Uses. *American Journal of Sociology, 64*(2), 152-158. doi: 10.2307/2773684

Swamy, M.C.K., Bhaskara, R.B. and Hegde, V.M. (2008). Urban Planning and Development at crossroads – Crisis in Urban Development and Governance. Seminar Theme Paper. Books for Change Publisher, Bangalore. 1-80.

Taifoor, S. M. (1965). *Glimpses of Old Dhaka: a short historical narration of East Bengaland Aassam*: Dhaka: S. M. Perwez.

Tang, B-S and R.M.H,Tang (1999*).* Development Control Regulations, Planning Incentive and Urban Redevelopment: evaluation of Two-Tier Plot Ratio System in Hong Kong. Pergamon, Urban Policy., 33-4, accessed on 21st February, 2014, from https://www. deepdyve.com/lp/elsevier/development-control-planning-incentive-and-urban-redevelopment-ibhjBdRKRx

Tarafder, M. R. (1965). *Shahi Bengal: 1494-1538AD.-A Socio-political Study*. Dhaka: Asiatic Society of Pakistan,p.130.

Tashakkori, A. C., J. W. (2010). *Mixed Methods in Social & Behavioral Research* London: Sage.

Tawhid, KG 2004, 'Causes and effects of water logging in Dhaka city, Bangladesh', Department of Land and Water Resource Engineering, Master of Science thesis, Royal Institute of Technology Stockholm.

Taylor, P. (2001). Indicators of good Urban Governance. A paper presented at the Launching of *good Urban Governance campaign In Nigeria.* Abuja Nigeria.

Thomas, D (2001). The Importance of Development Plans/Land Use Policy for Development Control. Prepared for the USAID/OAS Post-Georges Disaster Mitigation Project, Workshop for Building Inspectors.

Thomas, K. (1997). Development Control: Principles and Practice. Natural Resources and Built Environment Series, Routeldge, London, 399.

Thomas, K. (2013) *Development Control: Principles and Practices.* London: UCL Press.

Thompson, C.W. (2002), 'Urban open space in the 21st century', *Landscape and Urban Planning,* Vol.60, p. 59.

Thooyavan, K. R. (2005). Human Settlements–A Planning Guide for Beginners. *MA Publication, Chennai*.

Tipple, A. G. (2000) Extending Themselves: Users Initiated Transformation of Government Built housing in developing countries. Liverpool University Press, Liverpool, 20-48

Tisdale, H. (1942). The Process of Urbanization. *Social Forces, 20*(3), 311 -316. doi: 10.2307/3005615

Town & Country Planning Department 2009, Annual performance report for 2009, submitted to the Ministry of Environment, Science and Technology, Accra

Town and Country Planning Department. The Planning Model, Volume 4. Local Plan. MAPLE and CERSGIS. Accessed from http://Tcpghana.gov.gh/doc/localplan

UN. (2011). Study On the Challenges of Fraud to Land Administration institutions. United Nations Economic Commission for Europe.

UN. (2014). World Urbanization Prospects: The 2014 Revision, Highlights (ST/ESA/SER.A/352). Department of Economic and Social Affairs, PopulationDivision.

UNCRD and CPR (1991), Case of Manila, Phillippines', draft country case reports, First International workshop on urban land policies: Towards better management of Asian Metropolises', Penang, Malaysia.

UNCRD and CPR (1991a), 'Case of Yokohama, Japan', draft country case reports, First International workshop on urban land policies: Towards better management of Asian Metropolises', Penang, Malaysia.

UNFPA. (2007). *State of the World Population 2007: Unleasing the Potential of Urban Growth*. New York: UNFPA.

UN-Habitat. (2011). A new strategy of sustainable neighbourhood planning: five principles'. Urban Planning Discussion Note 3. Retrieved from https://unhabitat.org/wp-content/uploads/2014/05/5-Principles_web.pdf

Venkateswarlu, A. (2014). *Development Through Community Participation in Pindiprolu During 1981-2006: A Study Under Sustainable Livelihoods Approach*. Centre for Economic and Social Studies.

Walters, H. (1980). Census of the City of Dacca.In*Asiatic Researchers Comprising Historyand Antiquities, The Arts, Sciences, and Literature of Aisa, Volume the*

Seventeen. New Delhi: Cosmopublications, p 537-548.Weber, M. (1966). *The city*: Free Press.

Wang, X., & Hofe, V.R. (2007). *Research methods in Urban and regional Planning. ,* Beijin and Berlin Heidelberg. Co-published by Tsinghua university press, Beijin and Springer- Verlag GmbH Berlin Heidelberg.

Wapwera, S. D. & Egbu, C.O. (2013a). Planning Authorities: A Review of Roles, Functions and Responsibilities in Jos Metropolis. *Journal of the Built & Human Environment Review.*(6)**,** 30-45.

Wapwera, S. D., & Egbu, C.O. (2013b). Master Planning System: Constraints for Planning Authorities in Jos Metropolis, Nigeria. *Journal of the Built & Human Environment Review.*(6)**,** 61-81.

Weber, M. (1978). *Economy and society. Berkeley: University of California Press; and (1976) [1904].* London: Allen & Unwin.

Willis K.G. (1995), Judging development control decisions', Urban Studies, Vol.32, pp. 1065-1079.

Wirth, L. (1938). Urbanism as a Way of Life. *American Journal of Sociology, 44*(1), 1 -24. doi: 10.2307/2768119

World Bank (2003). Reaching the Rural Poor: A Renewed Strategy for Rural Development. Washington DC: World Bank.

World Bank. (1989). Malaysia - The housing Sector: Getting the Incentives Right. World Bank, Washington, DC.

Xiao, Q. (2005). "The time for construction of compact new towns", *Beijing Real Estate*, Vol.12, pp. 29-30, (*in Chinese*).

Yeboah, E. and F. Obeng-Odoom, (2010). „We are not the only ones to blame'; District Assemblies Perspectives on the State of Planning in Ghana. commonwealth Journal of Local Governance. Issue 7, accessed on 21st November, 2013, from http:// epress.lib.uts. edu.au/journals/index.php/cjlg/article/download/1893/2034

YIN, R. (2003). *Case study research: Design and method. Applied social research methods series. California:*SAGE.

YIN, R. (2009). *Case study research: Design and method. Applied social research methods series.California:* SAGE.

Yuen, B (2007). Guiding Spatial Changes: Singapore Urban Planning. Urban Land Use and Land Markets. The World Bank, Washington DC, For 4th Urban Research Symposium 14-16 May. Retrieved on 16 July, 2016.

Zaman, F. (2007). The nature of political empowerment and gender in local governance: A comparative study of Dhaka city corporation and Narayangonj municipality. *Bangladesh e-Journal of Sociology*, *4*(1), 49.

Zaman, QMM-U & Lau, SY 2000, 'City expansion policy versus compact city demand: The case of Dhaka', in M Jenks & R Burgess (eds), The Compact Cities: Sustainable urban form for developing countries, vol. 141-152, Spon Press, London, UK.

Zaman, QM-u, Lau, S & So, HM 2000, 'The compact city of Hong Kong: A sustainable model for Asia?', in M Jenks & R Burgess (eds), The compact cities: Sustainable urban form for developing countries,, Spon Press, London, pp. 255–268.

Zipf, G. K. (1949). Human Behaviour and the Principle of Least Effort. Reading, MA: Addison- Wesley

Appendix 1: Questionnaire

Jahangirnagar University

Department of Urban and Regional Planning

Savar, Dhaka.

Questionnaire

Research Title: "Improving the Urban Development Control Mechanism in Bangladesh: A Case Study of Dhaka City"

(The study findings will be used only for research purpose and will be kept secret)

SR No.		Name of Inter viewer		Date	

1. Name of the Owner		2. Age	
3. Address		4. Occupation	
5. Monthly Income (in Tk)		6. Family Size	

Information about building

7. Starting Year of building construction		8. Plot size (in decimal)	
9. No. of Floor		10. No. of Room	
11. Floor Area (sq. ft)			
12. Did you follow any plan to construct your building?		□ Yes □ No	
13. "If yes, was the plan approved by Paurashava / RAJUK?"		□ Yes □ No	
14. Do you know about any rule required to follow for building construction (BC)?		□ Yes □ No	
15. "If yes, did you follow the BC rules?"		□ Yes □ No	
16. "If yes, to what extent did you follow BC?		□ Fully □ Partially	
17. If, partial violation, Reasons behind partial application or violation of BC Rules			
1. Inspector not inspect properly 2. No monitoring at the time of construction 3. No digital monitoring system 4. Unwillingness of authority 5. Less strength of the authority		6. Doesn't aware about BC rules 7. Building has been bought from other person who did not follow BC 8. Grandparents constructed the building 9. To avoid waste of land	
Other (specify) ……			
18. Have you followed same plan for each of the floor in the building (if more than one storied building)?		□ Yes □ No	
19. "If No, type of change in upper floor? Specify "			
20. Did you take any permission for such change in the upper floor?		□ Yes □ No	

21. Did you make any extension or re-construction to your building?	□ Yes □ No
"if yes, "Year of extension or re-construction …… Type of extension/re-construction □ Vertical □ Horizontal	
22. Did you take permission from Paurashava / RAJUK?" for extension?	□ Yes □ No
"If yes, □ Front □ Rear □ Side-1 □ Side-2 "If no, why?" □ Don't know □ No Problem □ Not Important	
23. During construction of your building Paurashava / RAJUK official visited to your site?	□ Yes □ No
If Yes, How many time? □ Once □ Twice □ More than Two □ Other	
24. After completion of your building construction is it visited by Paurashava / RAJUK official?	□ Yes □ No
25. Building Type □ Pucca □ Semi Pucca	
26. Foundation for how Many Storeys?..... a. Approved no. of storey…… Present no. of storey……..	
27. Floor Area Ratio (FAR)	
28. Adjacent Road Width (in ft.)	
29. Do you know about setback rules?	□ Yes □ No
"If yes, how?" □ By Authority □ By neighbor □ By book	
30. Did you follow Setback Rules?	□ Yes □ No
31. Land Use of the Area □ Residential □ Industrial □ Commercial □ Open Space	
32. Land Type a. High b. Medium c. Low d. Pond/Ditch	
33. Did you cut Hill? □ Yes □ No 34. Did you fill any pond/ditch? □ Yes □ No	
34. Purpose of Use of the Building □ Family Residence □ Factory □ Mess □ Commercial □ Office □ Mixed use □ School	
"In case of mixed use, is it permitted?"	□ Yes □ No
35. How did you take permission (procedure)?"	
36. Land Ownership way □ Family Source □ Govt. □ Gift □ Purchased	
37. Source of financing for construction □ Loan from Financial Institute □ Self □ Loan from relatives □ Others	
38. Do you notice any violation of BC by your neighbor?	□ Yes □ No
39. What sort of problem do you face for BC Rules violation by your neighbors or building owners of your community?	
Signature of the Interviewee	**Signature of the Interviewer**

Appendix 2: Land Use Clearance Application form of Savar Paurashava

ভূমি ব্যবহার ছাড়পত্রের আবেদন পত্র

সাভার পৌরসভা কার্যালয়

সাভার, ঢাকা।

আবেদন পত্র নং- ঃ

চালান নং ও ইস্যুর তারিখ ঃ

ইস্যুকারীর স্বাক্ষর ও সিল ঃ

মূল্য ঃ ১,০০০.০০ (এক হাজার) টাকা মাত্র।

- এই ভূমি ব্যবহার ছাড়পত্র প্রদানের তারিখ হতে ২৪ (চব্বিশ) মাস সময়কাল পর্যন্ত কার্যকর থাকবে।
- এই ভূমি ব্যবহার ছাড়পত্র উন্নয়ন বা নির্মাণ কাজের ক্ষেত্রে কোনরূপ বৈধ ক্ষমতা প্রদান করে না,
- এবং কোন নির্মাণ কার্যক্রম শুরু করিবার জন্য কোনরূপ অধিকার প্রদান করে না।
- ভূমিতে স্থাপন ও পরিচালনার ক্ষেত্রে পরিবেশ সংরক্ষণ আইন ও বিধি যথাযথভাবে অনুসরণ করতে হবে।
- কর্তৃপক্ষ যে কোন সময় যথাযথ কারণ উল্লেখ্য পূর্বক এই ভূমি ব্যবহার ছাড়পত্র বাতিল বা এর কার্যকারিতা স্থগিত করিতে পারিবে।
- কোন তথ্য গোপন করিলে বা ভুল তথ্য প্রদন করিলে প্রদানকৃত ছাড়পত্র বাতিল বলিয়া গণ্য হইবে।
- এই ভূমি ব্যবহার ছাড়পত্র জমির মালিকানা স্বত্ব নির্ধারণ করে না।
- ভূমি ব্যবহারে দেশের প্রচলিত সকল বিধি বিধান যথাযথভাবে অনুসরণ করতে হবে।
- রাস্তার মধ্যে র‍্যাম্প/সিঁড়ি নির্মাণ করা যাবে না। রাস্তার উপর নির্মাণ সামগ্রী রেখে নির্মাণ কাজ করা যাবে না।
- সম্ভাব্য ব্য যানযট পরিহারের লক্ষ্যে দিনের বেলা নির্মাণ সামগ্রী পরিবহন করা যাবেনা।
- বাড়ীর সামনের ড্রেণে সেপটিক ট্যাংক চোক ওয়েল এর সংযোগ দেয়া যাবেনা।
- নির্মাণ কাজে সকল প্রকার নিরাপত্তা ব্যবস্থা গ্রহণ করতে হবে।
- নারী শ্রমিকদের নির্মাণ কাজে অংশ গ্রহণের সুযোগ রাখতে হবে।
- উপযুক্ত অগ্নি নির্বাপক ব্যবস্থা রাখতে হবে এবং অগ্নিকান্ড কিংবা অন্য কোন দুর্ঘটনার সময় জরুরি নির্গমন ব্যবস্থা থাকতে হবে।
- সময় মত পৌরকর পরিশোধ করুন।
- বিধি মেনে নিয়ম অনুযায়ী ইমারত নির্মাণ করুন।
- আপনার শহর পরিষ্কার পরিচ্ছন্ন রাখুন।

- মা ও শিশুকে সময়মত টিকা দিন।
- আপনার ব্যবসা প্রতিষ্ঠানের ট্রেড লাইসেন্স করুন এবং তা সময় মত নবায়ন করুন।

সাভার পৌরসভা কার্যালয়

সাভার, ঢাকা।

ভূমি ব্যবহার ছাড়পত্রের আবেদন পত্র

১। আবেদনকারীর নাম ঃ .....

পিতার/স্বামীর নাম ঃ .....

বর্তমান ঠিকানা ঃ .....

স্থায়ী ঠিকানা ঃ .....

২। জাতীয় পরিচয় পত্র/নাগরিকত্ব সনদ পত্র সংযুক্ত তৈরী করিতে হইবে।

৩। জমি/প্লট এর প্রস্তাবিত ব্যবহার ঃ-

৪। আবেদনকারী কী সূত্রে জমি অর্জন করিয়াছেন তার বিবরণ ঃ-(সংশ্লিষ্ট দলিলের ফটোকপি, ডি.সি.আর, আর.এস পর্চা, আর.এস নামজারী ও জমাভাগের প্রস্তাব পত্র এবং হাল সন খাজনা রশিদসহ সংযুক্ত করিতে হইবে)

(ক) প্লটের মালিকানার বিবরণ ঃ-ব্যক্তি/যৌথ ঃ-

(খ) মালিকানা সূত্র ও তারিখ ঃ-ক্রয়/উত্তরাধিকার/হেবা/দান/লিজ/অন্যান্য (উল্লেখ্য করুন) ঃ-

(গ) রেজিস্ট্রেশনের তারিখ ও দলিল নং-

৫। জমির বিবরণ ঃ দাগ নং- সি.এস..... এস.এ..... আর.এস. .....

খতিয়ান নং- সি.এস..... এস.এ..... আর.এস.....

মৌজার নাম ..... মৌজা নং- .....জমির পরিমাণ .....

৬। ভূমির পারিপাশিক অবস্থান বর্ণনা ঃ-

(ক) ভূমির বর্তমান ব্যবহার ঃ-

(খ) ২৫০ মিটার ব্যসার্ধে অন্তর্ভূক্ত ভূমির বর্তমান ব্যবহার ঃ-

(গ) প্লটের নিকটতম দূরুত্বে অবস্থিত প্রধান সড়কের নাম ও প্রশস্থতা ঃ-.....
ফুট/মিটার।

(ঘ) প্লটের সংযোগ সড়কের নাম ও প্রশস্ততা ঃ-.....

(ঙ) প্লটের ২৫০ মিটার দূরুত্বের মধ্যে অবস্থান ঃ-প্রধান সড়ক (হ্যাঁ/না), হাট-বাজার (হ্যাঁ/না) রেলওয়ে স্টেশন

(হ্যাঁ/না), নদী বন্দর (হ্যাঁ/না), বিমান বন্দর (হ্যাঁ/না)।

(চ) প্লটের ২৫০ মিটার দূরুত্বের মধ্যে অবস্থান ঃ-পুকুর (হ্যাঁ/না), জলাভূমি (হ্যাঁ/না) প্রাকৃতিক জলপথ হ্যাঁ/না), বন্যা নিয়ন্ত্রণ জলাধার (হ্যাঁ/না), বনাঞ্চল(হ্যাঁ/না), পার্ক বা খেলার মাঠ(হ্যাঁ/না), পাহার(হ্যাঁ/না),ঢাল (হ্যাঁ/না)।

(ছ) প্লটের ২৫০ মিটার দূরুত্বের মধ্যে অবস্থানঃ-ঐতিহাসিক গুরুত্বপূর্ণ সাইট (হ্যাঁ/না), সামরিক স্থাপনা(হ্যাঁ/না) কবু Point Installation (হ্যাঁ/না), বিধিমালা অনুযায়ী সিমিত উন্নয়ন এলাকা, বিশেষ এলাকা (হ্যাঁ/না)।

(জ) সংলগ্ন রাস্তা থেকে প্লটের অবস্থা, গড় উঁচু/নীচু..... ফুট/মিটার।

(ঝ) প্লটের চতুঃপাশ্বেস্থ ভূমির ব্যবহার ঃ উত্তর ঃ---------- দক্ষিণ ঃ----------

পূর্ব ঃ---------- পশ্চিম ঃ----------

(ঞ) অন্য কোন গুরুত্বপূর্ণ তথ্য (যদি থাকে) ঃ

*আবেদন পত্রের সহিত মৌজা ম্যাপে চিহ্নিত করিয়া ৩ কপি নূন্যতম ১৫ সেঃমিঃ × ২০ সেঃমিঃ মাপের সাইট প্লান এর এমুনিয়া প্রিন্ট, আবেদনকারীর অমুদ্রিত স্বাক্ষরসহ দাখিল করিতে হইবে। ফি জমার মূল রশিদ দাখিল করিতে হইবে।

আমি প্রত্যয়ন করিতেছি যে, বর্ণিত তথ্য ও সংযুক্ত দলিলপত্রাদি সত্য এবং সঠিক। ইহাছাড়া পৌরকর্তৃপক্ষ চাহিত অন্য যে কোন তথ্যাবলী বা দলিলাদি প্রদানে বাধ্য থাকিব।

আবেদনকারীর স্বাক্ষর

মোবাইল নং-

(সংশ্লিষ্ট ওয়ার্ড কাউন্সিলর কর্তৃক পূরণীয়)

এই মর্মে প্রত্যায়ন করা যাচ্ছে যে, উল্লেখিত জমির মালিকানা দখল সঠিক আছে/সঠিক নাই। তফসিল বর্ণিত জমিতে সীমানা প্রাচীর/বাড়ী/দোকান/মার্কেট/ফ্যাক্টরী/পুকুর এর প্লান অনুমোদন করিলে প্রতিবেশীর রাস্তা/ড্রেণ/বিদ্যুৎ/গ্যাস ইত্যাদি কোন অসুবিধার সম্ভাবনা নাই/আছে। জমির মালিকানার দলিল পত্র পরিক্ষা করে ভূমি ব্যবহার ছাড়পত্র প্রদান করা যায়/যায় না। তাই পরবর্তী আদেশ ও প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য প্রতিবেদন পেশ করা হইল।

স্বাক্ষরঃ-.....

