

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"

Bancharampur Upazila, B. Baria



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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 **Bancharampur** Upazila of **Brahmanbaria** District.

1 DESCRIPTION OF THE UPAZILA

1.1 GEOGRAPHY AND DEMOGRAPHY

The geographical area of Bancharampur Upazila is 187.30 square kilometers and has 13 unions, 69 mauzas, and 121 villages. The Upazila is 56km away from the district headquarters of Brahmanbaria. Bancharampur is partly covered by haors/ wetlands area and there exist 3(three) rivers flowing over the Upazila. The total population of Upazila is 298000 of which 139000 are male and 159000 females, the total number of households are 59699 and the average household size is 4.99 with a population density of 1593 (as per population census 2011).

1.2 EDUCATION FEATURES

According to the information of the relevant local government offices, there are 93 government & 39 non-government primary schools in the Upazila. On the other hand, Bancharampur has 19 non-government with no government high schools, 5 private colleges, and 9 madrasahs. The literacy rate for the Upazila is 38.5% 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 Bancharampur Upazila is contrasted. There are few villages, disconnected from the developed paved road network that brings huge suffering for the people of the villages. The total rural road network of Bancharampur is 385.31 km and out of which, 251.19 km are paved and 134.12 km earthen.

1.4 AGRICULTURE, FOOD PRODUCTION, AND FISHERIES

The driving force of this Upazila's economy is largely dependent on Haor. Abundant fish are available in Hoar which can meet the country's demand to a large extent. Besides, jute, paddy and many other vegetables are produced in Kishoreganj which meet the needs of the country and are exported abroad. There are 46285 acres of arable land in Upazila. In the fiscal year 2010-11, the Rice production was 65, 4667 & 43464 metric tons for Aus, Aman & Boro seasons respectively. The Upazila also produced 659 metric tons of Wheat, 1749 metric tons Jute, 376 metric tons oil seed, and 4646 metric tons of Potato 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, Bancharampur has 1578 Acres of haor, pond & dighee that produced 2921 metric tons of fish. There also exist 220 poultry & 14 dairy farms.

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

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 33 Hatbazar and 4 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

Bancharampur Upazila of Brahmanbaria district is in the Eastern part of the country. The location has been shown on the map. The Upazila is situated at the south-western corner of the district, on the bank of The Meghna River.

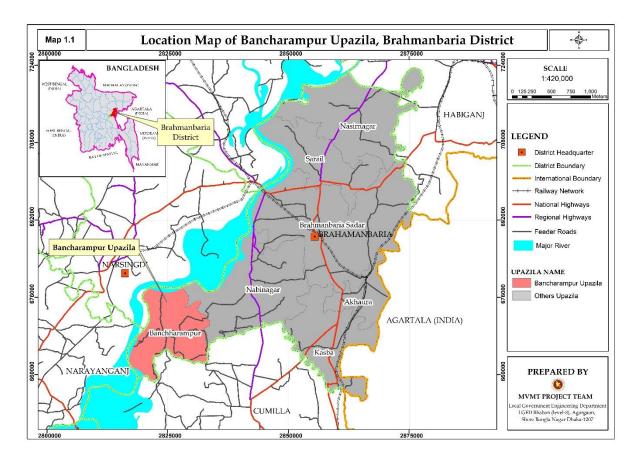


Figure 1: Upazila Location Map

3 APPROACH & METHODOLOGY

3.1 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.

3.2 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.

3.3 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.

3.4 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.

3.5 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.

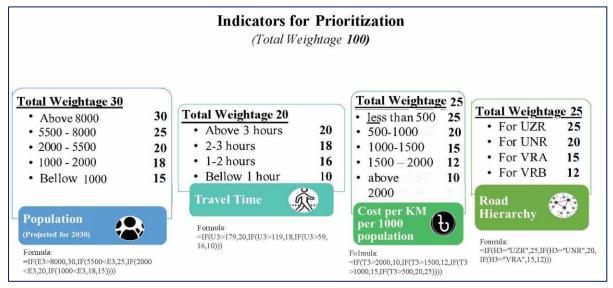


Figure 2: Prioritization indicators & their weightage values

3.6 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.

