

# GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH MINISTRY OF LOCAL GOVERNMENT, RURAL DEVELOPMENT AND CO-OPERATIVES Local Government Engineering Department (LGED)

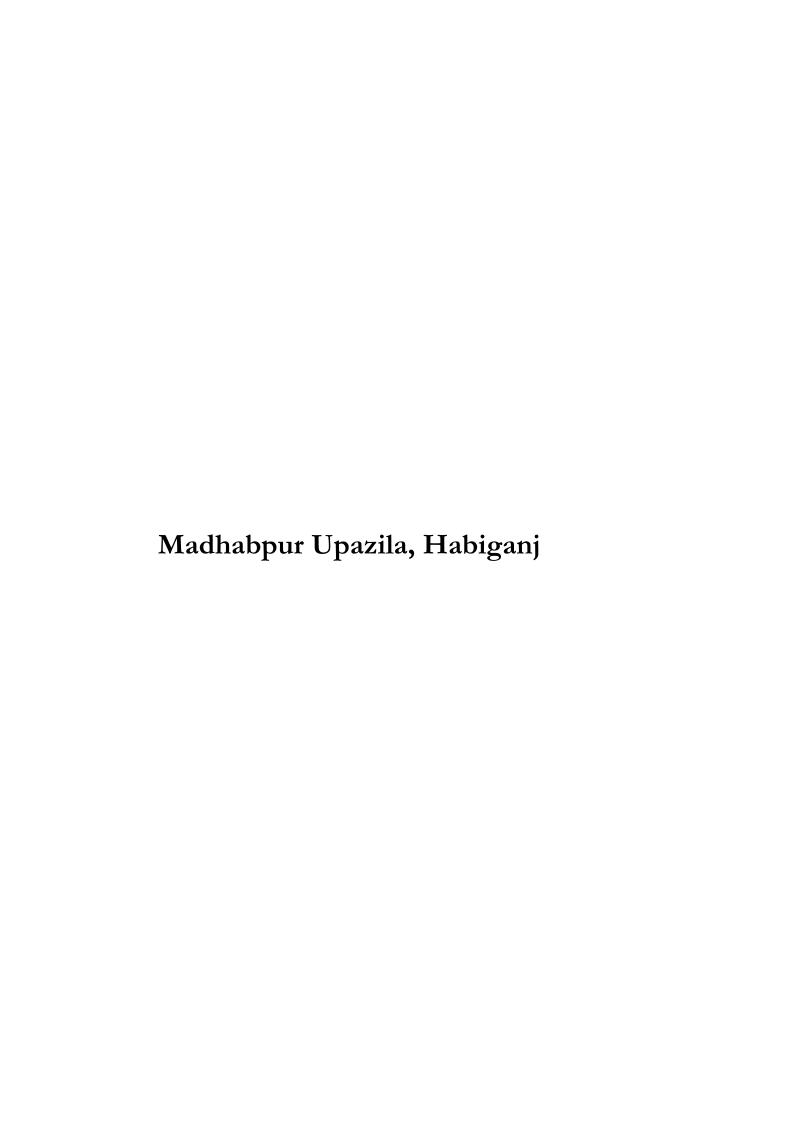
Agargaon, Sher-E-Bangla Nagar, Dhaka-1207

## Final Report on Study-03 'My Village -My Town' Technical Assistance Project

"Feasibility Study for Rural Connectivity including Multi-Modal Transport System in Char and Haor Areas"

## Madhabpur Upazila, Habiganj





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#### **GLOSSARY**

- **Hard-to-reach Villages** mean in the Study those villages that are not connected by any paved road with the respective Upazila HQ and/or Union Parishad, and to the nearest economic activity hub and social service centres. The following explanations are important for the concept of hard-to-reach villages.
  - In haor areas, Villages connected with submersible roads dry season and connected with Riverine/haor routes in the monsoon season have been considered accessible and excluded from hard-to-reach villages.
  - Within Upazila, Villages that need a bridge to connect have not been considered hard-to-reach villages.
  - In the case of island Upazilas, villages that are accessible with paved roads from Upazila HQ have been considered accessible and excluded from hard-to-reach villages.
  - ➤ In the case of villages that are connected with HBB (Herring-Bone-Bond) or Brick flat soling routes have been considered hard-to-reach villages

Mauza is normally the geographical expression of a unit of landmass for revenue settlement and revenue collection, whereas, the village is a human settlement within a Mauza with a strong social bond. Within a Mauza there could be more than one village.

Union Bangladesh has 3-tiers local government systems: District, Upazila, and Union.
Union is the lowest level of local government below Upazila Parishad

**Upazila** Sub-district; the third level of government administration below division and district.

**Hat** Synonym of Bazar or market

Walking Trail means in the Study the village pathway or access used for walking by commuters, in most cases does not have gazetted or established or commonly used alignment, and to the most, passable by bicycle or motorbike. These village trails are not passable by motorized jeeps or mini trucks or emergency service vehicles or not even any three-wheelers.

**Unpaved Roads** have no pavement or surface material. They are usually earthen roads.

**Vulnerability** is the human dimension of risk that is defined as conditions determined by physical, social, economic, environmental, political, cultural, and institutional factors or processes that increase the likelihood of an individual or a community to the impacts of shocks and hazards.

**Climate-Resilience** is expressed as the ability of a community to resist, absorb, adapt to and recover better from the impacts of disasters like floods and landslides in a sustainable way.