নামঃ-.....

কাউন্সিলর, সাভার পৌরসভা

ওয়ার্ড নংঃ-.....

ভূমি ব্যবহারের ছাড়পত্রের জন্য নিম্নহারে ফি ধার্য করা হইয়াছে ঃ

ক্রঃ নং	ভবনের শ্রেণি	ভবনের উপ-শ্রেণি	প্রতি বর্গফুট মেঝের জন্য অনুমোদন "ফি"	সংশোধনী "ফি"	অবস্থানগত ও পরিবেশ ছাড়পত্র "ফি"
	A-আবাসিক	A-1, A-2, A-3	.৫০ প্রতি বর্গফুট বা ৫০০০/- সর্বনিম্ন	৩/-	
		A-4	প্রতিবর্গফুট ১/- বা সর্বনিম্ন ১৩০০০/-	১/-	
		A-5	.৫০ বা ৫০০০০/-	৫/-	
	B-শিক্ষা প্রতিষ্ঠান	B-1, B-2, B-3		৪/-	
	C-প্রাতিষ্ঠানিক	C-1,C-4, C-5		৪/-	
		C-2,C-3		৩/-	
	D-স্বাস্থ্যসেবা	D-1,D-2		৪/-	
	E-ইঁংরহবংং	E-1,E-2, E-3		৮/-	
	F-গবৎপধহঃরষব	F-1, F-2, F-3		৮/-	
	G- শিল্প কারখানা	G-1, G-2		৮/-	
	H-গুদাম	H-1, H-2		৮/-	
	I-সমাবেশ	I-1, I-2, I-3, I-4, I-5		১/-	
	J-পার্কিং	K-1, K-2, K-3		৩/-	
	K-Utility			১/-	
	L-Miscellaneous	M-1, M-2		৪/-	

ভূমি ব্যবহারের ছাড়পত্রের জন্য নিম্নহারে ফি ধার্য করা হইয়াছে ঃ

১	আবাসিক বাড়ির জন্য	ব্যক্তি মালিকানাধীন	বাণিজ্যিক উপায়ে ব্যবহার
	৫ (পাঁচ) কাঠা পর্যন্ত	২,০০০/-টাকা	৫,০০০/-টাকা
	৫ (পাঁচ) কাঠার উর্ধ্বে ১০ (দশ) কাঠা পর্যন্ত	৫,০০০/-টাকা	১০,০০০/-টাকা
	১০ (দশ) কাঠার উর্ধ্বে ১ (এক) বিঘা পর্যন্ত	৬,০০০/-টাকা	১২,০০০/-টাকা
	১ (এক) বিঘার উর্ধ্বে	৮,০০০/-টাকা	২৫,০০০/-টাকা
২	পোল্ট্রি ও ডেইরী ফার্মের জন্য		১০,০০০/- টাকা
	১ (এক) বিঘা পর্যন্ত		১৫,০০০/- টাকা
	১ (এক) বিঘা হইতে ২ (দুই) বিঘা পর্যন্ত		১৮,০০০/- টাকা
	২ (দুই) বিঘার উর্ধ্বে		
৩	বাণিজ্যিক ভবনের জন্য		
	১০ (দশ) কাঠা পর্যন্ত		২০,০০০/- টাকা
	১০ (দশ) কাঠা হইতে ১ (এক) বিঘা পর্যন্ত		৪০,০০০/- টাকা
	১ (এক) বিঘা হইতে ২ (দুই) বিঘা পর্যন্ত		১,০০,০০০/- টাকা
	২ (দুই) বিঘা হইতে ৫ (পাঁচ) বিঘা পর্যন্ত		২,০০,০০০/- টাকা
	৫ (পাঁচ) বিঘার উর্ধ্বে		৫,০০,০০০/- টাকা
৪	শিল্প কারখানার জন্য		
	১০ (দশ) কাঠা পর্যন্ত		২০,০০০/- টাকা
	১০ (দশ) কাঠা হইতে ১ (এক) বিঘা পর্যন্ত		৪০,০০০/- টাকা
	১ (এক) বিঘা হইতে ২ (দুই) বিঘা পর্যন্ত		১,০০,০০০/- টাকা
	২ (দুই) বিঘা হইতে ৫ (পাঁচ) বিঘা পর্যন্ত		১,৫০,০০০/- টাকা
	৫ (পাঁচ) বিঘার উর্ধ্বে		৩,০০,০০০/- টাকা

Appendix 3: Building Construction Approval Application form of Savar Paurashava

সাভার পৌরসভা কার্যালয়

সাভার, ঢাকা।

ইমারত নির্মাণ/সীমানা দেওয়াল/বিবিধ নির্মাণ/পূণঃ নির্মাণ

এবং পুকুর খনন/ভরাট/পাহাড় কর্তণ আবেদন পত্র

আবেদন পত্র নং- ঃ

চালান নং ও ইস্যূর তারিখ ঃ

ইস্যূকারীর স্বাক্ষর ও সিল ঃ

মূল্য ঃ ১,০০০.০০ (এক হাজার) টাকা মাত্র।

- ভূমি ব্যবহার ছাড়পত্র প্রদানের তারিখ হতে ২৪ (চব্বিশ) মাস সময়কাল পর্যন্ত কার্যকর থাকবে।
- ভূমি ব্যবহার ছাড়পত্র উন্নয়ন বা নির্মাণ কাজের ক্ষেত্রে কোনরূপ বৈধ ক্ষমতা প্রদান করে না,
- এবং কোন নির্মাণ কার্যক্রম শুরু করিবার জন্য কোনরূপ অধিকার প্রদান করে না।
- ভূমিতে স্থাপন ও পরিচালনার ক্ষেত্রে পরিবেশ সংরক্ষণ আইন ও বিধি যথাযথভাবে অনুসরণ করতে হবে।
- কর্তৃপক্ষ যে কোন সময় যথাযথ কারণ উল্লেখ্য পূর্বক এই ভূমি ব্যবহার ছাড়পত্র বাতিল বা এর কার্যকারিতা স্থগিত করিতে পারিবে।
- কোন তথ্য গোপন করিলে বা ভুল তথ্য প্রদন করিলে প্রদানকৃত ছাড়পত্র বাতিল বলিয়া গণ্য হইবে।
- ভূমি ব্যবহার ছাড়পত্র জমির মালিকানা স্বত্ব নির্ধারণ করে না।
- ভূমি ব্যবহারে দেশের প্রচলিত সকল বিধি বিধান যথাযথভাবে অনুসরণ করতে হবে।
- রাস্তার মধ্যে র‍্যাম্প/সিঁড়ি নির্মাণ করা যাবে না। রাস্তার উপর নির্মাণ সামগ্রী রেখে নির্মাণ কাজ করা যাবে না।
- সম্ভাব্য যানযট পরিহারের লক্ষ্যে দিনের বেলা নির্মাণ সামগ্রী পরিবহন করা যাবেনা।
- বাড়ীর সামনের ড্রেণে সেপটিক ট্যাংক চোক ওয়েল এর সংযোগ দেয়া যাবেনা।
- নির্মাণ কাজে সকল প্রকার নিরাপত্তা ব্যবস্থা গ্রহণ করতে হবে।
- নারী শ্রমিকদের নির্মাণ কাজে অংশ গ্রহণের সুযোগ রাখতে হবে।
- উপযুক্ত অগ্নি নির্বাপক ব্যবস্থা রাখতে হবে এবং অগ্নিকান্ড কিংবা অন্য কোন দুর্ঘটনার সময় জরুরি নির্গমন ব্যবস্থা থাকতে হবে।
- সময় মত পৌরকর পরিশোধ করুন।

➢ বিধি মেনে নিয়ম অনুযায়ী ইমারত নির্মাণ করুন।
➢ আপনার শহর পরিষ্কার পরিচ্ছন্ন রাখুন।
➢ মা ও শিশুকে সময়মত টিকা দিন।
➢ আপনার ব্যবসা প্রতিষ্ঠানের ট্রেড লাইসেন্স করুন এবং তা সময় মত নবায়ন করুন।

সাভার পৌরসভা কার্যালয়

সাভার, ঢাকা।

ইমারত নির্মাণ/সীমানা দেওয়াল/বিবিধ নির্মাণ/পূণঃ নির্মাণ এবং পুকুর খনন/ভরাট/পাহাড় কর্তণ আবেদন পত্র

১। আবেদনকারীর/আবেদনকারীগণের পূর্ণ নাম ঃ.....

পিতার/স্বামীর নাম ঃ.....

২। বর্তমান ঠিকানা ঃ.....

স্থায়ী ঠিকানা ঃ.....

৩। যে দাগের জমিতে ইমারত নির্মাণ/পুকুর খনন/পাহার কর্তণ/বা ধ্বংস করা হইবে উহার বিবরণ ঃ

(ক) এলাকার নাম ঃ-

(খ)দাগ নং- সি.এস..... এস.এ..... আর.এস.....

(গ)খতিয়ান নং -সি.এস..... এ স.এ..... আর.এস.....

(ঘ) মৌজার নাম .....

(ঙ) ওয়ার্ড নং ঃ-

(চ) রাস্তার নাম ঃ-

(ছ) সিট নং ঃ-(প্রযোজ্য ক্ষেত্রে)

(জ) আবেদনকারীর/আবেদনকারীগণের জমির পরিমাণ ঃ-

(ঝ) আবেদনকারী কি সূত্রে জমি অর্জন করিয়াছেন তার বিবরণ ঃ-

(সংশ্লিষ্ট দলিলের ফটোকপি সংযুক্ত করিতে হইবে)

৪। সাইটের বিবরণ ঃ-

(ক) সাইটের আয়তন।

(খ) সাইটের চৌহদ্দি ঃ

উত্তর - দক্ষিণ-

পূর্ব - পশ্চিম -

(গ) ইমারত দ্বারা সাইটে যে পরিমাণ স্থান আচ্ছাদিত হইবে তাহার বিশদ্ বিবরণ ঃ-

১ম তলা ঃ-

অন্যান্য তলাঃ-

(ঘ) সাইটের নিকটস্থ রাস্তার বিবরণ ঃ-

নাম ঃ-

অবস্থান ঃ-

দূরত্ব ঃ-

বিস্তার ঃ-

(ঙ) নিকটস্থ রাস্তা হইতে সাইটে যাতায়াতের উপায় ঃ-

(চ) সাইটের বিভিন্ন দিক থেকে যে পরিমাণ স্থান উন্মুক্ত রাখা হইবে ঃ-

উত্তর সীমানা হইতে- **দক্ষিণ সীমানা হইতে-**

পূর্ব সীমানা হইতে- **পশ্চিম সীমানা হইতে-**

৫। সাইটে পূর্ব নির্মিত কাঁচা পাকা ইমারতের বিবরণ ঃ-

(ক) পূর্ব নির্মিত ইমারতের সংখ্যা ও তৎ দ্বারা বেষ্টিত স্থানের পরিমাণ ঃ-

(খ) প্রস্তাবিত ইমারত নির্মাণ অনুমোদন হইলে পূর্ব নির্মিত ইমারতের কোন অংশ ভাঙ্গিতে হইবে কিনা এবং হইলে তৎ দ্বারা বেষ্টিত স্থানের পরিমাণ।

৬। এলাকার বিভিন্ন সেবা-সুযোগের বিবরণ ঃ-

(ক) বিদ্যুৎ সরবরাহ লাইন আছে কিনা ঃ-

(খ) পানি সরবরাহ লাইন আছে কিনা ঃ-

(গ) গ্যাস সরবরাহ লাইন আছে কিনা ঃ-

(ঘ) পয়ঃনিষ্কাশন সরবরাহ লাইন আছে কিনা ঃ-

(ঙ) প্রস্তাবিত ইমারতের ক্ষেত্রে সেপ্টিক ট্যাংকের ব্যবস্থা আছে কিনা ঃ-

৭। প্রস্তাবিত ইমারত নির্মাণ/পুকুর খনন/পাহার কর্তণ বা ধ্বংস সাধনের কাজ কখন শুরু হইবে ঃ-

৮। প্রস্তাবিত ইমারত নির্মাণ/পুকুর খনন/পাহার কর্তণ বা ধ্বংস সাধনের উদ্দেশ্য ঃ-

৯। অথরাইজড অফিসারের অনুমোদন ব্যতিত আবেদনকারী পূর্বে কোন ইমারত নির্মাণ/পুকুর খনন/পাহার কর্তণ বা ধ্বংস সাধন করিয়া থাকিলে তজ্জন্য তাহার বিরুদ্ধে Building Construction Act, 1952 (E.B.Act II of 1953) এর Section 12 এর অধিনে কোন নোটিশজারী করা হইয়াছে কিনা ঃ-

১০। প্রস্তাবিত ইমারত নির্মাণ/পুকুর খনন/পাহার কর্তণ বা ধ্বংস সাধন করিয়া থাকিলে তজ্জন্য তাহার বিরুদ্ধে Building Construction Act, 1952 (E.B.Act II of 1953) এর Section 12 এর অধিনে কোন মামলা দায়ের করা হইয়াছে কিনা ঃ-

১১। প্রস্তাবিত ইমারত নির্মাণ/পুকুর খনন/পাহার কর্তণ বা ধ্বংস সাধনের স্থান হইতে নিকটবর্তী ঃ-

(ক) রাস্তার দূরত্ব ঃ- (খ) ইমারতের দূরত্ব ঃ-

(গ) পয়ঃনালার দূরত্ব ঃ- (ঘ) বিদ্যুৎ লাইনের দূরত্ব ঃ-

(ঙ) গ্যাস সরবরাহ লাইনের দূরত্ব ঃ-

আমি ..... ইমারত নির্মাণ/পুকুর খনন/পাহাড় কর্তণ বা ধ্বংস সাধন অনুমোদনের জন্য প্রয়োজনীয় নকশার ..... ফর্দ এবং ..... টাকা ফি ..... ব্যাংক

..... শাখার ব্যাংক ড্রাফ্ট/পে-অর্ডার/ট্রেজারী চালান নং-..... তারিখ-..... এর মাধ্যমে যথাযথ কর্তৃপক্ষের নিকট জমা দিয়া উক্ত ব্যাংক ড্রাফ্ট/পে-অর্ডার/ট্রেজারী চালান এর কপি এতদসঙ্গে সংযুক্ত করত ঃ ঘোষনা করিতেছি যে, সংযুক্ত নক্সা ইমারত নির্মাণ বিধিমালা, ১৯৯৬ মোতাবেক প্রণীত এবং এই আবেদন পত্রে বর্ণিত তথ্য ও সংযুক্ত নক্সার বিবরণ সত্য।

তারিখ ঃ-..... আবেদনকারী/আবেদনকারীগণের স্বাক্ষর ঃ-.....

পূর্ণ নাম ঃ-.....

ঠিকানা ঃ-..... ফোন নম্বর ঃ-.....

স্থানীয় সরকার বিভাগের পৌর এলাকার সকল ইমারতের লে-আউট প্লান ও নক্সা অনুমোদন এবং নিয়ন্ত্রণ এর সংক্ষিপ্ত দিক নির্দেশণা ঃ-

(১) ইমারত নির্মাণের জন্য ইমারত নির্মাণ বিধিমালা, ১৯৯৬ এর তফসিল-১ এ উল্লেখিত আবেদন পত্রে আবেদন করতে হবে।

(২) আবেদনপত্র দাখিলের পর পৌর কর্তৃপক্ষ সকল কাগজ এবং নকশা প্রণেতার যথাযথ যোগ্যতা এবং পৌরসভার মাস্টার প্ল্যানের সাথে সাংঘর্ষিক কিনা (প্রয়োজ্য ক্ষেত্রে) সকল কিছু পরীক্ষা করে লে-আউট প্ল্যানের অনুমোদন প্রদান করবে।

(২) আবেদন পত্রের সাথে কমপক্ষে নিম্নলিখিত দলিলাদি সংযুক্ত না থাকলে আবেদন গ্রহণ করা যাবে না।

(ক) BNBC (Bangladesh National Building Code) অনুযায়ী কী প্ল্যান (প্রযোজ্য ক্ষেত্রে), সাইট প্ল্যান, বিল্ডিং প্ল্যান, সার্ভিস প্ল্যান, স্পেসিফিকেশন এবং নির্মাণ তদারকি কাজে নিয়োজিত প্রকৌশলীর সম্মতিপত্র।

(খ) সাত ফর্দ নকশা।

(গ) জমির মালিকানা প্রমানের জন্য দলিল, (প্রয়োজনীয় ক্ষেত্রে) পর্চা, হালসনের ভূমি উন্নয়ন কর পরিশোধের প্রমানপত্র ইত্যাদি।

(ঘ) যোগ্যতা সম্পন্ন প্রকৌশলী কর্তৃক মাটির ভার বহন ক্ষমতার সনদ।

(ঙ) প্রয়োজনীয় ক্ষেত্রে ভূমি ব্যবহার ছাড়পত্র।

(৩) ভবন নির্মাণের পূর্বে নির্মাতা প্ল্যান প্রণয়ন ও সুপারভিশন প্রকৌশলী নিয়োগ করবেন এবং Architectural & Structural Deign অনুযায়ী নির্মাণ কাজ বাস্তবায়ন নিশ্চিত করবেন। নিয়োজিত প্রকৌশলী নির্মাণ কাজ সুপারভিশন করবেন। এ বিষয়ে সকল দায়-দায়িত্ব ভবন নির্মাতা/নিয়োজিত প্রকৌশলীর উপর বর্তাবে মর্মে অঙ্গীকারনামা পৌরসভায় দাখিল করতে হবে।

(৪) নকশা প্রণয়নকারী যথাযথ **কারিগরী যোগ্যতা** থাকতে হবে। প্রতিটি নকশায় প্রণেতার স্বাক্ষর, পেশাদারী সংগঠনের দেয়া পরিচিতি নম্বর এবং মালিকের স্বাক্ষর থাকতে হবে। নকশা প্রণয়নকারীর যোগাযোগের ঠিকানা থাকতে হবে। পৌর কর্তৃপক্ষ নকশা প্রণয়নকারীসহ অন্যান্য স্বাক্ষরকারী সঠিকতা যাচাই করার পর পরবর্তী পদক্ষেপ গ্রহণ করবে।

(৫) প্ল্যান অনুমোদন প্রক্রিয়ার সাথে জড়িত পৌরসভার কর্মকর্তাবৃন্দ কোন অবস্থাতে প্ল্যান প্রণয়নের সাথে জড়িত থাকতে পারবে না।