3.7 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.

3.8 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.

3.9 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.

4 DESCRIPTION OF WETLANDS

4.1 DISTRIBUTION OF THE HAORS/ WETLANDS

The Upazila has no haor area. Therefore, there is no major issues for the development activities.

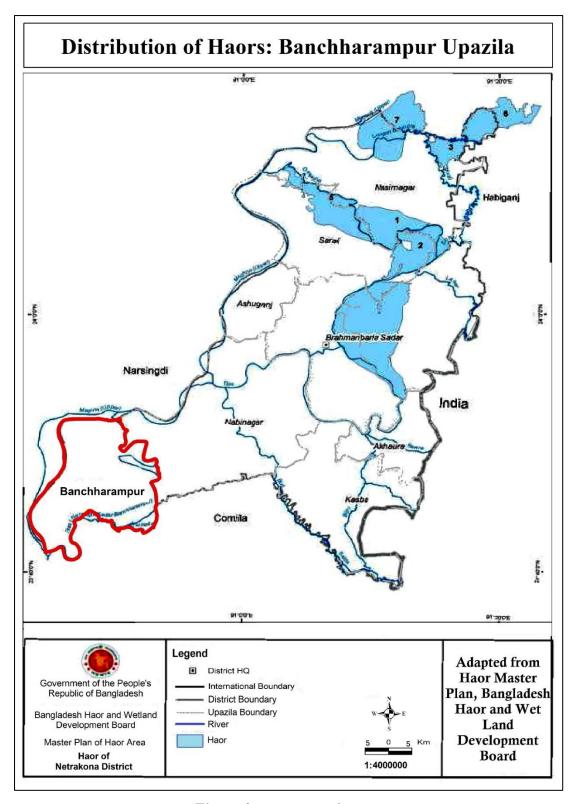


Figure 3: Haor Distribution Map

4.2 HAOR/ WETLAND CATEGORY

The Upazila is situated just beside the Meghna River. It flows through the west side of the Upazila from north to south. Beside this The River Tital flows through the middle of the Upazila.

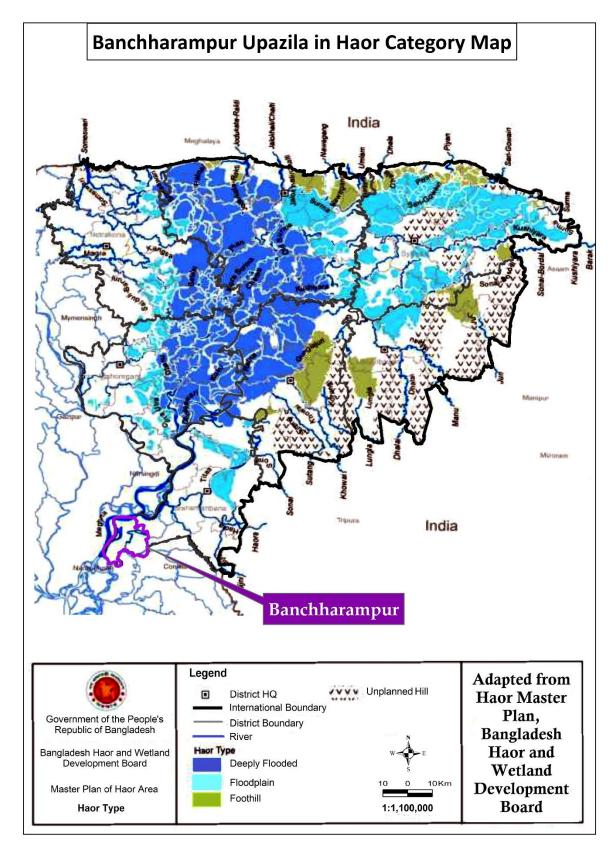


Figure 4: Haor Category Map.