## **ABBREVIATIONS**

ADB – Asian Development Bank

BBS – Bangladesh Bureau of Statistics

BC – Bitumen Carpeting

DatEx — Data Expert (Pvt.) Limited

DECL – Delight Engineers and Construction Ltd.

DoE – Department of Environment

DPHE - Department of Public Health Engineering

DPP – Development Project Proposal

FGD - Focus Group Discussion

GIS — Geographic Information System

GOB – Government of Bangladesh

HBB - Herring-Bone-Bond

HQ – Headquarter

HTRV - Hard-to-Reach Village

JV – Joint Venture

KII – Key Informant Interview

LGD – Local Government Division

LGED - Local Government Engineering Department

LGI – Local Government Institute

MVMT - My Village My Town

NGO – Non-Government Organization

PD - Project Director

PMO – Project Management Office

RCC – Reinforced Concrete

RHD – Roads & Highways Department

SDGs – Sustainable Development Goals

TA – Technical Assistance Project

UE – Upazila Engineer

UNDP – United Nations Development Programme

UNO – Upazila Nirbahi Officer

UNR - Union Road

UP – Union Parishad

UPZ – Upazila Road

VRA – Village Road A

VRB – Village Road B

#### **BACKGROUND**

#### **Context of the Project**

The Government of Bangladesh made massive plans to ensure equitable development around the country. Under this development philosophy, the GoB requirements are to reduce the rural-urban divide to foster developmental benefits for all citizens. As part of this, the government declared an election manifesto on the eve of the national parliament election 2018 uniting the theme **Bangladesh on the March Towards Prosperity** aiming at transforming Bangladesh into a developed nation by 2041. Under this, villages have been considered the basic unit of prosperity for building a developed nation.

This firm commitment was declared following the light of the philosophy of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman to build 'Sonar Bangla' (Golden Bangla) through inclusiveness, balanced, and development for all.

Following the philosophy of the Father of the Nation, the government declared its election manifesto 2018 titled 'My Village-My Town'- Extension of Modern Civic Amenities in Every village. The Local Government Division under the Ministry of Local Government, Rural Development and Cooperatives has prepared a comprehensive work plan to make this election commitment a reality. The Local Government Division with its two agencies, the Local Government Engineering Department (LGED) and Department of Public Health Engineering (DPHE) has undertaken a technical assistance project named 'My Village-My Town'-Technical Assistance Project. Under this project, 36 studies and 30 guidelines are being developed on eight thematic components related to the mandate of the Local Government Division. The eight thematic components are Rural Communications, Growth Centre and Hat Bazar, Rural Water Supply and Sanitation, Rural Waste Management, Community Space and Recreation Facilities, Upazila Masterplan, Rural Housing and Capacity building of Upazila and Union Parishad. Besides this, a coordination framework is being developed among the other ministries involved in the implementation of the My Village-My Town election manifesto. It is notable to mention that a coordination committee has been formed comprising 21 ministries to implement the program in a coordinated way under the leadership of the Minster of Local Government, Rural Development, and Co-operatives.

#### **Context of the Report**

This report is a part of the study of the component 'Rural Connectivity'. Rural connectivity is the basic of all amenities in the villages. Rural connectivity works as the conduit that can supply a number of bare necessities such as access to the market, health, education, employment etc. In general, Bangladesh has remarkable progress in rural connectivity. Instead of this, a number of regions of the country are geographically sensitive where rural connectivity is not easy and has a lot of challenges. These regions are -Haor, Beel, Hills, Chars, islands etc. The people residing in these regions have considerably low access to civic amenities compared to other villages of the country. Therefore, the study and plan development of improvement of rural connectivity is one of the important assignments of the technical assistance project. The project undertook an Upazila-based special study on the villages of these geographically sensitive regions that are mentioned before.

This report contains the rural connectivity status and priority plan of the **Madhabpur** Upazila of **Habiganj** District.

#### 1 DESCRIPTION OF THE UPAZILA

#### 1.1 GEOGRAPHY AND DEMOGRAPHY

The geographical area of Madhabpur Upazila is 294.26 square kilometers and has 11 unions, 181 mauzas, and 267 villages. The Upazila is 40km away from the district headquarters of Habiganj. Madhabpur is partly covered by 01 haors/ wetlands and there exist 4(four) rivers flowing over the Upazila. The total population of Upazila is 319016 of which 155882 are male and 163134 females, the total number of households are 62300 and the average household size is 5.12 with a population density of 1084 (as per population census 2011).

#### 1.2 EDUCATION FEATURES

According to the information of the relevant local government offices, there are 97 government & 55 non-government primary schools in the Upazila. On the other hand, Madhabpur has 21 non-government with only one government high schools, 1 School & College, 3 privet colleges, and 5 madrasahs. The literacy rate for the Upazila is 39.8% as per BBS 2011.

#### 1.3 RURAL ROAD COMMUNICATIONS

Bangladesh scored in the rural accessibility index at around 87 percent among South Asian and some other African countries. Generally, the people of Bangladesh get all-weather within 2 kilometers adjacent to their living places. But the feature of rural road communications in Madhabpur Upazila is contrasted. There are many villages, disconnected from the developed paved road network that brings huge suffering for the people of the villages. The total rural road network of Madhabpur is 621.07 km and out of which, 237.13 km are paved and 383.94 km earthen.