(৬) ভবন নির্মাণের অনুমতিপত্র পাওয়ার পর ভবনের লে-আউট প্রদানের সময় ভবনের মালিক সুপারভিশন ইঞ্জিনিয়ারের উপস্থিত থাকা নিশ্চিত করবেন। পিস্থ লেভেল পর্যন্ত নির্মাণের পর সুপারভিশন ইঞ্জিনিয়ার এবং ভবনের মালিকের যৌথ স্বাক্ষরে নির্ধারিত ফরমে একটি প্রতিবেদন পৌরসভা বরাবর প্রেরণ করবে।

(৭) পৌরসভা প্রাথমিক প্রতিবেদন প্রাপ্তির পর সরেজমিন পরিদর্শনে অনুমোদিত প্ল্যানের সাথে কোন প্রকার বিচ্যুতি ধরা পড়লে মালিক ও সুপারভিশন ইঞ্জিনিয়ারকে তা সংশোধন করতে সুনির্দিষ্ট করে লিখিতভাবে জানাবে। ভবন মালিক সে অনুযায়ী ব্যবস্থা গ্রহণ না করলে তার বিরুদ্ধে প্রয়োজনীয় আইনানুগ ব্যবস্থা গ্রহণ করবে। এক্ষেত্রে অবৈধ অংশ অপসারণ কিংবা অনুমতিপত্র বাতিল করার আদেশ প্রদান করবে।

(৮) প্রতিটি ফ্লোরের ছাদ ঢালাই করার পর মালিক ও সুপারভিশন ইঞ্জিনিয়ারের যৌথ স্বাক্ষরে একটি করে কার্য সম্পাদন প্রতিবেদন পৌরসভায় দাখিল করতে হবে।

(৯) নির্মাণ চলাকালীন পাশ্ববর্তী ভবন, অবকাঠামো এবং জনগণের কোন প্রকার ক্ষতিসাধন করা যাবে না।

(১০) BNBC (Bangladesh National Building Code) এর কোড অনুযায়ী ইমারত সেবা (Building Service) যথা পানি সরবরাহ পয়ঃনিষ্কাশন, ড্রেনেজ, গ্যাস সরবরাহ, বৈদ্যুতিক স্থাপনা, শীতাতপ নিয়ন্ত্রণসহ অন্যান্য সকল ইমারত সেবা বাস্তবায়ন করতে হবে।

(১১) পৌরসভা প্রয়োজনীয় ক্ষেত্রে বিশেষজ্ঞ মতামত গ্রহণ করতে পারবে। প্রয়োজনে বিশেষজ্ঞ প্যানেল প্রণয়ন (Panel of Experts) করে তাদের মতামতের ভিত্তিতে প্ল্যান অনুমোদন, ভবন নির্মাণ, পুনঃনির্মাণ, অপসারণ ইত্যাদির ব্যবস্থা গ্রহণ করবে।

(১২) ৭ম এবং ততোধিক তলা বিশিষ্ট ইমারতের ক্ষেত্রে ভবনের মালিক/ডেভেলপার Arcitectural, Structural, Electrical, Plumbing & Fire Fitting নক্সা বিশেষজ্ঞ স্থপতি, প্রকৌশলী অথবা পরামর্শক প্রতিষ্ঠান কর্তৃক সম্পাদনের মাধ্যমে পৌরসভায় দাখিল করবেন। পৌর কর্তৃপক্ষ এতদসংশ্লিষ্ট বিশেষজ্ঞ স্থপতি, প্রকৌশলী অথবা পরামর্শক প্রতিষ্ঠানের স্বাক্ষর ও প্রত্যয়ন যাচাই করবে।

(১৩) ইমারত আংশিক বা সম্পূর্ণ নির্মাণ সম্পন্ন হবার পর বসবাস বা ব্যবহার সনদপত্র গ্রহণ করতে হবে। এজন্য নির্ধারিত ফরমে আবেদন করতে হবে। আবেদনের সাথে নিম্নলিখিত দলিল এবং নকশাদি সংরক্ষণের জন্য দাখিল করতে হবে। যথাঃ

১. সুপারভিশন ইঞ্জিনিয়ার কর্তৃক প্রদত্ত সমাপ্ত প্রতিবেদন;

২. কর্তৃপক্ষ কর্তৃক অনুমোদিত স্থাপত্য নকশার ভিত্তিতে নির্মিত ইমারতের নকশা;

৩. ইমারত সেবা সংক্রান্ত সকল নকশা;

৪. ইমারতের নির্মাণ সংক্রান্ত Test Report যেমনঃ Cylinder Test Report এবং MS রড Test Report সহ প্রতিবেদন।

উল্লেখিত নকশার অপর্যাপ্ততা ও উপযুক্ততার যাবতীয় দায়ভার সংশ্লিষ্ট পেশাজীবিদের (স্থপতি ও প্রকৌশলী) উপর বর্তাইবে।

(১৪) নবনির্মিত ভবনটি পরিদর্শণ করে পৌরসভাসমূহ ভবন ব্যবহারের অনুমতিপত্র প্রদান করবে;

(১৫) যে উদ্দেশ্যে ভবন নির্মাণের অনুমতি দেওয়া হয়েছে সে উদ্দেশ্য ব্যতীত অন্য উদ্দেশ্যে ভবন ব্যবহার করা যাবে না।

(১৬) ইমারত নির্মাণের ক্ষেত্রে পালনীয় শর্তাবলী ১৯৯৬ ইমারত নির্মাণ বিধিমালা অনুসরণীয়।

(১৭) অধিকন্ত ইমারত নির্মাণ আইন, ১৯৫২ এবং স্থানীয় সরকার (পৌরসভা) আইন, ২০০৯ সহ অন্যান্য সকল প্রচলিত বিধি বিধান অনুসরণীয়।

সাভার পৌরসভা কার্যালয়

সাভার, ঢাকা। ফোন অফিস ঃ ৭৭৪১৮১৩

পূর্ণাঙ্গ ও ত্রুটিমুক্ত আবেদন প্রাপ্তির ৪৫ কার্য দিবসের মধ্যে নিষ্পত্তি করা হবে।

ক্রমিক নং	প্রয়োজনীয় তথ্যাবলী ও দলিল পত্রাদির বিবরণ	সংযুক্ত/উল্লেখ্য আছে	মন্তব্য
০১	সম্পূর্ণ ও স্বাক্ষরিত আবেদন পত্র ও ক্রয় রশিদ		
০২	প্রস্তাবিত জমির মালিকানা সংক্রান্ত দলিল পত্রাদি ঃ-		
	(ক) দলিলের কপি (সত্যায়িত)		
	(খ) ডি.সি.আর (সত্যায়িত কপি)		
	(গ) নামজারী পত্র, পর্চা পত্র (সত্যায়িত কপি)		
	(ঘ) নামজারী ও জমাভাগের প্রস্তাব পত্র (সত্যায়িত কপি)		
	(ঙ) হালনাগাদ খাজনার রশিদ (সত্যায়িত কপি)		
০৩	ভূমি ব্যবহার ছাড়পত্র সংযুক্ত করতে হবে।		
০৪	৭ বা ততধিক তলা বিশিষ্ট ভবন নির্মাণের ক্ষেত্রে সার্ভিস প্ল্যানসহ বিভিন্ন অধিদপ্তর/সংস্থার প্রয়োজনীয় ছাড়পত্র।		
০৫	নকশা অনুমোদনের নির্ধারিত ফি জমাদানের রশিদ		
০৬	গভীর ভিত্তি, পাইলিং, বেসমেন্ট বা ভূ-গর্ভস্থ তলা নির্মাণের ক্ষেত্রে আবেদনকারীর স্বাক্ষরিত ক্ষতিপূরণ মুচলেকা (প্রযোজ্য ক্ষেত্রে) দিতে হবে।		
০৭	মৃত্তিকা পরীক্ষা (ঝড়রষ এঃবংঃ) রিপোর্ট (বিশেষ প্রকল্প ছাড়পত্রের নির্দেশনা মোতাবেক প্রযোজ্য ক্ষেত্রে)।		
০৮	বিধি অনুযায়ী ৭ প্রস্থ স্থাপত্য নক্সা (মালিকের নাম, অমুদ্রিত স্বাক্ষর এবং কারিগরী ব্যক্তি/ব্যক্তিবর্গের অমুদ্রিত স্বাক্ষর, নাম, ঠিকানা, টেলিফোন নং, পেশাজীবি প্রতিষ্ঠানের সদস্যপদ ও রেজিষ্ট্রেশন নম্বর নক্সায় উল্লেখ পূর্বক)।		
০৯	বিধি অনুযায়ী সাইট প্ল্যান ও লে-আউট নকশা।		
১০	বিধি অনুযায়ী ঃ		
	(ক) ফ্লোর প্ল্যান		
	(খ) পার্কিং প্ল্যান		
	(গ) লম্বালম্বি ও আড়াআড়ী ২টি সেকশন		
	(ঘ) উন্নতি (ঊষবাধঃরড়হ)		
১১	ভবন নির্মাণের পূর্বে নির্মাতা প্ল্যান প্রণয়ন ও সুপারভিশন প্রকৌশলী নিয়োগ করবেন এবং অৎপযরঃবপঁঃধষ্ ঝঃৎঁপঃঁৎধষ উবংরমহ অনুযায়ী নির্মাণ কাজ বাস্তবায়ন নিশ্চিত করবেন। নিয়োজিত প্রকৌশলী নির্মাণ কাজ সুপারভিশন করবেন। এ বিষয়ে সকল দায়-দায়িত্ব ভবন নির্মাতা/নিয়োজিত প্রকৌশলীর উপর বর্তাবে মর্মে নন-জুডিশিয়াল ষ্ট্যাম্পে অঙ্গীকারনামা পৌরসভায় দাখিল করতে হবে।		

অদ্য ..... তারিখে সকল তথ্য ও কাগজপত্র পাওয়া গেছে।

আবেদনকারীর স্বাক্ষর ঃ

নাম ঃ

জমাগ্রহণকারীর স্বাক্ষর

ঠিকানা ঃ

নাম, পদবী ও সীল

তারিখ ঃ

টেলিফোন নম্বর ঃ

ফরম-১০১,১০২,১০৩ (বিধি ৪ ও ৬ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

নগর পরিকল্পনা শাখা

রাজউক ভবন, ঢাকা-১০০০।

অংশ-১ (ফরম-১০১) (বিধি ৪ দ্রষ্টব্য)

ভূমি ব্যবহার (Land Use) ছাড়পত্রের জন্য আবেদন পত্র

Land Use .....

Occupancy Type.....

ক্রমিক [ ][ ][ ][ ] রশিদ নম্বর [ ][ ][ ][ ]

১। আবেদনকারীর নাম ঃ

২। বর্তমান ঠিকানা ঃ

৩। জমি/প্লট এর প্রস্তাবিত ব্যবহার ঃ

৪। প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ ঃ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ (খ) সি.এস / আর.এস দাগ নম্বর ঃ

(গ) মৌজা ও থানার নাম ঃ (ঘ) ব্লক নং ঃ

(ঙ) সিট নং ঃ (চ) ওয়ার্ড নং ঃ

(ছ) সেক্টর নং ঃ (জ) রাস্তার নাম ঃ

(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণঃ (ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণঃ

৫। প্লটের মালিকানা সংক্রান্তথ্যাদি ঃ

(ক) প্লটের মালিকানার বিবরণঃ ব্যক্তি/যৌথ

(খ) মালিকানাসূত্র ও তারিখ ঃ ক্রয়/উত্তরাধিকার/হেবা/দান/লিজ/অন্যান্য (উল্লেখ করুন)ঃ

(গ) রেজিষ্ট্রেশনের তারিখ ও দলিল নম্বর ঃ

৬। ভূমির পারিপার্শ্বিক অবস্থান বর্ণনা ঃ

(ক) ভূমির বর্তমান ব্যবহার ঃ

(খ) ২৫০ মিটার ব্যাসার্ধে অন্তর্ভুক্ত ভূমির বর্তমান ব্যবহার ঃ

(গ) প্লটের নিকটতম দূরত্বে অবস্থিত প্রধান সড়কের নাম ও প্রশস্থতা ঃ .....মিটার।

(ঘ) প্লটের সংযোগ সড়কের নাম ও প্রশস্তা ঃ .....মিটার।

(ঙ) প্লটের ২৫০ মিটার দূরত্বের মধ্যে অবস্থান ঃ প্রধান সড়ক (হ্যাঁ/না), হাটবাজার (হ্যাঁ/না), রেলওয়ে স্টেশন (হ্যাঁ/না), নদী-বন্দর (হ্যাঁ/না), বিমান বন্দর (হ্যা/না)।

(চ) প্লটের ২৫০ মিটার দূরত্বের মধ্যে অবস্থান ঃ পুকুর (হ্যাঁ/না), জলাভূমি (হ্যাঁ/না), প্রাকৃতিক জলপথ (হ্যাঁ/না), বন্যা নিয়ন্ত্রণ জলাধার (হ্যাঁ/না), বনাঞ্চল (হ্যাঁ/না), পার্ক বা খেলার মাঠ (হ্যাঁ/না), পাহাড় (হ্যাঁ/না), ঢাল (হ্যাঁ/না)।

(ছ) প্লটের ২৫০ মিটার দূরত্বের মধ্যে অবস্থান ঃ ঐতিহাসিক গুরুত্বপূর্ণ সাইট(হ্যাঁ/না), সামরিক স্থাপনা(হ্যাঁ/না), Key Point Installation (হ্যাঁ/না), বিধিমালা অনুযায়ী সীমিত উন্নয়ন এলাকা (Restricted Development) (হ্যাঁ/না), বিশেষ এলাকা (Special Area) (হ্যাঁ/না)।

(জ) সংলগ্ন রাস্তা থেকে প্লটের অবস্থা, গড় উঁচু/নীচু .....মিটার।

(ঝ) প্লটের চতুঃপার্শ্বস্থ ভূমির বাবহার ঃ উত্তর ঃ দক্ষিণ ঃ

পূর্ব ঃ পশ্চিম ঃ

(ঞ) অন্য কোন গুরুত্বপূর্ণ তথ্য (যদি থাকে) ঃ

আমি/আমরা প্রত্যয়ন করিতেছি যে, উপরে উল্লিখিত তথ্য সমূহ ঢাকা মহানগর ইমারত (নির্মাণ, উন্নয়ন, সংরক্ষণ ও অপসারণ) বিধিমালা, ২০০৮ এর বিধিতে বর্ণিত বিষয়াদির উপযুক্ততা পূরণ করে এবং আমার/আমাদের জানামতে প্রদত্ত তথ্যাবলী সঠিক। ইহাছাড়া এই বিধির আওতায় চাহিত অন্য যে কোন তথ্যাবলী বা দলিলাদি প্রদানেও বাধ্য থাকিব।

তারিখঃ---------- (আবেদনকারীর নাম ও স্বাক্ষর)

- আবেদনপত্রের সহিত মৌজা ম্যাপে চিহ্নিত করিয়া ৩(তিন) কপি ১৫ সে.মি.× ২০ সে.মি. মাপের সাইট প্ল্যান এর এ্যামোনিয়া প্রিন্ট, আবেদনকারীর অমুদ্রিত স্বাক্ষরসহ দাখিল করিতে হইবে।
- ফি জমার মূল রশিদ দালিখ করিতে হইবে।

অংশ-২ (ফরম-১০২) (বিধি ৬ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
নগর পরিকল্পনা শাখা
রাজউক ভবন, ঢাকা-১০০০।

ভূমি ব্যবহার ছাড়পত্রের অনুমোদন

স্মারক নং-রাজউক/

তারিখ ঃ .....
ভূমি ব্যবহার ছাড়পত্র নম্বর ঃ .....

আপনার / আপনাদের .....তারিখের আবেদন বিবেচনায় নিম্নবর্ণিত শর্তাধীনে ঢাকা মহানগরীর মহাপরিকল্পনার আলোকে ভূমি ব্যবহার (Land Use) ..... এর জন্য অনুমতিপত্র প্রদান করা হইল ঃ

১। এই ভূমি ব্যবহার ছাড়পত্র প্রদানের তারিখ হইতে ২৪(চব্বিশ) মাস সময় কাল পর্যন্ত কার্যকর থাকিবে।
২। এই ভূমি ব্যবহার ছাড়পত্র উন্নয়ন বা নির্মাণ কাজের ক্ষেত্রে কোনরূপ বৈধ ক্ষমতা প্রদান করে না, এবং কোন নির্মাণ কার্যক্রম শুরু করিবার জন্য কোনরূপ অধিকার প্রদান করে না।
৩। যখন বিশেষ প্রকল্প ছাড়পত্র বা নির্মাণ অনুমতিপত্রের জন্য বিস্তারিত পরিকল্পনা বা নকশা চাওয়া হইবে তখন অতিরিক্ত শর্তাবলী আরোপ করিবার জন্য এই ছাড়পত্র কর্তৃপক্ষের অধিকারকে খর্ব করে না।
৪। কর্তৃপক্ষ যে কোন সময় যথাযথ কারণ উল্লেখপূর্বক এই ভূমি ব্যবহার ছাড়পত্র বাতিল বা এর কার্যকারিতা স্থগিত করিতে পারিবে।
৫। কোন তথ্য গোপন করিলে বা ভুল তথ্য প্রদান করিলে প্রদানকৃত ছাড়পত্র বাতিল বলিয়া গণ্য হইবে।
৬। এই ভূমি ব্যবহার ছাড়পত্র জমির মালিকানা স্বত্ব নির্ধারণ করে না।

উপ-পরিচালক (নগর পরিকল্পনা)
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অংশ-৩ (ফরম-১০৩) (বিধি ৬ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
নগর পরিকল্পনা শাখা
রাজউক ভবন, ঢাকা-১০০০।

ভূমি ব্যবহার ছাড়পত্রের প্রত্যাখ্যানপত্র

স্মারক নং-রাজউক/

তারিখ ঃ .....
ছাড়পত্র প্রত্যাখ্যান নম্বর ঃ .....

আপনার/আপনাদের অবগতির জন্য জানানো যাইতেছে যে, আপনার/আপনাদের .....তারিখের আবেদন পর্যালোচনান্তে প্রস্তাবিত ভূমি ব্যবহার (Land Use) ..... ছাড়পত্র প্রদান সম্ভব নহে।

আপনার/আপনাদের ভূমি ব্যবহার অনুমতির আবেদনপত্রটি নিম্নে উল্লিখিত কারণে প্রত্যাখান করা হইয়াছে ঃ

১।
২।
৩।

এই প্রত্যাখানের বিরুদ্ধে আপনি/আপনারা Town Improvement Act, 1953 (Act No. XIII of 1953) এর ধারা ৭৫(১) অনুযায়ী আবেদন করিতে পারিবেন।

উপ-পরিচালক (নগর পরিকল্পনা)
রাজধানী উন্নয়ক কর্তৃপক্ষ, ঢাকা।

তারিখ ঃ .....

অনুলিপি ঃ-
১। .....
২। .....
৩। .....

ফরম-১০৪, ১০৫, ১০৬ (বিধি ৬ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

নগর পরিকল্পনা শাখা

রাজউক ভবন, ঢাকা-১০০০।

অংশ-১ (ফরম-১০৪) (বিধি ৬ দ্রষ্টব্য)

Land Use .....

Occupancy Type.....

