



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”

Bishwamvarpur, Sunamganj



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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 is important for the concept of hard-to-reach villages.

- In haor areas, Village connected with submersible roads dry season and connected with riverine/haor routes in monsoon season has been considered as accessible and excluded from hard-to-reach villages.
- Within Upazila, Villages that needs a bridge to connect has not considered as hard-to-reach villages.
- In case of island Upazilas, villages that are accessible with paved roads from Upazila HQ has been considered as accessible and excluded from hard-to-reach villages.
- In case of villages that are connected with HBB (Herring-Bone-Bond) or Brick flat soling routes has been considered as 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 strong social bond. Within a Mauza there could be more than one village.

Union Bangladesh has 3-tiers local government system: 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 mean in the Study the village pathway or access used for walking by commuters, in the most cases do not have gazetted or established or commonly used alignment, and to the most, passable by bi-cycle or motor bike. These village trails are not passable by motorized jeep or mini truck or emergency service vehicle or not even by any three wheelers.

Unpaved Roads have no pavement or surface material. They are usually the 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 which increases 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 disaster like flood 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
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
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 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 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 election manifesto 2018 titled ‘My Village-My Town’- Extension of Modern Civic Amenities in Every Villages. 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, 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 mandate of 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 implementation of 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 Minister of Local Government, Rural Development and Co-operatives.

Context of the Report

This report is a part of 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 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 lot of challenges. These regions are -Haor, Beel, Hills, Chars, islands etc. The people residing in these regions has considerably low access to civic amenities compared to other villages of the country. Therefore, study and plan development of improvement of rural connectivity is one of the important assignments of the technical assistance project. The project undertook Upazila based special study on the villages of these geographically sensitive regions that are mentioned before.

This report contains rural connectivity status and priority plan of the **Biswambarpur** Upazila of **Sunamganj** District.

1 DESCRIPTION OF THE UPAZILA

1.1 GEOGRAPHY AND DEMOGRAPHY

The geographical area of Biswambarpur upazila is 248.63 sq.km of land with 28 sq.km of riverine area. It has 5 unions, 61 mouzas and 184 villages. Biswambarpur is 17 km away from district headquarters of Sunamganj. There exists 4 major rivers flowing over the upazila. The total population of the upazila is 1,56,381 of which 78,175 are male and 78,206 female, total number of households is 29,336, average household size 5.33 with a population density of 629 per sq.km (as per population census 2011).

1.2 EDUCATION FEATURES

According to the information availed from relevant local government offices, there are 43 govt. primary, 31 registered primary, 1 non-government primary, 145 NGO & 6 kindergarten schools. On the other hand, Biswambarpur has 10 non-government high schools with an only private college, and 39 madrasahs. The literacy rate for the upazila is 34.6 %.

1.3 RURAL ROAD COMMUNICATIONS

Bangladesh scored in the rural accessibility index at around 87 per cent among South Asian and some other Africa countries. Generally, the people of Bangladesh get all weather within 2 kilometers adjacent to their living places. But the feature of rural roads communications in Biswambarpur upazila is contrasted. There are many villages, disconnected from the developed paved road network that brings huge sufferings for the people of the villages. The total rural road network of Biswambarpur is 316.09 km, out of which 153.22 km paved and 162.87 km earthen.

1.4 AGRICULTURE, FOOD PRODUCTION AND FISHERIES

Agriculture has a major importance for the economy of the people living here in Biswambarpur. There are 61,440 acres of arable land in the upazila. In the fiscal year 2010-11 the Rice production was 1740, 17609 & 35042 metric tons for Aus, Aman & Boro seasons respectively. The upazila also produced 510 metric tons of Wheat, 1250 metric tons of Potato and 777 metric tons of Oilseed in the same fiscal year 2010-11. A notable quantity of vegetable is also produced here in this upazila.

According to the BBS (2010-11) data Biswambarpur has 10,813 Acres of haor, pond & dhighee that produces abundant fishes. There also exists 166 livestock, 10 dairy farms & 135 poultry farms. All the agricultural products are adequate to meet the demand of the upazila and surpluses are sold to outside of Biswambarpur.

1.5 GROWTH CENTRE AND HATBAZAR

Growth Centre and Rural Hatbazar is one of the main centres of the rural economy. Hatbazar is like the heart for the development of the rural economy. Rural hatbazar plays a role in increasing production and creating employment impacting on the supply chain of agriculture and non-agriculture products. There are 28 hatbazars with 3 growth centres in the upazila. The structural development of hatbazar and growth is pivotal to boosting up the rural economy. A details of the growth center & hatbazar of the Upazila has been attached in the [Annexure-1](#).

2 LOCATION OF THE UPAZILA

Biswambarpur Upazila is in the North-Eastern part of the country under Sunamganj district of Sylhet division. The location has been shown in the map. It is surrounded by Meghalaya State of India on the north, Sunamganj Sadar and Jamalganj upazilas on the south, Sunamganj Sadar upazila on the east, Tahirpur and Jamalganj upazilas on the west. The upazila is adjacent to the Indian border at Meghalaya foothill. The hilly rivers coming down from the ‘Khasi and Jaintia hills’ in Meghalaya, India carry particularly high volumes of water during monsoon as they come from some of the rainiest places in the world, resulting flash flood at the foothills inside Bangladesh. Flood coming from uphill Meghalaya (*where there is Cherrapunji, the wettest place on earth*) during monsoon causes waterlogging within the haor basin for almost half the year. Flash floods induce severe impacts in both the built and the natural environment. The effects of flash floods can be catastrophic and show extensive diversity, ranging from damages in buildings and infrastructure to impacts on vegetation, human lives and livestock.