#### 1.4 AGRICULTURE, FOOD PRODUCTION, AND FISHERIES

Though the aggregate (coarse sand, stone chips & stone) business is the main source of income for the inhabitants, agriculture too has major importance for the economy of the people of Madhabpur. There are 53246 acres of arable land in Upazila. In the fiscal year 2010-11, the Rice production was 9628, 31100 & 35675 metric tons for Aus, Aman & Boro seasons respectively. The Upazila also produced 540 metric tons of Wheat, 5843 metric tons of Potato, and 187 metric tons of Oil seed in the same fiscal year 2010-11. A notable quantity of vegetables is also produced here in this Upazila.

According to the BBS (2011) data, Madhabpur has 4947 Acre of haor, pond & dighee that produced 3112 metric tons of fish. There also exist 62 poultry & 59 dairy farms.

All the agricultural products are adequate to meet the demand of the Upazila and surpluses are sold outside of Madhabpur.

#### 1.5 GROWTH CENTRE AND HATBAZAR

Growth Centre and Rural Hatbazar are one of the main centers of the rural economy. Hatbazar is like the heart of the development of the rural economy. Rural Hatbazar plays a role in increasing production and creating employment impacting the supply chain of agriculture and non-agriculture products. There are 20 Hatbazar and 5 growth centers in Upazila. The structural development of Hatbazar and its growth is pivotal to boosting the rural economy. Details of the growth center & hatbazar of the Upazila have been attached in *Annexure-1*.

## 2 LOCATION OF THE UPAZILA

Madhabpur Upazila of Habiganj district in the North-Eastern part of the country. The location has been shown on the map. The Upazila is situated at the foothill of the Indian border. This Upazila is less vulnerable of flash flood.

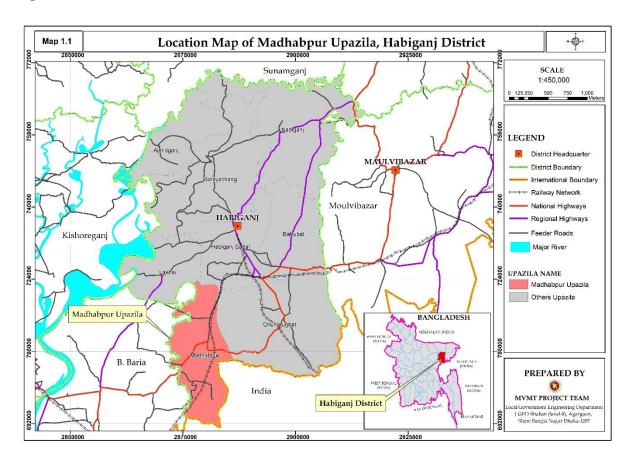


Figure 1: Upazila Location Map

#### 3 APPROACH & METHODOLOGY

#### 2.1 STUDY TEAM COMPOSITION

A team consisting of Senior Rural Road Infrastructure Specialist, Associate Rural Infrastructure Specialist, and Assistant Engineer engaged by the Project Management

Office (PMO) conducted the study. On the other hand, A team consisting of Deputy Team Leader cum Rural Infrastructure Engineer, Junior GIS expert, and Junior Engineer engaged by consulting firm (datEx & DECL JV) conducted the study. A participatory approach to review the database and identify priority transport infrastructure needs ('sub-projects) was instrumental. At the stakeholder consultation meeting held in each district, the database was reviewed, and priority needs were identified and together mapped working with representatives and LGED technical team. LGED

#### **Stakeholder Consultation Meeting**

- Hard-to-reach Village Database and database of sub-projects reviewed
- Prioritization of sub-projects for each Upazila with LGI and LGED representatives
- Hard-to-reach villages and priority sub-projects mapped in the LGED GIS Map

and LGI representatives surveyed each Upazila for the collection of detailed observations and validations of the proposed priority needs.

#### 2.2 STUDY AREA

The study was conducted in 72 Upazilas of haor areas, 3 Upazilas of Beel areas, 8 Upazilas of Char areas, and 4 Upazilas of Island areas during the period from December 2021 to June 2022. Apart from this, the PMO team conducted the study in 50 Upazilas of Haor areas, and the rest of the Upazilas of Haor, Beel, Char, and Island areas are conducted by the consulting firm team. The Upazila technical staff of LGED supported in organizing stakeholder consultation meetings and in database review and mapping the Hard-to-reach villages and population during this study period. They also supported the field work and authentication check by visits to the sub-projects in their respective Upazila and looking at the feasibility of some proposed sub-projects from technical, social, and environmental perspectives.

#### 2.3 DATABASE REVIEW AND ANALYSIS

The study applied both qualitative (e.g., focused group discussions and in-depth case study fieldwork) and quantitative (structured and semi-structured interviews) approaches and methods in reviewing and conducting fieldwork in all the haor areas to understand the need and impact of rural accessibility in remote village contexts. The most applied methods in the reviewing and conducting fieldwork were:

- Key Informants Interview (KII)
- Focus Group Discussion (FGD)
- Case Study for authentication check and individual sub-project feasibility study.

- Review the Hard-to-reach village database at the 'Stakeholder consultation meeting' participated by local government representatives such as the UP chairman and members, Upazila chairman, vice-chairman, and UNO.
- FGD and KII were conducted using a checklist. Composition in the FGD included local community people: male and female, teachers, local farmers, traders, and students depending on availability.
- ❖ KIIs of Union Chairman, Upazila chairman, UNO male and female, and teacher depending on availability.
- ❖ Authentication and feasibility check by visits to the sub-projects reviewed and listed for the 40 selected case study unions under the MVMT project.
- Survey with GPS machine and Google apps in collecting Hard-to-reach village locations, landmarks, chainage at gaps, village road at sections vulnerable to land erosion damage, narrow existing width or sharp slope location.