ভূমি ব্যবহার ছাড়পত্রের জন্য Town Improvement Act, 1953 (Act No. XIII of 1953) এর ধারা ৭৫(১) অনুযায়ী আবেদন পত্র

ক্রমিক | | | | | রশিদ নম্বর | | | | |

১। আবেদনকারীর নাম ঃ

২। বর্তমান ঠিকানা ঃ

৩। জমি/প্লট এর প্রস্তাবিত ব্যবহার ঃ

৪। প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ ঃ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ (খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ (ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ (চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ (জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণঃ (ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণঃ

5। প্লটের মালিকানা সংক্রান্ত তথ্যাদি ঃ
(ক) প্লটের মালিকানার বিবরণঃ ব্যক্তি/যৌথ
(খ) মালিকানাসূত্র ও তারিখ ঃ ক্রয়/উত্তরাধিকার/হেবা/দান/লিজ/অন্যান্য (উল্লেখ করুন)ঃ
(গ) রেজিষ্ট্রেশনের তারিখ ও দলিল নম্বর ঃ

৬। ভূমির পারিপার্শ্বিক অবস্থার বর্ণনা ঃ
(ক) ভূমির বর্তমান ব্যবহার ঃ
(খ) ২৫০ মিটার ব্যাসার্ধে অন্তর্ভুক্ত ভূমির বর্তমান ব্যবহার ঃ
(গ) প্লটের নিকটতম দূরত্বে অবস্থিত প্রধান সড়কের নাম ও প্রস্থ ঃ .....মিটার
(গ) প্লটের সংযোগ সড়কের নাম ও প্রস্থ ঃ .....মিটার

৭। আমার/আমাদের ভূমি ব্যবহার অনুমতি প্রত্যাখানের কারণ সমূহ ঃ
ক.
খ.

৮। আমার/আমাদের উল্লিখিত ভূমিতে ভূমি ব্যবহারের ছাড়পত্রের জন্য Town Improvement Act, 1953 (Act No. XIII of 1953) এর ধারা ৭৫(১) অনুযায়ী আবেদন করিতেছি, যাহার স্বপক্ষে নিম্নে বর্ণিত যৌক্তিকতা রহিয়াছে ঃ
ক.
খ.
গ.
ঘ.

তারিখ ঃ ..... আবেদনকারীর নাম ও স্বাক্ষর

সংযুক্ত ঃ ভূমি ব্যবহার আবেদন প্রত্যাখ্যানের কপি।

অংশ-২ (ফরম-১০৫) (বিধি ৬ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
নগর পরিকল্পনা শাখা
রাজউক ভবন, ঢাকা-১০০০।

আবেদন মঞ্জুরের প্রেক্ষিতে ভূমি ব্যবহার ছাড়পত্রের অনুমোদন

স্মারক নং-রাজউক/ তারিখ ঃ .....
ভূমি ব্যবহার ছাড়পত্র নম্বর ঃ .....

আপনার / আপনাদের ..... তারিখের আবেদন বিবেচনা করিয়া Town Improvement Act, 1953 (Act No. XIII of 1953) এর ধারা ৭৫(১) অনুযায়ী নিম্নবর্ণিত শর্তাধীনে নগরীর মহাপরিকল্পনার আলোকে ভূমি ব্যবহার (Land Use) ..... এর জন্য অনুমতিপত্র প্রদান করা হইল ঃ

১। এই ভূমি ব্যবহার ছাড়পত্র প্রদানের তারিখ হইতে ২৪(চব্বিশ) মাস সময় কাল পর্যন্ত কার্যকর থাকিবে।

২। এই ভূমি ব্যবহার ছাড়পত্র উন্নয়ন বা নির্মাণ কাজের ক্ষেত্রে কোনরূপ বৈধ ক্ষমতা প্রদান করে না এবং কোন নির্মাণ কার্যক্রম শুরু করার জন্য কোনরূপ অধিকার প্রদান করে না ।

৩। যখন বিশেষ প্রকল্প ছাড়পত্র বা নির্মাণ অনুমতিপত্রের জন্য বিস্তারিত পরিকল্পনা বা নকশা চাওয়া হইবে তখন অতিরিক্ত শর্তাবলী আরোপ করিবার জন্য এই ছাড়পত্র কর্তৃপক্ষের অধিকারকে খর্ব করেনা।

৪। কর্তৃপক্ষ যে কোন সময় যথাযথ কারণ উল্লেখপূর্বক এই ভূমি ব্যবহার ছাড়পত্র বাতিল বা এর কার্যকারিতা স্থগিত করিতে পারিবে।

৫। কোন তথ্য গোপন করিলে বা ভুল তথ্য প্রদান করিলে প্রদানকৃত ছাড়পত্র বাতিল বলিয়া গণ্য হইবে।

৬। এই ভূমি ব্যবহার ছাড়পত্র জমির মালিকানা স্বত্ব নির্ধারণ করে না।

তারিখঃ..... পরিচালক (নগর পরিকল্পনা)
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অংশ-৩ (ফরম-১০৬) (বিধি ৬ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
নগর পরিকল্পনা শাখা
রাজউক ভবন, ঢাকা-১০০০।

ভূমি ব্যবহার ছাড়পত্রের জন্য আবেদন প্রত্যাখান

স্মারক নং-রাজউক/ তারিখ ঃ .....
ছাড়পত্র প্রত্যাখ্যান নম্বর ঃ .....

আপনার/আপনাদের অবগতির জন্য জানানো যাইতেছে যে, Town Improvement Act, 1953 (Act No. XIII of 1953) এর ৭৫(১) ধারা অনুযায়ী ভূমি ব্যবহার ছাড়পত্রের জন্য আপনার/আপনাদের .....তারিখের আবেদন চেয়ারম্যান কর্তৃক প্রত্যাখাত হওয়ায় চাহিত ভূমি ব্যবহার (Land Use) ছাড়পত্র প্রদান করা গেলো না।

আপনার/আপনাদের ভূমি ব্যবহার অনুমতির আবেদনপত্রটি নিম্নে উল্লিখিত কারণে প্রত্যাখান করা হইয়াছে ঃ

১.
২.
৩.

এই প্রত্যাখানের বিরুদ্ধে আপনি/আপনারা Town Improvement Act, 1953 (Act No. XIII of 1953) এর ধারা ৭৫(২) অনুযায়ী কর্তৃপক্ষের নিকট আপিল করিতে পারিবেন।

তারিখঃ ..... পরিচালক (নগর পরিকল্পনা)
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অনুলিপি ঃ-
১।.....
২।.....
৩।.....

ফরম-১০৭, ১০৮, ১০৯ (বিধি ৬ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

নগর পরিকল্পনা শাখা

রাজউক ভবন, ঢাকা-১০০০।

অংশ-১ (ফরম-১০৭) (বিধি ৬ দ্রষ্টব্য)

Land Use .....

Occupancy Type.....

ভূমি ব্যবহার ছাড়পত্রের জন্য Town Improvement Act, 1953 (Act No. XIII of 1953) এর ধারা ৭৫(২) অনুযায়ী কর্তৃপক্ষের নিকট আপিল

ক্রমিক [ ][ ][ ][ ] রশিদ নম্বর [ ][ ][ ][ ]

১। আবেদনকারীর নাম ঃ

২। বর্তমান ঠিকানা ঃ

৩। জমি/প্লট এর প্রস্তাবিত ব্যবহার ঃ

৪। প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ ঃ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ (খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ (ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ (চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ (জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণঃ (ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণঃ

৫। প্লটের মালিকানা সংক্রান্ত তথ্যাদি ঃ
(ক) প্লটের মালিকানার বিবরণঃ ব্যক্তি/যৌথ
(ঘ) মালিকানাসূত্র ও তারিখ ঃ ক্রয়/উত্তরাধিকার/হেবা/দান/লিজ/অন্যান্য (উল্লেখ করুন)ঃ
(ঙ) রেজিষ্ট্রেশনের তারিখ ও দলিল নম্বর ঃ

৬। ভূমির পারিপার্শ্বিক অবস্থার বর্ণনা ঃ
(ঘ) ভূমির বর্তমান ব্যবহার ঃ
(ঙ) ২৫০ মিটার ব্যাসার্ধে অন্তর্ভুক্ত ভূমির বর্তমান ব্যবহার ঃ
(গ) প্লটের নিকটতম দূরত্বে অবস্থিত প্রধান সড়কের নাম ও প্রস্থ ঃ .....মিটার
(চ) প্লটের সংযোগ সড়কের নাম ও প্রস্থ ঃ .....মিটার

৭। আমার/আমাদের ভূমি ব্যবহার অনুমতি প্রত্যাখানের কারণ সমূহ ঃ
ক.
খ.

৮। আমার/আমাদের উল্লিখিত ভূমিতে ভূমি ব্যবহারের ছাড়পত্রের জন্য Town Improvement Act, 1953 (Act No. XIII of 1953) এর ধারা ৭৫(২) অনুযায়ী আবেদন করিতেছি, যাহার স্বপক্ষে নিম্নে বর্ণিত যৌক্তিকতা রহিয়াছে ঃ
ক.
খ.
গ.
ঘ.

তারিখ ঃ ..... আবেদনকারীর নাম ও স্বাক্ষর

সংযুক্ত ঃ ভূমি ব্যবহার আবেদন প্রত্যাখ্যানের কপি।

অংশ-২ (ফরম-১০৮) (বিধি ৬ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
নগর পরিকল্পনা শাখা
রাজউক ভবন, ঢাকা-১০০০।

আপিল মঞ্জুরের প্রেক্ষিতে ভূমি ব্যবহার ছাড়পত্রের অনুমোদন

স্মারক নং-রাজউক/ তারিখ ঃ.....
ভূমি ব্যবহার ছাড়পত্র নম্বর ঃ .....

আপনার / আপনাদের ..... তারিখের আবেদন বিবেচনা করিয়া Town Improvement Act, 1953 (Act No. XIII of 1953) এর ধারা ৭৫(২) অনুযায়ী নিম্নবর্ণিত শর্তাধীনে নগরীর মহাপরিকল্পনার আলোকে ভূমি ব্যবহার (Land Use) ..... এর জন্য অনুমতিপত্র প্রদান করা হইল ঃ

১। এই ভূমি ব্যবহার ছাড়পত্র প্রদানের তারিখ হইতে ২৪(চব্বিশ) মাস সময় কাল পর্যন্ত কার্যকর থাকিবে।

২। এই ভূমি ব্যবহার ছাড়পত্র উন্নয়ন বা নির্মাণ কাজের ক্ষেত্রে কোনরূপ বৈধ ক্ষমতা প্রদান করে না এবং কোন নির্মাণ কার্যক্রম শুরু করার জন্য কোনরূপ অধিকার প্রদান করে না ।

৩। যখন বিশেষ প্রকল্প ছাড়পত্র বা নির্মাণ অনুমতিপত্রের জন্য বিস্তারিত পরিকল্পনা বা নকশা চাওয়া হইবে তখন অতিরিক্ত শর্তাবলী আরোপ করিবার জন্য এই ছাড়পত্র কর্তৃপক্ষের অধিকারকে খর্ব করেনা।

৪। কর্তৃপক্ষ যে কোন সময় যথাযথ কারণ উল্লেখপুর্বক এই ভূমি ব্যবহার ছাড়পত্র বাতিল বা এর কার্যকারিতা স্থগিত করিতে পারিবে।

৫। কোন তথ্য গোপন করিলে বা ভুল তথ্য প্রদান করিলে প্রদানকৃত ছাড়পত্র বাতিল বলিয়া গণ্য হইবে।

৬। এই ভূমি ব্যবহার ছাড়পত্র জমির মালিকানা স্বত্ব নির্ধারণ করে না।

তারিখঃ..... পরিচালক (নগর পরিকল্পনা)
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অংশ-৩ (ফরম-১০৯) (বিধি ৬ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
নগর পরিকল্পনা শাখা
রাজউক ভবন, ঢাকা-১০০০।

ভূমি ব্যবহার ছাড়পত্রের আপিল আবেদন প্রত্যাখান

স্মারক নং-রাজউক/ তারিখ ঃ .....
ছাড়পত্র প্রত্যাখ্যান নম্বর ঃ .....

আপনার/আপনাদের অবগতির জন্য জানানো যাইতেছে যে, Town Improvement Act,1953 (Act No. XIII of 1953) এর ধারা ৭৫(২) অনুযায়ী ভূমি ব্যবহার ছাড়পত্রের জন্য আপনার/আপনাদের .....তারিখের আপিল কর্তৃপক্ষ কর্তৃক প্রত্যাখাত হওয়ায় চাহিত ভূমি ব্যবহার (Land Use) ছাড়পত্র প্রদান করা গেলো না।

আপনার/আপনাদের ভূমি ব্যবহার অনুমতির আবেদনপত্রটি নিম্নে উল্লিখিত কারণে প্রত্যাখান করা হইয়াছে ঃ

১.
২.
৩.

তারিখঃ ..... পরিচালক (নগর পরিকল্পনা)
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অনুলিপি ঃ-
১।.....
২।.....
৩।.....

ফরম-১১০, ১১১, ১১২ (বিধি ৭ দ্রষ্টব্য)
রাজধানী উন্নয়ন কর্তৃপক্ষ
নগর পরিকল্পনা শাখা
রাজউক ভবন, ঢাকা-১০০০।
অংশ-১ (ফরম-১১০) (বিধি ৭ দ্রষ্টব্য)

ভূমি ব্যবহার (Land Use) ছাড়পত্র নবায়নের জন্য আবেদনপত্র

Land Use .....
Occupancy Type.....

প্রতি
পরিচালক (নগর পরিকল্পনা)
রাজধানী উন্নয়ন কর্তৃপক্ষ
ঢাকা।

ভূমি ব্যবহার ছাড়পত্র নম্বর ঃ .....
তারিখ ঃ .....

আমি/আমরা ইতোপূর্বে অনুমোদিত নিম্নোক্ত জমির উপর প্রদত্ত ভূমি ব্যবহার ছাড়পত্রটি নবায়নের জন্য আবেদন করিতেছি।

জমি/প্লট এর অবস্থান ও পরিমাণ :

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আমার/আমাদের বরাবরে প্রদত্ত উক্ত ভূমি ব্যবহার ছাড়পত্রটি নবায়নের জন্য বিবেচনা করিবেন।

তারিখ : .....

আবেদনকারীর স্বাক্ষর. . . . . .
নাম. . . . . .
ঠিকানা : . . . . . .
. . . . . .

সংযুক্ত : ভূমি ব্যবহার ছাড়পত্রের কপি ।

অংশ-২ (ফরম-১১১) (বিধি ৭ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
নগর পরিকল্পনা শাখা
রাজউক ভবন, ঢাকা-১০০০।

ভূমি ব্যবহার (Land Use) ছাড়পত্র নবায়ন

Land Use .....
Occupancy Type.....

স্মারক নং-রাজউক/ তারিখ ঃ .....

ছাড়পত্র নবায়ন নম্বর ঃ .....

প্রতি
. . . . . .
. . . . . .

জনাব/ বেগম

আপনার / আপনাদের আবেদনের প্রেক্ষিতে স্মারক নম্বর ..... তারিখ ..... এর মাধ্যমে প্রদত্ত নিম্নোক্ত জমির ভূমি ব্যবহার ছাড়পত্রটি আগামী ..... দিন ..... মাস .....বৎসর পর্যন্ত নবায়ন করা হইল।

জমি/প্লট এর অবস্থান ও পরিমাণ ঃ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

পরিচালক (নগর পরিকল্পনা)
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

তারিখ :.....

অনুলিপি :
১।.....
২।.....
৩।.....

অংশ-৩ (ফরম-১১২) (বিধি ৭ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
নগর পরিকল্পনা শাখা
রাজউক ভবন, ঢাকা-১০০০।

ভূমি ব্যবহার (Land Use) ছাড়পত্র নবায়নের আবেদন প্রত্যাখ্যান

Land Use .....
Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....
নবায়ন প্রত্যাখ্যান নম্বর ঃ .....

প্রতি
. . . . . .
. . . . . .

আপনার/আপনাদের অবগতির জন্য জানানো যাইতেছে যে, আপনার/আপনাদের .....তারিখের আবেদন পর্যালোচনান্তে উত্থাপিত ভূমি ব্যবহার ছাড়পত্র (Land Use) নবায়ন করা সম্ভব নয়।

আপনার/আপনাদের ভুমি ব্যবহার ছাড়পত্র নবায়নের আবেদনপত্রটি নিম্নে উল্লিখিত কারণে প্রত্যাখান করা হইয়াছে ঃ

১।
২।
৩।

এই প্রত্যাখানের প্রেক্ষিতে, আপনি/আপনারা ভূমি ব্যবহারের জন্য ফরম-১০১ এর মাধ্যমে কর্তৃপক্ষের নিকট নতুন করিয়া আবেদন করিতে পারিবেন।

পরিচালক (নগর পরিকল্পনা)
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

তারিখ :.....

অনুলিপি ঃ-
১। .....
২। .....
৩। .....

ফরম-২০১, ২০২, ২০৩ (বিধি ৮ ও ৯ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

উন্নয়ন নিয়ন্ত্রণ শাখা

রাজউক ভবন, ঢাকা-১০০০।

অংশ-১ (ফরম-২০১) (বিধি ৮ দ্রষ্টব্য)

বৃহদায়তন বা বিশেষ ধরণের প্রকল্পের জন্য বিশেষ প্রকল্প ছাড়পত্রের আবেদন

Land Use .....

Occupancy Type.....

১। আবেদনকারীর নাম ঃ . . . . . .

২। বর্তমান ঠিকানা ঃ . . . . . .

৩। জমি/প্লটের প্রস্তাবিত ব্যবহার ঃ . . . . . .

৪। প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ ঃ . . . . . .

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ (খ) সি.এস / আর.এস দাগ নম্বর ঃ

(গ) মৌজা ও থানার নাম ঃ (ঘ) ব্লক নং ঃ

(ঙ) সিট নং ঃ (চ) ওয়ার্ড নং ঃ

(ছ) সেক্টর নং ঃ (জ) রাস্তার নাম ঃ

(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ (ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

৫। প্রযোজ্য ক্ষেত্রে ভূমি ব্যবহার ছাড়পত্র নম্বর (কপি সংযুক্ত) : .....

৬। প্রস্তাবিত উন্নয়নকার্যের প্রকার বা প্রকারসমূহ (পরিশিষ্ট-৩ এর বর্ণনানুসারে উল্লেখ্য) : .....

৭। প্রস্তাবিত ব্যবহারের বিস্তারিত বর্ণনা :

ক) জমি / প্লট এর ক্ষেত্রফল . . . . . বর্গমিটার।

খ) যে কোন একটি তলার ফ্লোরের সর্বোচ্চ ক্ষেত্রফল . . . . . বর্গমিটার।

গ) সর্বমোট ফ্লোরের ক্ষেত্রফল . . . . . বর্গমিটার।

ঘ) প্লিন্থ (Plinth) এর উপরে সর্বমোট ফ্লোরের সংখ্যা . . . . . .

ঙ) বেসমেন্ট ফ্লোর/ফ্লোরের সংখ্যা . . . . . .