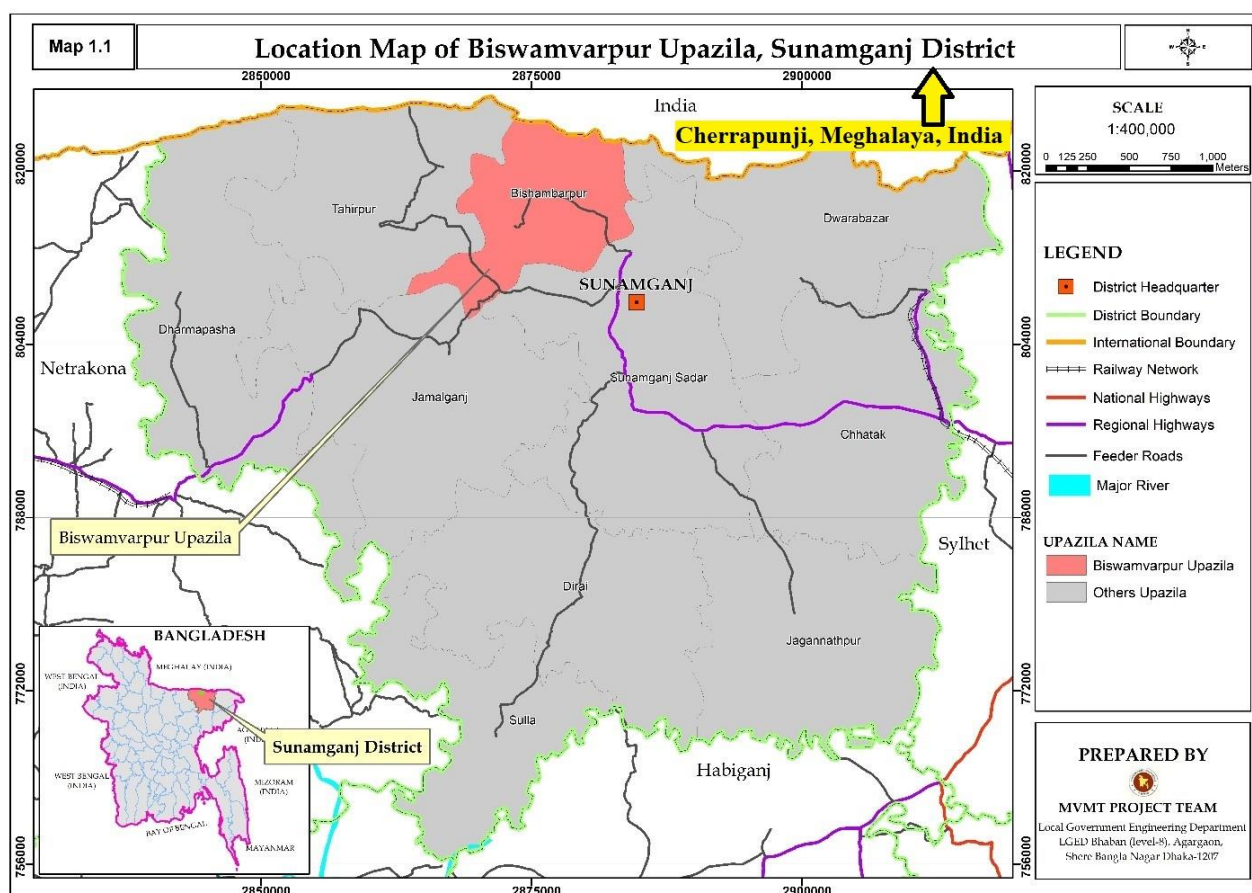


Figure 1: Upazila Location Map.

3 APPROACH & METHODOLOGY

3.1 STUDY TEAM COMPOSITION

A team consisting of Senior Rural Road Infrastructure Specialist, Associate Rural Infrastructure Specialist, Assistant Engineer engaged by 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. 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, priority needs identified and mapped working together with the LGI representatives and LGED technical team. LGED and LGI representatives were surveyed each Upazila for collection of detailed observations and validations of the proposed priority needs.

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

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, PMO team conducted the study in 50 Upazilas of Haor areas and rest of the Upazilas of Haor, Beel, Char and Island areas are conducted by 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 in 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 field work) and quantitative (structured and semi structured interviews) approach and methods in reviewing and conducting field work 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 field work were:

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

- ❖ Review Hard-to-reach village database at the ‘Stakeholder consultation meeting’ participating by local government representatives such as 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, teacher, local farmer, trader, and student depending on the 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 MVMT project.
- ❖ Survey with GPS machine and Google apps in collecting Hard-to-reach village location, landmark, chainage at gaps, village road at section 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 higher number of population and travel time get higher weightage;
- Priority is given to roads, ghats and collection points that will facilitate agricultural diversification, reduce transportation cost, ensure fair price and create farm and non-farm employment and income;
- Priority is given to roads’ development and inland waterways dredging that will enable year-round mobility of 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 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 demand and local need are reflected in the prioritization which were

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

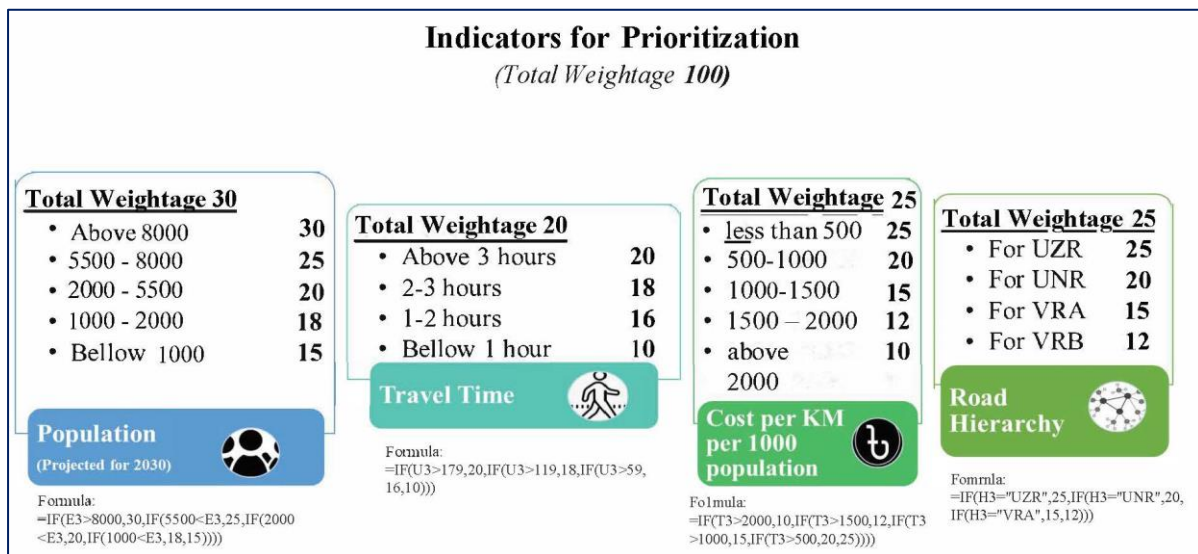


Figure 2: Prioritization indicators & their weightage values

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 union Chairman and members who knows the sub-project and area the best. This was not in scale but approximation was reached by triangulation. Then digitized on screen using GIS, and 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 field work 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. 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 staffs.

