

**DHAKA METROPOLITAN
DEVELOPMENT PLAN (DMDP)
1995-2015**

DETAILED AREA PLAN (DAP)

PART - VII

JUNE 2010



**RAJDHANI UNNAYAN KARTRIPAKKHA (RAJUK)
DHAKA**

Published By

Rajdhani Unnayan Kartripakkha (RAJUK)
RAJUK Bhaban, Dhaka-1000
Bangladesh

Consultant

Ganibangla Limited
Road No. 9-A (New), House No. 61 (New)
Dhanmondi R/A
Dhaka-1205, Bangladesh
&
Development Design Consultants Ltd.
47, Mohakhali C/A
Dhaka 1212, Bangladesh

First Edition: June 2010

Price Tk. 700.00
 US\$ 15.00

Printed By

Ogro Printing and Packaging Industry
2 DIT Avenue, Motijheel C/A,
Dhaka-1200, Bangladesh

Copyright : Rajdhani Unnayan Kartripakkha (RAJUK)

(No part of this document may be reproduced, stored in retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without permission of the copyright holder)

tiwR ÷vW© bs wW G-1

evsjv`k



†M†RU

AwZwi³ msL`v KZ...©K

KZ...©K cÖKwkZ

g½jevi, Ryb 22, 2010

MYcÖRvZšx evsjv`k miKvi
M,,nvqb I MYc~Z© gšYvjq
cwiK íbv kvLv-3

cÖÁvcb

Zvwil, 08 Avlvp 1417 e½vã/22 Ryb 2010 wL³ ÷ã

Gm, Avi, I bs 232-AvBb/2010 |- th†nZz Town Improvement Act, 1953 (E.B.Act XIII of 1953), AZtci D³ Act ew j qv D† j -wLZ, Gi Section 73 G d`È ¶gZve† j miKvi, ivRavbx Dbæqpb KZ©c¶¶ Gi GLwZqvivaxb 1528 eM©wk† j vwgUvi (590 eM©gvB j) GjvKwq Master Plan Gi Av I Zvf y³ Detailed Area Plan (DAP) for Dhaka Metropolitan Development Plan AÎ gšYv j †qi cÖÁvcb bs M,, I c~g/ cwi-3/1(23)/2006/170, Zvwil 24 †m†P†i, 2008 Gi gva`†g cÖKvk Kwivq Dnvi Dci me©mvaviY KZ©K AvcwÈ ev mycvwik D³ section G wba©wviZ mgqmxgvi g†a`vwlj Kwievi Rb` Avnevb Kwivq†Q; Ges

th†nZz D³ mgqmxgvi g†a` cÖvß AvcwÈ ev mycvwik we†ePbv Kwivq miKvi D³ Section G wba©wviZ mgqmxgvi g†a` KwZcq ms†kvabxmn D³ Plan wU Aby†gv`b Kwivq†Q;

†m†nZz D³ Act Gi section 74 Gi sub-section (1) Gi weavb Abyhvqx miKvi D³ Master Plan (Detailed Area Plan for Dhaka Metropolitan Development Plan) Gi Aby†gv`†bi welqwu GZ`¶iiv cÖKvk Kwi j |

ivóciZi A†`kμ†g wkwib

AvLZvi

hMI-miPe |

†gvt gvQyg Lvb (Dc-mwPe), Dc-ciPvjK, evsjv`k miKvwi gy`Yvjq, XvKv KZ...©K gvw`Z |

†gvt gwReyi ingvb (hyM†-mwPe), Dc-cwiPvjK, evsjv`k dig I cKvkbv Awdm,

†ZRMu©v I, XvKv KZIK cÖKwkZ | web site: www.bgpress.gov.bd

(6253)

g~j` t UvKv 2.00

Dhaka Metropolitan Development Plan (DMDP) 1995-2015: Detailed Area Plan (DAP)

Index

Related Areas

Part-I (Group – A)	: Tongi, Gazipur, Kaliganj Paurashava and surrounding rural settlement and flood plain areas of Balu, Sitalakhya and Brahmaputra River
Part-II (Group – B)	: Narayanganj Paurashava, Kadam Rasul Paurashava and its surrounding areas, Dhaka-Narayanganj-Demra (DND) Triangle flood protected areas including Siddhirganj Paurashava.
Part-III (Group – C)	: Areas under Dhaka City Corporation (DCC) jurisdiction and surrounded by the river Buriganga, Sitalakhya, Balu, Turag and Tongi Khal
Part-IV (Group – E)	: Entire Savar Paurashava and Part of Gazipur
Part-V (Group-A Extension : Part-D)	: Keraniganj (Part)
Part-VI (Group-B Extension : Part-D)	: Keraniganj (Part)
Part-VII (Group-C Extension : Part-D)	: Keraniganj (Part)
Part-VIII (Group-E Extension : Part-D)	: Keraniganj (Part)
Part-IX (Location-1)	: Mirpur North to Uttara
Part-X (Location-2)	: Kamrangir Char Area
Part-XI (Location-3)	: Keraniganj (Part)
Part-XII (Location-4)	: Begunbari Khal and its influenced area
Part-XIII (Location-5)	: DND North
Part-XIV (Location-6)	: Airport-Demra bypass adjacent area
Part-XV : (Location-9)	: Eastern Fringe (Part)
Part-XVI (Location-10)	: Purbachal connecting road to Begunbari Khal
Part-XVII (Location-11)	: Eastern Fringe (Part)
Part-XVIII (Location-15)	: Savar EPZ, Bypail, Ashulia
Part-XIX (Location-16)	: Eastern Fringe (Part)

**DHAKA METROPOLITAN DEVELOPMENT PLAN (DMDP) 1995-2015:
DETAILED AREA PLAN (DAP)**

TABLE OF CONTENTS

	Page
TABLE OF CONTENTS	i-viii
ABBREVIATION AND ACRONYMS	ix-x
PREFACE	xi-xii
EXECUTIVE SUMMARY	xiii
 CHAPTER-1: BACKGROUND	
1.1 Introduction	1
1.2 Background	1
1.3 Purpose of the Detailed Area Plan	2
1.4 Objective of the Project	2
1.4.1 General Objectives	2
1.4.2 Specific Objectives	2
1.5 Custodian of the Detailed Area Plan	2
1.6 Duration of the Detailed Area Plan (DAP) and Amendment Options	3
1.7 Format of Detailed Area Plan	3
1.7.1 Explanatory Report	3
1.7.2 Format of Maps	3
1.8 Description of the Planning Area	4
1.8.1 Administrative and Cadastral Boundaries.....	4
1.8.2 Geo-physical Profile	4
a. Geology and Soil	4
b. Topography	4
c. Climate	8
d. Geological Fault	8
1.9 Review of Previous Plan and Proposals	8
1.9.1 Master Plan for Dhaka, 1959	9
1.9.2 Dhaka Metropolitan Area Integrated Urban Development Project (DMAIUDP)	9
a. Relevant Recommendations	9
b. Application of DMAIUDP	9