চ) আবাসিক ভবনের ক্ষেত্রে মোট আবাস/এ্যাপার্টমেন্ট/ফ্ল্যাটের সংখ্যা . . . . . .টি।

ছ) বিভিন্ন প্রকার ব্যবহারের উদ্দেশ্যে ফ্লোরের আয়তন :

(প্রয়োজনে তালিকা বিস্তৃত করা যাইতে পারে)

- ব্যবহার-১. . . . . বর্গমিটার
- ব্যবহার-২. . . . . বর্গমিটার
- ব্যবহার-৩. . . . . বর্গমিটার
- ব্যবহার-৪. . . . . বর্গমিটার
- ব্যবহার-৫. . . . . বর্গমিটার

৮। সাইট সংলগ্ন রাস্তাটি একটি প্রধান সড়ক / প্রধান সড়ক নয়। রাস্তা/বা রাস্তাসমূহের প্রস্থ প্লটের সম্মুখে . . . মিটার, পিছনে . . . . . মিটার, ডানে .....মিটার, বায়ে .....মিটার।

৯। প্রস্তাবিত সাইটের মধ্যে অবস্থান ঃ প্রাকৃতিক বনাঞ্চল (হ্যাঁ / না), পাহাড় (হ্যাঁ/না), ঢাল (হ্যাঁ/ না)

১০। প্রস্তাবিত সাইটের মধ্যে অবস্থান ঃ পুকুর (হ্যাঁ / না), প্রাকৃতিক জলাভূমি (হ্যাঁ / না)

১১। প্রস্তাবিত সাইটে ২৫০ মিটার দূরত্বের অভ্যন্তরে কোন স্থাপতিক গুণাগুণসম্পন্ন ভবন (হ্যাঁ / না), ঐতিহাসিক গুণাগুণ সম্পন্ন ভবন (হ্যাঁ / না), সাইট সংলগ্ন কোন হ্রদ (হ্যাঁ / না), পার্শ্বে পার্ক প্রভৃতি অবস্থিত / অবস্থিত নয়।

১২। প্রস্তাবিত সাইট দৃশ্যগত বৈশিষ্ট্যপূর্ণ এলাকায় অবস্থিত / অবস্থিত নয়।

১৩। প্রস্তাবিত সাইট বিমানবন্দর (হ্যাঁ / না), রেলওয়ে স্টেশন (হ্যাঁ / না), বাস টার্মিনাল (হ্যাঁ / না), নদী-বন্দর/ ঘাট (হ্যাঁ/ না) এর পার্শ্বে অবস্থিত ।

অপর পৃষ্ঠায় দৃষ্টব্য

১৪. প্রস্তাবিত সাইট বন্যাপ্রবণ এলাকায় অবস্থিত / অবস্থিত নয়। এলাকা সংলগ্ন রাস্তার কেন্দ্র হইতে সাইটের অবস্থা, গড় উঁচু/নীচু . . . . . .
. . . . . মিটার।

১৫. প্রস্তাবিত সাইটে অবস্থিত বর্তমান ইমারতের সংখ্যা ..... টি এবং তাহার সর্বমোট মেঝের ক্ষেত্রফল.....বর্গমিটার।

১৬. সর্বমোট প্রয়োজনীয় বিদ্যুৎ এর চাহিদা .....ওয়াট/ কিলোওয়াট (আনুমানিক)।

১৭. সর্বমোট প্রয়োজনীয় পানির চাহিদা ..... .লিটার/ কিলোলিটার (আনুমানিক)।

১৮. প্রস্তাবিত উন্নয়নকার্য সম্পূর্ণভাবে . . . . . মাসের মধ্যে সম্পন্ন হইবে এবং উন্নয়নকার্যকে . . . . . ধাপে এবং... . . মাসের মাঝে বিভক্ত করা হইবে।

১৯. নির্মিতব্য Covered Area এর বিবরণ (প্রয়োজনে তালিকাটি বিস্তৃত করা যাইতে পারে) :

	ব্যবহার-১ (বর্গমিটার)	ব্যবহার-২ (বর্গমিটার)	ব্যবহার-৩ (বর্গমিটার)	মোট ফ্লোর (বর্গমিটার)
বেসমেন্ট				
নীচতলা				
দোতলা				
তিনতলা				
চারতলা				
পাঁচতলা				
ছয়তলা				
সাত তলা				

২০. বিশেষ প্রকল্পের ছাড়পত্রের জন্য পেশকৃত তথ্যাবলী /দলিলাদি ও নকশার তালিকা :

ক্রমিক	বিবরণ	হ্যাঁ	না	প্রযোজ্য নয়
১.	স্বত্বাধিকারীর ইজারা দলিল/ ক্রয় দলিল /হেবা/অন্যান্য			
২.	সরকার কর্তৃক বরাদ্দকৃত ভূমি/জমি হইলে দলিলাদি ও অনুমতিপত্র			
৩.	প্রদেয় ফি এর প্রমাণপত্র			
৪.	ভূমি ব্যবহার ছাড়পত্র (প্রযোজ্য ক্ষেত্রে)			
৫.	FAR-এর হিসাব			
৬.	বিধি অনুযায়ী সকল নকশা ও দলিলাদির বিবরণ			

আমি/আমরা প্রত্যয়ন করিতেছি যে, উপরে উল্লিখিত তথ্যসমূহ ঢাকা মহানগর ইমারত (নির্মাণ, উন্নয়ন, সংরক্ষণ ও অপসারণ) বিধিমালা, ২০০৮ এর বিধিতে বর্ণিত বিষয়াদির উপযুক্ততা পূরণ করে এবং আমার/আমাদের জ্ঞান অনুযায়ী প্রদত্ত তথ্যাবলী সঠিক। অনুমোদিত হওয়ার পর যে কোন ভুল তথ্য বা অসামাঞ্জস্যতার কারণে অথবা সরকারের যে কোন প্রয়োজনে ভবিষ্যতে কর্তৃপক্ষ এই বিশেষ প্রকল্প ছাড়পত্র বাতিল করিতে পারিবে। তাহাছাড়া এই বিধিমালার আওতায় অন্য যে কোন তথ্যাবলী বা দলিলাদি প্রদানেও বাধ্য থাকিব।

তারিখ : .....

(১). আবেদনকারীর স্বাক্ষর . . . . . .
নাম . . . . . .
ঠিকানা . . . .

(২) কারিগরী ব্যাক্তিবর্গের (স্থপতি/পুরকৌশলী) নাম
. . . .
. . . . . .

আমি/আমরা প্রত্যয়ন করিতেছি যে, উপরোক্ত বর্ণিত প্রকল্প/নির্মাণের সহিত আমি/আমরা জড়িত হইয়াছি। এই ব্যাপারে উক্ত প্রকল্পের সহিত আমার সংশ্লিষ্টতার প্রত্যয়নপত্র প্রদান করিতেছি।

স্থপতি এর স্বাক্ষর . . . . . .
নাম . . . . . .
ঠিকানা . . . . .

অংশ-২ (ফরম-২০২) (বিধি ৯ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

বিশেষ প্রকল্প ছাড়পত্র অনুমোদন

Land Use .....
Occupancy Type.....

স্মারক নং-রাজউক/ তারিখ ঃ .....
ছাড়পত্র অনুমোদন নম্বর ঃ .....

প্রতি. . . . . .
. . . . . .

জনাব / বেগম,

আপনার / আপনাদের .....তারিখের আবেদন এর প্রেক্ষিতে নিম্নবর্ণিত শর্তাধীনে বিশেষ প্রকল্প ছাড়পত্র প্রদান করা হইল।

১। এই ছাড়পত্র প্রদানের তারিখ হইতে ২৪ (চব্বিশ) মাস সময়কাল পর্যন্ত কার্যকর থাকিবে। ঐ সময়ের পরে এই ছাড়পত্র বাতিল বলিয়া গণ্য হইবে এবং ইহা নবায়নযোগ্য নহে।

২। এই ছাড়পত্র কোনরূপ উন্নয়ন বা নির্মাণকাজের জন্য কোন বৈধ ক্ষমতা প্রদান করে না এবং নির্মাণ অনুমোদনপত্র প্রাপ্তির পূর্বে এই ধরনের কোন কার্যক্রম শুরু করিবার জন্য কোনরূপ অধিকার প্রদান করে না। নির্মাণ অনুমোদনপত্র গ্রহণ ব্যতীত বিশেষ প্রকল্প ছাড়পত্রের নিয়ম লঙ্ঘন করিয়া যদি কোন উন্নয়নের কার্যক্রম গ্রহণ করা হয় তাহা হইলে কর্তৃপক্ষ আইনগত ব্যবস্থা গ্রহণ করিতে পারিবে।

৩। এই ছাড়পত্র পরবর্তীতে অতিরিক্ত আবশ্যিক বিষয়সমূহ বা শর্তাবলী আরোপ করিবার জন্য কর্তৃপক্ষের অধিকারকে খর্ব করে না।

৪। ছাড়পত্রের যে কোন নীতিমালার লঙ্ঘন, আবেদনপত্র, নকশা কিংবা আবেদনকারী কর্তৃক পেশকৃত অন্যান্য দলিল ইত্যাদিতে উদ্দেশ্যমূলকভাবে প্রকৃত তথ্যের ভুল উপস্থাপন বা গোপন করিলে বিশেষ প্রকল্প ছাড়পত্র বাতিল বলিয়া গণ্য হইবে।

৫। এই বিশেষ প্রকল্প ছাড়পত্র দ্বারা ভূমির মালিকানা স্বত্ব নির্ধারণ করে না।

• **নির্মিতব্য Covered Area এর বিবরণ : (প্রয়োজনে তালিকাটি বিস্তৃত করা যাইতে পারে)**

	ব্যবহার-১ (বর্গমিটার)	ব্যবহার-২ (বর্গমিটার)	ব্যবহার-৩ (বর্গমিটার)	মোট ফ্লোর (বর্গমিটার)
বেসমেন্ট				
নীচতলা				
দোতলা				
তিনতলা				
চারতলা				
পাঁচতলা				
ছয়তলা				
সাত তলা				

• **প্রস্তাবিত জমি/প্লট অবস্থান ও পরিমাণ :**

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

পরিচালক (উন্নয়ন নিয়ন্ত্রণ)
ও
সদস্য-সচিব
বৃহদায়তন বা বিশেষ প্রকল্প অনুমোদন কমিটি
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

তারিখ : .....

অনুলিপি :
১।.....
২।.....
৩।.....

অংশ-৩ (ফরম-২০৩) (বিধি ৯ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

বিশেষ প্রকল্প ছাড়পত্র প্রত্যাখ্যান

Land Use .....
Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....
ছাড়পত্র প্রত্যাখ্যান নম্বর ঃ .....

প্রতি
. . . . . .
. . . . . .
. . . . . .

জনাব / বেগম,

আপনার/আপনাদের অবগতির জন্য জানানো যাইতেছে যে, বৃহদায়তন বা বিশেষ প্রকল্প অনুমোদন কমিটি আপনার/আপনাদের আবেদনপত্র পর্যালোচনান্তে নিম্নোক্তাহিত বিশেষ প্রকল্প ছাড়পত্র প্রদানে অপারগতা প্রকাশ করিয়াছে।

প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ :

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আপনার/আপনাদের বিশেষ প্রকল্প ছাড়পত্রের আবেদনপত্রটি নিম্নে উল্লিখিত কারণে প্রত্যাখান করা হইয়াছে ঃ
১.
২.
৩.
৪.
৫.
৬.

এই সিদ্ধান্তের বিরুদ্ধে আপনার/আপনাদের সভাপতি, নগর উন্নয়ন কমিটির নিকট আপীল করিবার অধিকার রহিয়াছে।

তারিখ : .....

পরিচালক (উন্নয়ন নিয়ন্ত্রণ)
ও
সদস্য-সচিব
বৃহদায়তন বা বিশেষ প্রকল্প অনুমোদন কমিটি
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অনুলিপি :
১।.....
২।.....
৩।.....

ফরম-২০৪, ২০৫, ২০৬ (বিধি ১২ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।
অংশ-১ (ফরম-২০৪) (বিধি ১২ দ্রষ্টব্য)

বিশেষ প্রকল্প ছাড়পত্র প্রত্যাখ্যান এর বিরুদ্ধে আপিল আবেদন

Land Use .....
Occupancy Type.....

প্রতি

সভাপতি
নগর উন্নয়ন কমিটি
গৃহায়ন ও গনপুর্ত মন্ত্রনালয়
ঢাকা।

বিশেষ প্রকল্প ছাড়পত্র প্রত্যাখান নম্বর ঃ.....
তারিখ ঃ .....

জনাব,

নিম্নে উল্লিখিত জমিতে প্রস্তাবিত প্রকল্পের জন্য প্রয়োজনীয় বিশেষ প্রকল্প ছাড়পত্রের আবেদন পত্র কর্তৃপক্ষ কর্তৃক প্রত্যাখাত হওয়ার প্রেক্ষিতে আমি/আমরা ইহার বিরুদ্ধে আপিল করিতেছি।

প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ :

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আমার/আমাদের আপিল নিম্নে উল্লিখিত কারণসমূহের প্রেক্ষিতে পুনঃসমীক্ষণযোগ্য ঃ

১.
২.
৩.
৪.
৫.

অনুগ্রহ করিয়া উল্লিখিত কারণ সমূহের আলোকে আমাদের আপিল পুনর্বিবেচনা করিবেন এবং বিশেষ প্রকল্প ছাড়পত্র প্রদানে যথাযথ ব্যবস্থা গ্রহণ করিবেন।

তারিখ : .....

আবেদনকারীর স্বাক্ষর .....
নাম ঃ .....
ঠিকানা ও ফোন নম্বর ঃ .....
.....

সংযুক্ত ঃ ১। প্রযোজ্য ক্ষেত্রে ভূমি ব্যবহার ছাড়পত্রের কপি ।
২। বিশেষ প্রকল্প ছাড়পত্রের জন্য আবেদনপত্রের কপি।

অংশ-২(ফরম-২০৫) (বিধি ১২ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

বিশেষ প্রকল্প ছাড়পত্রের আপিল আবেদন অনুমোদন

Land Use .....
Occupancy Type.....

স্মারক নং-রাজউক/ তারিখ ঃ .....
আপিল আবেদন অনুমোদন নম্বর ঃ.....

প্রতি
. . . . . .
. . . . . .

জনাব / বেগম,

আপনার / আপনাদের .....তারিখের আপিল আবেদনের প্রেক্ষিতে নিম্নবর্ণিত শর্তাধীনে বিশেষ প্রকল্প ছাড়পত্র প্রদান করা হইল।

১। এই ছাড়পত্র প্রদানের তারিখ হইতে ২৪ (চব্বিশ) মাস সময়কাল পর্যন্ত কার্যকর থাকিবে। ঐ সময়ের পরে এই ছাড়পত্র বাতিল বলিয়া গণ্য হইবে এবং ইহা নবায়নযোগ্য নহে।

২। এই ছাড়পত্র কোনরূপ উন্নয়ন বা নির্মাণকাজের জন্য কোন বৈধ ক্ষমতা প্রদান করে না এবং নির্মাণ অনুমোদনপত্র প্রাপ্তির পূর্বে এই ধরনের কোন কার্যক্রম শুরু করিবার জন্য কোনরূপ অধিকার প্রদান করে না। নির্মাণ অনুমতিপত্র গ্রহণ ব্যতীত বিশেষ প্রকল্প ছাড়পত্রের নিয়ম লঙ্ঘন করিয়া যদি কোন উন্নয়নের কার্যক্রম গ্রহণ করা হয় তাহা হইলে কর্তৃপক্ষ আইনগত ব্যবস্থা গ্রহণ করিতে পারিবে।

৩। এই ছাড়পত্র পরবর্তীতে অতিরিক্ত আবশ্যিক বিষয়সমূহ বা শর্তাবলী আরোপ করিবার জন্য কর্তৃপক্ষের অধিকারকে খর্ব করিবে না।

৪। ছাড়পত্রের যে কোন নীতিমালার লঙ্ঘন, আবেদনপত্র, নকশা কিংবা আবেদনকারী কর্তৃক পেশকৃত অন্যান্য দলিল ইত্যাদিতে উদ্দেশ্যমূলকভাবে প্রকৃত তথ্যের ভুল উপস্থাপন বা গোপন করিলে বিশেষ প্রকল্প ছাড়পত্র বাতিল বলিয়া গণ্য হইবে।

৫। এই বিশেষ প্রকল্প ছাড়পত্র ভূমির মালিকানা স্বত্ব নির্ধারণ করে না।

• **নির্মিতব্য Covered Area এর বিবরণ : (প্রয়োজনে তালিকাটি বিস্তৃত করা যাইতে পারে)**

	ব্যবহার-১ (বর্গমিটার)	ব্যবহার-২ (বর্গমিটার)	ব্যবহার-৩ (বর্গমিটার)	মোট ফ্লোর (বর্গমিটার)
বেসমেন্ট				
নীচতলা				
দোতলা				
তিনতলা				
চারতলা				
পাঁচতলা				
ছয়তলা				
সাত তলা				

• **প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ :**

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

তারিখ : .....

পরিচালক (উন্নয়ন নিয়ন্ত্রণ)
ও
সদস্য-সচিব
বৃহদায়তন বা বিশেষ প্রকল্প অনুমোদন কমিটি
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অনুলিপি :
১।.....
২।.....
৩।.....

অংশ-৩ (ফরম-২০৬) (বিধি ১২ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

বিশেষ প্রকল্প ছাড়পত্রের আপিল আবেদন প্রত্যাখ্যান

Land Use .....
Occupancy Type.....

স্মারক নং-রাজউক/ তারিখ ঃ .....

আপিল আবেদন প্রত্যাখ্যান নম্বর ঃ .....

প্রতি
. . . . . .
. . . . . .
. . . . . .

জনাব / বেগম,

আপনার/আপনাদের অবগতির জন্য জানানো যাইতেছে যে, নিম্ন বর্ণিত ভূমির উপর প্রস্তাবিত বিশেষ প্রকল্প নির্মাণের ছাড়পত্রের জন্য আপিল আবেদনটি নগর উন্নয়ন কমিটির নিকট গ্রহণযোগ্য বিবেচিত হয় নাই। এই প্রেক্ষিতে কর্তৃপক্ষ চাহিত ছাড়পত্র প্রদানে অপারগতা প্রকাশ করিতেছেন।

প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ :

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আপনার/আপনাদের বিশেষ প্রকল্প ছাড়পত্রের আবেদনপত্রটি নিম্নে উল্লিখিত কারণে প্রত্যাখান করা হইয়াছে :
১.
২.
৩.
৪.
৫.
৬.

পরিচালক (উন্নয়ন নিয়ন্ত্রণ)
ও
সদস্য-সচিব
বৃহদায়তন বা বিশেষ প্রকল্প অনুমোদন কমিটি
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

তারিখ : .....

অনুলিপি :
১।.....
২।.....
৩।.....

ফরম-৩০১, ৩০২, ৩০৩ (বিধি ১৩, ১৪ দ্রষ্টব্য)
রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।
অংশ-১ (ফরম-৩০১) (বিধি ১৩ দ্রষ্টব্য)

নির্মাণ অনুমোদনের জন্য আবেদনপত্র

Occupancy Type.....

ক্রমিক [ ][ ][ ][ ] রশিদ নম্বর [ ][ ][ ][ ]

১। আবেদনকারীর নাম ঃ

২। বর্তমান ঠিকানা ঃ

৩। প্রস্তাবিত ইমারতের ব্যবহারের ধরণ ঃ

৪। প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ ঃ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

৫। প্রস্তাবিত উন্নয়ন/নির্মাণকজের বিস্তারিত তথ্যাদি ঃ

৫.১ প্রস্তাবিত উন্নয়ন/নির্মাণকাজের প্রকার বা প্রকারসমূহ (পরিশিষ্ট-৩ এর বর্ণনানুসারে) . . . . . .