3.9 NATIONAL WORKSHOP

The Draft Report is finalized, incorporating comments received from the validation workshop, LGED head office staff and 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 a large portion of flash flood zone that covers almost 55% of its total area and mostly deep haor. The roads within the flood zone becomes inundated at monsoon, that requires an attention to take relevant measures during road construction and maintenance.

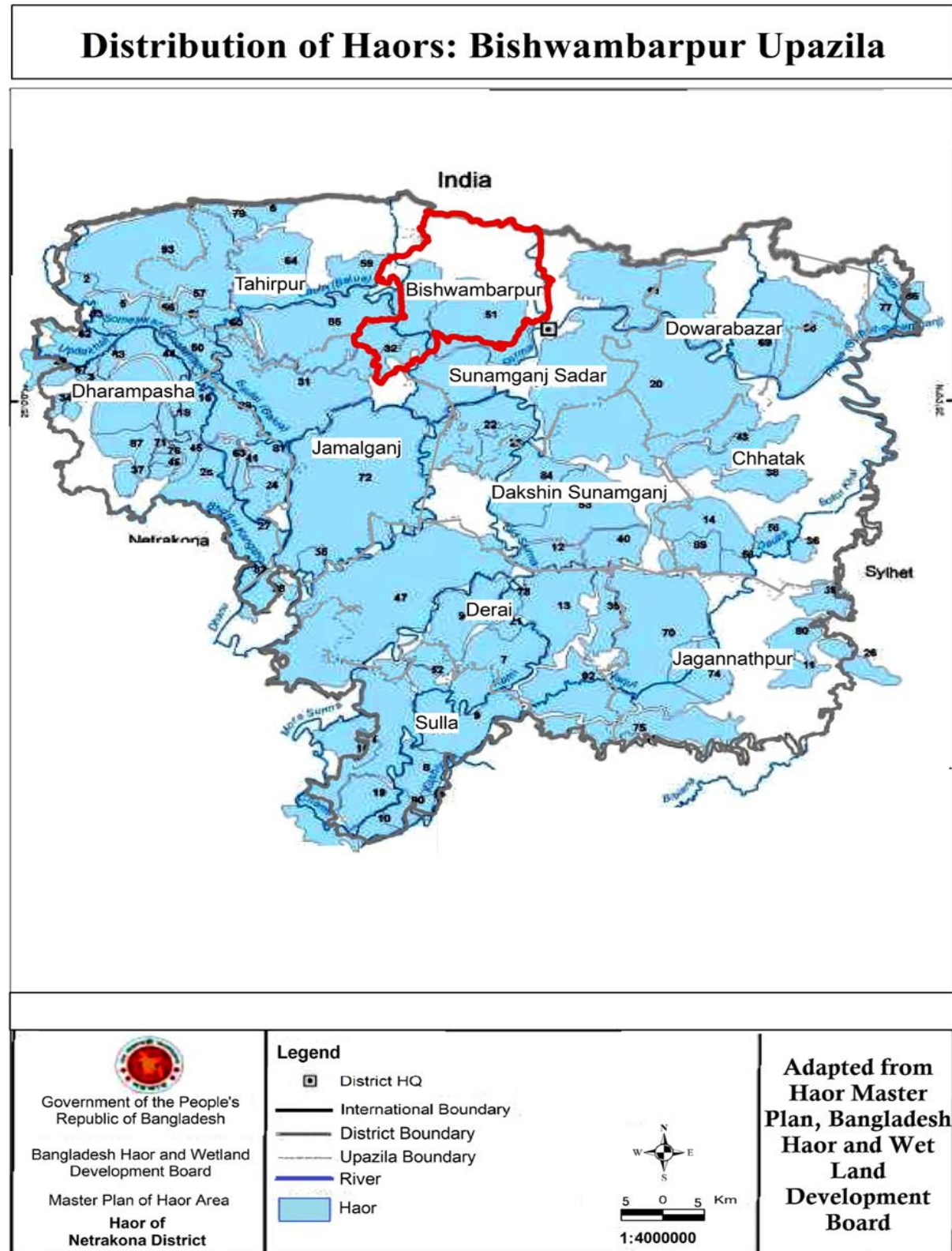


Figure 3: Haor Distribution Map

4.2 HAOR/ WETLAND CATEGORY

However, most of the portion of the Upazila is within deeply flooded zone. Therefore, road or other infrastructure development in this Upazila has major environmental consequences.

