Development Plan for Shibchar Upazila, Madaripur

Presented By:

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Project Area

Shibchar
Madaripur
District

Urban Area	
(sqkm)	8.75
Rural Area	
(sqkm)	313.13

1. Inception Phase

2. Survey Phase

3. Planning Phase

Activities Performed

Task	Date of Performance	Activity Performed	Remark
	INCEPTION PHASE		
1. Mobilisation and Reconnaissance Survey	9June-12 June 2015	 Collection of Relevant documents Collection of Mouza maps Setting up of Site Project Office Initial Joint Consultation meeting with Upazila admin, Public Representatives and Cross section of People 	
Second Round of Public Consultation Meetings	August-November 2015	No. of Uthan Boithak- 3 No. of Tea Stall Meeting-4 No. of FGD- 7	
3. Publication of Project Leaflet	August 2015	Introducing the Project- objectives, Types of plans , the process of planning.	
4. Mobilisation	June –July 2015	Mobililsation of Consultants and Logistics	

Focus Group Discussion and Tea Stall Meetings

	No. of FGD	7
Shibchar	Date	11/08/2015 to 13/08/2015
	No. of Participants	12 to 24 persons
	No. of Tea Stall Meetings	4
Shibchar	Date	12/08/2015 to 13/08/2015
	No. of Participants	24 to 44 persons
Shibchar	No. of Courtyard	4
	Date	12/08/2015 to 13/08/2015
	No. of Participants	24 to 44 persons

Focus Group Discussion and Tea Stall Meetings





Tea Stall Meetings

Conducting Mobilization and Reconnaissance Survey



Consultation Meeting with Paurashava Engineer



Consultation Meeting with Upazila Vice Chairman, Assistant Commissioner (Land) and other Officials



Consultation Meeting with Local People



Unplanned Transport Arrangement



Transport Gathering in Unplanned Manner



At Upazila Health Complex

Summary of ACTIVITIES PERFORMED

Task	Date of Performa	nce Activity Performed	Remark
	SURVEY PHASE		
1. Conducting of PRA	December 2015- February 2016	 Conducted Social Mapping Identified Problems and Potential using Venn Diagram Prioritized Execution of Identified Projects using ToP Chart Method 	 Shibchar: 19 Union Parishads and 9 Poura Wards Av. No. of Participants- 24-30 Participants: Cross section of People
2. Field Survey and Data Collection	July 2016- December 2016	 Upazila Level Socio- economic Sample Survey Geological Survey Traffic and Transportation Survey 	1. Socio-economic survey:Shibchar: 1100 households2. Transportation Survey:Shibchar: 919
3. Study		 Formal and Informal Economic Activity Study Agriculture Sector Assessment Report 	1. Agricultural Survey: Shibchar: 450

Summary of ACTIVITIES PERFORMED

Task	Date of Performance	Activity Performed	Remark
	SURVEY PHASE		
4. Establishment of BM Pillar	Nawabganj -Jan 2016 Dohar- June 2016 Shibchar- Sept.2016	Construction and setting up of BM Pillars with data inscription	1. Shibchar- 18
5. Mauza Map Digitization and Processing	July – October 2016	 Digitization of maps Edge matching Georeferencing 	Collection of Mauza Sheets 1. Shibchar- 194
6. Satellite Image	December 2016	 Procured 3D Satellite Imagery 	

rectification

features

Procurement and

7. Physical Feature

January, 2017

Processing

Survey

Collected GCPs and done

verification and mapping of

Physical Feature Survey,

3. Vulnerability assessment

2. Land use survey

1. Shibchar- 321.88 sq km

Extracted data for field

Socio-Economic Survey

- Study on recreational open spaces
- Study on Health Facilities







GCP SURVEY

Upazila Shibchar Number

18

Date

05-09-16

Geological Survey Activities

	Borehole	24
Shibchar	PS Logging	3
	MASW	5

Geological Survey







Downhole Seismic Test data logger

Wooden Plank as the Vibration Source

Geophone Lowering In the Borehole







Data Acquisition Unit

Direction of Excitations

Geophone Installation into the Borehole

Agricultural Study

Shibchar (450 samples)