#### 2.4 Prioritization Criteria of Sub-projects

Prepare a priority list of sub-projects by Upazilas that includes gazette ID roads and non-gazette roads (No ID) with attributes like name and number of villages and population. The criteria used in the prioritization are described below.

- Population, travel time needed from the remotest villages to the Upazila HQ, road type, and cost per km per 1000 population are the indicators weighted giving a value in a formula.
- Priority is given to single connection with no alternative transport road and multi-modal transport route to connecting the villages with Upazila HQ and Union Parishad, growth centre and important markets and social service centres; villages with a higher population and travel time get higher weightage;
- Priority is given to roads, ghats, and collection points that will facilitate agricultural diversification, reduce transportation costs, ensure a fair price and create a farm and non-farm employment and income;
- Priority is given to roads development and inland waterways dredging that will enable year-round mobility of the general public and villagers, in particular, health workers, teachers and students, and tourists to facilitate tourism development, quality education, and better health service in the district and region;
- Special priority is given to sub-projects of roads, Riverine routes/inland waterways that will mainstream deprived communities living in the hard-to-reach villages;
- Identified sub-projects with more cost-effectiveness than others using per km per 1000 population cost for each sub-project;
- Every sub-project(s) is to be climate-resilient, sustainable, and cost-effective.

#### 2.5 WEIGHTAGE DISTRIBUTION FOR PRIORITIZATION

The approaches and methodologies of the Study for reviewing database and prioritization are synthesized in the diagrams below, noting that the proposed sub-projects of roads in the databases are prioritized based on weightage calculated on the set criteria (as shown in the diagram). People's demands and local needs are reflected in the prioritization which was

determined by the Study, working together with LGI representatives and LGED field-level technical staff at the stakeholder consultation meetings held in each Upazila.

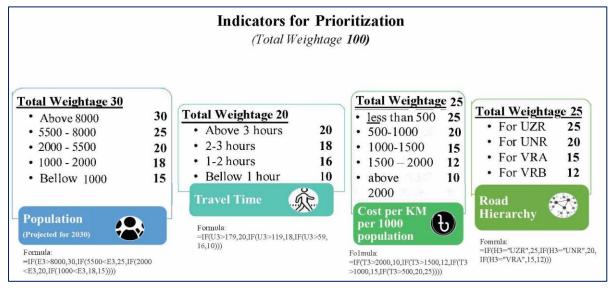


Figure 2: Prioritization indicators & their weightage values

#### 2.6 Mapping Hard-to-reach Villages & Population

- With the active support of LGED technical staff, first, draw every priority listed MVMT roads and Hard-to-reach villages on the LGED GIS map in presence of the union Chairman and members who know the sub-project and are the best. This was not in scale but approximation was reached by triangulation. Then digitized on screen using GIS, validate with Google map, and checked with data and information on important features and points collected using GPS during field visits.
- There were challenges in deciding on starting node and/or zero chainage of the non-gazette (No ID) road because not all non-gazette sub-projects were visited and surveyed by the Study team.

#### 2.7 WRAP UP MEETING

Wrap up the fieldwork progress at each district holding a meeting chaired by the Executive Engineer, LGED, and participated by all Upazila engineers of the respective district. On completion of the fieldwork, this was conducted to share issues and updates to the district Executive Engineer for feedback and action, as necessary.

#### 2.8 VALIDATION WORKSHOP

On completion of data analysis and drafting of the database and mapping, the Study outputs were shared with the respective districts and Upazilas for final review. The later validation workshop was held at the respective district on the Draft Report to share and validate the findings. This was participated by the LGED Division, District and Upazila officials, and technical staff.

#### 2.9 NATIONAL WORKSHOP

The Draft Report is finalized, incorporating comments received from the validation workshop, LGED head office staff, and the PMO office. A National Level workshop was held at LGED HQ for sharing and disseminating the results of the Study.

#### 3.1 DISTRIBUTION OF THE HAORS/ WETLANDS

The Upazila has no haor areas. Sonai River is the main wetland of this Upazila

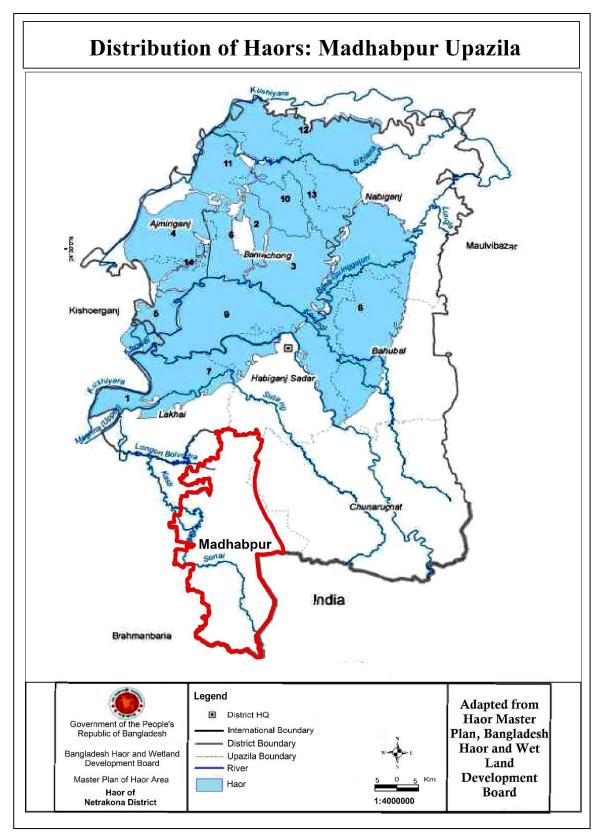


Figure 3: Haor Distribution Map

#### 3.2 HAOR/ WETLAND CATEGORY

The north-east part of the Upazila, it is Foot Hill and most of the areas are under plain land. Therefore, road or other infrastructure development in this Upazila does not have any major environmental consequences.