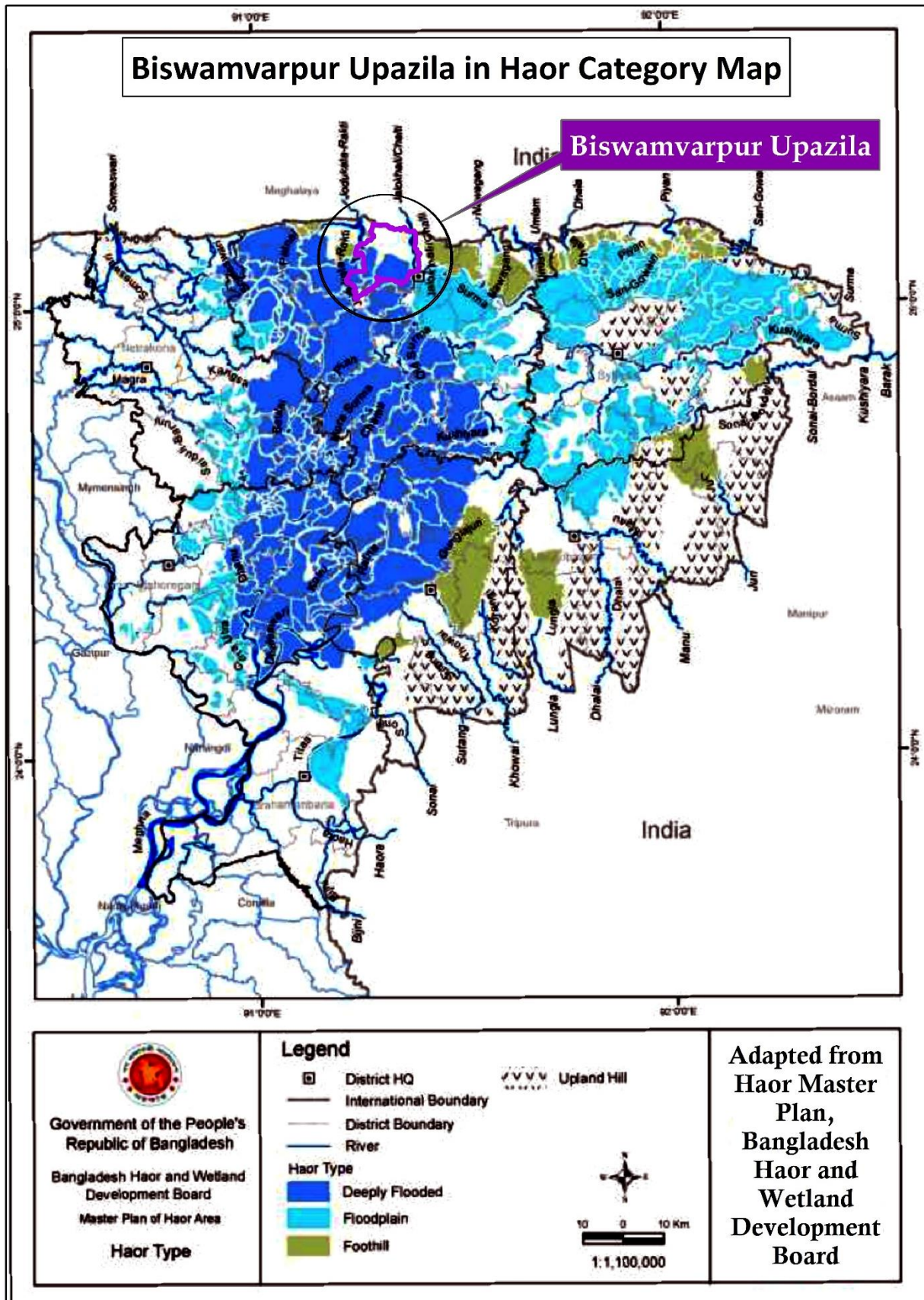


Figure 4: Haor Category Map.

4.3 BIO-ECOLOGICAL CHARACTERISTICS

The Bio-ecological characteristics map of the Upazila has been shown below. The map shows that, it is mostly Himalayan Piedmont Plain and rest of it is Haor Basin. Therefore, adequate opening for the road and road structures should be maintained.

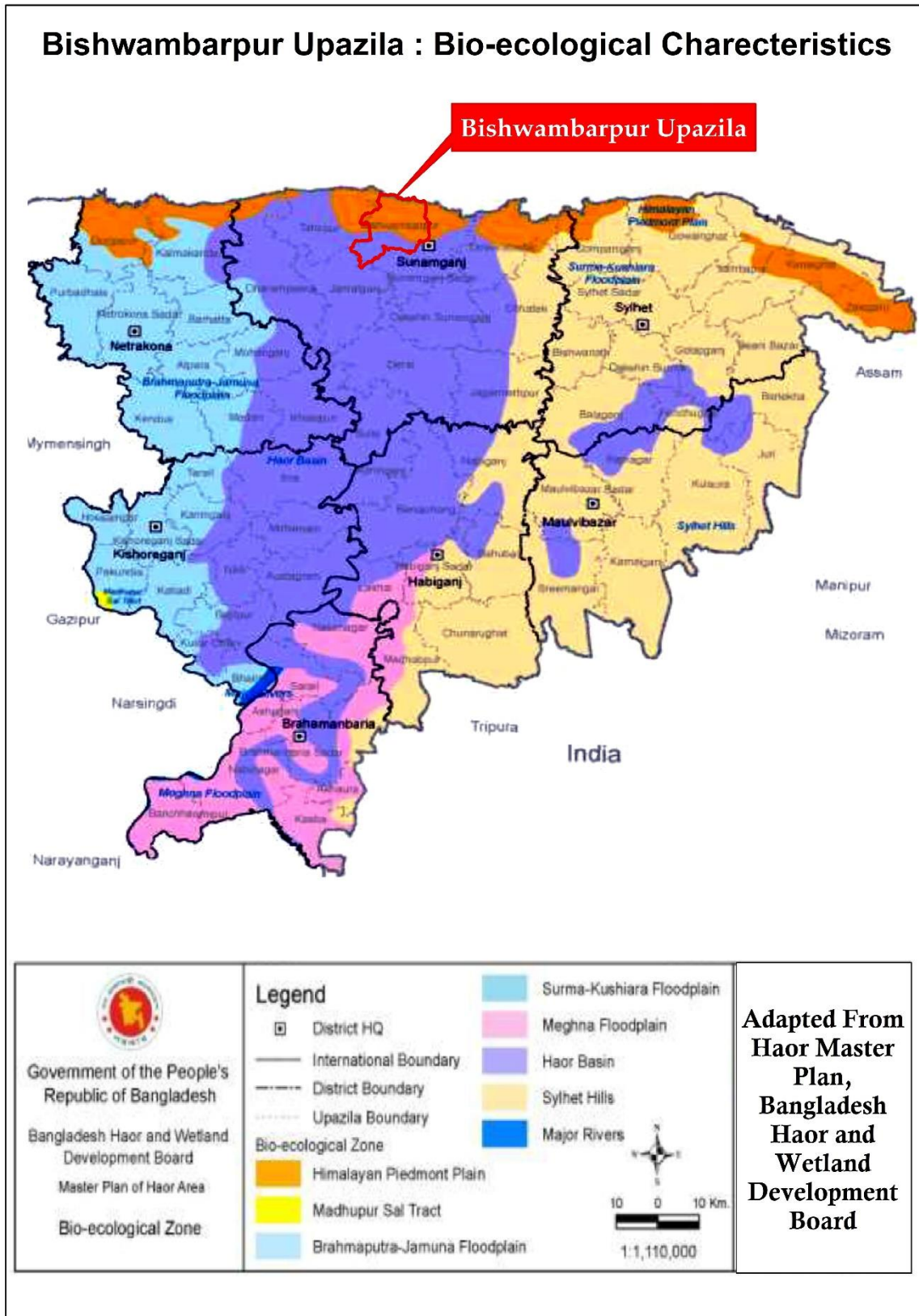


Figure 5: Bio Ecological Characteristics Map

5 RURAL ROAD CONNECTIVITY TO THE VILLAGES

5.1 SUMMARY OF THE VILLAGE CONNECTIVITY

Biswambarpur is an upazila with major haors. The rural road communication is quite poor here. Out of 188 villages, 24 are disconnected from the developed paved road network that brings huge sufferings for the people of those villages. The total rural road network of Biswambarpur is of 316.09 km, out of which 153.22 km paved and 162.87 km earthen.