4.3 BIO-ECOLOGICAL CHARACTERISTICS

The Bio-ecological characteristics map of the Upazila has been shown below. Banchharampur is a part of Meghna Floodplain.

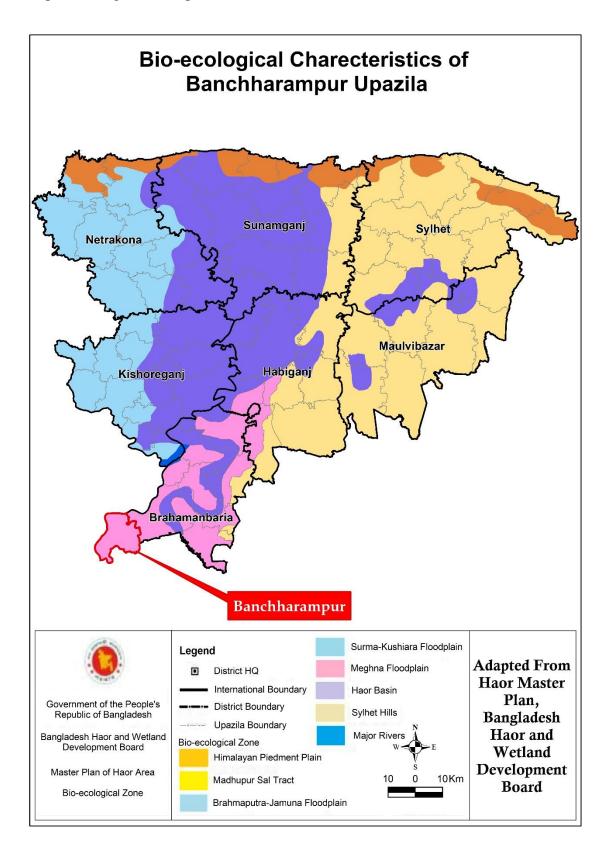


Figure 5: Bio Ecological Characteristics Map

5 RURAL ROAD CONNECTIVITY TO THE VILLAGES

5.1 SUMMARY OF THE VILLAGE CONNECTIVITY

The feature of rural road communications in Bancharampur Upazila is contrasted. Out of 125 villages, only eight is disconnected from the developed paved road network. The total rural road network of Bancharampur is 385.31 km and out of which, 251.19 km are paved and 134.12 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	Ayubpur	9	9	0
2	Dariadaulat	9	9	0
3	Pahariakandi	9	8	1
4	Rupasdi	5	5	0
5	Saifullakandi	12	11	1
6	Manikpur	5	5	0
7	Fardabad	8	8	0
8	Darikandi	9	9	0
9	Ujan Char	8	8	0
10	Salimabad	17	15	2
11	Sonarampur	9	7	2
12	Tezkhali	10	9	1
13	Banchharampur	16	15	1
	Total	125	117	8

5.2 VILLAGES AND THEIR CONNECTIVITY – UNION LEVEL

The consultant arranged a meeting at the Upazila conference room with and all the UP Chairman & their secretaries. The team interviewed a representative of each union and collected data about the HTRV.