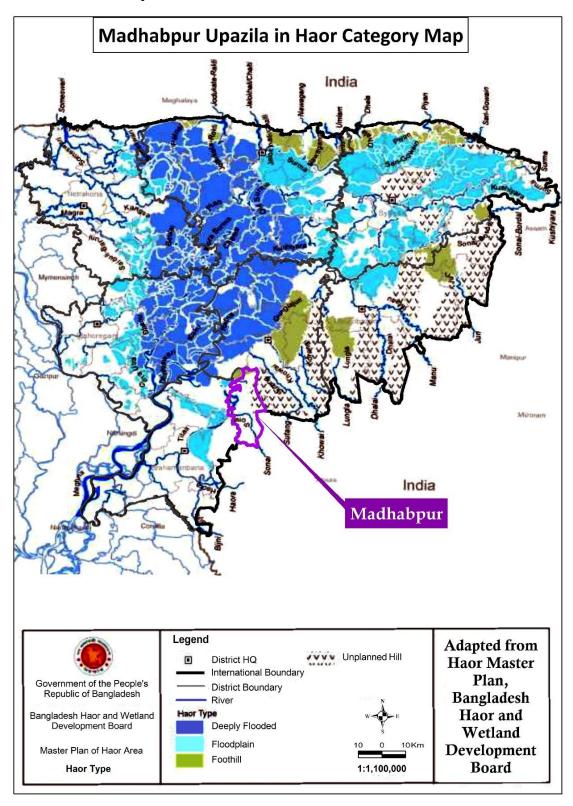


Figure 4: Haor Category Map.

#### 3.3 BIO-ECOLOGICAL CHARACTERISTICS

The Bio-ecological characteristics map of the Upazila has been shown below. The map shows that more than half of the areas are under Sylhet Hills & other areas are under Meghna floodplain. Therefore, adequate openings for the road and road structures should be maintained.

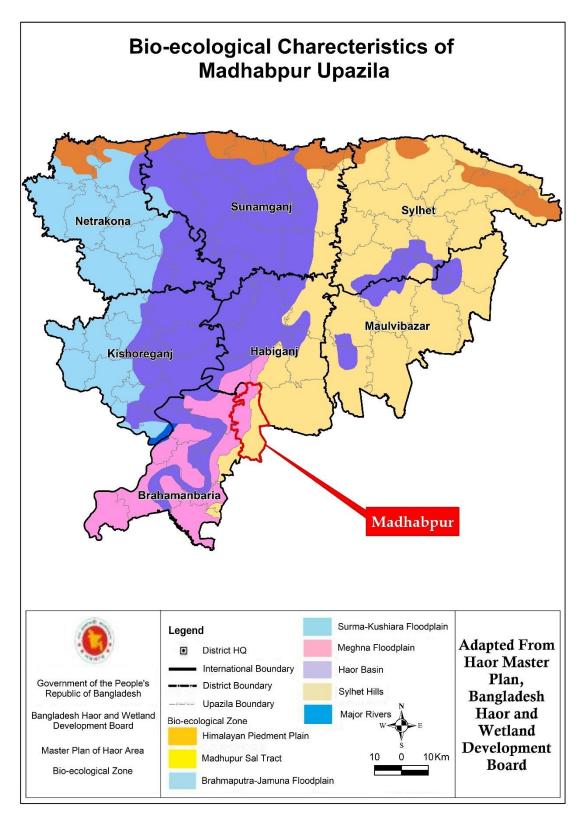


Figure 5: Bio Ecological Characteristics Map

## 5 RURAL ROAD CONNECTIVITY TO THE VILLAGES

#### 4.1 SUMMARY OF THE VILLAGE CONNECTIVITY

The feature of rural road communications in Madhabpur Upazila is contrasted. Out of 268 villages, only 15 villages are disconnected from the developed paved road network which brings huge suffering for the people of those village. The total rural road network of Madhabpur is 621.07 km and out of which, 237.13 km are paved and 383.94 km earthen.

**Table 1**: Total villages in the unions and their connectivity

SL No	Union	No of Villages	Connected Villages	Hard-to-Reach Villages
1	Adair	15	13	2
2	Bagasura	30	28	2
3	Bahara	41	40	1
4	Bulla	13	11	2
5	Chhatiain	12	11	1
6	Chowmohani	45	44	1
7	Dharmaghar	38	37	1
8	Jagadishpur	17	16	1
9	Madhabpur	14	12	2
10	Noapara	17	16	1
11	Shahjahanpur	26	25	1
	Total	268	253	15