1.9.3	DMDP Structure Plan and Urban Area Plan	9
	a. Relevant Recommendations	9
	b. Application of the Structure Plan and the Urban Area Plan	9
1.10	Public Consultation.....	11
1.10.1	Consultation With Local Government Authorities	11
1.10.2	Consultation With Different Communities	11
1.10.3	Public Hearing	12
1.10.4	Consultation with Public Representatives.....	13
1.11	Draft DAP Review by Review Committee	14
1.12	Draft DAP Review by DAP Parjalochana Committee	14

CHAPTER-2: CRITICAL PLANNING ISSUES

2.1	Existing Development Pattern.....	15
2.1.1.	General	15
2.1.2.	Residential Structures	15
2.1.3.	Industrial and Commercial Landuse	16
2.1.4.	Utility Services	20
2.1.5.	Infrastructure: Physical	21
2.1.6.	Infrastructure: Social.....	23
2.1.7.	Non-Urbnized Area.....	27
2.1.8.	Land Ownership and Value	27
2.2	Expected Development	28
2.2.1	Population	28
2.2.2	Economic Activities.....	30
2.2.3	Landuse and Settlement.....	30
2.2.4	Settlement Development	30
2.3	Development Problems.....	31
2.3.1	Hydrology (Drainage and Flooding).....	31
2.3.2	Geology and Soil	31
2.3.3	Circulation and Transportation Network	34
2.3.4	Environmental Concern	34
	a. Flooding/Drainage Congestion	34
	b. Pollution.....	35
	c. Loss of Wetlands and depletion of ground water.....	35
	d. Controlling Instruments.....	35
2.3.5	Shelter and Settlement	35
2.4	Current Public Sector Investment Program	36

CHAPTER-3: DEVELOPMENT PLAN PROPOSALS

3.1	Abiding Policy Frameworks of Higher Level Plans	38
3.1.1	Dhaka Structure Plan (1995-2015)	38
3.1.2	Dhaka Urban Area Plan (1995-2009)	38
3.2	Design Principle and Standards.....	39
3.2.1	Guiding Principles.....	40
3.2.2	Planning Standards	41
3.3	General Development Strategies	43
3.4	Proposed Infrastructure Development	44
3.4.1.	Major Existing and Planned Networks	44
3.4.2.	Link Road Development Programme.....	45
	a. Arterial Road Proposals.....	45
	b. Collector Road Proposals.....	48
	c. Access Road Proposals	48
3.4.3.	Road Widening Programme	48
3.5	Existing and Proposed Landuse	48
3.6	Description of the Plan	49

CHAPTER-4: PLAN IMPLEMENTATION

4.1	Implementation Strategy.....	52
4.2	Land Management	52
	a. Achievement of a balanced land use allocation.....	52
	b. Protection and efficient use of natural resources.....	52
	c. Land use compatible with economical provision of public services	52
	d. Preservation of land for agriculture, habitat, and orderly development.....	52
4.3	Areas for Action Plan	53
4.4	Public Sector Action Program.....	53
4.5	Area Development Priorities and Phasing	54
4.6	Development Control	55
4.6.1	Landuse Zoning.....	55
4.6.2	Landuse Classification.....	56
4.6.3	Landuse Permitted	57
	a. Urban Residential Zone.....	77
	b. Commercial Zone (Business)	59
	c. Commercial Zone (Office)	62
	d. General Industrial Zone	64
	e. Heavy Industrial Zone	67
	f. Mixed Use Zone (Commercial-General Industrial)	69

g. Mixed Use Zone (Residential-Commercial)	71
h. Mixed Use Zone (Residential-Commercial-General Industrial).....	74
i. Mixed Use Zone (Residential-General Industrial).....	76
j. Institutional Zone	77
k. Administrative Zone	79
l. Agricultural Zone	80
m. Flood Flow Zone.....	81
n. Open Space	81
o. Overlay Zone.....	82
p. Rural Settlement Zone	84
q. Water Retention Area	88
r. Water Body.....	88
A. Special Functional Options	88
B. Principal Use and Accessory Use.....	91
4.6.4 Development Permit	91
a. Computerization of the Permit Procedure.....	91
b. Landuse Permit	91
c. Field Level Vigilance	94
4.6.5 Interaction with People	96

CHAPTER-5: PROJECT PLANS

5.1 Introduction.....	98
5.2 Description of the Projects	98
5.3 Indication of Project Cost	101

CHAPTER-6: FOLLOW UP ACTIONS

6.1 Introduction.....	102
6.2 Follow up Actions.....	102
6.2.1 Awareness Building	102
6.2.2 Willingness of the Authorities to Implement the Plan.....	102
6.2.3 Revision of existing and formulation of new legal provisions relevant to DAP	102
6.2.4 Identification and Preparation of Policies for Non Conforming Uses	102
6.2.5 Preparation of Action Area Plan	102
6.2.6 Resolving Duality of Power in Granting Planning Permit	103
6.2.7 Decentralization of RAJUK Function	103
6.2.8 Bringing Potential Areas for Urban Growth under Municipal Authority	103
6.2.9 Strengthening Planning Department	103

6.2.10	Co-ordination Among Related Authorities/Agencies.....	103
6.2.11	Enforcement of Law for Restoring Plan	103
6.2.12	Provision of Penalty for Plan Violation	103
6.2.13	Plan Review	103

CHAPTER-7: CONCLUSION

Conclusion	104
-------------------------	------------

LIST OF TABLES

Table 1-1	Required Maps with Corresponding Scale	3
Table 1-2	Communication Plan	11
Table 2-1	Structure Types of the Residential Buildings.....	15
Table 2-2	Height Distribution of Residential Pucca Buildings.....	16
Table 2-3	Structure Type of Commercial Buildings	16
Table 2-4	Number of Different Types of Industries in the Project Area	20
Table 2-5	Water Supply Facilities.....	20
Table 2-6	Electricity Coverage of the Project Area.....	21
Table 2-7	Union-wise Road Network in the Project Area	22
Table 2-8	Drainage Channel of the Project Area.....	23
Table 2-9	Existing Waterbodies of the Area	23
Table 2-10	Different Types of Educational Institutions	23
Table 2-11	Number of Religious Institutions in the Project Area	27
Table 2-12	Number of Health Facilities in the Project Area.....	27
Table 2-13	Present Land Value in the Project Area	28
Table 2-14	Mouza-wise Projected and Additional Population in 2015.....	28
Table 3-1	Planning Standards followed in Previous Master Plans of Bangladesh	39
Table 3-2	Target Standards for Provision of Community Services	39
Table 3-3	BNBC Guidelines for Development of Minimum Standard Housing	40
Table 3-4	Road Standards	40
Table 3-5	Road Standards, the Private Residential project (Plots) Rules 1991	40
Table 3-6	Facility Standard at Neighbourhood Level or for 12500 People	41
Table 3-7	Proposed Road Standard for DAP Area.....	43
Table 3-8	Structure Plan Proposed Road.....	45