Table 1: Total villages in the unions and their connectivity

SL No	Union	No of Villages	Connected Villages	Disconnected Villages
1	Dakshin Badaghat	29	25	4
2	Dhanpur	46	42	4
3	Fatehpur	51	45	6
4	Palash	47	40	7
5	Sholukabad	15	12	3
Total =		188	164	24

5.2 VILLAGES AND THEIR CONNECTIVITY – UNION LEVEL

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

Table 2: Union wise connected & disconnected villages and their population

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Disconnected Villages	Population 2021 (Based on BBS 2011)
Dakshin Badaghat (29)	1	Amuria	1605	Noagaon	398
	2	Angrali Sonar Haor	739	Purangaon	2073
	3	Baghgaon	1881	Shakiar Khola	1980
	4	Baghmara	666	Ul Lasnagar	703
	5	Basantapur	1297		
	6	Bhati Para	325		
	7	Butaj	467		
	8	Chhatrish	533		
	9	Durgapur	1636		
	10	Gagra (Purba Miar Chak)	438		
	11	Gandamara	474		
	12	Ikaratia	824		
	13	Jagonathpur	685		
	14	Jalilpur	753		
	15	Lalulapur	984		
	16	Madhu Pur	467		
	17	Manbag	356		
	18	Miarchar	1709		
	19	Natun Baghmara	1061		

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Disconnected Villages	Population 2021 (Based on BBS 2011)
	20	Omarpur	1020		
	21	Purba Shahapur	365		
	22	Rahimpur	1709		
	23	Saridharpur	767		
	24	Sirazpur	3314		
	25	Sonapur	472		
			Sub Total=	24547	
Dhanpur (46)	1	Akheynagar	7006	Chalita Doba	439
	2	Amragara		Dudpur	1347
	3	Asamgaon	330	Katakhali	298
	4	Batargara	606	Moddho Kamartola	1146
	5	Boalia	823		
	6	Chadargaon	1178		
	7	Chandpur	941		
	8	Chang Bil			
	9	Chargaon	2269		
	10	Chhatarkaona	3469		
	11	Chinakandi	1685		
	12	Dhanpur	2522		
	13	Gamiairtala	2279		
	14	Gulgaon	1094		
	15	Haiabari	2055		
	16	Islampur	1574		
	17	Kaitkona	849		
	18	Kalipur			
	19	Kalutia	147		
	20	Kapna			
	21	Kashipur			
	22	Lakshmipar	1683		
	23	Lotargaon	572		
	24	Machimpur	2332		
	25	Madhyanagar	1105		
	26	Madhyanagar (Naya Para)	339		
	27	Madhyanagar (Reserve)	563		
	28	Mahadranagar	490		
	29	Mathurakandi			
	30	Meruakhola	3017		
	31	Moakura			
	32	Nutan Gulgaon			
	33	Paschim rajnagar	579		
	34	Purba Dalura			
	35	Purba Rajnagar	912		
	36	Rajapara	506		
	37	Ramnagar	316		
	38	Shilduar	2249		

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Disconnected Villages	Population 2021 (Based on BBS 2011)
	39	Sonatala	781		
	40	Surapgonj	1716		
	41	Sureshnagar	1471		
	42	Taragonj	930		
	Sub Total=			48388	
Fatehpur (51)	1	Aktapara		Anantapur	1296
	2	Alamdahar	406	Dulbarchar	630
	3	Alipur	461	Naimatpur (Bhatipara)	371
	4	Baghua	1668	Rangiar Char	344
	5	Bahadurpur	560	Salmara	557
	6	Basantapur		Sankarpur(Sangrampur)	1707
	7	Bishwambarpur	1398		
	8	Biswhambarpur Bazar			
	9	Biswhambarpur Bazar	24		
	10	Chandargaon	454		
	11	Chandbari			
	12	Chandpur			
	13	Chandpur Khola			
	14	Fulvori			
	15	Gagtia	631		
	16	Gazinagar	383		
	17	Gopalganj	1121		
	18	Gopalpur	631		
	19	Habibnagar	84		
	20	Haripur	487		
	21	Islampur			
	22	Kachukhali	404		
	23	Kalaya	510		
	24	Kaya	391		
	25	Khidirpur	957		
	26	Kotakhali	1893		
	27	Lakha	618		
	28	Lakhmipur	560		
	29	Mashal Ghat			
	30	Nayabarunka	1001		
	31	Nayagaon	414		
	32	Pachisha	378		
	33	Paslisha			
	34	Pirijpur	779		
	35	Radhanagar	498		
	36	Rajendrapur	1485		
	37	Rajnagar	631		
	38	Roypur	383		
	39	Shahapur	1838		
	40	Shyamarknadi	385		
	41	Tahirpur	729		

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Disconnected Villages	Population 2021 (Based on BBS 2011)
	42	Ujan Daulatour			
	43	Umedpur	352		
	44	Uttar Fatehpur	1007		
	45	Varatpur			
	Sub Total=		23521		4905
Palash (47)	1	Adukhali	843	Dharerpar	1133
	2	Alipur	1182	Dighal Bagh	573
	3	Baghgaon	894	Dighirpar	333
	4	Bajitpur	454	Kachigati	1848
	5	Barargaon	0	Rajghat	725
	6	Chalbanda	0	Rangpur	365
	7	Chayara	1294	Mothurkandi	
	8	Dakshin Majhimoar	843		
	9	Gajirgaon	1648		
	10	Garargaon	0		
	11	Gobindanagar	492		
	12	Hamidnagar	105		
	13	Harishnagar	1045		
	14	Hichagaon	0		
	15	Huchukona	506		
	16	Jagannatpur	0		
	17	Joynagar	319		
	18	Kajura	1027		
	19	Kolarpur	708		
	20	Krishnanagar	455		
	21	Kurihatia	544		
	22	Kuti Para	599		
	23	Lalargaon	508		
	24	Lamapara	0		
	25	Latargaon	0		
	26	Majhair	1644		
	27	Malikpur	1069		
	28	Muktikhola	2116		
	29	Nutun Golgown	639		
	30	Padmanagar	626		
	31	Pakijan	534		
	32	Palashgaon	1825		
	33	Parinagar	813		
	34	Pukurpar	473		
	35	Ranabidya	660		
	36	Rangamati	0		
	37	Rasulpur	669		
	38	Talartal	1007		
	39	Talikona	544		
	40	Uttar Matimoar	417		
Sub Total=		26502		4978	

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Disconnected Villages	Population 2021 (Based on BBS 2011)
Sholukabad (15)	1	Adang	1557	Paschim Majher Tek	1434
	2	Aktapara		Purba Majher Tek	
	3	Baghbar	1075	Ratargaon	2691
	4	Goyengaon	368		
	5	Jinarpur	2328		
	6	Maninagar	378		
	7	Minajpur	61		
	8	Puran Mathurkandi	1129		
	9	Purba Majar Tak	731		
	10	Rampur	1276		
	11	Ratansree	277		
	12	Sonapara	1394		
	Sub Total=			10574	