#### 4.2 MAP OF HARD-TO-REACH VILLAGES & PROPOSED ROADS

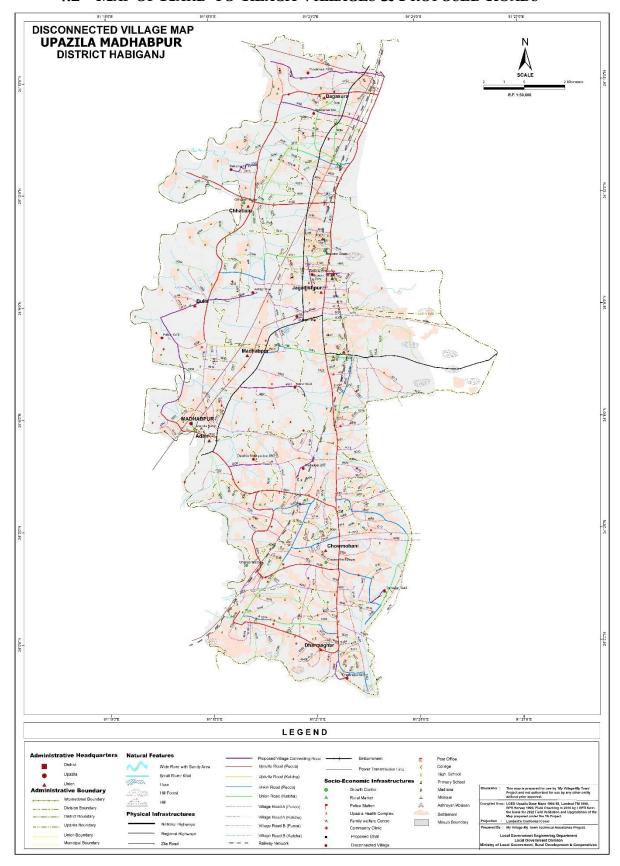


Figure 6: Upazila Map

#### 6 DATA COLLECTION & ANALYSIS

The consultant team collected data from the field on Hard-to-Reach Villages. Data were collected from those villages including population, road alignment information (type, length, condition), travel time, a structure required on the alignment, potential Riverine routes that can be used for a multi-modal transport system etc. The data were then analyzed, categorized, and finally used to obtain a priority list along with a map (Figure:5) showing prioritized roads and Hard-to-Reach Villages. The proposed Riverine & road connectivity by the UE office have been discussed in this section.

#### 5.1 PROPOSED ROADWAY FOR HARD-TO-REACH VILLAGES:

At present, roads are the most dominant mode of transportation. Most of the structures were built on the rivers to make road communication effective.

**Table 2:** Summary of the rural roads in the Upazila

Total Road Length of the Upazila (KM)	Paved Length (KM)	Unpaved Length (KM)	Length of unpaved roads of Hard-to-Reach Villages (KM)
621.07	237.13	383.94	27.51

#### 5.1.1 Proposed All-Weather Routes:

There are 15 all-weather roads proposed to connect the HTRV within the Upazila. The road name, ID, road condition, and the length of the unpaved roads are as bellow;

Table 3: Proposed all-weather roads in the Upazila

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
1	Adaoir GC-Dhankura-Patuli-Bulla UP road	636713011	All Weather	3.00
2	Shahjibazar-Purraikhola road	636714029	All Weather	2.00
3	Itakhola-Hindupara road	636715007	All Weather	1.60
4	Sakuchail Eidgaon - Poddarbari Road (New)	636715088	All Weather	2.90
5	Gazipur -Rajnagar	No ID	All Weather	0.46
6	Barag-Bulla Road	636714009	All Weather	1.95
7	Haria R & H-Dhugapur-Kudalia road	636714017	All Weather	1.80
8	Haria Mosque-Horishama Primary school	636714061	All Weather	2.50
9	Jogodispur FRB-Mirzapur Road.	636715010	All Weather	1.50

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
10	Jogadishpur Muktijjodda R&H - Uttar Suma Village Road (New)	636715126	All Weather	2.00
11	Dharmaghor Ali Sha (R) Road- Kalikapur Uttarpara Road	636715042	All Weather	2.50
12	Sultanpur-Sampadpur road	636714020	All Weather	1.60
13	Manikpur railgate-Bagasura bazar	636714035	All Weather	1.60
14	Madhabpur-Montala FRB-Khilgaon Road	636715037	All Weather	1.30
15	Montola Rail Station-Sundadil Vati Bari via Razapur road to Aladadpur village	No ID	All Weather	0.80

#### 5.1.2 Proposed Roads for Hard-to-Reach Villages Having No ID:

There are Two roads proposed to connect the HTRV within the Upazila that have no ID yet. The road name, ID, and the length of the unpaved part are as bellow;

**Table 4:** Proposed roads for Hard-to-Reach Villages having No ID

Sl. No	Road Name	Road ID	Unpaved length (Km)
1	Gazipur -Rajnagar	No ID	0.46
2	Montola Rail Station-Sundadil Vati Bari via Razapur road to Aladadpur village	No ID	0.80

#### 5.1.3 PRIORITY FOR ROAD DEVELOPMENT

Considering resources constraint, benefited a group of people, the time required to travel & road hierarchy, a priority list has been developed (<u>Annexure-2</u>) for the HTRV (Hard to Reach Villages). The priority score has been determined according to following

*Table 5:* Considered weightage values for the prioritization

Criteria	Weightage
Population	30
Travel Time	20
Cost per 1000 Population	25
Road Type	25
Total=	100

It has been observed that there are a number of roads that bear the same score. In these cases, the minimum budget required for providing connectivity to thousands of people- will get more priority compared to more budget-required roads. The roads bearing ID will have higher priority than the roads without ID.