Table 2: Union-wise connected & Hard-to-Reach Villages and their population

no	Sl.	2. Onton-wise connected	Population	Hard-to-Reach	Population
Union	No	Connected Villages	2021 (Based on BBS 2011)	Villages	2021 (Based on BBS 2011)
	1	Ayubpur	3939		
Ayubpur	2	Banshgari	4380		
	3	Char Chhayani	3435		
	4	Dasania	1313		
lqn	5	Kanainagar	2401		
Ay	6	Karikandi	1039		
	7	Khasnagar	1275		
	8	Nagarir Char	1975		
	9	Padma Pukur	1400		
		Sub Total	21157		
	1	Alipur	522	Maldip*	745
	2	Banchharampur	6088		
	3	Bhabanathpur	1058		
	4	Bhiti Jhagrar Char	1826		
ä	5	Dari Banchharampur	3446		
ndı	6	Dariar Char	388		
ran	7	Dashdona	4167		
Banchharampur	8	Durgapur	822		
nch	9	Durgarampur	2596		
Вал	10	Jagannathpur	3862		
	11	Khuskandi	3011		
	12	Manikhali	587		
	13	Panchampur	525		
	14	Safirakandi	803		
	15	Talikandi	118		
		Sub Total	29819		745
	1	Asadnagar (Part-2)	4302		
	2	Bakharnagar	1324		
at	3	Daria Daulat	7427		
daulat	4	Kadamtali (Old)	4841		
 iad	5	Kalainagar	1836		
Dariac	6	Marichakandi	3300		
	7	Nutun Kadamtali	930		
	8	Shutkikandi	930		
	9	Tatuakandi	775		
		Sub Total	25665		
	1	Bahardurpur	1390		
	2	Darigaon	1086		
ndi	3	Darikandi	1987		
Darikandi	4	Gokunagar	1380		
ari	5	Gopalnagar	535		
	6	Imamnagar	1700		
	7	Khalla	3230		
	8	Krishnanagar	401		

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	9	Madhya Darikandi	2563		,
		Sub Total	14272		
ad	1	Char Lahania	2416		
	2	Faradabad	10381		
	3	Gaoraltali	923		
ab	4	Kalakandi	1329		
Fardabad	5	Nijhkandi Roypura	1966		
Ξ.	6	Purabahati	2775		
	7	Purbakandi	1675		
	8	Tilakkandi	487		
		Sub Total	21952		
i.	1	Baher Char	10289		
ds	2	Char Manikpur	3717		
Manikpur	3	Kalyanpur	4099		
M	4	Mayarampur	3006		
	5	Ulkandi	1580		
	4	Sub Total	22691	36.11.1	1022
	1	Barakandi	431	Mollukgram*	1833
æ	2	Hizlakandi	1486		
Pahariakandi	3	Joykalipur	3966		
rial	4	Kalakandi	1152		
ıhaı	5	Munshinagar	505		
Pa	7	Nabipur (Domrakandi) Pahariakandi	1179 5263		
	8	Tatuakandi (Ulukandi)	1219		
	0	Sub Total	15201		1833
	1	Ashrafpur	1167		1033
: =	2	Hoglakandi	2173		
Rupasdi	3	Khaorpur	664		
Rup	4	Rupasdi Dakshinpara	7148		
	5	Rupasdi Madhyapara	9757		
		Sub Total	20909		
	1	Dakshin Bhelanagar	3872	Santinagar*	344
	2	Dari Bhelanagar	2228		-
	3	Domrakandi	2054		
ij	4	Fatehpur	1848		
gu	5	Kanchanpur	2424		
Saifullakandi	6	Machhimnagar	1406		
 uifu	7	Madhyanagar	2545		
Sa	8	Paratali	4856		
	9	Saifullahkandi	2413		
	10	Sharifpur	1026		
	11	Uttar Baluakandi	599		
		Sub Total	25271		344
	1	Ashrafbad	1789	Akrampur*	706
þ	2	Bhurbhuria	5140	Jhunar Char	2713
- apa	3	Dakshin Haidarnagar	2352		
Salimabad	4	Fathamara	1762		
Sal	5	Ganganagar	616		
	6	Hossainpur	2651		
	7	Kamalpur	931		