Discussion Meeting with Field Officials of DAE Shibchar

Establishment of BM Pillar

OF BM PILLARS

Shibchar 18





Traffic and Transportation Survey (Shibchar)

france and fransponation survey (shibchar)		
Types of Survey	Sample Size/Locations	Name of the Spot
nodes (14 links at nodes) and one road		Shadhinota Chattor Pancchar bazar Chander char bazar Munshi Kadirpur bazar
Road Segments Survey: 4 Roads	Baily bridge road (Shibchar-Kathalbaria) Saheber hat (Shibchar-Madaripur) Shadhinota Chattor (Towards Paurashava; Shibchar-Pancchar) Dattapara Toll Plaza (Vanga-Kawrakandi)	
O-D Survey	200 Samples at four nodes	Pancchar Bazar Shakpur Hat (Bash kandi Union) Chander Char Bazar Borhanganj College Mor
Bus Passenger Survey	40 samples at two locations	Pancchar Bazar Jailkhanar Mor
Pedestrian Survey	40 samples at two locations	Ekattor Road Shibchar Bus/Tempo Stand
Regional Transportation System	4 locations	Pancchar Bazar Shakpur Hat (Bash kandi Union) Chander Char Bazar Borhanganj College Mor

Traffic and Transportation Survey



Formal-Informal Economy

- Formal Sector
 - Ten hats-bazar have been studied
 - Twenty Bank-Insurance (10 Bank and 10 Insurance Companies)
 - Ten NGO's and Ten CBO's
 - Ten Industries
- Informal Sector
 - Sample surveys were conducted-
 - ✓ Household level and
 - ✓ Business unit level in trading centers with two separate sets of questionnaires.
 - The household surveys were designed to collect information on
 - ✓ Employees
 - ✓ Type and nature of employment
 - ✓ Income level etc.
 - Business unit level survey was conducted to collect information on
 - ✓ Investment
 - ✓ Production
 - ✓ Products for local consumption and
 - ✓ Export
 - 10 Traders/Sellers were interviewed also

Formal-Informal Economy



Formal Economic Survey

Formal-Informal Economy



Informal Economic Survey

Consultation with Stakeholders based PRA

> Shibchar

- -No. of PRA in Unions 19
- -No. of Participants 702
- -No. of PRA in Wards 9
- → No. of Participants 292