#### 7 CONCLUSION & RECOMMENDATIONS

- Madhabpur Upazila is located under Sylhet Hills & is partially a part of Himalayan Piedmont Plain. The other areas are under Haor Basin. Madhabpur is partly covered by 01 haors/ wetlands and there exist 4(four) rivers flowing over the Upazila that dominate the ecosystem, and transport system of the Upazila. During monsoons, these Rivers carry a huge volume of flood water.
- As the Upazila is heavily flooded during monsoon, rural roads and structures are highly vulnerable in this Upazila.
- ➤ The Upazila has a total number of 15 Hard-to-Reach Villages. To develop rural connectivity, there are proposals for both all-weather and submersible roads. This report contains a list of roads with their priority. The priority has been determined based on Population, Travel Time, Cost per KM/1000 people & Road Hierarchy.
- ➤ This Upazila is highly vulnerable to disasters. Due to climate change, vulnerability is getting intense. The year 2022 has shown catastrophic flood that was not seen over the last 18 years (*last in 2004 similar to 1998 & 1988*). Therefore, it is highly recommended to study the road alignments before going for investment.
- ➤ Case-by-case design of roads in this Upazila considering different aspects such as exposure to floods, erosion etc. is highly recommended. A special study regarding the road and structure design of the Madhabpur Upazila in Habiganj district is highly recommended.

## ANNEXURE - 1

#### **DETAILS OF GROWTH CENTER & HATBAZAR**

		Market		Market						Lan	d Area	(Acre)	Lease/	Lease/
Union	Market Name	Category (GC=Grow th Center, HB=Hat Bazar)	Market Listed? (Yes/ No)	Category (General/ Special/ Collection center)	Market Category (Wholesale/ Retail/both)	Hat Day	Chandina Viti (Number)	Chandina Viti (Land)	Chandina Viti (Shop)	Toha	Khas	Private	Khas Collectio n BDT (2020)	Khas Collectio n BDT (2019)
Chowmohani	Changar bazar	GC	Yes	Special Market	Both	2	7	0.07	7	1.06	1.06	0.00	1910000	2500000
Noapara	Noapara bazar	GC	Yes	General Market	Both	2	3	0.01	3	0.59	0.59	0.00	1399000	1272000
Chowmohani	Chowmohani bazar	GC	Yes	General Market	Both	2	1	0.01	1	0.57	0.57	0.00	1002000	800000
Bahara	Montala Station Bazar	НВ	Yes	General Market	Both	2	2	0.01	2	0.16	0.16	0.00	500000	300000
Chhatian	Chhatian bazar	GC	Yes	General Market	Both	2	52	0.20	52	0.27	0.27	0.00	414020	302970
Dharmaghar	Dharmaghar Bazar	НВ	Yes	General Market	Both	2	2	0.01	2	0.85	0.85	0.00	72200	65000
Jagadishpur	Jagadishpur Bazar	НВ	Yes	General Market	Both	2	13	0.37	13	0.43	0.43	0.00	39250	12885
Shahjahanpur	Gateghar Bazar	НВ	Yes	General Market	Both	2	0	0.00	0	0.82	0.82	0.00	117120	107325
Dharmaghar	Kisnaganj Bazar	НВ	Yes	General Market	Both	2	4	0.02	4	0.39	0.39	0.00	83300	83300
Dharmaghar	Kalir Bazar	НВ	Yes	General Market	Both	2	0	0.00	0	0.22	0.22	0.00	17400	21500
Bagasura	Kalikapur Bazar	НВ	Yes	General Market	Both	2	0	0.00	0	0.28	0.28	0.00	32000	32000
Bagasura	Shahapur Bazar	НВ	Yes	General Market	Both	2	0	0.00	0	0.32	0.32	0.00	18100	17479
Bahara	Montala Bazar	НВ	Yes	General Market	Both	2	0	0.00	0	0.83	0.83	0.00	17950	7000
Bahara	Akhrar Bazar	НВ	Yes	General Market	Both	2	10	0.09	10	0.90	0.90	0.00	10000	10100
Bagasura	Kaliganja Bazar	НВ	Yes	General Market	Both	2	0	0.00	0	1.26	1.26	0.00	9990	0
Shahjahanpur	Taliapara (bekeiya) Bazar	НВ	Yes	General Market	Both	2	0	0.00	0	0.33	0.33	0.00	8150	650
Bulla	Bulla Bazar	НВ	Yes	General Market	Both	2	0	0.00	0	0.30	0.30	0.00	6340	1800

		Market		Market						Lan	d Area	(Acre)	Lease/	Lease/
Union	Market Name	Category (GC=Grow th Center, HB=Hat Bazar)	Market Listed? (Yes/ No)	Category (General/ Special/ Collection center)	Market Category (Wholesale/ Retail/both)	Hat Day	Chandina Viti (Number)	Chandina Viti (Land)	Chandina Viti (Shop)	Toha	Khas	Private	Khas Collectio n BDT (2020)	Khas Collectio n BDT (2019)
Andiura	Andiura Chakbazar	НВ	Yes	General Market	Both	2	0	0.00	0	0.08	0.08	0.00	726	700
Bagasura	Ananda bazar (h.q)	GC	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Bagasura	Bagasura Bazar	НВ	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Bagasura	Bagasura Chak Bazar	НВ	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Bagasura	Shahajeebazar Station Bazar	НВ	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Bagasura	Andilirachak Bazar	НВ	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Chowmohani	Kashim Nagar Station Bazar	НВ	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Chowmohani	Tulshipur Bazar	НВ	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0