DMDP : Detailed Area Plan

Part –VII

Table 3-9	Road Proposed by Consultant	45
Table 3-10	Existing Landuse of Group-D (Extension of Group-C) Area	48
Table 3-11	Proposed Landuse of Group-D (Extension of Group-C) Area	49
Table 4-1	List of Proposed Roads with Implementing Agency	53
Table 4-2	Road Networ Development Priority and Phasing	55
Table 4-3	Landuse Permitted in Urban Residential Zone.....	58
Table 4-4	Landuse Conditionally Permitted in Urban Residential Zone	59
Table 4-5	Landuse Permitted in Commercial Zone (Business)	60
Table 4-6	Landuse Conditionally Permitted in Commercial Zone (Business).....	61
Table 4-7	Landuse Permitted in commercial zone (Office).....	62
Table 4-8	Landuse Conditionally Permitted in Commercial Zone (Office)	63
Table 4-9	Landuse Permitted in General Industrial Zone	64
Table 4-10	Landuse Conditionally Permitted in General Industrial Zone.....	66
Table 4-11	Landuse Permitted in Heavy Industrial Zone.....	67
Table 4-12	Landuse Conditionally Permitted in Heavy Industrial Zone	69
Table 4-13	Landuse Permitted in Mixed Use Zone (Commercial-General Industrial)	69
Table 4-14	Landuse Conditionally Permitted in Mixed Use Zone (Commercial-General Industrial)	70
Table 4-15	Landuse Permitted in Mixed use Zone (Residential–Commercial).....	72
Table 4-16	Landuse Conditionally Permitted in Mixed use Zone (Residential–Commercial)	73
Table 4-17	Landuse Permitted in Mixed Use Zone (Residential-Commercial-General Industrial).....	74
Table 4-18	Landuse Conditionally Permitted in Mixed Use Zone (Residential-Commercial- General Industrial).....	75
Table 4-19	Landuse Permitted in Mixed Use Zone (Residential-General Industrial)	76
Table 4-20	Landuse Conditionally Permitted in Mixed Use Zone (Residential-General Industrial)	77
Table 4-21	Landuse Permitted in Institutional Zone	78
Table 4-22	Landuse Conditionally Permitted in Institutional Zone.....	78
Table 4-23	Landuse Permitted in Administrative Zone.....	79
Table 4-24	Landuse Conditionally Permitted in Administrative Zone	80
Table 4-25	Landuse Permitted in Agricultural Zone	80
Table 4-26	Landuse Conditionally Permitted in Agricultural Zone	81
Table 4-27	Landuse Permitted in Flood Flow Zone.....	81
Table 4-28	Landuse Conditionally Permitted in Flood Flow Zone	81
Table 4-29	Landuse Permitted in Open Space	82
Table 4-30	Landuse Conditionally Permitted in Open Space	82
Table 4-31	Landuse Permitted in Rural Settlement Zone.....	85
Table 4-32	Landuse Conditionally Permitted in Rural Settlement Zone	85
Table 4-33	Landuse Permitted in Growth Center	86
Table 4-34	Landuse Conditionally Permitted in Growth Center.....	87

DMDP : Detailed Area Plan

Part –VII

Table 4-35	Landuse Permitted in Water Retention Area	88
Table 4-36	Landuse Conditionally Permitted in Water Retention Area	88
Table 4-37	Landuse Permitted in Waterbody	88
Table 4-38	Landuse Conditionally Permitted in Waterbody.....	88

LIST OF FIGURES

Figure 1-1	Integration Process of Consultation Findings	12
Figure 2-1	Existing Electricity Supply Network of the Project Area (in km).....	21
Figure 2-2	Road Length in the Project Area (in km.)	22
Figure 4-1	Structure of Landuse Permit Authority Showing Linkages	92
Figure 4-2	Flow Diagram showing Activity Linkage of Plan Permit Procedure	95

LIST OF MAPS

Map 1-1	Location and Boundary of Group-D (Extension of Group-C) in the Context of DMDP	5
Map 1-2	Administrative Boundary of Group-D (Extension of Group-C) Area	6
Map 1-3	Contour Map of Group-D (Extension of Group-C) Area	7
Map 1-4	Fault Lines in the Project Area	10
Map 2-1	Location of Residential Area of the Project Area.....	17
Map 2-2	Location of Commercial Area in the Project Area.....	18
Map 2-3	Location of Industrial Area in the Project Area	19
Map 2-4	Existing Different Types of Road Network in the Project Area	24
Map 2-5	Drainage Network in the Project Area	25
Map 2-6	Location of the Educational Institution in the Project Area	26
Map 2-7	Location of Religious and Health Services in the Project Area.....	29
Map 3-1	Existing Road Network in the Project Area.....	46
Map 3-2	Proposed Road Network in the Project Area.....	47
Map 3.3	Existing Landuse of the Project Area	50
Map 3-4	Proposed Landuse of the Project Area	51

LIST OF ANNEXURE

Annexure-I	List of Mouza with JL and Sheet Number of the Project Area.....	106
------------	---	-----

Annexure-II	List of Proposed Road of Group-D (Extension of Group-C) Area	107
Annexure-III	Category of Industries according to DoE (Department of Environment)	108

LIST OF MAPS – INSIDE FOLDER

	<u>Folder</u>
1. Dhaka Metropolitan Development Planning (DMDP) Area Integrated Detailed Area Plan for Group-D (Extension of Group-C) Area 2010 – 2015 1:35,000	Part-VII
2. Dhaka Metropolitan Development Planning (DMDP) Area DMDP: Integrated Detailed Area Plan 2010 - 2015 1:80,000	Part-VII