৫.২ উপরে উল্লিখিত ধরন অনুযায়ী ব্যবহার / ফ্লোরের ক্ষেত্রফল এর বিস্তারিত বর্ণনা :

ক. জমি/প্লট এর ক্ষেত্রফল. . . . . বর্গমিটার

খ. বাহুসমূহের পরিমাপ দক্ষিণে . . . .মিটার, উত্তরে . . . . .মিটার, পূর্বে . . . . .মিটার, পশ্চিমে . . . . . মিটার।

গ. প্রকল্পের মোট ফ্লোরের ক্ষেত্রফল . . . . . .বর্গমিটার

ঘ. আবাসিক ভবনের ক্ষেত্রে প্রতি তলায় আবাস/এ্যাপার্টমেন্ট/ফ্ল্যাটের সংখ্যা. . . . . টি।

ঙ. প্রকল্পে মোট আবাসন এককের সংখ্যা . . . . . টি।

চ. জমির মোট ভূ-পৃষ্ঠস্থ আচ্ছাদিত (Covered Area) অংশের ক্ষেত্রফল . . . . . বর্গমিটার, যাহা ভূমির .....শতাংশ।

ছ. প্লিন্থ (Plinth) এর উপরে সর্বমোট ফ্লোরের সংখ্যা ..... এবং বেসমেন্ট ফ্লোরের সংখ্যা.....।

জ. বিভিন্ন প্রকার ব্যবহারের উদ্দেশ্যে ফ্লোরের আয়তন (প্রয়োজনে তালিকাটি বিস্তৃত করা যাইতে পারে) :

- ব্যবহার - ১. . . . . বর্গমিটার
- ব্যবহার - ২. . . . . বর্গমিটার
- ব্যবহার - ৩. . . . . বর্গমিটার
- ব্যবহার - ৪. . . . . বর্গমিটার
- ব্যবহার - ৫ . . . . . বর্গমিটার

৫.৩ সাইট সংলগ্ন রাস্তা বা রাস্তাসমূহের প্রস্থ সম্মুখে . . . , মিটার, পিছনে . . . . মিটার, বায়ে . . . .. . মিটার. ডানে . . . . মিটার।

৫.৪ সাইটে পূর্বনির্মিত কাঁচা/পাকা ইমারতের (যদি থাকে) বিবরণ :

ক. পূর্ব নির্মিত ইমারতের সংখ্যা ও তদ্দ্বারা বেষ্টিত স্থানের পরিমাণ :

খ. প্রস্তাবিত ইমারত নির্মাণ অনুমোদিত হইলে পূর্বনির্মিত ইমারতের কোন অংশ ভাঙ্গিতে হইলে তদ্দ্বারা বেষ্টিত স্থানের পরিমাণ :

৫.৫ প্রস্তাবিত সাইটের আবশ্যিক উন্মুক্ত স্থান :

সন্মুখে ..... মিটার
পিছনে ..... মিটার
ডাইনে ..... মিটার
বামে ..... মিটার

৬। **নির্মিতব্য ইমারত বা প্রকল্পের বিবরণ** (প্রয়োজনে তালিকাটি বিস্তৃত করা যাইতে পারে)

	ব্যবহার-১ (বর্গমিটার)	ব্যবহার-২ (বর্গমিটার)	ব্যবহার-৩ (বর্গমিটার)	মোট ফ্লোর (বর্গমিটার)
বেসমেন্ট				
নিচতলা				
দোতলা				
তিনতলা				
চারতলা				
পাঁচতলা				
ছয়তলা				
অন্যান্য তলা				

মোট তলা/ফ্লোরের ক্ষেত্রফল . . . . . বর্গমিটার।

৭। **নির্মাণ অনুমোদনের জন্য পেশকৃত ফি, দলিলাদি ও নকশার তালিকা ঃ**

ক্রমিক	বিবরণ	হ্যাঁ	না	প্রযোজ্য নয়
১.	স্বত্বাধিকারীর ইজারা দলিল/ ক্রয় দলিল/হেবা/অন্যান্য			
২.	সরকার কর্তৃক বরাদ্দকৃত জমি হইলে ইহার দলিলাদি ও অনুমতিপত্র			
৩.	বিধি অনুযায়ী ফি প্রদানের রশিদ			
৪.	ভূমি ব্যবহার ছাড়পত্র (প্রযোজ্য ক্ষেত্রে)			
৫.	বিশেষ প্রকল্প ছাড়পত্র (প্রযোজ্য ক্ষেত্রে)			
৬.	ইনডেমনিটি বন্ড (প্রযোজ্য ক্ষেত্রে)			
৭.	মৃত্তিকা পরীক্ষার রিপোর্ট (প্রযোজ্য ক্ষেত্রে)			
৮.	Floor Area Ratio (FAR) এর হিসাব			
৯.	বিধি মোতাবেক যাবতীয় নকশা			
১০.	বিধি মোতাবেক গৃহীত ব্যবস্থা			
১১.	সংশ্লিষ্ট বিভিন্ন কর্তৃপক্ষের ছাড়পত্র/অনাপত্তিপত্র (প্রযোজ্য ক্ষেত্রে)			

আমি / আমরা প্রত্যয়ন করিতেছি যে, উপরে উল্লিখিত তথ্যসমূহ ঢাকা মহানগর ইমারত (নির্মাণ, উন্নয়ন, সংরক্ষণ ও অপসারণ) বিধিমালা, ২০০৮ এর বিধিতে বর্ণিত বিষয়াদির উপযুক্ততা পূরণ করে এবং আমার / আমাদের জ্ঞান অনুযায়ী প্রদত্ত তথ্যাবলী সঠিক। ইহাছাড়া এই বিধিমালার আওতায় অন্যান্য যে কোন প্রদেয় তথ্যাবলী/দলিলাদি প্রদানে বাধ্য থাকিব। যে কোন ভুল তথ্য প্রদান বা অসামঞ্জস্যতার কারণে নির্মাণ অনুমোদনপত্র দেয়ার পরও ভবিষ্যতে ইহা বাতিল বলিয়া গণ্য হইতে পারে।

তারিখ ঃ .....

আবেদনকারীর স্বাক্ষর .....
নাম ঃ .....
ঠিকানা ও ফোন নম্বর ঃ .....
.....

স্বত্বাধিকারীর নাম (সমূহ) . . . . . .
ঠিকানা ঃ

সংযুক্তি-৩০১ (বিধি ১৩ দ্রষ্টব্য)

(১৫০/- টাকা মূল্যের নন-জুডিশিয়াল স্ট্যাম্পের উপর)
ইনডেমনিটি বন্ড

(গভীর ভিত্তি, পাইলিং ও বেসমেন্ট এর জন্য)

এই ইনডেমনিটি বন্ড জনাব/বেগম .....
পিতা/স্বামী/স্ত্রী ....
সাকিন ..... থানা ..... জেলা ..... কর্তৃক রাজধানী উন্নয়ন কর্তৃপক্ষের বরাবরে সম্পাদিত।

জমির অবস্থান :

(ক)	সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা/ উন্নয়নকৃত এলাকার নাম	:
(খ)	প্লট/দাগ ও খতিয়ান নং (জরিপ মোতাবেক)	:
(গ)	মৌজা ও থানার নাম/ব্লক নং	:
(ঘ)	ওয়ার্ড নং (প্রযোজ্য ক্ষেত্রে)	:
(ঙ)	রাস্তার নাম	:
(চ)	সিট নং (প্রযোজ্য ক্ষেত্রে)	:
(ছ)	সেক্টর নং	:

যেহেতু সম্পাদনকারী রাজউক বরাবরে উল্লিখিত জমিতে গভীর ভিত্তি/পাইলিং/বেসমেন্ট অনুমোদনের জন্য একটি প্ল্যান দাখিল করিয়াছেন এবং যেহেতু রাজউক পূর্বে বর্ণিত গভীর ভিত্তি/পাইলিং/বেসমেন্ট নিম্নলিখিত শর্তাবলী সাপেক্ষে অনুমোদনের জন্য সম্মত হইয়াছেন, সেহেতু মালিক স্বত্বাধিকারী উক্তরূপে গভীর ভিত্তি/পাইলিং/বেসমেন্ট নির্মাণ সংলগ্ন ভূমির কোন ক্ষয়ক্ষতি হইলে সেই সম্পর্কে রাজউককে দায়মুক্তি (Indemnity) প্রদানের নিমিত্তে এই বন্ড প্রদান করিয়াছেন।

এবং

যেহেতু সম্পাদনকারী এই মর্মে এই ইনডেমনিটি বন্ড সম্পাদন করিতে সম্মত হইয়াছেন যে, গভীর ভিত্তি/পাইলিং/বেসমেন্ট নির্মাণের অনুমোদনকালে সংশ্লিষ্ট কর্তৃপক্ষ যে সকল শর্তাদি আরোপ করিবে তাহা সম্পাদনকারী মানিয়া চলিবে।

এক্ষণে উপস্থিত সাক্ষীদের সম্মুখে নিম্নলিখিত শর্তাদি উল্লেখে অঙ্গীকারনামা সম্পাদন করা হইল :

১। গভীর ভিত্তি/পাইলিং/বেসমেন্ট নির্মাণের জন্য ভূমির স্বত্বাধিকারীর নক্শাসমূহের অনুমোদন বিবেচনায় সম্পাদনকারী এইভাবে দায়িত্বভার পালন করিবেন যে, সকল সময়ের জন্য কর্তৃপক্ষকে নির্দোষ এবং যে কোন ধরনের ক্ষতিসাধন কিংবা দায়বদ্ধতা হইতে মুক্ত রাখিবে। উহার ভিত্তি খননের সময় হোক বা নির্মাণকালে অথবা উক্ত নির্মাণের পরেই হোক না কেন, সংলগ্ন সম্পত্তিতে নির্মাণ বা কোন ব্যক্তিকে যে কোন ধরনের আঘাত বা ক্ষতির কারণ ঘটাইতে পারে বা গভীর ভিত্তি/পাইলিং/বেসমেন্ট নির্মাণের ঘটনার ফলাফল হিসাবে যাহা ঘটিবে তাহার দায়দায়িত্ব হইতে রাজউক মুক্ত থাকিবে।

২। স্বত্বাধিকারী এই মর্মে সম্মত আছেন এবং দায়িত্বভার নিবেন যে, স্বত্বাধিকারীকে গভীর ভিত্তি/পাইলিং/বেসমেন্ট নির্মাণের জন্য কর্তৃপক্ষ কর্তৃক অনুমোদন দানের পরিপ্রেক্ষিতে অথবা নির্মাণকাজের পরিপ্রেক্ষিতে কিংবা স্বত্বাধিকারী কর্তৃক যে উপায়ে গভীর ভিত্তি/পাইলিং/বেসমেন্টের নির্মাণকাজ করিতেছেন তাহার পরিপ্রেক্ষিতে বা উল্লিখিত অনুমোদনের পরিণামে সৃষ্ট অবস্থার কারণে কর্তৃপক্ষের বিরুদ্ধে যে কোন ব্যক্তিবর্গের দাবী উত্থাপনের ঘটনায়, সম্পাদনকারী দায়ী হিসাবে গণ্য হইবেন এবং দায়ভার গ্রহণ করিবেন।

৩। সম্পাদনকারী এই মর্মে আরো সম্মত এবং দায়িত্ব গ্রহণ করিতে রাজী আছেন যে, সংশ্লিষ্ট কর্তৃপক্ষের নিকট দায় পূরণের জামানত হিসাবে সংশ্লিষ্ট কর্তৃপক্ষকে যে কোন পরিমাণ অর্থ দিতে বাধ্য থাকিবেন, যাহা রাজউক কর্তৃক কোন ব্যক্তিকে ক্ষতিপূরণ বা খেসারত হিসাবে প্রদান করিতে হইবে। গভীর ভিত্তি/পাইলিং/বেসমেন্ট নির্মাণ বিষয়ে কোন আইনগত কার্যধারা চালু হইলে সেই আইনগত কার্যধারায় রাজউক যে পরিমাণ অর্থ ব্যয় করিবে তাহাও সম্পাদনকারী প্রদান করিতে বাধ্য থাকিবে।

৪। সম্পাদনকারী কর্তৃক সম্পাদিত উপর্যুক্ত অঙ্গীকারনামাকে কোনরূপ ক্ষুণ্ন না করিয়া সম্পাদনকারী রাজউককে এই বিষয়ে পূর্ণ ক্ষয়ক্ষতি প্রদান করিতে বাধ্য থাকিবে যাহা রাজউককে এই সংক্রান্ত বিষয়ে কোন ব্যক্তিকে প্রদান করিতে হইবে।

৫। স্বত্বাধিকারী পুনরায় এই মর্মে সম্মতি প্রদান ও অঙ্গীকার প্রদান করিতেছেন যে, এই বন্ড সকল সময় কার্যকর থাকিবে এবং সম্পাদনকারী সকল সময় ইহাতে বর্ণিত শর্তাদি পালন করিবেন।

ইহাতে উপস্থিত সাক্ষীদের সম্মুখে সম্পাদনকারী বন্ডের মর্ম অবগত হইয়া স্বেচ্ছায় অদ্য ...../..... তারিখে অত্র অঙ্গীকারনামায় স্বাক্ষর করিলেন।

সম্পাদনকারী (Indemnifier)

জামানতকারী/ক্ষতিপূরণকারীর স্বাক্ষর

নাম .....

ঠিকানা ও ফোন নম্বর .....

.....

১। স্বাক্ষীর স্বাক্ষর .....

নাম .....

ঠিকানা ও ফোন নম্বর .....

.....

২। স্বাক্ষীর স্বাক্ষর .....

নাম .....

ঠিকানা ও ফোন নম্বর .....

.....

অংশ-২ (ফরম-৩০২) (বিধি ১৪ দ্রষ্টব্য)

ফরম-৩০২ (বিধি ১৪ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

উন্নয়ন নিয়ন্ত্রণ শাখা

রাজউক ভবন, ঢাকা-১০০০।

নির্মাণ অনুমোদন পত্র

Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....

নির্মাণ অনুমোদন নম্বর ঃ .....

প্রতি

.....

.....

.....

আপনার/আপনাদের..... তারিখের আবেদন বিবেচনায় নিম্নলিখিত জমি/প্লট এ বর্ণিত শর্তাধীনে Building Construction Act, 1952 (Act No. II of 1953) এর ধারা ৩ অনুযায়ী ..... ইমারত/প্রকল্প নির্মাণকল্পে অনুমতি প্রদান করা হইল।

প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

শর্তাবলী :

ক. অনুমোদনকৃত নকশা অনুযায়ী নির্মাণকাজ সম্পাদন করিতে হইবে। যদি নির্মাণ অনুমোদনপত্রের নিয়ম লঙ্ঘন করিয়া কোন নির্মাণ কাজ করা হয়, তাহা হইলে সংশ্লিষ্ট সকলের বিরুদ্ধে কর্তৃপক্ষ আইনগত ব্যবস্থা গ্রহণ করিতে পারিবে।

খ. ইমারত নির্মাণ বিধি অনুযায়ী নির্মাণকাজ শুরুর পূর্বে এবং নির্মাণ কাজের গুরুত্বপূর্ণ স্তরে পৌঁছানোর পর নির্ধারিত ফরম এর মাধ্যমে সামগ্রিক বিষয়টি কর্তৃপক্ষকে অবহিত করিতে হইবে।

গ. কর্তৃপক্ষ কর্তৃক যথানিয়মে Occupancy Certificate প্রদান না করা পর্যন্ত নির্মিত ইমারত/প্রকল্পের ব্যবহার শুরু করা যাইবে না।

ঘ. ইমারত নির্মাণের জন্য প্রদত্ত অনুমোদন প্রস্তাবিত জমি বা প্লটের কোন আইনত অধিকার, দখল বা মালিকানা প্রদান করে না।

ঙ. নকশায় বর্ণিত জমি/প্লটের দখলী স্বত্ব লইয়া কোন বিবাদ থাকিলে অথবা অত্র অনুমতিপত্রের উল্লিখিতশর্ত সমূহ ভঙ্গ করা হইলে অথবা আবেদনকারীর প্রদত্ত বিবরণসমূহ অসত্য হইলে অথবা কোন প্রয়োজনীয় তথ্যাদি গোপন রাখা হইলে অথবা যে উদ্দেশ্যে নকশার অনুমতি দেওয়া হইয়াছে সেই উদ্দেশ্য ভিন্ন অন্য কোন উদ্দেশ্যে ব্যবহার করা হইলে Building Construction Act, 1952 (Act No. II of 1953) এর ধারা ৯ অনুযায়ী অনুমোদন বাতিল বলিয়া গণ্য হইবে।

চ. বর্তমান অনুমোদনের তারিখ হইতে তিন বৎসর পর্যন্ত কোন অনুমোদন বলবত থাকিবে। এই সময়ের মধ্যে নির্মাণকার্য শুরু না করা হইলে সময়সীমা অতিক্রান্ত হওয়ার পূর্বে যথোপযুক্ত ফিস জমাপূর্বক আবেদনের মাধ্যমে নবায়ন করিতে হইবে।

ছ. এই অনুমোদন সরকারি, আধা-সরকারি ও বেসরকারি যে কোন প্রতিষ্ঠান কর্তৃক হুকুম-দখলের বেলায় প্রতিবন্ধক নহে। সরকার যে কোন সময় সম্পত্তি হুকুম দখল করিয়া লইতে পারেন, ইহাতে প্রচলিত আইনানুযায়ী কোন বাধা থাকিবে না।

জ. ভূগর্ভস্থ তলা (বেজমেন্ট) অথবা ইমারতের ভিত্তির কাজ আরম্ভ করিবার ২(দুই) মাসের মধ্যে সম্পন্ন করিতে হইবে। নির্মাণকাজ চলাকালীন পার্শ্ববর্তী জায়গায়/ইমারতের কোন ক্ষতিসাধন যাহাতে না হয় এই লক্ষ্যে প্রয়োজনীয় ব্যবস্থা গ্রহণ করিতে হইবে।

ঝ. কাঠামো নকশা প্রণয়নে এবং নির্মাণকাজ চলাকালে ভূমিকম্প সংক্রান্ত বিধানাবলী যথাযথ অনুসরণ নিশ্চিত করিতে হইবে।

ঞ. যে কোন নির্মাণকাজের জন্য Building Construction Act, 1952 (Act No. II of 1953) ও ঢাকা মহানগর ইমারত (নির্মাণ, উন্নয়ন, সংরক্ষণ ও অপসারণ) বিধিমালা, ২০০৮ এর অন্যান্য শর্তাবলী প্রযোজ্য হইবে।

অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

তারিখ : .....

অনুলিপি :
১।.....
২।.....
৩।.....

সংযুক্ত : অনুমোদিত নকশা।

অংশ-৩ (ফরম-৩০৩) (বিধি ১৪ দ্রষ্টব্য)

ফরম-৩০৩ (বিধি ১৪ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

উন্নয়ন নিয়ন্ত্রণ শাখা

রাজউক ভবন, ঢাকা-১০০০।

নির্মাণ অনুমোদন প্রত্যাখান

Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....

নির্মাণ অনুমোদন প্রত্যাখান নম্বর ঃ .....

প্রতি

. . . . . .

. . . . . .

. . . . . .

আপনার/আপনাদের অবগতির জন্য জানানো যাইতেছে যে, কর্তৃপক্ষ আপনার/আপনাদের .....তারিখের আবেদন পর্যালোচনান্তে আবেদনকৃত ইমারত নির্মাণের অনুমোদন প্রদানে অপারগ।

প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ

(খ) সি.এস / আর.এস দাগ নম্বর ঃ

(গ) মৌজা ও থানার নাম ঃ

(ঘ) ব্লক নং ঃ

(ঙ) সিট নং ঃ

(চ) ওয়ার্ড নং ঃ

(ছ) সেক্টর নং ঃ

(জ) রাস্তার নাম ঃ

(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ

(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আপনার/আপনাদের নির্মাণ অনুমোদনের আবেদনপত্রটি নিম্নবর্ণিত কারণে প্রত্যাখান করা হইয়াছে :

১.