Consultation with Stakeholders based PRA













Consultation with Stakeholders based PRA













Conducting Physical Features Survey



Vulnerability Assessment



Field Checking & Supervision



Digitization



Workshop at Shibchar Upazila





Development Fair 2018





Meeting with Honorable MP





Consultation with Different officials









Consultation with Different officials















Field Visit







Field Visit



Field Visit

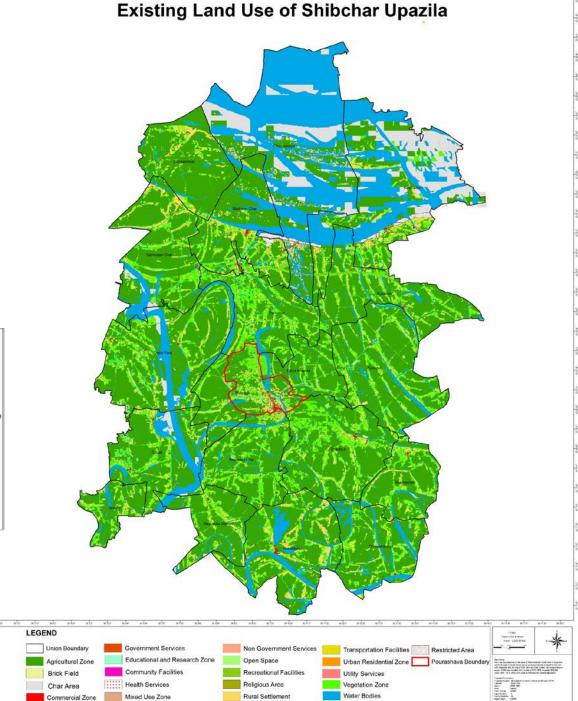




THEMATIC MAPS

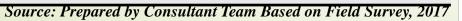
Existing Landuse Map

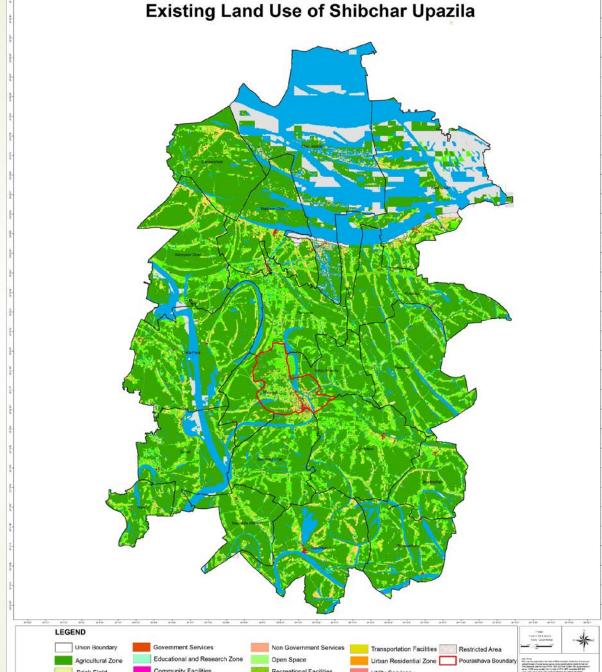




Existing Landuse Map

	Land use Category	Existing Land use		
SI. No.		Area (acre)	%	
1	Agriculture Zone	41942.65	51.434	
2	Brick Field	54.34	0.067	
3	Char	4243.65	5.204	
4	Commercial Zone	187.46	0.230	
5	Community Facilities	0.44	0.001	
6	Education and Research Zone	66.01	0.081	
7	Government Services	15.68	0.019	
8	Health Services	2.28	0.003	
9	Mixed Use Zone	16.50	0.020	
10	Non-Government Services	0.54	0.001	
11	Open Space	133.60	0.164	
12	Recreational Facilities	0.56	0.001	
13	Religious Area	62.20	0.076	
14	Residential Area	6178.59	7.577	
15	Transportation Facilities	628.15	0.770	
16	Vegetation Zone	11889.42	14.580	
17	Water Body	16124.01	19.773	
	Total Area (In Acres)	81546.08 v Consultant Team Based	100	