ABBREVIATION AND ACRONYMS

ACTP	Assistant Chief Town Planner
ATP	Assistant Town Planner
BAPA	Bangladesh Poribesh Andolon
BBS	Bangladesh Bureau of Statistics
BDC	Bangladesh Development Company
BELA	Bangladesh Environmental Lawyers Association
BIP	Bangladesh Institute of Planners
BIWTA	Bangladesh Inland Water Transport Authority
BIWTC	Bangladesh Inland Water Transport Corporation
BMD	Bangladesh Meteorological Department
BOT	Build Operate Transfer
BPDB	Bangladesh Power Development Board
BRAC	Bangladesh Rural Advancement Committee
BSCIC	Bangladesh Small and Cottage Industries Corporation
BTCL	Bangladesh Telecommunication Company Limited
BUET	Bangladesh University of Engineering and Technology
CBO	Community Based Organization
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
C.S.	Cadastral Survey
CTP	Chief Town Planner
DCC	Dhaka City Corporation
DIT	Dacca Improvement Trust
DND	Dhaka-Narayanganj-Demra
DoE	Department of Environment
DPDCL	Dhaka Power Distribution Company Limited
DPHE	Department of Public Health Engineering
DPZ	Detailed Planning Zone
EPZ	Export Processing Zone
FAR	Floor Area Ratio
FFZ	Flood Flow Zone
HBB	Herring Bone Bond
GIS	Geographic Information System
IAB	Institute of Architects, Bangladesh
JICA	Japan International Cooperation Agency
J.L.	Jurisdiction List
JU	Jahangirnagar University
LGED	Local Government Engineering Department
LPC	Landuse Permit Committee
LPP	Landuse Permit Planner
ml/d	Million liter per day
MoHPW	Ministry of Housing and Public Works
NGO	Non Government Organization
NO _x	Nitrogen Oxide
NUC	Nagar Unnayan Committee
PP	Paurashava Planner
PVC	Polyvinyl Chlorate
REB	Rural Electrification Board
REHAB	Real Estate & Housing Association of Bangladesh
RHD	Roads and Highways Department
RMG	Ready Made Garments
R.S.	Revisional Survey/Revisional Settlement
SoB	Survey of Bangladesh
SP	Structure Plan
SPZ	Strategic Planning Zone
SO ₂	Sulphur Dioxide
STP	Strategic Transport Plan
TGTDC	TITAS Gas Transmission & Distribution Company

TWG	Technical Working Group
UAP	Urban Area Plan
UNCHS	United Nations Centre for Human Settlement (Habitat)
UNDP	United Nations Development Programme
viz	Namely
WASA	Water Supply and Sewerage Authority
WDB	Water Development Board

PREFACE

Detailed Area Plan (DAP) is the third and final tier of DMDP (Dhaka Metropolitan Development Plan) 1995-2015. DMDP is a three tier plan package, viz. the Structure Plan, the Urban Area Plan and the Detailed Area Plan. The first two tiers of DMDP i.e. the Structure Plan (1995-2015) and the Urban Area Plan (1995-2009) were prepared in 1995 under the Project 'Preparation of Structure Plan (SP), Urban Area Plan (UAP) and Detailed Area Plan (DAP) - Metropolitan Development Plan Preparation and Management in Dhaka' under UNDP Project No. BGD/88/052 and TAPP No. TA/ BGD/ 88 /052 with the technical assistance of UNCHS. The third tier of DMDP i.e. the Detailed Area Plan was prepared by RAJUK under a separate project named "Preparation of Detailed Area Plan (DAP) for Dhaka Metropolitan Development Plan" following the strategies and guidelines mentioned in the Structure Plan and the Urban Area Plan. This is almost a six and a half year project launched in August, 2004 and completed in December, 2010. The total project cost is BDT 2494.66 lac. The project was financed by RAJUK's own source.

The project was managed by an Inter-Ministerial Steering Committee, a Technical Management Committee and a Technical Management Sub-committee. One Project Director, four Project Managers, five Assistant Town Planners, one GIS Expert, one Survey Expert and other supporting staffs were the project personnel.

The DAP is prepared for RAJUK jurisdiction or DMDP area of 590 sq.mile (1528 sq. km.). In order to complete the task efficiently, RAJUK divided its control area into five groups and eleven locations and awarded five local consulting firms with the work. The contract was awarded to DDC Ltd. for Group-A, Group-A Ext. (Part-D), Locations-3,4 and 15; EPC Ltd. for Group-B and Group-B Ext. (Part-D); Gani Bangla Ltd. for Group-C, Group-C Ext. (Part-D), Locations-9,11,16; Sheltech (Pvt.) Ltd. for Group-E, Group-E Ext. (Part-D), Locations-1,2,10; BETS Ltd. for Locations-5,6. For ease of work, the task of Group-D was awarded to DDC Ltd., EPC Ltd., Gani Bangla Ltd. and Sheltech (pvt.) Ltd.

Group-A (North-East Part) covers three paurashavas including Tongi, Gazipur and Kaliganj together with surrounding rural settlements and flood Plain areas of Balu, Sitalakhya and Brahmaputra river. Group-B (South-East Part) covers Narayanganj Paurashava, Kadam Rasul Paurashava and its surrounding areas, Dhaka-Narayanganj-Demra (DND) Triangle flood protected areas including Siddhirganj Paurashava. Group-C (Central Part) is surrounded by the river Buriganga, Sitalakkhya, Balu, Turag and Tongi Khal. Dhaka City Corporation (DCC) jurisdiction area is within Group-C. Group-C covers important establishments of capital Dhaka like Bangladesh Secretariat, Motijheel, Kawran Bazar commercial areas, International Airport, Old Dhaka etc. Group-D (South-West Part) covers Keraniganj and Zinjira. Rest of the area of this Group is mainly Dhaleswari flood plain. Group-E (North-West Part) covers Savar Paurashava, Export Processing Zone (EPZ), Turag flood plain. Locations-9,11,16 covers the eastern fringe areas of Dhaka. Other locations are in the different parts of Dhaka.

DAP projects population for the year 2015 as 18.43 Million on the basis of data generated from the population census 2001, which was 10.24 Million. The overall Annual Growth Rate is considered as 4.29%. The stages of DAP preparation included geo-referencing of mauza maps, different types of surveys, consultation with stakeholders, draft plan preparation, public hearing and final plan preparation. Socio-economic survey, physical feature survey, topographic survey and landuse survey were done during the period of 2005-2006. The high tech digital GIS (Geographic Information System) data base was prepared for the very first time for Dhaka under the project. Quality checking of survey activities was done by Survey of Bangladesh (SOB). A series of consultation meeting was held with local government authorities (Wards & Paurashavas), Honorable Members of the Parliament of the RAJUK jurisdiction, concerned development agencies (RHD, LGED, WASA, WDB etc.), academics, professionals, socially concerned groups, study groups, business groups, etc.

Following this, draft final plan was prepared. As per section 74 of Town Improvement (TI) Act 1953, RAJUK carried out a two month long Public Hearing on the draft plan from October 3, 2008 to December 4, 2008. The Public Hearing was carried out through media coverage, press conference, web based publication and displaying of maps in RAJUK auditorium, PD (DAP) office and three other zonal offices of RAJUK. The comments given by general people and different

organizations were documented in the prescribed format and these were addressed. A national seminar was held with academics, different professionals, BAPA, BELA, REHAB. Round Table Conferences were held in three daily newspaper offices.