২.

৩.

৪.

৫.

৬.

এই সিদ্ধান্তের বিরুদ্ধে Building Construction Act, 1952 (Act No. II of 1953) এর ধারা ১৫ অনুযায়ী প্রত্যাখানের তারিখ হইতে ৩০(ত্রিশ) দিনের মধ্যে নির্ধারিত ফরমে আপিল করিবার সুযোগ রহিয়াছে।

অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি.....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

তারিখ :

.....

অনুলিপি :

১।.....

২।.....

৩।.....

ফরম-৩০৪ , ৩০৫ ও ৩০৬ (বিধি ১৪ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

উন্নয়ন নিয়ন্ত্রণ শাখা

রাজউক ভবন, ঢাকা-১০০০।

অংশ-১ (ফরম-৩০৪) (বিধি ১৪ দ্রষ্টব্য)

নির্মাণ অনুমোদন আবেদন প্রত্যাখানের প্রেক্ষিতে আপিল আবেদন

Occupancy Type.....

নির্মাণ অনুমোদনপত্র প্রত্যাখ্যান নম্বর ঃ .....
তারিখ ঃ .....

প্রতি
সভাপতি
নগর উন্নয়ন কমিটি
গৃহায়ন ও গণপুর্ত মন্ত্রণালয়।

আমি/আমরা রাজধানী উন্নয়ন কর্তৃপক্ষ কর্তৃক নিম্নোক্ত জমি/প্লটে নির্মাণ অনুমোদন প্রত্যাখানের বিরুদ্ধে আপিল করিতেছি।

প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আমার/আমাদের আপিল নিম্নবর্ণিত কারণসমূহের প্রেক্ষিতে পুনঃসমীক্ষাযোগ্য :

১.
২.
৩.
৪.
৫.

অনুগ্রহ করিয়া উল্লিখিত কারণসমূহের আলোকে আমাকে/আমাদেরকে নির্মাণ অনুমোদন প্রদানের জন্য কর্তৃপক্ষ বরাবরে সুপারিশ করিবার অনুরোধ জানাইতেছি।

তারিখ : .....

আবেদনকারীর স্বাক্ষর .....
নাম .....
ঠিকানা .....
.....

সংযুক্ত :

১। নির্মাণ অনুমোদনপত্র প্রত্যাখানের কপি।

অংশ-২ (ফরম-৩০৫) (বিধি ১৪ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

নির্মাণ অনুমোদনপত্রের আপিল আবেদন অনুমোদন

Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....
নির্মাণ অনুমোদন নম্বর ঃ .....

প্রতি
.....
.....
.....

আপনার/আপনাদের..... তারিখের আপিল আবেদন বিবেচনা করিয়া নিম্নলিখিত জমি বা প্লট এ বর্ণিত শর্তাধীনে Building Construction Act, 1952 (Act No. II of 1953) এর ধারা ৩ অনুযায়ী ..... ইমারত/প্রকল্প নির্মাণকল্পে অনুমতি প্রদান করা হইল।

প্রস্তাবিত জমি/প্লট-এর অবস্থান ও পরিমাণ :

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

শর্তাবলী :

ক. অনুমোদনকৃত নকশা অনুযায়ী নির্মাণকাজ সম্পাদন করিতে হইবে। যদি নির্মাণ অনুমোদনপত্রের নিয়ম লঙ্ঘন করিয়া কোন নির্মাণকাজ করা হয়, তাহা হইলে সংশ্লিষ্ট সকলের বিরুদ্ধে কর্তৃপক্ষ আইনগত ব্যবস্থা গ্রহণ করিতে পারিবে।

খ. ইমারত নির্মাণ বিধি অনুযায়ী নির্মাণকাজ শুরুর পূর্বে এবং নির্মাণকাজের গুরুত্বপূর্ণ স্তরে পৌঁছানোর পর নির্ধারিত ফরম এর মাধ্যমে সামগ্রিক বিষয়টি কর্তৃপক্ষকে অবহিত করিতে হইবে।

গ. কর্তৃপক্ষ কর্তৃক যথানিয়মে Occupancy Certificate প্রদান না করা পর্যন্ত নির্মিত ইমারত বা প্রকল্পের ব্যবহার শুরু করা যাইবে না।

ঘ. ইমারত নির্মাণের জন্য প্রদত্ত অনুমোদন প্রস্তাবিত জমি বা প্লটের কোন আইনত অধিকার, দখল বা মালিকানা প্রদান করে না।

ঙ. নকশায় বর্ণিত জমি বা প্লটের দখলী স্বত্ব লইয়া কোন বিবাদ থাকিলে অথবা অত্র অনুমতি পত্রের উল্লিখিত শর্তসমূহ ভঙ্গ করা হইলে অথবা আবেদনকারীর প্রদত্ত বিবরণসমূহ অসত্য হইলে অথবা কোন প্রয়োজনীয় তথ্যাদি গোপন রাখা হইলে অথবা যে উদ্দেশ্যে নকশার অনুমতি দেওয়া হইয়াছে সেই উদ্দেশ্য ভিন্ন অন্য কোন উদ্দেশ্যে ব্যবহার করা হইলে Building Construction Act, 1952 (Act No. II of 1953) এর ধারা ৯ অনুযায়ী অনুমোদন বাতিল বলিয়া গণ্য হইবে।

চ. বর্তমান অনুমোদনের তারিখ হইতে তিন বৎসর পর্যন্ত নকশার অনুমোদন বলবত থাকিবে। এই সময়ের মধ্যে নির্মাণকার্য শুরু না করা হইলে সময়সীমা অতিক্রান্ত হওয়ার পূর্বে যথোপযুক্ত ফিস জমা পূর্বক আবেদনের মাধ্যমে নবায়ন করিতে হইবে।

ছ. এই অনুমোদন সরকারি, আধা-সরকারি ও বেসরকারি যে কোন প্রতিষ্ঠান কর্তৃক হুকুম-দখলের বেলায় প্রতিবন্ধক নহে। সরকার যে কোন সময় সম্পত্তি হুকুম দখল করিয়া লইতে পারেন, ইহাতে প্রচলিত আইনানুযায়ী কোন বাধা থাকিবে না।

জ. ভূগর্ভস্থ তলা (বেসমেন্ট) অথবা ইমারতের ভিত্তির কাজ আরম্ভ করার ২(দুই) মাসের মধ্যে সম্পন্ন করিতে হইবে। নির্মাণ কাজ চলাকালীন পার্শ্ববর্তী জায়গায়/ইমারতের কোন ক্ষতি সাধন যাহাতে না হয় এই লক্ষ্যে প্রয়োজনীয় ব্যবস্থা গ্রহণ করিতে হইবে।

ঝ. কাঠামো নকশা প্রণয়নে এবং নির্মাণকাজ চলাকালে ভূমিকম্প সংক্রান্ত বিধানাবলী যথাযথ অনুসরণ নিশ্চিত করিতে হইবে।

ঞ. যে কোন নির্মাণকাজের জন্য Building Construction Act, 1952 (Act No. II of 1953) ও ঢাকা মহানগর ইমারত (নির্মাণ, উন্নয়ন, সংরক্ষণ ও অপসারণ) বিধিমালা, ২০০৮ এর অন্যান্য শর্তাবলী প্রযোজ্য হইবে।

অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

তারিখ : .....

অনুলিপি :
১।.....
২।.....
৩।.....

সংযুক্ত : অনুমোদিত নকশা।

অংশ-৩ (ফরম-৩০৬) (বিধি ১৪ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

নির্মাণ অনুমোদনপত্রের আপিল আবেদন প্রত্যাখ্যান

Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....
আপিল আবেদন প্রত্যাখান নম্বর ঃ .....

প্রতি
.....
.....
.....

আপনার/আপনাদের অবগতির জন্য জানানো যাইতেছে যে, আপনার/আপনাদের ..... তারিখের নির্মাণ অনুমোদন আপিল আবেদনটি গৃহীত হয় নাই। সেই প্রেক্ষিতে কর্তৃপক্ষ ইমারত নির্মাণের অনুমোদন প্রদানে অপারগ।

প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আপনার/আপনাদের নির্মাণ অনুমোদনের আবেদনপত্রটি নিম্নবর্ণিত কারণে প্রত্যাখান করা হইয়াছে :
১.
২.
৩.
৪.
৫.
৬.

তারিখ : .....

অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অনুলিপি :
১।.....
২।.....
৩।.....

ফরম-৩০৭ ও ৩০৮ (বিধি ১৫ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

উন্নয়ন নিয়ন্ত্রণ শাখা

রাজউক ভবন, ঢাকা-১০০০।

অংশ-১ (ফরম-৩০৭) (বিধি ১৫ দ্রষ্টব্য)

নির্মাণ কাজ শুর“অবহিতকরণ ও কারিগরী ব্যক্তিবর্গের প্রত্যয়ন বা সম্মতি

Occupancy Type.....

নির্মাণ অনুমোদন নম্বর ঃ .....
তারিখ ঃ .....

প্রতি
অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

আমি / আমরা এই মর্মে জানাইতেছি যে, নিম্নবর্ণিত জমি/প্লটে ইমারত নির্মাণ / পুনঃ নির্মাণ / অপসারণ বা উপকরণ পরিবর্তনের জন্য স্মারক নং..... তারিখ ..... এর মাধ্যমে প্রাপ্ত অনুমোদন অনুযায়ী আগামী ..... তারিখে কাজ আরম্ভ করা হইবে।

জমি/প্লট এর অবস্থান ও পরিমাণ ঃ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

তারিখ ঃ .....

আবেদনকারীর স্বাক্ষর .....
নাম ঃ .....
ঠিকানা ও ফোন নম্বর ঃ .....
.....

উপরে বর্ণিত ইমারত /প্রকল্পের নির্মাণকাজের সহিত আমি আমার সংশ্লিষ্টতা প্রত্যয়ন করিতেছি।

স্থপতি
স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

পুর / কাঠামো প্রকৌশলী
স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

অপর পৃষ্ঠায় দ্রষ্টব্য

যান্ত্রিক প্রকৌশলী
স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

তড়িৎ প্রকৌশলী
স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

প্লাম্বিং/ সেনিটারি প্রকৌশলী
স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

ফায়ার ফাইটিং / সিফটি বিশেষজ্ঞ
স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

ডিপ্লোমা প্রকৌশলী
স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

ডিপ্লোমা স্থপতি
স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

অংশ-২ (ফরম-৩০৮) (বিধি ১৫ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

কারিগরী জনবল পরিবর্তনের আবেদন

Occupancy Type.....

নির্মাণ অনুমোদন নম্বর ঃ .....
তারিখ ঃ .....

প্রতি
অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

রাজধানী উন্নয়ন কর্তৃপক্ষ কর্তৃক প্রদত্ত ..... তারিখের নির্মাণ অনুমোদনপত্র মোতাবেক নিম্নোক্ত জমিতে ইমারত নির্মাণের কাজ চলিতেছে।

জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

নিম্নে উল্লিখিত কারিগরী ব্যক্তি (যাহার সম্মতি নিম্নে প্রদত্ত) ইতোপূর্বে নিয়োজিত ব্যক্তিকে প্রতিস্থাপন করিয়া বর্ণিত দায়িত্ব পালন করিবেন।

আবেদনকারীর স্বাক্ষর .....
নাম.....
ঠিকানা ও ফোন নম্বর .....
তারিখ .....

আমি/ আমরা এই মর্মে উপরোক্ত প্রকল্পে/ইমারত নির্মাণে আমার/আমাদের অংশগ্রহণের সম্মতি জ্ঞাপন করিতেছি :

নবাগত কারিগরী ব্যক্তি	পূর্বতন কারিগরী ব্যক্তি
স্বাক্ষর	স্বাক্ষর .....
নাম	নাম .....
পেশা	পেশা .....
নিবন্ধন নং (পেশাজীবী সংগঠন)	নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর	ঠিকানা ও ফোন নম্বর .....
তারিখ.....	তারিখ.....

বি.দ্র. প্রত্যেক কারিগরী জনবলের পরিবর্তনের ক্ষেত্রে ইহা প্রযোজ্য হইবে।

ফরম-৩০৯, ৩১০, ৩১১ ও ৩১২ (বিধি ১৫ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

উন্নয়ন নিয়ন্ত্রণ শাখা

রাজউক ভবন, ঢাকা-১০০০।

অংশ-১ (ফরম-৩০৯) (বিধি ১৫ দ্রষ্টব্য)

প্লিন্থ স্তর পর্যন্ত কার্য সম্পন্ন অবহিতকরণ

Occupancy Type.....

নির্মাণ অনুমোদন নম্বর ঃ .....
তারিখ ঃ .....

প্রতি
অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

আমি/আমরা এই মর্মে জানাইতেছি যে, নিম্নবর্ণিত ইমারতের প্লিন্থ লেভেল পর্যন্ত নির্মাণ কাজ অনুমোদিত নকশা মোতাবেক সম্পন্ন করিয়াছি।

জমি/প্লট-এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

এই প্রসঙ্গে সংশ্লিষ্ট কারিগরী ব্যক্তি/ব্যক্তিবর্গ কর্তৃক প্রদত্ত সনদপত্র এতদ্সঙ্গে সংযুক্ত করা হইল।

আবেদনকারীর স্বাক্ষর . .....
নাম ....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

সংযুক্ত : বর্ণনামতে।

অংশ-২ (ফরম-৩১০) (বিধি ১৫ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

উন্নয়ন নিয়ন্ত্রণ শাখা

রাজউক ভবন, ঢাকা-১০০০।

প্রিন্থ স্ক্ত পর্যন্ড়কাজ সম্পর্কে কারিগরী ব্যক্তিবর্গের প্রতিবেদন

Occupancy Type.....

নির্মাণ অনুমোদন নম্বর ঃ .....
তারিখ ঃ .....

প্রতি
অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

জনাব,

আমি/আমরা এই মর্মে প্রত্যয়ন করিতেছি যে, নিম্নে উল্লিখিত জমিতে কর্তৃপক্ষ কর্তৃক প্রদত্ত নির্মাণ অনুমোদন নম্বর ..... তারিখ ..... অনুযায়ী উক্ত ইমারত/প্রকল্পের প্রিন্থ স্ক্ত পর্যন্ড়কাজ আমার/আমাদের তত্ত্বাবধানে সম্পন্ন হইয়াছে।

জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

স্বাক্ষর (স্থপতি/ প্রকৌশলী) . . . . . .
নাম . . . . . .
পেশা . . . .
নিবন্ধন নং (পেশাজীবী সংগঠন).. . . . .
ঠিকানা ও ফোন নম্বর . . . . . .
তারিখ : . . . . . .

সংযুক্ত : বিস্ড়ারিত প্রতিবেদন।

অংশ-৩ (ফরম-৩১১) (বিধি ১৫ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

প্লিন্থ স্তর পরবর্তী কাজের সম্মতিপত্র

Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....
নির্মাণ অনুমোদন নম্বর ঃ.....

প্রতি
.....
.....
.....

জনাব/বেগম

আপনার / আপনাদের .....তারিখের আবেদনে প্লিন্থ স্তর পর্যন্ত কাজ সম্পন্নের বিষয়ে অবহিত করণের প্রেক্ষিতে জানানো যাইতেছে যে, উল্লিখিত জমিতে নির্মাণাধীন ইমারতের প্লিন্থ স্তর পরবর্তী নির্মাণকাজ অগ্রসরের জন্য এতদ্দ্বারা সম্মতি দেওয়া হইল।

জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

তারিখ : .....

অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অনুলিপি :
১।.....
২।.....
৩।.....

অংশ-৪ (ফরম-৩১২) (বিধি ১৫ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

প্রিন্থ স্ক্রু পরবর্তী কাজের অসম্মতিপত্র

Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....
নির্মাণ অনুমোদন নম্বর ঃ.....

প্রতি
. . . . . .
. . . . . .
. . . . . .

জনাব/বেগম

আপনার / আপনাদের .....তারিখের আবেদনে প্রিন্থ স্ক্রু পর্যন্ড়কাজ সম্পন্ন বিষয়ে অবহিত করণের প্রেক্ষিতে জানানো যাইতেছে যে, উল্লিখিত জমিতে নির্মাণাধীন ইমারত অনুমোদিত নকশা মোতাবেক সম্পন্ন না হওয়ায় প্রিন্থ স্ক্রু পরবর্তী নির্মাণকাজ অগ্রসরের জন্য সম্মতি দেওয়া গেল না।

জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্ড়ার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আপনার/আপনাদের প্রিন্থ স্ক্রু পরবর্তী নির্মাণকাজ অগ্রসরের জন্য সম্মতিপত্রের আবেদনপত্রটি নিম্নবর্ণিত কারণে প্রত্যাখান করা হইয়াছে :
১.
২.
৩.
৪.
৫.
৬.

অনুমোদিত নকশা মোতাবেক প্রিন্থ স্ক্রু পর্যন্ড়কাজটি সম্পন্ন করিয়া পরবর্তী নির্মাণকাজ অগ্রসরের সম্মতিপত্রের জন্য আপনাকে/ আপনাদেরকে কর্তৃপক্ষের নিকট পূনরায় আবেদন করিতে হইবে।

তারিখ : .....

অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অনুলিপি :
১।.....
২।.....
৩।.....

ফরম-৩১৩ (বিধি ১৬ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

আংশিক কাজ তদারকীর প্রত্যয়নপত্র

Occupancy Type.....

নির্মাণ অনুমোদন নম্বর ঃ .....
তারিখ ঃ .....

প্রতি
অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

জনাব

আমি এই মর্মে প্রত্যয়ন করিতেছি যে, ... তারিখের নির্মাণ অনুমোদনপত্র নম্বর..... অনুযায়ী নিম্নোক্ত জমিতে ইমারত নির্মাণ কাজ আংশিক তদারকী করিয়াছি। আমার তদারকীর মেয়াদ ছিল .....হইতে .....তারিখ পর্যন্ড়। উক্ত সময়কালে নির্মিত ইমারত/প্রকল্পের নির্মাণকাজের প্রতিবেদন এতদ্সঙ্গে সংযুক্ত করা হইল।

প্রস্ড়াবিত জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্ড়ার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

স্বাক্ষর (স্থপতি/প্রকৌশলী) .....
নাম .....
পেশা .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
তারিখ

সংযুক্ত : আংশিক কাজ তদারকীর বিস্ড়ারিত প্রতিবেদন।

ফরম- ৪০১, ৪০২, ৪০৩ ও ৪০৪ (বিধি ১৯ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

উন্নয়ন নিয়ন্ত্রণ শাখা

রাজউক ভবন, ঢাকা-১০০০।

অংশ-১ (ফরম-৪০১) (বিধি ১৯ দ্রষ্টব্য)

সমাপ্তি অবহিতকরণপত্র (Completion Report) ও বসবাস বা ব্যবহার সনদপত্র (অকুপেন্সী সার্টিফিকেট) এর জন্য আবেদন

(সম্পূর্ণ সমাপ্ত/আংশিক সমাপ্ত)

Occupancy Type.....

নির্মাণ অনুমোদন নমর ঃ .....

তারিখ ঃ .....