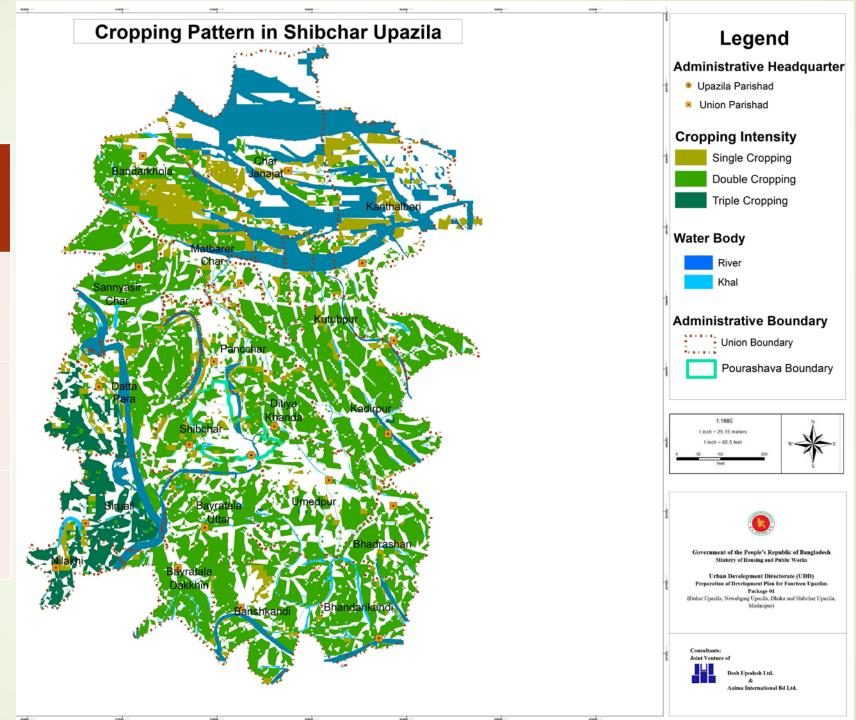
Religious Area

Vegetation Zone

Water Bodies

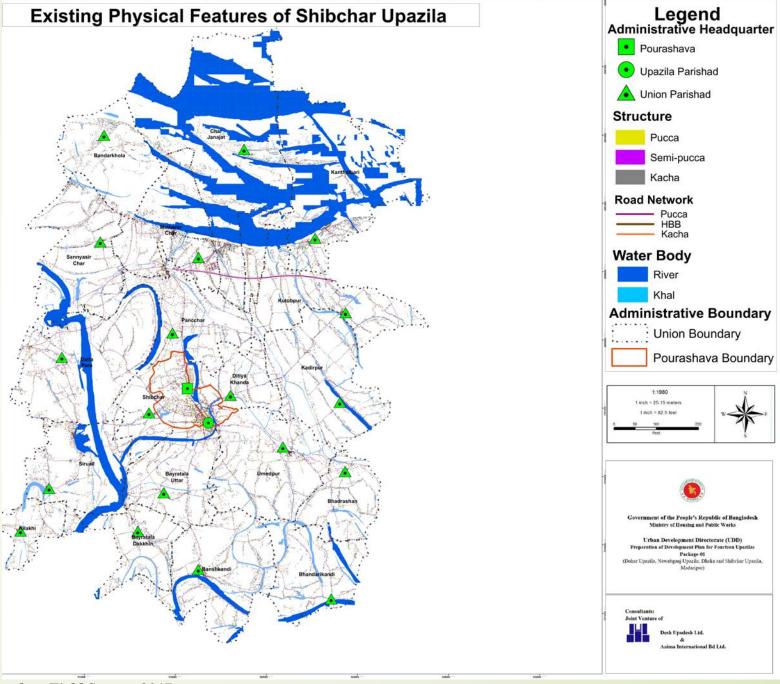
Cropping Intensity Map

Cropping Pattern	Area in sqkm	Area in acre	%
Single Cropping	34.47	8518.4	21.5
Double Cropping	124.65	30800.1	77.7
Triple Cropping	1.23	304.02	0.77



Existing Structural Information

Structure Type	Number
Katcha	66749
Pucca	3513
Semi-pucca	4126
Total	74388
Structure Use	Number
Commercial Activities	3887
Community Facilities	9
Educational & Research	428
Government Services	62
Health Facilities	28
Recreational Facilities	5
Miscellaneous	1
Mixed Use	6
Non-Government Service	7
Religious	679
Residential Area	69240
Transportation &	1
Communication	1
Total	74353
Multi-storied Structure	1051
Apparently Risky	107
Structure	126



Existing Educational Facilities

Educational Facilities	No. of Facilities
Primary School + KG	138+33
High School	29
College	5
Madrasa	88