A Review Committee to review the Draft Final Plan submitted by the Consultants was formed by the Ministry of Housing and Public Works (MoHPW) with Prof. Dr. Jamilur Reza Chowdhury, Vice Chancellor, BRAC University as convener. In order to assist the Review Committee in the task, a 16 member Technical Working Group (TWG) was formed with members from Urban and Regional Planning Department of BUET, Urban and Regional Planning Department of JU, Bangladesh Institute of Planners (BIP), Institute of Architects, Bangladesh (IAB), Urban Study Group and RAJUK.

A series of consultation meetings was held with the Honorable Members of the Parliament of RAJUK jurisdiction area to apprise them of the draft final DAP and obtain their valuable suggestions and recommendations. Almost whole of August and half of September, 2009 were spent on this consultation.

Ministry of Housing and Public Works constituted a DAP Review Committee with Prof. Dr. Jamilur Reza Chowdhury, former Vice Chancellor, BRAC University as convener to verify the compliance status of the recommendations made by the previous Review Committee. The committee reviewed the status of the Draft DAP in view of the recommendations of the previous Review Committee in four separate meetings held on 16-03-2010, 25-03-2010, 01-04-2010 and 11-04-2010 in RAJUK Board Room. The committee ultimately made 36 point recommendations to be followed by the consultants. Following the recommendations, consultants prepared final plans (maps and reports) and submitted to RAJUK. After approval in the Technical Management Sub-Committee, Technical Management Committee, Steering Committee of DAP and RAJUK'S board, the final plan was submitted to Ministry of Housing and Public Works for final approval. Ministry of Housing and Public Works sent the final plan to Ministry of Law for vetting and placed it in the Cabinet. The cabinet approved final DAP. Finally, Ministry of Housing and Public Works notified gazette of DAP under the SRO No. 232-law/2010 on 22 June 2010. The Reports and the Maps of DAP has been published on the website of RAJUK (www.rajukdhaka.gov.bd).

Eng. Md. Nurul Huda
Chairman, RAJUK.

EXECUTIVE SUMMARY

The Final Report is the most important and comprehensive of all the reports submitted as per TOR. This report of Group-D describes about the development strategies, critical planning issues development plan proposals and implementation of the plans. It incorporates the survey results, findings of stakeholders' consultations, formulation of planning principles and standards, development activities and proposals of other development agencies, private sectors and NGOs and finally consideration of opinion of Professional Bodies and report on Public Hearing. It also includes the broad landuse plans and policies for existing and new urban areas. This report also considers continuing population pressure, incompatible land use and immense pressure on existing urban facilities and services to create an acceptable living condition needed for urgent intervention.

Group-D is located under SPZ-18 and its total area is 8065.08 acres where Keraniganj is the only partial Thana under this project area. It is bounded by the rivers Buriganga and Dhaleshwari. It is a part of the active delta of the Burhiganga-Dhaleshwari flood plain. It lies to the immediate western side of Dhaka city and is sharply demarcated by the Buriganga River.

The consultant has thoroughly examined the planning standards recommended in the recent Metropolitan Development Plans of Dhaka, Chittagong, Khulna and Rajshahi for different facilities like, educational institutions, open space/ park, neighbourhood/ community centre, health centre, market, graveyard etc and hierarchy of road network and suggested a suitable/ uniform standard for areas under Group-D.

Since the considerable lands of Gorup-D area are low lying and at present not suitable for urban development, about one third of the total land may be reserved for urban agriculture, one-third area for retention ponds and rest one third of the lands are proposed for urban development.

Some Private developers are developing some areas through earth filling in Group-D in flood flow areas including some existing khals and retention ponds without considering future drainage and water logging problems of the flood prone areas. It has been suggested to control and monitor the activities of the developers and guide them to develop the area in a planned manner indicated in the DMDP plan.

Chapter- 1

BACKGROUND

1.1 Introduction

The Final Report for Group-D is the fourth of a series of reports submitted under the Detail Area Plan (DAP). It has considered the existing development pattern, socio-economic condition and future development potentialities to construct the features of DAP. It incorporates the survey results, findings of stakeholders' consultations, formulation of planning principles and standards, development activities and proposals of other development agencies, private sectors and NGOs, integrated planning proposals, the broad land use plan and policies for existing and new urban areas.

1.2 Background

The major factor behind rapid urbanization in Bangladesh has been the rural-urban migration. This phenomenon was little known prior to the partition in 1947. The pace of urbanization slowly picked up speed and reached an unimaginable peak after the War of Independence. This unprecedented growth coupled with the unplanned growth of settlements made the preparation of new urban plan an imperative for fast growing towns. Plans were previously prepared for Dhaka and Chittagong by a British firm of Consultants in 1959. However, this plan though proved useful initially for the purpose of guided development of the cities was soon overtaken by events that could not be foreseen by anybody at the time of their preparation in the fifties of the last century. Dhaka became many times larger than the size visualized earlier and consequently the plans became superseded and useless as the instrument of development control. Necessity of preparation of an up-to-date urban plan became obvious even to the ordinary citizens. However, the bureaucratic red-tapism and a general lack of comprehension regarding plan preparation and implementation caused valuable time. Finally, in early 1990s, a new plan was prepared by RAJUK with the assistance of UNDP/UNCHS. Dhaka Metropolitan Development Plan (DMDP) was finally prepared during 1992-95.

The DMDP plan is based on modern concepts, which differ fundamentally from earlier practice of preparing end-state plans, which becomes out-dated in a dynamic growth situation. The DMDP is a three-tier plan package namely Structure Plan providing longer time guidance for growth of the cities followed by the Urban Area Plan with shorter time frame providing direction for implementation of the existing urban areas and their immediate surroundings exhibiting some development pressure. The Detailed Area Plan (DAP) is also based on actual survey and studies and covers individual parts of town where immediate intervention is needed.

The DMDP Consultants prepared the first two items in considerable details but did not prepare any DAP. Although initially the idea was to precede selectively taking the high-pressure zones first and then gradually taking up lesser priority zones, this strategy was adapted as Structure Plan accepts and recognizes the uncertainty of future and leaves more detailed problem for resolution nearer the time they occur. This is more applicable for areas where growth of population and economic development cannot be determined with any degree of precision. However, events in metro-Dhaka overlook this assumption and it is observed that in reality development has been initiated by private and individual developers in areas designated as low priority, flood flow zones and retention pond reserves. Naturally, it has become an imperative to prepare Detailed Area Plan for whole of metro-Dhaka and this bold decision by RAJUK may prove to be beneficial for the city in the long run.

The on-going project of preparation of Detailed Area Plans of five sites is grouped based on geographical location and settlement pattern seek to prepare detailed spatial plans. This is the culmination of the "three tier plans" (1995-2015) of Dhaka Metropolitan Area as was originally envisaged.