প্রতি
অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

আমি / আমরা আপনার দপ্তরকে এই মর্মে অবহিত করিতেছি যে ..... তারিখে রাজউক কর্তৃক অনুমোদিত ইমারত নির্মাণ অনুমোদনপত্র মোতাবেক ইমারত/প্রকল্পটির নির্মাণকাজ সমাপ্ত হইয়াছে। এই ব্যাপারে সংশ্লিষ্ট কারিগরী/পেশাজীবী ব্যক্তিবর্গের প্রতিবেদন, তাঁহাদের স্বাক্ষরিত মূল নকশার অনুলিপি, প্রতিবেদন, সমাপ্ত ভবনের নকশার ৪(চার) ফর্দ সংযুক্ত করা হইল।

আমি / আমরা, আপনার প্রতিষ্ঠান কর্তৃক ইমারত/প্রকল্পটি পরিদর্শন ও তৎপরবর্তী অকুপেন্সী সার্টিফিকেট এর জন্য আবেদন করিতেছি ।

জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আমি / আমরা প্রত্যয়ন করিতেছি যে, নিম্নে প্রদত্ত তথ্যাবলী ইমারত নির্মাণ বিধিমালার বিবিধ শর্তাবলী পূরণ করে।

ব্যবহার যোগ্যতার জন্য নির্মিত ইমারতের ফ্লোর/অংশের বিবরণ (☐পূর্ণ সমাপ্ত / ☐ আংশিক সমাপ্ত)
(প্রয়োজন মোতাবেক ছকটি সম্প্রসারণ করা যাইবে) :

তলা / ব্যবহারের ধরন		আংশিক সমাপ্ত (বর্গমিটার)	পূর্ণ সমাপ্ত (বর্গমিটার)	মেঝের মোট ক্ষেত্রফল (বর্গমিটার)
বেজমেন্ট ১	ব্যবহার ১:			
	ব্যবহার ২:			
	ব্যবহার ৩:			
	ব্যবহার ৪:			
বেজমেন্ট ২	ব্যবহার ১:			
	ব্যবহার ২:			
	ব্যবহার ৩:			
	ব্যবহার ৪:			
বেজমেন্ট ৩	ব্যবহার ১:			
	ব্যবহার ২:			
	ব্যবহার ৩:			
	ব্যবহার ৪:			

একতলা	ব্যবহার ১:			
	ব্যবহার ২:			
	ব্যবহার ৩:			
	ব্যবহার ৪:			
দোতলা	ব্যবহার ১:			
	ব্যবহার ২:			
	ব্যবহার ৩:			
	ব্যবহার ৪:			
তিনতলা	ব্যবহার ১:			
	ব্যবহার ২:			
	ব্যবহার ৩:			
	ব্যবহার ৪:			
চারতলা	ব্যবহার ১:			
	ব্যবহার ২:			
	ব্যবহার ৩:			
	ব্যবহার ৪:			
পাঁচতলা	ব্যবহার ১:			
	ব্যবহার ২:			
	ব্যবহার ৩:			
	ব্যবহার ৪:			
ছয়তলা	ব্যবহার ১:			
	ব্যবহার ২:			
	ব্যবহার ৩:			
	ব্যবহার ৪:			
অন্যান্য তলা	ব্যবহার ১:			
	ব্যবহার ২:			
	ব্যবহার ৩:			
	ব্যবহার ৪:			
ভবনের মেঝের মোট ক্ষেত্রফল				

আবেদনকারীর স্বাক্ষর . .....
নাম .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

অংশ-২ (ফরম-৪০২) (বিধি ১৯ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

কারিগরী ব্যক্তি কর্তৃক প্রত্যয়নপত্র

Occupancy Type.....

নির্মাণ অনুমোদন নম্বর ঃ .....
তারিখ ঃ .....

প্রতি
অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

আমি /আমরা (স্থপতি/ প্রকৌশলী) . . . . . .
নিবন্ধন নং . . . . . এই মর্মে প্রত্যয়ন করিতেছি যে, নিম্নে বর্ণিত জমির উপর আমার/ আমাদের তদারকীতে নির্মাণকাজ সম্পন্ন হইয়াছে।

জমি/প্লট-এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আমি/আমরা..... তারিখ হইতে উপরোক্ত ইমারত/প্রকল্পের তদারকীর দায়িত্বে নিয়োজিত ছিলাম। আমি/আমরা প্রত্যয়ন করিতেছি যে, ... তারিখের নির্মাণ অনুমোদনপত্র নম্বর ..... মোতাবেক উপরের ছকে সন্নিবেশিত তথ্য অনুযায়ী ইমারত / প্রকল্পটির নির্মাণ অনুমোদিত নকশা ও Specification অনুযায়ী সমাপ্ত হইয়াছে।

স্বাক্ষর (স্থপতি) .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

স্বাক্ষর (প্রকৌশলী) .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

সংযুক্ত : বিস্তারিত প্রতিবেদন।

নির্মাণ কাজে নিয়োজিত অন্যান্য কারিগরী ব্যক্তিবর্গের তালিকা ঃ

স্থপতি

□ নির্মাণ তদারকী

স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

পুর / কাঠামো প্রকৌশলী

□ নির্মাণ তদারকী

স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

যান্ত্রিক প্রকৌশলী

□ নির্মাণ তদারকী

স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

তড়িৎ প্রকৌশলী

□ নির্মাণ তদারকী

স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....___

প্লাম্বিং/ সেনিটারি প্রকৌশলী

□ নির্মাণ তদারকী

স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

ফায়ার ফাইটিং / সিফটি বিশেষজ্ঞ

□ নির্মাণ তদারকী

স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

ডিপ্লোমা প্রকৌশলী

□ নির্মাণ তদারকী

স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

ডিপ্লোমা স্থপতি

□ নির্মাণ তদারকী

স্বাক্ষর .....
নাম .....
নিবন্ধন নং (পেশাজীবী সংগঠন) .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

সংযুক্ত : তদারকীর প্রত্যয়নপত্র।

অংশ-৩ (ফরম-৪০৩) (বিধি ১৯ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

বসবাস বা ব্যবহার সনদপত্র (অকুপেন্সী সার্টিফিকেট)

Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....
নির্মাণ অনুমোদন নম্বর ঃ .....
বসবাস বা ব্যবহার সনদপত্র নম্বর ঃ .....

প্রতি,
.....
.....
.....

আপনার ..... তারিখের নির্মাণ সমাপ্তি অবহিতকরণ পত্রের প্রেক্ষিতে এতদ্বারা প্রত্যয়ন করা যাইতেছে যে, উল্লিখিত জমিতে অবস্থিত ইমারতটি পরিদর্শন করা হইয়াছে। বিধিমালা, অনুমোদিত নকশা এবং কোড এর বর্ণনা অনুযায়ী ইমারতটির কাঠামোগত নিরাপত্তা এবং ভিতরের ও বাহিরের স্বাস্থ্যকর অবস্থার শর্তসমূহ পূরণ হওয়ায় ইহার আংশিক/পূর্ণ ব্যবহারের জন্য উপযুক্ত ঘোষণা করা হইল।

ব্যবহারযোগ্য নির্মিত ইমারতের ফ্লোর/অংশের বিবরণ ঃ

বৈধতার মেয়াদ ..... দিবস ..... মাস .....সন

এই সনদপত্রটি নির্মিত ইমারতের নীচতলায় সুবিধাজনক স্থানে প্রদর্শিত থাকিতে হইবে, যাহাতে ইহা কর্তৃপক্ষের কর্মকর্তা-কর্মচারী এবং জনসাধারণের সহজে দৃষ্টিগোচর হয়।

প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

তারিখ : .....

অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অনুলিপি :
১।.....
২।.....
৩।.....

অংশ-৪ (ফরম-৪০৪) (বিধি ১৯ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

বসবাস বা ব্যবহার সনদপত্র (অকুপেন্সী সার্টিফিকেট) আবেদন প্রত্যাখান পত্র

Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....
নির্মাণ অনুমোদন নম্বর ঃ .....
বসবাস বা ব্যবহার সনদপত্র প্রত্যাখ্যান নম্বর ঃ.....

প্রতি,
.....
.....
.....

আপনার / আপনাদের ..... তারিখের ..... নং নির্মাণ সমাপ্তি অবহিতকরণ পত্র প্রসঙ্গে জানানো যাইতেছে যে, উক্ত ইমারত/প্রকল্পটির নির্মাণ, কাঠামোগত নিরাপত্তা, স্বাস্থ্যগত বিষয়াদি সন্নিবেশনের অবস্থা বিচারের উদ্দেশ্যে পরিদর্শন করা হইয়াছে। সার্বিকভাবে পর্যালোচনায় আপনাকে / আপনাদিগকে জানানো যাইতেছে যে, নিম্নবর্ণিত কারণে বর্তমানে আপনার / আপনাদেরকে উক্ত ইমারত/প্রকল্পের বসবাস বা ব্যবহার সনদপত্র প্রদান করা সম্ভব নহে।

কারণসমূহ :
১.
২.
৩.
৪.
৫.

প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

তারিখ : .....

অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

ফরম- ৪০৫ (বিধি ১৯ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

উন্নয়ন নিয়ন্ত্রণ শাখা

রাজউক ভবন, ঢাকা-১০০০।

বসবাস বা ব্যবহার সনদপত্র (অকুপেন্সী সার্টিফিকেট) প্রত্যাখানের বিরুদ্ধে পুনঃআবেদন

Occupancy Type.....

নির্মাণ অনুমোদনপত্র নম্বর ঃ .....
বসবাস বা ব্যবহার সনদপত্র প্রত্যাখ্যান নম্বর ঃ .....
তারিখ ঃ.....

প্রতি
অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

জনাব,

আমি / আমরা ..... তারিখের ..... নং নির্মাণ অনুমোদন পত্র মোতাবেক উক্ত ইমারত/প্রকল্পের ..... তারিখে নির্মাণ সমাপ্তি অবহিতকরণ পত্র নং এর প্রেক্ষিতে বসবাস বা ব্যবহার সনদপত্রের জন্য পুনঃ আবেদন করিতেছি। ইমারত/প্রকল্পটি বিধিমালা অনুযায়ী কাঠামোগত নিরাপত্তা, ভবনে স্বাস্থ্যগত বিষয়াদি সন্নিবেশনের শর্ত পূরণ করিয়া নির্মিত হইয়াছে।

নিম্নলিখিত বিষয়াদি গোচরে আনিয়া আমার/আমাদের ইমারত/প্রকল্পের বসবাস বা ব্যবহার সনদপত্র প্রদান পুনঃবিবেচনা করিলে বাধিত হইব।

১.
২.
৩.
৪.
৫.

প্রস্তাবিত জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আবেদনকারীর স্বাক্ষর . .....
নাম .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

সংযুক্ত : বসবাস বা ব্যবহার সনদপত্র প্রত্যাখানপত্র

ফরম -৪০৬ (বিধি ২৩ দ্রষ্টব্য)
রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

বসবাস বা ব্যবহার সনদপত্র (অকুপেন্সী সার্টিফিকেট) নবায়নের আবেদনপত্র

Occupancy Type.....

নির্মাণ অনুমোদনপত্র নম্বর ঃ .....
বসবাস বা ব্যবহার সনদপত্র নম্বর ঃ .....
তারিখ ঃ .....

প্রতি
অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

জনাব,

আমি / আমরা নিম্নোক্ত জমিতে নির্মিত/অবস্থিত ইমারত/প্রকল্পের ..... তারিখে প্রদত্ত বসবাস বা ব্যবহার সনদপত্র নম্বর ..... নবায়নের জন্য আবেদন করিতেছি।

জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

আবেদনকারীর স্বাক্ষর .....
নাম .....
ঠিকানা ও ফোন নম্বর .....
.....
তারিখ .....

সংযুক্ত : মূল বসবাস বা ব্যবহার সনদপত্রের অনুলিপি।

ফরম-৪০৭ ও ৪০৮ (বিধি ২৩ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ

উন্নয়ন নিয়ন্ত্রণ শাখা

রাজউক ভবন, ঢাকা-১০০০।

অংশ-১ (ফরম-৪০৭) (বিধি ২৩ দ্রষ্টব্য)

বসবাস বা ব্যবহার সনদপত্র (অকুপেন্সী সার্টিফিকেট) নবায়ন

Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....
নির্মাণ অনুমোদন নম্বর ঃ.....
বসবাস বা ব্যবহার সনদপত্র নম্বর ঃ .....

প্রতি
.....
.....

আপনার/আপনাদের আবেদনের প্রেক্ষিতে বসবাস বা ব্যবহার সনদপত্র নম্বর.....তারিখ.....এর মাধ্যমে প্রদত্ত নিম্নোক্ত জমিতে নির্মিত/অবস্থিত ইমারত/প্রকল্পের বসবাস বা ব্যবহার সনদপত্র আগামী ..... দিন .....মাস ..... বৎসর পর্যন্ড়বায়ন করা হইল।

জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্ড়ার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

তারিখ : .....

অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

অনুলিপি :

১। .....
২। .....
৩। .....

অংশ-২ (ফরম-৪০৮) (বিধি ২৩ দ্রষ্টব্য)

রাজধানী উন্নয়ন কর্তৃপক্ষ
উন্নয়ন নিয়ন্ত্রণ শাখা
রাজউক ভবন, ঢাকা-১০০০।

বসবাস বা ব্যবহার সনদপত্র (অকুপেন্সী সার্টিফিকেট) নবায়নের আবেদন প্রত্যাখান

Occupancy Type.....

স্মারক নং-রাজউক/

তারিখ ঃ .....
নির্মাণ অনুমোদন নম্বর ঃ .....
বসবাস বা ব্যবহার সনদপত্র নবায়ন প্রত্যাখ্যান নম্বর ঃ .....

প্রতি
.....
.....
.....

আপনার/আপনাদের আবেদনের প্রেক্ষিতে বসবাস বা ব্যবহার সনদপত্র নম্বর .....তারিখ .....এর মাধ্যমে প্রদত্ত নিম্নোক্ত জমিতে নির্মিত/অবস্থিত ইমারত/প্রকল্পের বসবাস বা ব্যবহার সনদপত্র সনাক্তকৃত নিম্নবর্ণিত নিয়মের ব্যতিক্রম বা অননুমোদিত ব্যবহার এর কারণে নবায়ন প্রদান করা সম্ভব নহে।

কারণসমূহ :
১.
২.
৩.
৪.
৫.

জমি/প্লট এর অবস্থান ও পরিমাণ

(ক) সিটি কর্পোরেশন/পৌরসভা/গ্রাম/মহল্লা ঃ
(খ) সি.এস / আর.এস দাগ নম্বর ঃ
(গ) মৌজা ও থানার নাম ঃ
(ঘ) ব্লক নং ঃ
(ঙ) সিট নং ঃ
(চ) ওয়ার্ড নং ঃ
(ছ) সেক্টর নং ঃ
(জ) রাস্তার নাম ঃ
(ঝ) বাহুর মাপ সহ জমি/প্লটের পরিমাণ ঃ
(ঞ) জমি/প্লট এ বিদ্যমান বাড়ি/কাঠামোর বিবরণ ঃ

এই নিয়মের ব্যতিক্রম বা অননুমোদিত ব্যবহার এর কারণে কর্তৃপক্ষ আপনার/আপনাদের বিরুদ্ধে আইনানুগ ব্যবস্থা গ্রহণ করিবে।

তারিখ : .....

অথরাইজড অফিসার
ও
সদস্য-সচিব, ইমারত নির্মাণ কমিটি .....
রাজধানী উন্নয়ন কর্তৃপক্ষ, ঢাকা।

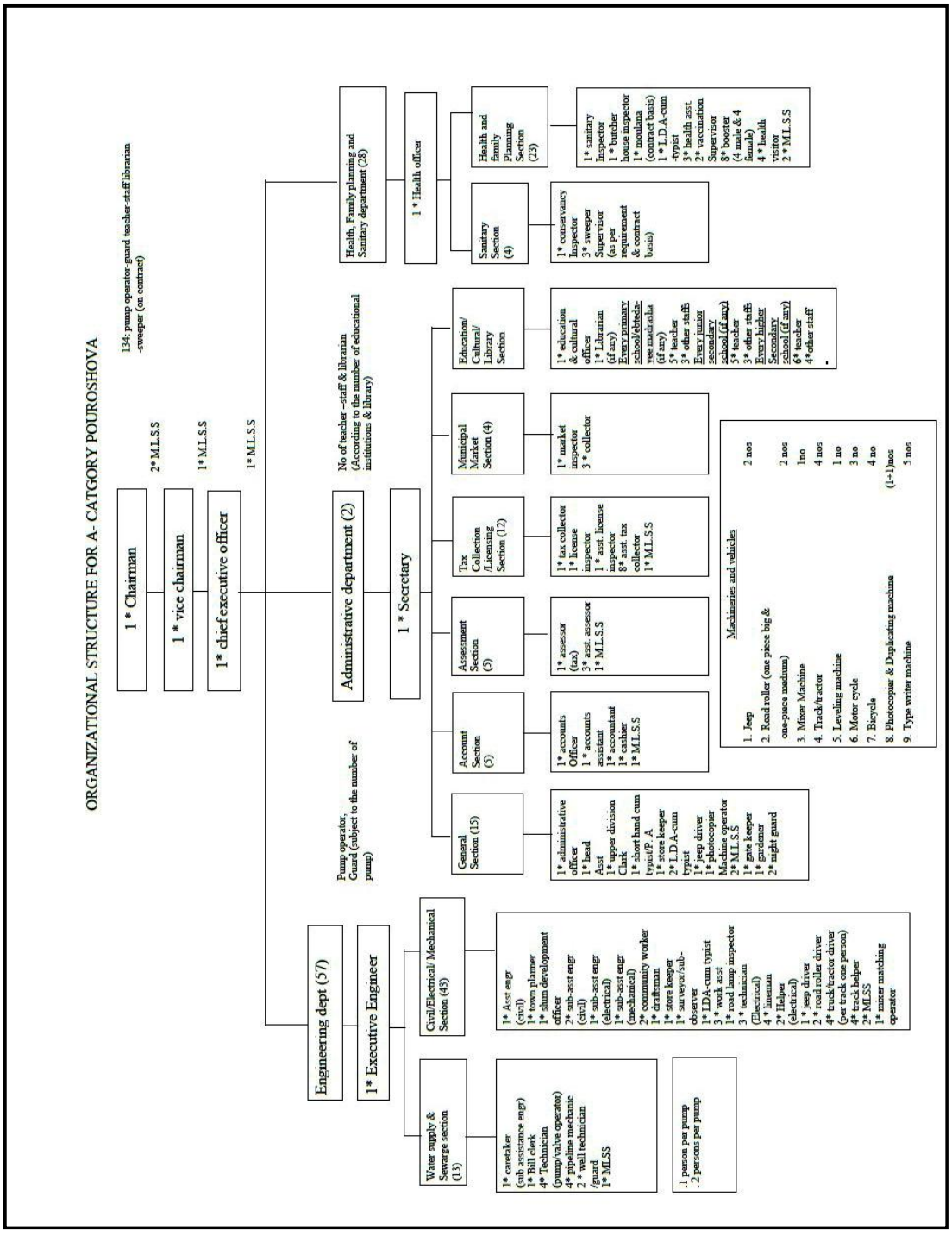
অনুলিপি :

১। .....
২। .....
৩। .....

রাষ্ট্রপতির আদেশক্রমে,

এ এস এম রশিদুল হাই
সচিব

Appendix 5: Organizational Structure of "A" Category Paurashava



Appendix 6: Organizational Structure of "B" and "C" Category Paurashava