Legend Administrative Headquarter



Upazila Parishad

Union Parishad

Educational Institute

- College
- High School
- Primary School
- Madrasa

Road Network

Pucca **HBB** Kacha

Water Body



River

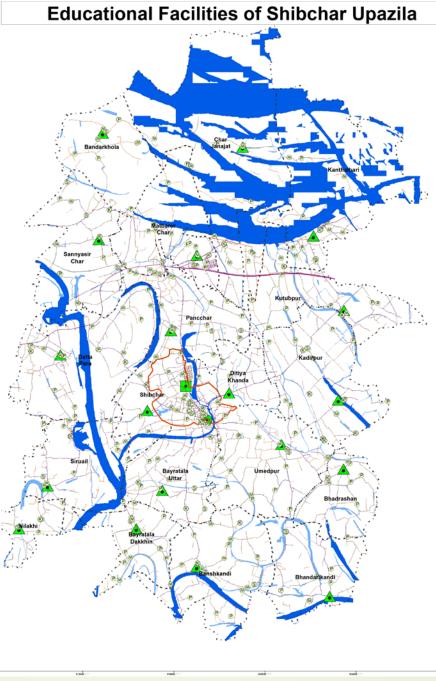


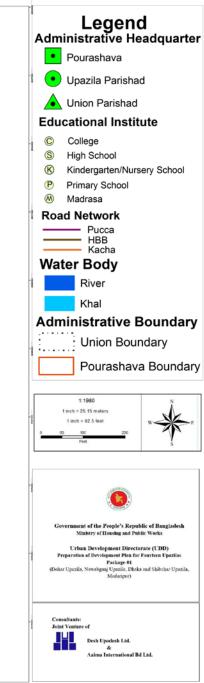
Khal

Kindergarten/Nursery School Administrative Boundary

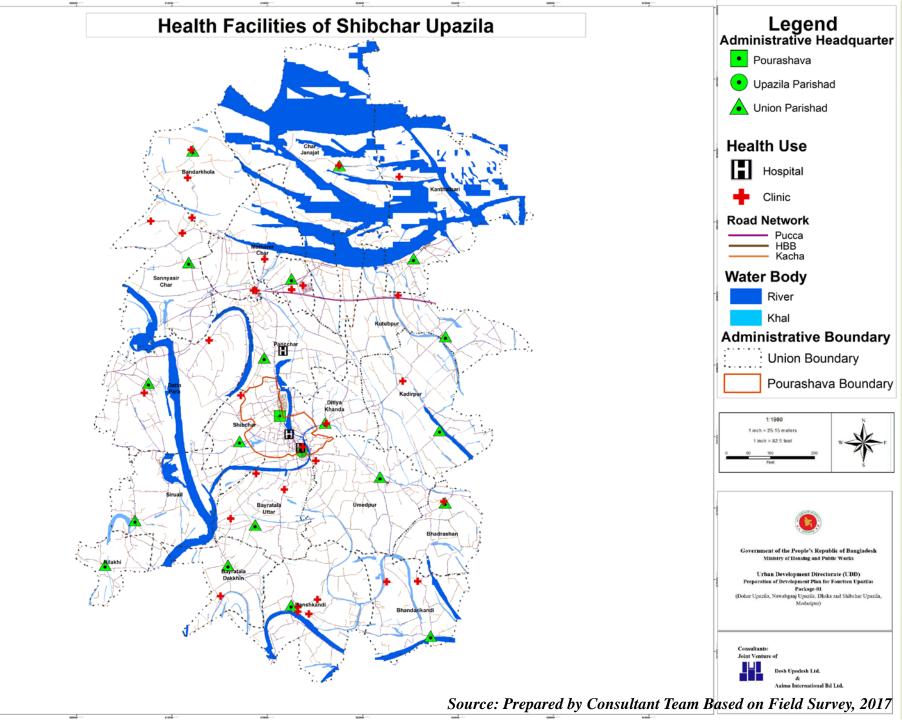
Union Boundary

Pourashava Boundary



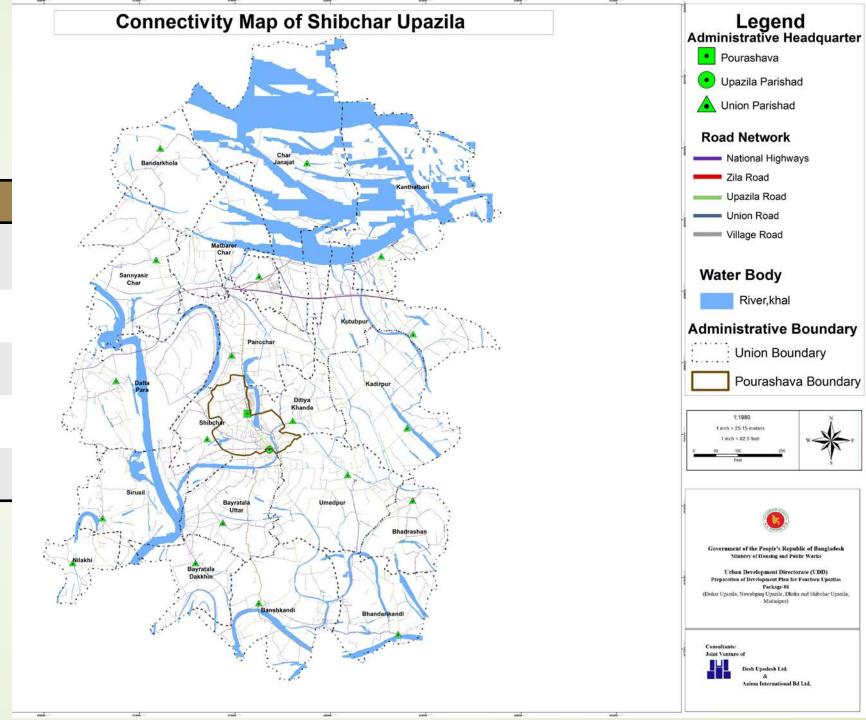


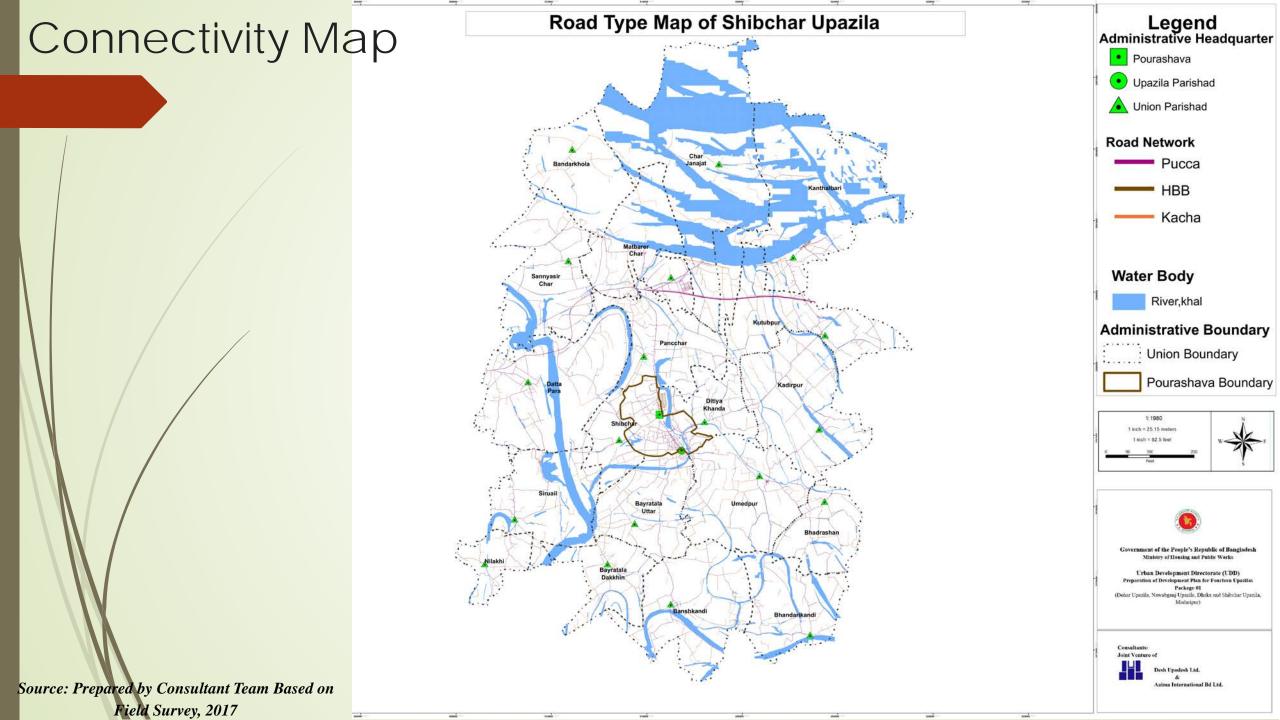
Existing Health Facilities No. of Health **Facilities Facilities** Clinic 10 Hospital