5.3 MAP OF DISCONNECTED VILLAGES & PROPOSED ROADS

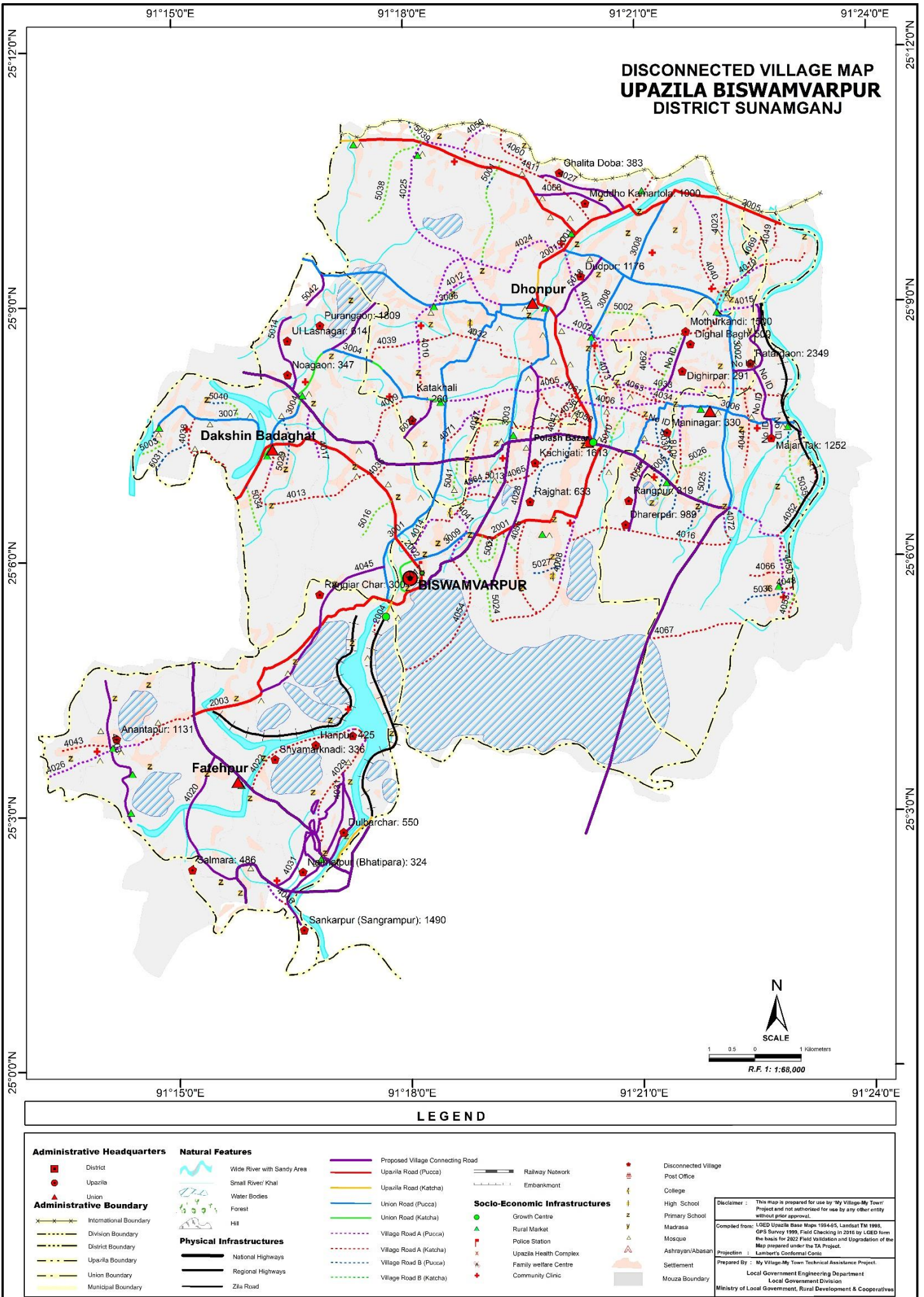


Figure 6: Upazila Map

6 CONSULTATION MEETING & FIELD VISIT

6.1 UPAZILA LEVEL MEETING

The consultant arranged a meeting at upazila conference room with the support of the UE office, that was participated by UNO, UE and all the UP Chairmen & their secretaries.



Figure 7: Upazila level Consultation Meeting

During the meeting, consultant team briefly discussed about the project and instructed the UP Chairmen and UE office for the database correction along with mapping procedure. The team worked on both the database and upazila map and obtained the necessary outputs subsequently.

6.2 VISIT TO CASE STUDY UNION

The consultant visited “Lakha RHD - Biswamvarpur Road” (ID: 690182003) in Fatehpur union and observed the alignment of case study union there. As an upazila road, the condition of this road is quite poor. It’s a submersible road and was selected considering the beneficiary population, educational institutes along the road. The road serves the people of 5 major villages.

Pre Monsoon

Rd. ID: 690182003

Name: Lakha RHD - Biswamvarpur Road



Figure 8: Condition of the visited road alignment at Case Study union

Those villages are Lakha, Kandargaon, Chandergaon, Gopalpur, Rangiar Char having a total population of around 8000. In accordance with LGED, the length of this road is 5.4km of which 0.4km is earthen. During the case study union visit, the condition of this upazila road has observed. GPS data has been recorded along the alignment; photos have been taken subsequently. To demonstrate the alignment condition clearly during monsoon, photos of both the dry season & monsoon have been attached here.

Pre Monsoon

Rd. ID: 690182003

Name: Lakha RHD - Biswamvarpur Road



Figure 9: Condition of the visited road alignment at Case Study union

At Monsoon

Rd. ID: 690182003

Name: Lakha RHD - Biswamvarpur Road



id 690182003 Lakha RHD-BISWAMV
ARPUR Ch 00m

id 690182003 Lakha RHD-BISWAMV
ARPUR Ch 100m

id 690182003 Lakha RHD-BISWAMV
ARPUR Ch 600m

Figure 10: Condition of the visited road alignment at Case Study union

At Monsoon

Rd. ID: 690182003

Name: Lakha RHD - Biswamvarpur Road



id. 690182003 Lakha RHD -Biswamvarpur Road Ch 3200m



id 690182003 Lakha RHD-BISWAMV ARPUR Ch 3500m



id 690182003 Lakha RHD-BISWAMV ARPUR Ch 5800m

Figure 11: Condition of the visited road alignment at Case Study union

As an upazila road, the condition of this road is not good at all that allows the road users to use mostly two-wheelers & electro powered auto rickshaws at present. It is noted, the road condition does not meet the standard for four-wheelers. There are three educational institutes along the road.