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	8	Mirpur	1960		
	9	Nilkhi Samibad	808		
	10	Paikar Char	1390		
	11	Salimabad	4246		
	12	Satbila	1777		
	13	Satdona Khakkanda	958		
	14	Tatuakandi	1766		
		Sub Total	28148		3419
	1	Char Dariadaulat(D.rampur)	3214	Balurchar*	2292
Ħ	2	Char Marichakandi	2223	Rajapur*	2864
Sonarampur	3	Char Shibpur	6519		
rar	4	Faraziakandi	895		
ona	5	Kanainagar	2768		
Š	6	Shantipur	4127		
	7	Sonarampur	5191		
		Sub Total	24937		5146
	1	Akanagar	6129	Modhupur*	573
	2	Baher Char	2902		
	3	Bishnurampur	3076		
Tezkhali	4	Dakshinpara(Gotkandi)	645		
zkh	5	Harinagar	572		
Te	6	Hasannagar	2047		
	7	Imamnagar	716		
	8	Joynagar	1462		
	9	Tejkhali	4344		573
		Sub Total	21893		6129
	1	Budairkandi	4454		
	2	Kalikapur	4028		
ar	3	Krishnanagar	1467		
Ujan Char	4	Nutanhati	457		
jan	5	Radhanagar	5478		
Uj	6	Sarishar Char	112		
	7	Shekharkandi	1591		
	8	Ujan Char	3048		
		Sub Total	20635		

5.3 MAP OF HARD-TO-REACH VILLAGES & PROPOSED ROADS

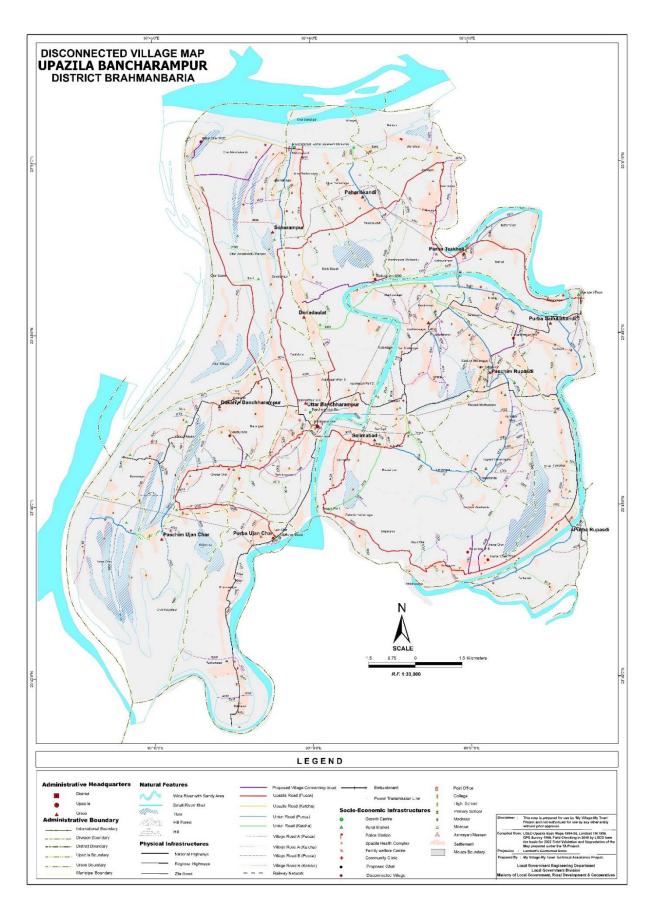


Figure 6: Upazila Map

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.