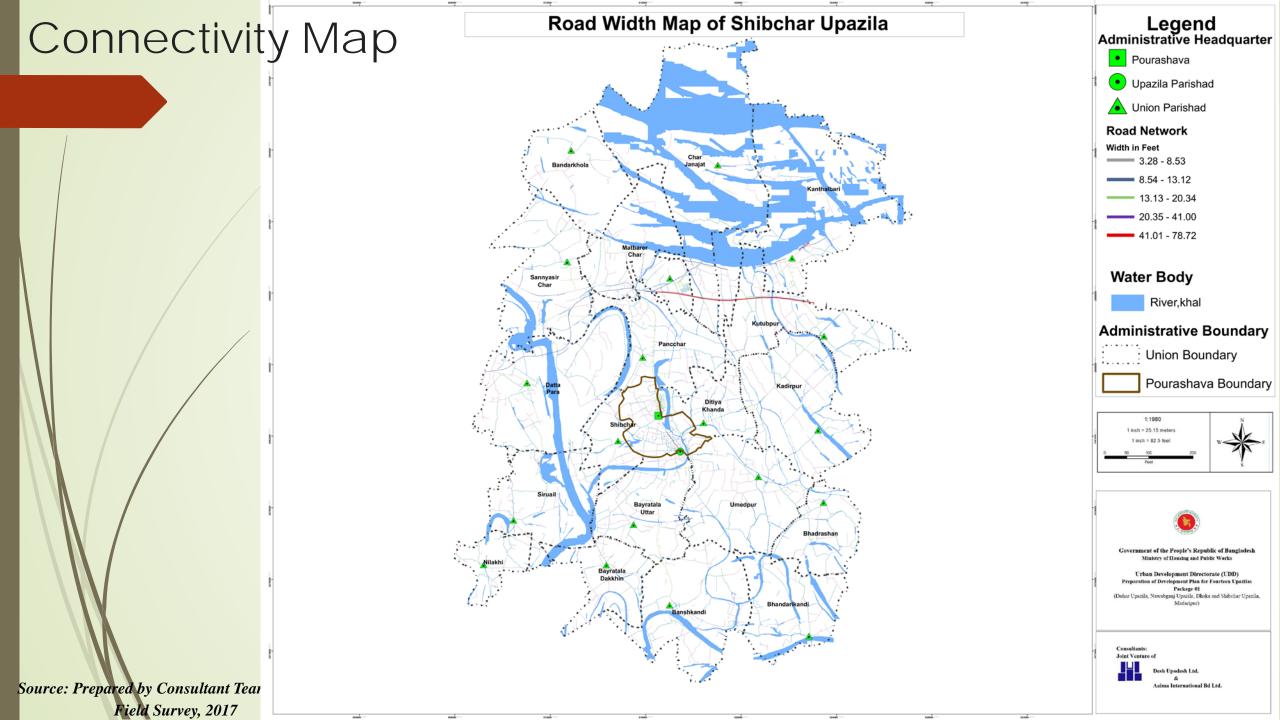


Connectivity Map

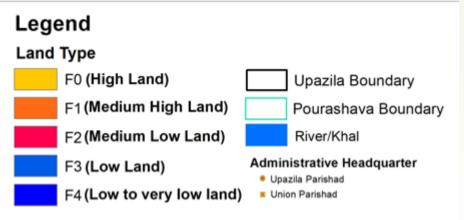
Road CategoryLength (Km)National
Highway22.22Zila Road23.3Upazila Road110.76Union Road140.11Village Road493.46