1.3 Purpose of the Detailed Area Plan

The Dhaka Metropolitan Development Plan indicates that until a Detailed Area Plan is prepared for a sub-area, land use management functions will be exercised through the policies, guidelines and principles found in the Structure Plan and Urban Area Plan. However, without DAP efficient land management would not be possible. Therefore, RAJUK has taken initiatives to accomplish the preparation of Detailed Area Plan (DAP) for the entire area under its jurisdiction, within stipulated time through engaging local competent consulting firms.

The project area is located under SPZ-18. The area consists of only a part of Keraniganj Thana (Northern part). The area has large-scale productive agricultural land and at present experiencing a tremendous centripetal force towards the city. Construction of second Buriganga Bridge, Dhaka-Mawa road and Dhaleshwari Bridge attracted the development, which needs immediate attention for sustainable environment, as these bridges will have great potentiality for promoting development in the sub-regional context as well. Detailed Area Plan, thus, introduced with the aim to shaping the infrastructural and economic developments in those areas in a sustainable manner. It was done considering the settlement patterns, urban activities, topography and sustainable environment, compatible land use indicated in the Structure Plan and Urban Area Plan as mixed use planned, mixed use spontaneous, hazardous industrial, flood flow, agriculture high value zone etc. would be reviewed for appropriate proposal. The DAP also have considered the safety and critical environmental issues like drainage, flood flow, retention pond, geological fault lines etc.

1.4 Objective of the Project

The main objective of Detailed Area Plan (DAP) is to implement the Structure Plan (SP) and Urban Area Plan (UAP) policies and recommendations providing a basic Urban Design of good quality functional aesthetic quality and flexibility.

1.4.1 General Objectives

The general objectives of the consultancy services for the preparation of Detailed Area Plan for RAJUK Structure Plan area envisages:

- Implement Structure Plan and Urban Area Plan policies
- Guide and control urban development in an orderly manner in preferred areas of urban expansion
- Create an urban environment enabling citizens enjoy the services that suit urban living.

1.4.2 Specific Objectives

- Implementation of Dhaka Metropolitan Development Plan 1995-2015
- Data Management and Dissemination
- Preparation of Multi-sector Investment Plan
- Ensuring Clarity and Security of Investment
- Providing Guideline for Development
- Ensuring Sustainable Environment

1.5 Custodian of the Detailed Area Plan

Section 73 (1) of the Town Improvement Act 1953 empowers RAJUK to prepare a Master Plan for the area within its jurisdiction indicating the manner in which it proposes that land should be used (whether by carrying out thereon of development or otherwise) and the stages by which any such development should be carried out. At present three-tier development plan in the form of Structure Plan, Urban Area Plan and Detailed Area Plans are prepared. DMDP has been published in the Official Gazette on August 4, 1997 (SRO N.1834-law/97) and has become a legal document for the

guidance of development of Dhaka. Rajdhani Unnayan Karttripakkha is the custodian of DMDP; as such, RAJUK is the custodian of the Detailed Area Plan prepared under it as well. As the custodian of all the three-tier of plans including the Detailed Area Plan prepared under the present project, RAJUK has the responsibility of development control of its jurisdiction area either by itself or with the co-operation of other agencies of the government responsible for carrying out development activities within RAJUK's jurisdiction.

1.6 Duration of the Detailed Area Plan (DAP) and Amendment Options

Usually a plan is prepared for a period of 20 to 25 years. DMDP has been prepared for 20 years carrying 1995-2015 periods. As such, the Detailed Area Plan prepared under this project extends to 2015. However, every plan requires periodic review and updating which is usually done every five years. The consultants propose that the plan should be reviewed at the end of 2015. At the same time, initiative should be taken for review and updating of the plan accordingly at the end of 2015, so that it can be extended for a further period of 10 years, i.e. 2025. Section 74 (2) of the Town Improvement Act empowers RAJUK to amend its plan from time to time. If development trend during this period 2015 to 2025 calls for the preparation of a fresh three tier development plan, RAJUK by dint of the authority conferred to it by Section 73 (1) of Town Improvement Act shall take initiative to prepare a new plan for its jurisdiction.

1.7 Format of Detailed Area Plan

The format of Detailed Area Plan consists of Explanatory Report and Integrated Planning Map.

1.7.1 The Explanatory Report

The Explanatory Report provides an account of the design process, demographic and socio-economic data, and sector wise thematic maps, information on higher level planning context and a description of the Integrated Planning Map. The Report contains maps on a scale that is appropriate to the information they carry and convenient for inclusion in a Report.

1.7.2 Format of Maps

The Integrated Planning Map shows different layers of information like the cadastral base, administrative boundaries, geo-physical features (contour line, water bodies), infrastructures and existing/proposed land use. Following are the description of required maps according to TOR for the Detailed Area Plan:

Table 1-1: Required Maps with Corresponding Scale

SI No.	Description	Scale
1	Base Map (Project area Map)	1:1980
2	Physical Feature Survey (Road+Structure Floor Heights)	1:1980
3	Physical Feature Survey (Road+Structure Type)	1:1980
4	Physical Feature Survey (Road+Structure Use)	1:1980
5	Land Use Survey Map	1:1980
6	Topographic Survey Map	1:1980
7	Utility Services (Thematic)	
	a) River/Khal/Drainage	1:1980
	b) Gas/Electricity/Water Supply	1:1980
8	Comprehensive Detailed Plan	1:3960
9	Comprehensive Detailed Plan	1:1980
10	Identified Projects in separate layers	1:1000

Source: Terms of Reference (TOR), DAP

The DAP consists of reports and maps in scale as appropriate for effective communication and interaction with supporting documents. The DAP has to consider continuing population pressure, incompatible land use and immense pressure on urban facilities and services creating an unacceptable living condition which needs urgent intervention. An important parallel objective of the Detailed Area Plan project is to prepare Urban Development Plan within the framework of a new planning process named, Detailed Planning Zone or DPZ; which are smaller than Spatial Planning Zone or SPZ. An SPZ is basically broad zone of different land uses, character and population density, showing main lines of communication, principal institutional uses and its homogeneity and other main functions. However, the size of the project area is in a manageable standard if it is being considered as a single unit. The area is not a built up in nature.

1.8 Description of the Planning Area

1.8.1 Administrative and Cadastral Boundaries

The area under Group-D of part C is broadly bounded from the north by the Group-D part E, from east Location-2 and 3, from south by Group-D part A. The project area is located under SPZ-18 and its total area is 8065.08 acres where Keraniganj is the only partial Thana under this project area. It is bounded by the rivers Buriganga and Dhaleshwari. It is a part of the active delta of the Burhiganga-Dhaleshwari flood plain. It lies to the immediate western side of Dhaka city and can be sharply demarcated by the Buriganga River (Detail Mouza List are shown in **Annexure-I**). Location of Group-D (Extension of Group-C) area is shown in **Map 1-1** and administrative boundary is shown in **Map 1-2**.

1.8.2 Geo-physical Profile

a. Geology and Soil

Group-D area is low lying and a part of flood plain of the Dhaleshshari River. It seems that the geo-physical condition of the area may not be favourable for vertical expansion.