6.1 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 3: 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)
385.31	251.19	134.12	15.40

6.1.1 Proposed All-Weather Routes:

There are 7 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 4: Proposed all-weather roads in the Upazila

	1 1					
Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)		
1	Khagkanda Bazar -Bhurburia bazar road.	412044081	All Weather	3.7		
2	Char Morichakandi Main Road - Ichapur via Balurchar	No ID	All Weather	2		
3	Junarchar D.C road-Baluanadir Ghat.	412044048	All Weather	1.7		
4	Padmapur -Maldip Road	No ID	All Weather	1		
5	Akanagar village -Modhupur Road	No ID	All Weather	0.8		
6	Moddhanagar - Dariadaulat via Mollukgram Road	No ID	All Weather	3.5		
7	Santipur Main Road - Rajapur River Ghat	No ID	All Weather	1.5		
8	Darikandi Main Road -Santinagar Road	No ID	All Weather	1.2		

6.1.2 PROPOSED ROADS FOR HARD-TO-REACH VILLAGES HAVING NO ID:

There are 7 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 5: Proposed roads for Hard-to-Reach Villages having No ID

Sl. No	Road Name	Road ID	Unpaved length (Km)
1	Char Morichakandi Main Road - Ichapur via Balurchar	No ID	2
2	Padmapur -Maldip Road	No ID	1
3	Akanagar village -Modhupur Road	No ID	0.8
4	Moddhanagar - Dariadaulat via Mollukgram Road	No ID	3.5
5	Santipur Main Road - Rajapur River Ghat	No ID	1.5
6	Darikandi Main Road -Santinagar Road	No ID	1.2

6.1.3 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 6: 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

- ➤ Bancharampur Upazila is situated at the south-western corner of the district, on the bank of The Meghna River. There are 3 (three) major rivers that dominate the ecosystem, and transport system of the Upazila. During monsoons, these Rivers carry a huge volume of flood water. Though the Upazila has a number of Rivers, Riverine transport is available only along the Meghna River.
- 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 08 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 Bancharampur Upazila in Brahmanbaria district is highly recommended.

DETAILS OF GROWTH CENTER & HATBAZAR

			Market Category		Market Category						Lan	d Area	(Acre)	Lagge	I comp/
SI. No.	Union	Market name	(GC=Gr Market General/ owth Listed? Special/ Center (Yes/No) Collection (Wholes		Market Category (Wholesale/ Retail/both)	Hat Day	Chandina Viti (Number)	Chandina Viti (Land)	Chandina Viti (Shop)	Toha			Lease/ Khas Collecti on BDT (2020)	Lease/ Khas Collecti on BDT (2019)	
1	Dakshin Banchharampur	Bashgari bazar	НВ	No	General Market	Wholesale	0	0	0.00	20	0.0 5	0.00	0.10	0	0
2	Dakshin Banchharampur	Chayani bazar	НВ	No	General Market	Wholesale	0	0	0.00	10	0.0 5	0.00	0.10	0	0
3	Dakshin Banchharampur	Dashani bazar	НВ	No	General Market	Wholesale	0	0	0.00	10	0.0 5	0.11	0.10	0	0
4	Dakshin Banchharampur	Karikandi bazar	НВ	No	General Market	Wholesale	0	0	0.00	5	0.0	0.00	0.05	0	0
5	Dariadaulat	Dariadaulat bazar	НВ	No	General Market	Wholesale	0	0	0.00	50	0.0	0.00	0.50	0	0
6	Dariadaulat	Asadnagar bazar	НВ	No	General Market	Wholesale	1	0	0.00	60	0.0	0.00	0.40	0	0
7	Dariadaulat	Morichakandi bazar	GC	Yes	General Market	Wholesale	1	0	0.00	200	0.1 0	0.40	0.60	50000	148650
8	Dorikandi	Anonda bazar	НВ	No	General Market	Wholesale	1	0	0.00	60	0.0	0.00	0.50	0	0
9	Dorikandi	Khalla bazar	НВ	No	General Market	Wholesale	0	0	0.00	30	0.0	0.00	0.15	0	0
10	Dorikandi	Jibanganj bazar	GC	Yes	General Market	Wholesale	1	0	0.00	100	0.0 7	0.43	0.40	103500	148650
11	Pahariakandi	Pahariakandi bazar	НВ	No	0	0	0	0	0.00	0	0.0	0.00	0.00	0	0
12	Pahariakandi	Ulukandi launchghat bazar	НВ	No	0	0	0	0	0.00	0	0.0	0.00	0.00	0	0
13	Paschim Rupasdi	Balua kandi bazar	НВ	Yes	General Market	Wholesale	1	0	14.50	150	0.0	0.17	0.60	390850	380500
14	Paschim Rupasdi	Hoglakandi bazar	НВ	No	General Market	Wholesale	0	0	0.00	20	0.0	0.00	0.30	0	0
15	Paschim Rupasdi	Shantir bazar	НВ	No	General Market	Wholesale	1	0	0.00	20	0.0	0.00	0.40	0	0
16	Paschim Rupasdi	Rupasdi (South) bazar	НВ	No	General Market	Wholesale	0	0	0.00	50	0.0	0.10	0.30	0	0