## PRIORITY LIST FOR ROAD DEVELOPMENT

SL No	Upazila	Connecting Union	Connecting Village	Village Population BBS 2011	Population 2021 (Based on BBS 2011)	Road Name	Road ID	Road Type	Road Type by Surface Condition	Total Road Length	Paved length (Km)	HBB Length (km)	Unpaved length (Km)	Total Road Length to be Developed	HBB + Unpaved in (km)	Approx. Cost of Road (Lac)	Structure/ Gap (Meter)	Cost of Structure (in Lac)	Total Cost (in lac) (Roads + Structures)	Population /KM	Tentative Budget/1000 Population (in lac)	Travel Time (in min)	Weightage for	Weightage for Travel Time	Weightage for Cost per 1000 Pop	Weightage for Road	Total Weightage	Priority
1	Madhabpur	Bulla	Patuli	1576	1806	Adaoir GC-Dhankura-Patuli- Bulla UP road	636713011	UNR	All Weather	6.00	3.00	0.00	3.00	6.00	3.00	360.00	25.00	225.00	585.00	602	323.97	45.00	18	10	25	20	73	
2	Madhabpur	Bagasura	Puraikhala	2089	2393	Shahjibazar-Purraikhola road	636714029	VRA	All Weather	4.40	2.40	0.00	2.00	4.40	2.00	240.00	0.00	0.00	240.00	1197	100.27	30.00	20	10	25	12	67	
3	Madhabpur	Noapara	Ikakhola	2080	2383	Itakhola-Hindupara road	636715007	VRB	All Weather	1.60	0.00	0.00	1.60	1.60	1.60	192.00	0.00	0.00	192.00	1489	80.56	24.00	20	10	25	12	67	
4	Madhabpur	Chhatiain	Sakuchail	2107	2414	Sakuchail Eidgaon - Poddarbari Road (New)	636715088	VRB	All Weather	3.00	0.10	0.00	2.90	3.00	2.90	348.00	0.00	0.00	348.00	832	144.15	43.50	20	10	25	12	67	
5	Madhabpur	Chowmohani	Rajnagar	1845	2114	Gazipur -Rajnagar	No ID	VRB	All Weather	0.46	0.00	0.00	0.46	0.46	0.46	55.20	0.00	0.00	55.20	4596	26.11	6.90	20	10	25	12	67	
6	Madhabpur	Bulla	Barag	1254	1437	Barag-Bulla Road	636714009	VRA	All Weather	1.95	0.00	0.00	1.95	1.95	1.95	234.00	50.00	450.00	684.00	737	476.06	29.25	18	10	25	12	65	
7	Madhabpur	Madhabpur	Haria	1653	1894	Haria R & H-Dhugapur-Kudalia road	636714017	VRA	All Weather	1.80	0.00	0.00	1.80	1.80	1.80	216.00	0.00	0.00	216.00	1052	114.05	27.00	18	10	25	12	65	
8	Madhabpur	Madhabpur	Haria	1653	1894	Haria Mosque-Horishama Primary school	636714061	VRA	All Weather	2.50	0.00	0.00	2.50	2.50	2.50	300.00	40.00	360.00	660.00	758	348.48	37.50	18	10	25	12	65	
9	Madhabpur	Jagadishpur	Mirzapur	1148	1315	Jogodispur FRB-Mirzapur Road.	636715010	VRB	All Weather	1.50	0.00	0.00	1.50	1.50	1.50	180.00	0.00	0.00	180.00	877	136.85	22.50	18	10	25	12	65	
10	Madhabpur	Shahjahanpur	Surma	1468	1682	Jogadishpur Muktijjodda R&H - Uttar Suma Village Road (New)	636715126	VRB	All Weather	2.00	0.00	0.00	2.00	2.00	2.00	240.00	0.00	0.00	240.00	841	142.69	30.00	18	10	25	12	65	
11	Madhabpur	Dharmaghar	Dharmapur	997	1142	Dharmaghor Ali Sha (R) Road- Kalikapur Uttarpara Road	636715042	VRB	All Weather	2.50	0.00	0.00	2.50	2.50	2.50	300.00	0.00	0.00	300.00	457	262.62	37.50	18	10	25	12	65	
12	Madhabpur	Adair	Dakshin Shampadpur	850	974	Sultanpur-Sampadpur road	636714020	VRA	All Weather	3.00	1.40	0.00	1.60	3.00	1.60	192.00	4.00	36.00	228.00	609	234.11	24.00	15	10	25	12	62	
13	Madhabpur	Bagasura	Sundarpur	664	761	Manikpur railgate-Bagasura bazar	636714035	VRA	All Weather	3.20	1.60	0.00	1.60	3.20	1.60	192.00	0.00	0.00	192.00	475	252.37	24.00	15	10	25	12	62	
14	Madhabpur	Adair	Dakshin Shampadpur	850	974	Madhabpur-Montala FRB- Khilgaon Road	636715037	VRB	All Weather	1.30	0.00	0.00	1.30	1.30	1.30	156.00	0.00	0.00	156.00	749	160.18	19.50	15	10	25	12	62	
15	Madhabpur	Bahara	Aladadpur	267	306	Montola Rail Station-Sundadil Vati Bari via Razapur road to Aladadpur village	No ID	VRB	All Weather	0.80	0.00	0.00	0.80	0.80	0.80	96.00	0.00	0.00	96.00	382	313.81	12.00	15	10	25	12	62	

<sup>\*\*\*</sup> Cost for Roads & Structures; (All Weather Rd= 120 lac/km, Submersible= 180 lac/km, Structure= 9 lac/m)
\*\*\* Weightage Values; (Population = 30, Travel Time= 20, Cost per KM/1000 people= 25, Road Hierarchy= 25)