7 DATA COLLECTION & ANALYSIS

The consultant collected data from the field on hard to reach/ disconnected villages. Data were collected of those villages including population, road alignment information (*type, length, condition*), travel time, structure required on the alignment, potential riverine routes that can be used for multi-modal transport system etc. The data then analyzed, categorized and finally used to obtain a priority list along with a map (*Figure:6*) showing prioritized roads and disconnected villages. The proposed riverine & road connectivity by the UE office have been discussed in this section.

7.1 PROPOSED RIVERINE ROUTES

As per actual field visit and data analysis from haor development board, Bishamvarpur Upazila is not within deep haor region. It is partially floodplain area. Around 50% of the area is highland and other 50% are flood plain area. Four rivers have passed through Bishamvarpur upazila. That are Jadukata, Rokti, Monai & Gondamara river. At monsoon large area of the upazila gets inundated due to flash flood and heavy rainfall at the uphill. The water level rises resulting the 50% of the upazila submerged. Almost half the year waterways become the only mode of transport in the haor area. During this part of the year, larger boats and trawlers are readily available to transport community & commodity. During fieldwork, it has been known that, there are 4 riverine routes that can be used as multi-modal transport for part of the year.

The name of the riverine routes & the associated streams with types of water vehicle are as follows;

Table 3: Proposed riverine route of the upazila

Sl. No	Name of the Riverine Route	Name of the Stream	Type of the Stream	Types of Water Vehicle	Need of excavation
1	Serajpur baggaon – Shaktiarkhala Bazar	Puran Jadukata River	Intermittent (April – Sept)	Small boat, Engine boat, Trawler	Yes
2	Biswamvarpur HQ- Shongrampur, Dulvarchar-Katakhali- Ghagotia- Rangiarchar- Alipur- Rajnagar	Rokti River	Intermittent (April – Sept)	Small boat, Engine boat, Trawler	Yes
3	Dolura-Shonarpara- Jinarpur-Monipurihati - Bhadertek	Dhupazan Chalti River	Intermittent (April – Sept)	Small boat, Engine boat, Trawler	Yes
4	Bhadertek- Ghagotia	Gazaria Karcha River	Intermittent (April – Sept)	Small boat, Engine boat, Trawler	Yes

7.2 PROPOSED ROADWAY FOR DISCONNECTED VILLAGES:

At present, roads are the most dominant mode of transportation. Most of the structures were built on the rivers to make the road communication effective. Yet, 12 (twelve) bridges are needed to fulfil the purpose. A summary of the rural roads of Biswambarpur Upazila is given below;

Table 4: 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 disconnected villages (KM)
316.09	153.22	162.87	47.07

7.2.1 PROPOSED ALL WEATHER ROUTES:

There are 8 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 5: Proposed all weather roads in the upazila

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
1	Ratanerghat UZR - Cholitadoba UNR via Gamaritola	690184027	All Weather	4
2	Padmanagar - Rajghat Dhanpur Rd	690184028	All Weather	3.79
3	Rotoner Ghat UZR - Chalitardoba UNR Via Gamairtola GPS & Kaitkona GPS Road.	690184068	All Weather	4.035
4	Sureshnagar - Dudpur - Chinakandi Road	690185018	All Weather	2.095
5	Katakhali- Gondamara via Seraj mia House Road	690185022	All Weather	2.785
6	Ratargaon H.School - Kalipur Dolura via Adank	No ID	All Weather	4.5
7	Dighirpar Madrasa - Mothurkandi via Dighirpar & Digholbag	No ID	All Weather	2.5
8	Ratargaon H.School - Majhertek via Mendi Moulovi's House	No ID	All Weather	3.5

7.2.2 PROPOSED SUBMERSIBLE ROUTES:

There are 7 submersible 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 6: Proposed submersible roads in the upazila

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
1	Barokuri bazar - Anantapur Road	690184003	Submersible	2
2	Khola Chanpur - Shalmara Road	690184020	Submersible	3.22
3	Katakhali - Dulbarchar - Sangrampur Rd	690184031	Submersible	2.6

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
4	Sreedharpur - Rangiarchar Road	690184045	Submersible	4.5
5	Ronobidda RHD - Rangpur Kochar Haor Upto Dhorerpar	690184055	Submersible	2.01
6	Bashantapur Bazar - Ekoratia - Nowagaon Rd	690185014	Submersible	2.52
7	Purangaon Purba Para - Purangaon Paschim Para	690185042	Submersible	3.01

7.2.3 PROPOSED ROADS FOR DISCONNECTED VILLAGES HAVING NO ID:

There are 3 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 7: Proposed roads for disconnected villages having No ID

Sl. No	Road Name	Road ID	Unpaved length (Km)
1	Ratargaon H.School - Kalipur Dolura via Adank	No ID	4.5
2	Dighirpar Madrasa - Mothurkandi via Dighirpar & Digholbag	No ID	2.5
3	Ratargaon H.School - Majhertek via Mendi Moulavi's House	No ID	3.5

7.2.4 PRIORITY FOR ROAD DEVELOPMENT

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

Table 8: 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 same score. At these cases, the minimum budget required for providing connectivity to thousand people- will get more priority compared to more budget required roads. The roads bearing ID will have the higher priority than the roads without ID.

8 CONCLUSION & RECOMMENDATIONS

- Part of Biswambarpur Upazila is foothill of Meghalaya Mountains and part of the Upazila is deeply flooded zone. Four rivers dominate the ecosystem, transport system of the Upazila. That are Jadukata, Rokti, Monai & Gondamara rivers those are mostly originate at Meghalaya, India. During monsoon, these rivers carry huge volume of flood water from Khasi & Jainta hills. Though the Upazila has a number of rivers, riverine transport is available only during April – September. Small boats, Engine boats, Heavy trawlers carrying agricultural products and passengers during monsoon. The rivers can supply irrigation water throughout the year but it does not have enough water for riverine transportation except monsoon.
- 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 23 disconnected villages. To develop rural connectivity, there are proposals for all weather as well as 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, the vulnerability is getting intense. The year 2022 has shown catastrophic flood that was not seen over the last 18years (*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 Upazila Biswambarpur in Sunamganj district is highly recommended.