			Market Category		Market Category						Lan	d Area	(Acre)	Logge	Lease/
Sl. No.	Union	Market name	(GC=Gr owth Center, HB=Hat Bazar)	Market Listed? (Yes/ No)	(General/ Special/	Market Category (Wholesale/ Retail/both) Hat Day		Chandina Viti (Number)	Chandina Viti (Land)	Chandina Viti (Shop)	Toha	Khas	Private	Lease/ Khas Collecti on BDT (2020)	Khas Collecti on BDT (2019)
17	Paschim Saifullakandi	Bhorer bazar	НВ	No	0	0	0	0	0.00	0	0.0	0.00	0.00	0	0
18	Paschim Saifullakandi	Fatepur bazar	НВ	No	General Market	Wholesale	0	0	0.00	20	0.0	0.00	0.30	0	0
19	Paschim Saifullakandi	Machimnagar bazar	НВ	Yes	General Market	Wholesale	1	0	0.00	100	0.0 5	0.05	0.50	28000	28000
20	Paschim Saifullakandi	Modda nagar bazar	НВ	No	General Market	Wholesale	0	0	0.00	20	0.0	0.00	0.30	0	0
21	Paschim Ujan Char	Baharchar bazar	НВ	No	General Market	Wholesale	0	0	0.00	25	0.0 5	0.00	0.15	0	0
22	Purba Rupasdi	Fardabad bazar	НВ	No	General Market	Wholesale	0	0	0.00	100	0.0 5	0.10	0.30	0	0
23	Purba Rupasdi	Purba hati Bazar	НВ	No	General Market	Wholesale	0	0	0.00	20	0.0 6	0.00	0.15	0	0
24	Purba Rupasdi	Charlahania bazar	НВ	No	General Market	Wholesale	0	0	0.00	10	0.0	0.00	0.10	0	0
25	Purba Ujan Char	Radhanagar bazar	НВ	No	General Market	Wholesale	0	0	0.00	80	0.1	0.00	0.50	0	0
26	Purba Ujan Char	Ujanchar bazar	GC	Yes	General Market	Wholesale	1	0	0.00	150	0.1	0.56	1.00	18000	18000
27	Salimabad	Salimabad bazar	НВ	No	General Market	Wholesale	0	0	0.00	100	0.0	0.00	0.50	0	0
28	Salimabad	Mirpur bazar	НВ	Yes	General Market	Wholesale	0	0	0.00	10	0.0 5	0.30	0.00	3000	2000
29	Salimabad	Battaly bazar	НВ	No	General Market	Wholesale	0	0	0.00	20	0.0	0.00	0.15	0	0
30	Sonarampur	Shibpur bazar	НВ	No	General Market	Wholesale	0	0	0.00	15	0.0	0.00	0.15	0	0
31	Sonarampur	Sonarampur bazar	НВ	Yes	General Market	Wholesale	1	7	0.05	35	0.0 6	0.12	0.07	280000	79297
32	Sonarampur	Santipur bazar	НВ	No	General Market	Wholesale	0	0	0.00	0	0.0	0.00	0.00	0	0
33	Tezkhali	Akanagar bazar	НВ	No	General Market	Wholesale	1	0	0.00	12	0.0	0.05	0.40	0	0
34	Tezkhali	Bisnarampur bazar	НВ	No	General Market	Both	0	0	0.00	70	0.0	0.05	0.70	0	0