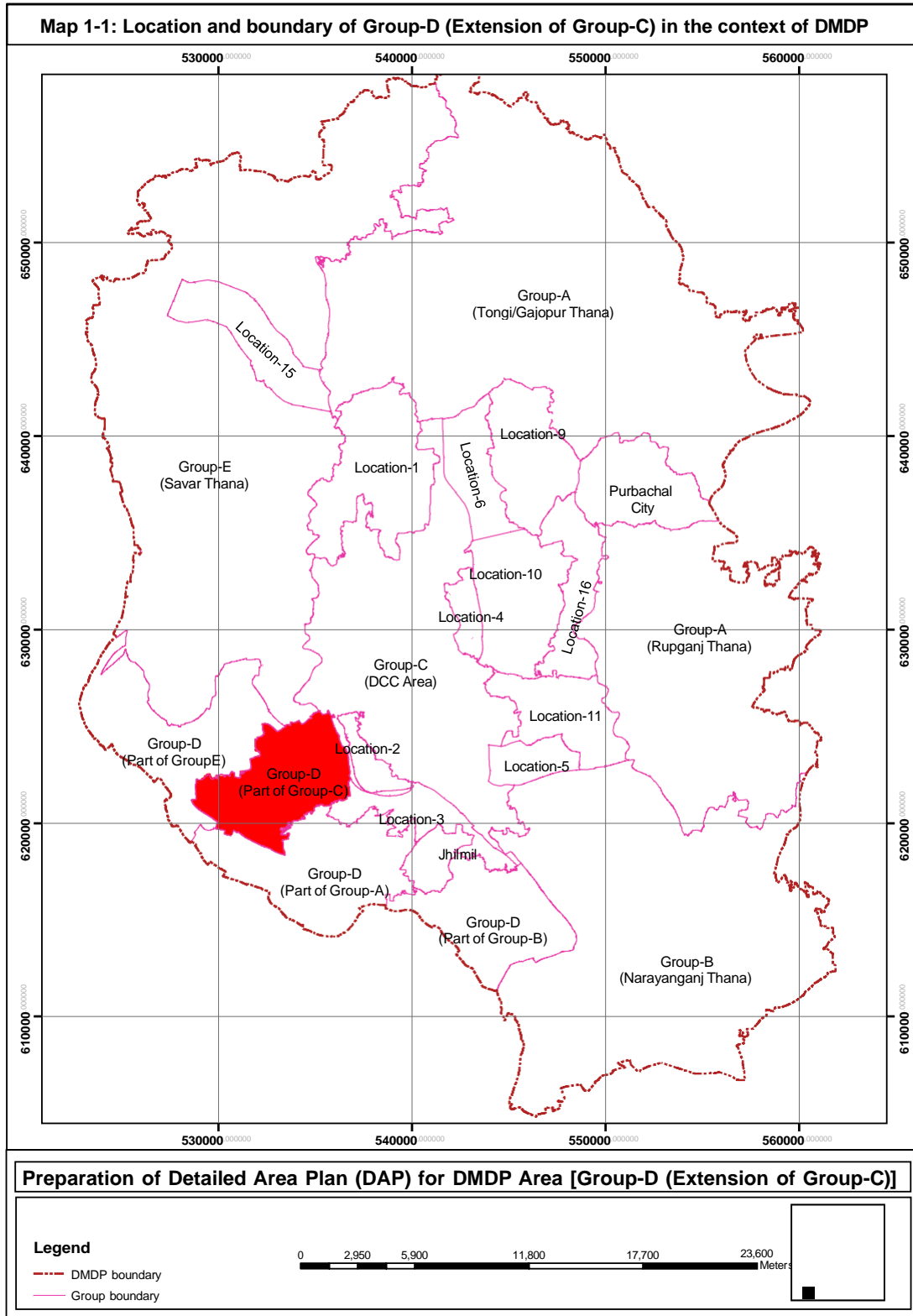
The project area is covered with Pleistocene Madhupur clay and Holocene sediments belonging to the Ganges-Brahmaputra flood plain. The area is covered with recent flood plain deposits.

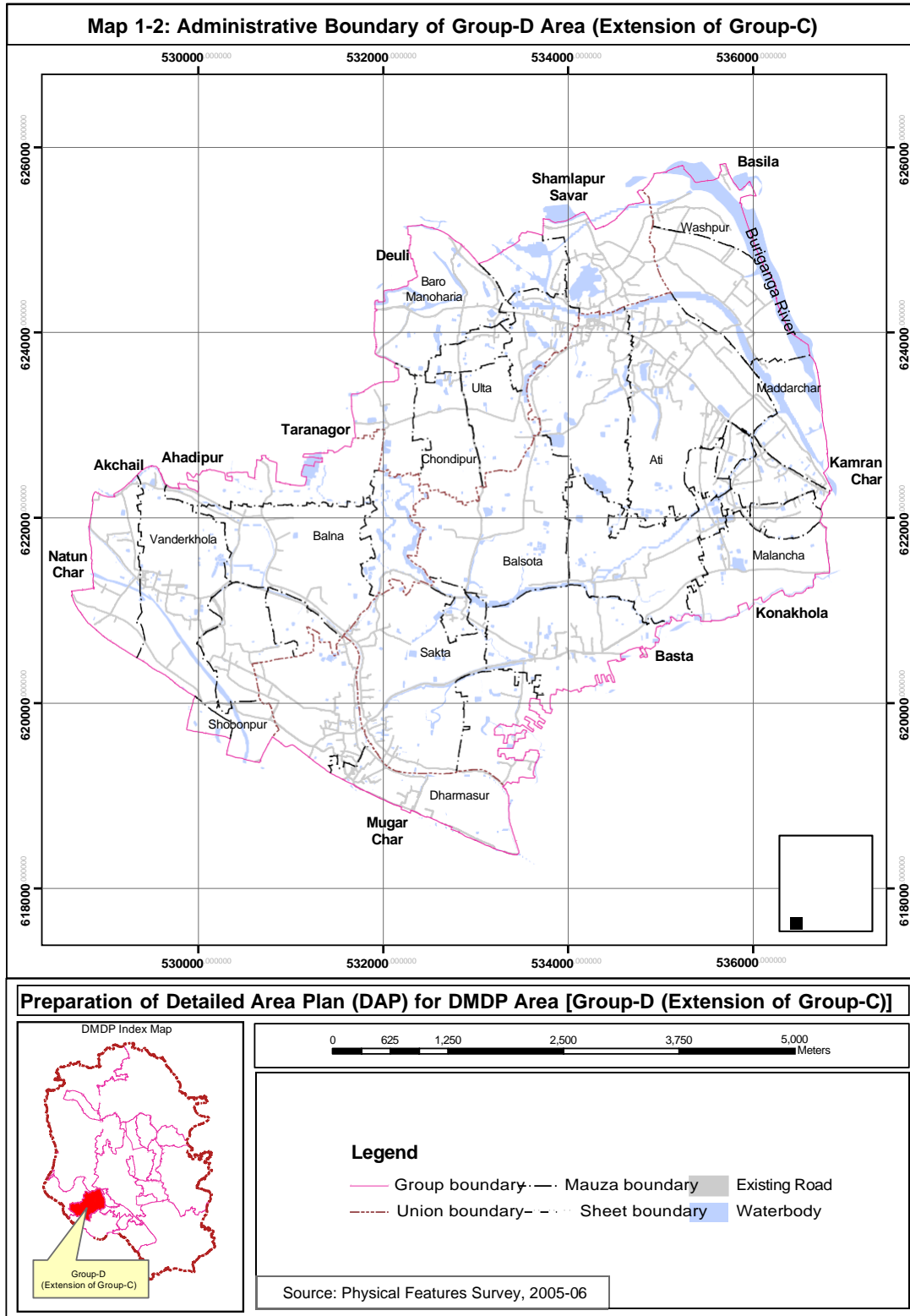
On the basis of geomorphological expression and sediment characteristics, the area has been divided into nine geological units having deposits of the following:

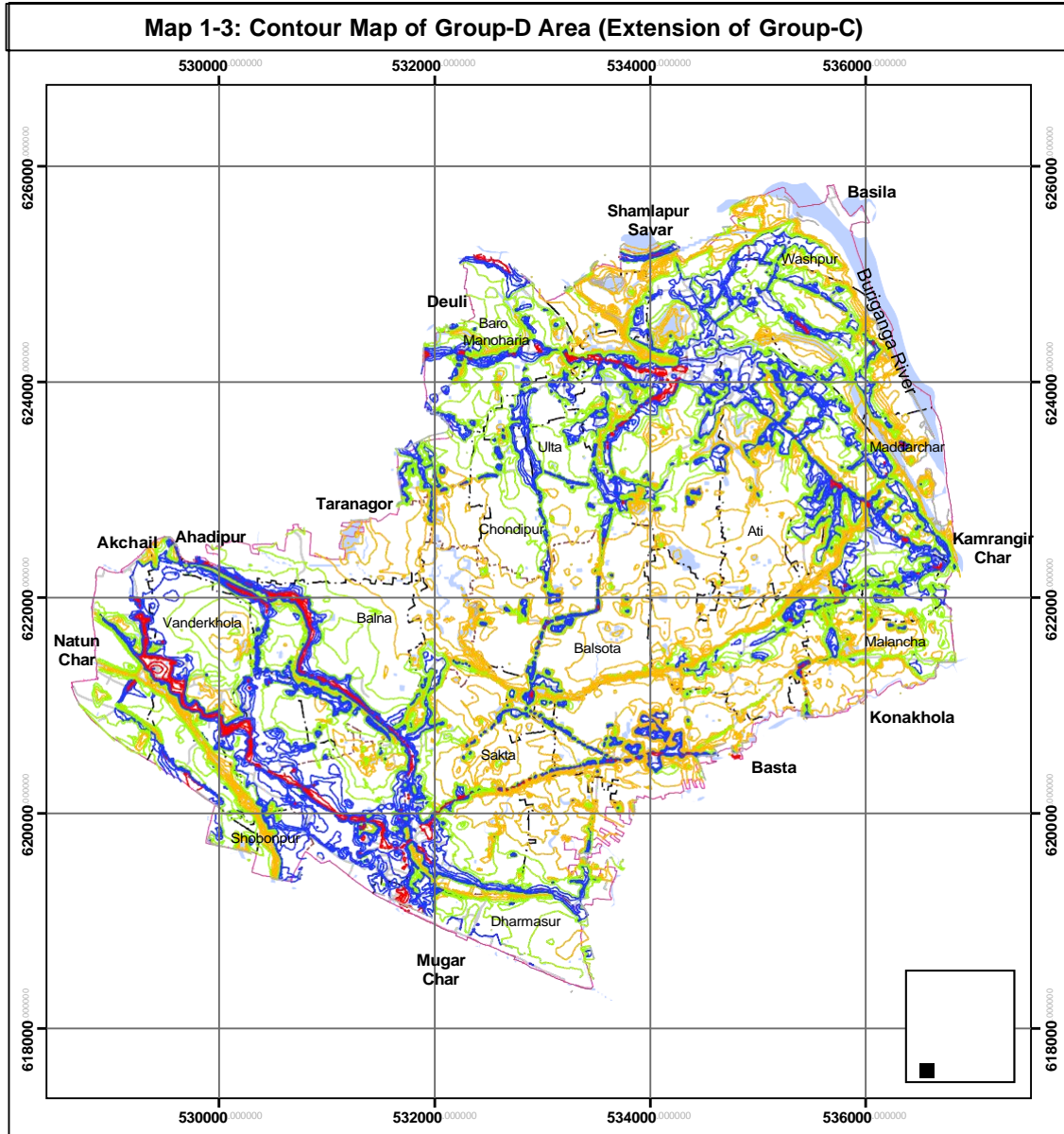
1. Sand bar/ point bar
2. Active natural levee
3. Flood plain
4. Depression
5. Abandoned channel
6. Gully fill
7. High flood plain
8. Old natural levee
9. Madhupur clay

b. Topography

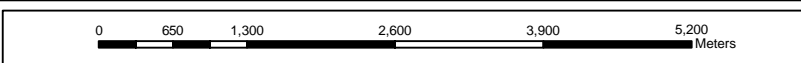
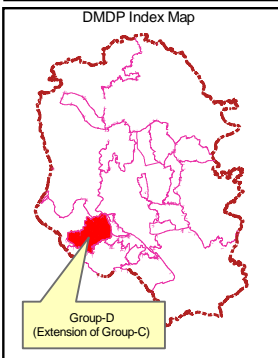
Average elevation of the area is 4.014 m. from the mean sea level. According to the survey data most of the project area has an elevation of -0.80 m. to 9.542 m. The highest elevation is seen in Taranagar Union at Bara Joynagar Mouza (9.54 m.). Lowest elevation in the project area is also found in Total Mouza of Taranagar Union whose elevation is less than 0.1 m. from the mean sea level. The Contour lines of project area are shown in **Map 1-3**.







Preparation of Detailed Area Plan (DAP) for DMDP Area [Group-D (Extension of Group-C)]



Legend			
	Group boundary		Existing Road
	Union boundary		Waterbody
	Mauza boundary		Contour (M-PWD) 3.501 - 4.500
	Sheet boundary		1.501 - 3.500
			4.501 - 6.000
			6.001 - 9.500
			0.000 - 1.500

Source: Topographic Survey, 2005-06