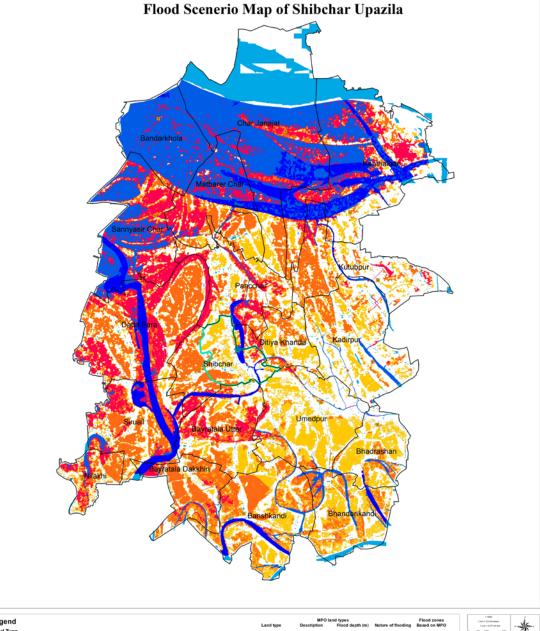




Flood Scenario Map



Different Flooding Scenario				
Flooded Land Category	Water Height (m)	Area in acre	%	Remarks
1st Degree Flooded area (F0)	0-0.3	10404.88	19.81	
2nd Degree Flooded area (F1)	0.3-0.9	16510.43	31.44	
3rd Degree Flooded area (F2)	0.9-1.8	7826.8	14.90	
4th Degree Flooded area (F3)	1.8-3.6	81.56	0.16	Sub Flood Flow Zone
5th Degree Flooded area (F4)	>3.6	17691.02	33.69	Main Flood Flow Zone
Total		52514.7		



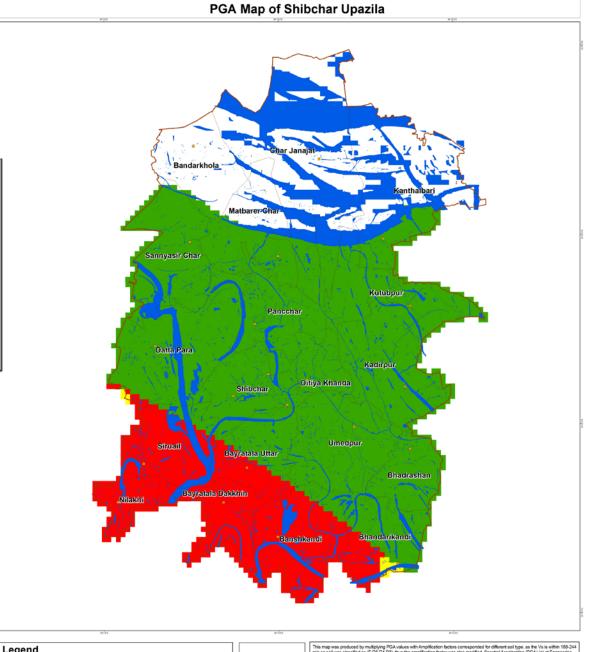




PGA Map

PGA River/Khal Upazila Boundary Union Boundary Administrative Headquarter • Upazila Parishad Union Parishad To Degree Earthquake Sensitive 3rd Degree Earthquake Sensitive

Earthquake Sensitivity	Area in acre	Percentage (%)
1st Degree Sensitive	15101.4	23.88
2nd Degree Sensitive	240.4	0.38
3rd degree Sensitive	47897	75.74







This map was produced by multipling PGA values with Amplification battors corresponded for different coil type, as the Vis is within 168-244 mile so not was classified as IE.05.04.00, the site emplification factor was also modified. Spectral Acceleration (PGA) (g) at Engineering Ground Surface (Depth upto 30) corresponding to probability of exceedance of 10% in 30 year was count for each grid.