Sl. No.	Union	Market name	Market Category (GC=Gr owth Center, HB=Hat Bazar)	Market Listed? (Yes/ No)	Market Category (General/ Special/ Collection center)	Market Category (Wholesale/ Retail/both)	Hat Day	Chandina Viti (Number)	Viti	Chandina Viti (Shop)		d Area Khas	(Acre) Private	Lease/ Khas Collecti on BDT (2020)	Lease/ Khas Collecti on BDT (2019)
35	Uttar Banchharampur	Bancharampur hat	GC	Yes	Collection Center	Both	1	0	0.00	20	0.0 6	0.19	2.00	370500 0	227256 1
36	Uttar Banchharampur	Pratapgonj bazar	НВ	Yes	Collection Center	Both	0	0	0.00	150	0.0 6	0.19	2.00	205100	180300
37	Uttar Banchharampur	Dariarchar bazar	НВ	Yes	General Market	Wholesale	1	0	0.00	125	0.4	0.06	0.06	50800	49000

ANNEXURE - 2

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 Population	Weightage for Travel Time	Weightage for Cost per 1000	Weightage for Road Type	Total Weightage	Priority
1	Banchharampur	Salimabad	Jhunar Char	3000	3437	Junarchar D.C road- Baluanadir Ghat.	412044048	VRA	All Weather	1.70			1.70	1.70	1.70	204.00	0.00	0.00	204.00	2022	59.35	25.50	20	10	25	12	67	1
2	Banchharampur	Sonarampur	Rajapur	2500	2864	Santipur Main Road - Rajapur River Ghat	No ID	VRB	All Weather	1.50			1.50	1.50	1.50	180.00	0.00	0.00	180.00	1910	62.84	22.50	20	10	25	12	67	2
3	Banchharampur	Sonarampur	Balurchar	2000	2292	Char Morichakandi Main Road - Ichapur via Balurchar	No ID	VRB	All Weather	2.00			2.00	2.00	2.00	240.00	0.00	0.00	240.00	1146	104.73	30.00	20	10	25	12	67	3
4	Banchharampur	Uttar Banchharampur	Maldip	650	745	Padmapur -Maldip Road	No ID	VRB	All Weather	1.00			1.00	1.00	1.00	120.00	0.00	0.00	120.00	745	161.13	15.00	15	10	25	12	62	4
5	Banchharampur	Tezkhali	Modhupur	500	573	Akanagar village - Modhupur Road	No ID	VRB	All Weather	0.80			0.80	0.80	0.80	96.00	0.00	0.00	96.00	716	167.57	12.00	15	10	25	12	62	5
6	Banchharampur	Purba Saifullakandi	Santinagar	300	344	Darikandi Main Road - Santinagar Road	No ID	VRB	All Weather	1.20			1.20	1.20	1.20	144.00	0.00	0.00	144.00	286	418.94	18.00	15	10	25	12	62	6
7	Banchharampur	Pahariakandi	Mollukgram	1600	1833	Moddhanagar - Dariadaulat via Mollukgram Road	No ID	VRB	All Weather	3.50			3.50	3.50	3.50	420.00	120.00	1080.00	1500.00	524	818.23	52.50	18	10	20	12	60	7
8	Banchharampur	Salimabad	Akrampur	616	706	Khagkanda Bazar - Bhurburia bazar road.	412044081	VRA	All Weather	3.70			3.70	3.70	3.70	444.00	65.00	585.00	1029.00	191	1457.94	55.50	15	10	15	12	52	8

^{***} 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)