Amplification function of PGA

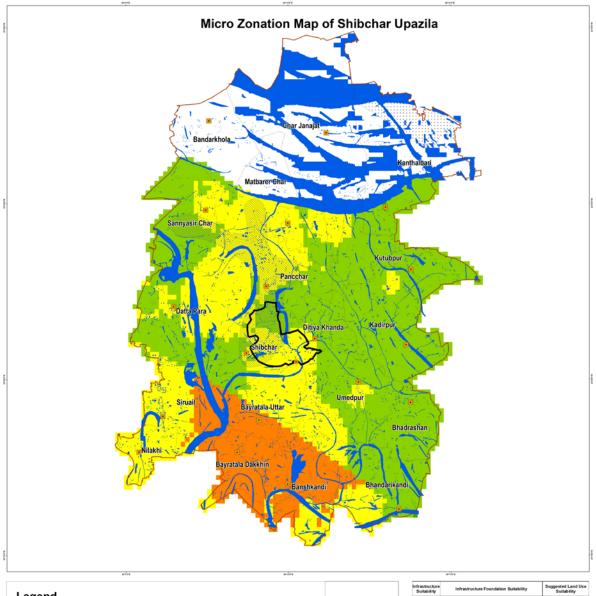
Amplification function of PGA

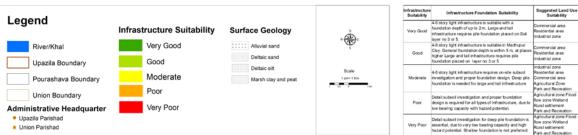
Individual Amplification function of PGA

**Individual A

Microzonation Map

Infrastructure Suitability	Subsurface Sediments		Suggested land use suitability
Very Good	Tipam Sandstone (Neogene), Dupi Tila	suitable with a foundation depth of up	Commercial area Residential area Industrial zone
	and Pliocene),	requires pile foundation placed on Soil layer no 4.	industrial zone
Good	Dihing and Dupi Tila Formations undivided		Commercial area Residential area Industrial zone
Moderate	Dihing Formation (Pleistocene and Pliocene)	on-site subsoil investigation and proper foundation design. Deep pile foundation is needed for large and tail infrastructure	Industrial zone Residential area Commercial area Agricultural Zone Park and Recreation
Poor	Girujan Clay (Pleistocene and Neogene)	proper foundation design is required for all types of infrastructure, due to low bearing capacity with hazard potential.	Agricultural zone Flood flow zone Wetland Rural settlement Park and Recreation
Very Poor	Valley alluvium and colluviums. Mainly silty clay, with alternate layers of Organic clay and peat. Thickness is more than 10 m. In low floodplain areas less organic layers can be expected.	pile foundation is essential, due to very low bearing capacity and high hazard potential. Shallow foundation is not preferred.	Agricultural zone Flood flow zone Wetland Rural settlement Park and Recreation



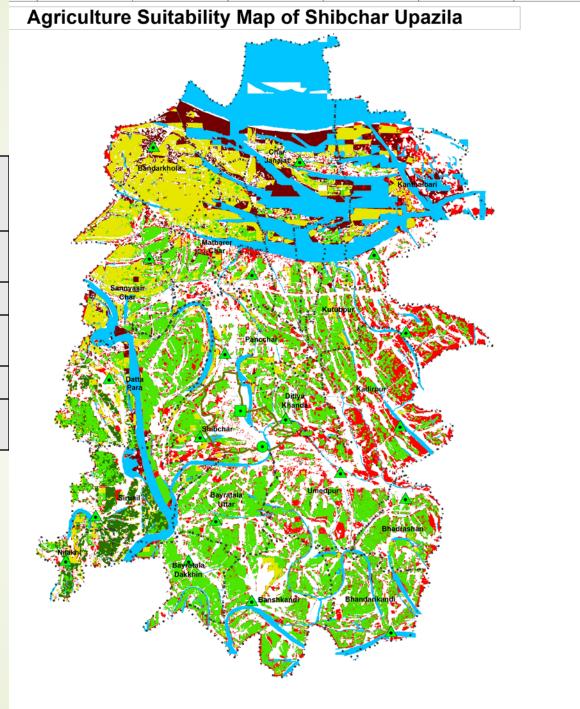


SUITABILITY MAPS

Agricultural Suitability

Cuit obility	Aroo(Aoro)	0/
Suitability	Area(Acre)	%
Very Good	1582.64	3.90
Good	18153.4	44.76
Moderate	8122.4	20.03
Poor	9018.04	22.23
Very Poor	3682.64	9.08

Source: Prepared by Consultant Team Based on Field Survey, 2017



Legend

Administrative Headquarter

Very Good Good Moderate Poor Very Poor Others

PourashavaUpazila ParishadUnion Parishad

Suitability

Water Body

Joint Venture of

River/Khal

Administrative Boundary

Union Boundary

Pourashava Boundary

Government of the People's Republic of Bangladesh Ministry of Housing and Public Works Urban Development Directorate (UDD) Preparation of Development Plan for Fourteen Upzulias Package-01 (Dobar Upzulia, Nawabgan) (Doubli, Dobla and Shibchar Upzulia,

Aaima International Bd Ltd.