ANNEXURE - 1

DETAILS OF GROWTH CENTER & HATBAZAR

Union	Market Name	Market Category (GC=Growth Center, HB=Hat Bazar)	Market Listed? (Yes/ No)	Market Category (General/ Special/ Collection center)	Market Category (Wholesale/ Retail/both)	Hat Day	Chandina Viti (Number)	Chandina Viti (Land)	Chandina Viti (Shop)	Land Area (Acre)			Lease/ Khas Collection BDT (2020)	Lease/ Khas Collection BDT (2019)
										Toha	Khas	Private		
Dakshin Badaghat	Shaktiharkholar bazar	HB	Yes	General Market	Wholesale	2	129	1.90	158	0.05	1.19	0.00	916	22000
Dakshin Badaghat	Basantapur bazar	HB	Yes	General Market	Wholesale	2	0	0.45	51	0.21	1.08	0.00	3249	0
Dakshin Badaghat	Miarchar bazar	HB	Yes	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Dakshin Badaghat	Badaghat hat	GC	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Dhanpur	Chinakandi bazar	HB	Yes	General Market	Wholesale	2	0	0.15	102	0.00	0.00	1.62	4170800	3076300
Dhanpur	Dhanpur bazar	HB	Yes	General Market	Wholesale	2	0	1.71	121	0.00	0.00	0.35	141000	99050
Dhanpur	Katakhali bazar	HB	Yes	General Market	Wholesale	2	0	0.48	50	0.00	0.00	0.48	880	0
Dhanpur	Sarifganj bazar	HB	Yes	General Market	Wholesale	2	0	0.67	28	0.00	0.00	0.67	800	2405
Dhanpur	Anadabazar	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Dhanpur	Anandabazar hat	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Dhanpur	Chourasta curantir bazar	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Dhanpur	Kashipur bazar	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Dhanpur	Masimpur bazar	HB	Yes	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Dhanpur	Mujib bazar	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Fatehpur	Biswamvarpur hat	GC	Yes	General Market	Wholesale	2	103	1.50	135	0.00	0.00	0.00	1456000	1261677
Fatehpur	Fatapur bazar	HB	Yes	General Market	Wholesale	2	0	0.27	37	0.00	0.00	0.00	1583	0
Fatehpur	Dulverchar bazar	HB	Yes	General Market	Wholesale	2	0	0.27	102	0.00	0.00	0.00	12100	8944
Fatehpur	Khirdarpur bazar	HB	Yes	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Fatehpur	Barakuri bazar	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0

Union	Market Name	Market Category (GC=Growth Center, HB=Hat Bazar)	Market Listed? (Yes/No)	Market Category (General/ Special/ Collection center)	Market Category (Wholesale/ Retail/both)	Hat Day	Chandina Viti (Number)	Chandina Viti (Land)	Chandina Viti (Shop)	Land Area (Acre)			Lease/ Khas Collection BDT (2020)	Lease/ Khas Collection BDT (2019)
										Toha	Khas	Private		
Fatehpur	Satgaon	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Palash	Palash hat	GC	Yes	General Market	Wholesale	2	0	0.68	163	0.00	0.00	0.00	126150	83278
Palash	Janatar bazar	HB	Yes	General Market	Wholesale	2	0	0.50	35	0.00	0.00	0.00	7650	10770
Palash	Carenter bazar	HB	Yes	General Market	Wholesale	2	0	0.82	42	0.00	0.00	0.00	0	50100
Palash	Halabadi bazar	HB	Yes	General Market	Wholesale	2	0	0.32	35	0.12	0.31	0.52	420	0
Palash	Jagannathpur bazar	HB	Yes	General Market	Wholesale	2	0	0.55	42	0.32	0.86	0.00	2250	2308
Palash	Alipur bazar	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Salukabad	Mathurakandi bazar	HB	Yes	General Market	Wholesale	2	0	0.70	154	0.00	0.00	0.00	20000	6198
Salukabad	Bagbar bazar	HB	Yes	General Market	Wholesale	2	0	0.00	111	0.00	0.00	0.00	3580000	6961892
Salukabad	Zinerpur bazar	HB	Yes	General Market	Wholesale	2	0	0.75	55	0.00	0.00	0.00	4174	31158
Salukabad	Bhadertek bazar	HB	Yes	General Market	Wholesale	2	0	0.42	72	0.00	0.00	0.00	0	0
Salukabad	Mouakura	HB	Yes	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0

ANNEXURE - 2

PRIORITY LIST FOR ROAD DEVELOPMENT

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Priority	Connecting Union	Connecting Village	Population 2021 (Based on BBS 2011)	Road Name	Road ID	Road Type	Road Type by Surface Condition	Total Road Length (10+11+12)	Paved length (km)	HBB Length (km)	Unpaved length (km)	HBB + Unpaved (11+12) in (km)	Approx. Cost of Road (lac)	Structure/ Gap (meter)	Cost of Structure (in Lac)	Total Cost (in lac) (Roads + Structures)	Population /KM (4-13)	Tentative Budget/1000 Population (in lac)	Travel Time (in min)	Weightage for Population	Weightage for Travel Time	Weightage for Cost per 1000 Population	Weightage for Road Type	Total Weightage (21+22+23+24)
1	Fatehpur	Sankarpur (Sangrampur), Naimatpur (Bhatipara), Dulbarchar	2709	Katakhali - Dulbarchar - Sangrampur Rd	690184031	VRA	Submersible	4.6	2		2.6	2.6	468	20	180	648	1042	239	39	20	10	25	15	70
2	Palash	Rajghat, Kachigati	2573	Padmanagar - Rajghat Dhanpur Rd	690184028	VRA	All Weather	5.39	1.6		3.79	3.79	454.8	50	450	904.8	679	352	57	20	10	25	15	70
3	Dakshin Badaghat	Purangaon	2073	Purangaon Purba Para - Purangaon Paschim Para	690185042	VRA	Submersible	3.01			3.01	3.01	541.8	30	270	811.8	689	392	45	20	10	25	15	70
4	Dakshin Badaghat	Shakiar Kholra, Ul Lasnagar, Noagaon	3081	Bashantapur Bazar - Ekoratia - Nowagaon Rd	690185014	VRA	Submersible	2.52			2.52	2.52	453.6	110	990	1443.6	1223	469	38	20	10	25	15	70
5	Dhanpur	Moddho Kamartola	1146	Ratanerghat UZR - Cholitadoba UNR via Gamaritola	690184027	VRA	All Weather	5.2	1.2		4	4	480	20	180	660	286	576	60	18	16	20	15	69
6	Dhanpur	Dudpur	1347	Sureshnagar - Dudpur - Chinakandi Road	690185018	VRA	All Weather	2.195	0.1		2.095	2.095	251.4	5	45	296.4	643	220	31	18	10	25	15	68
7	Palash	Rangpur, Dharerpar	1499	Ronobidda RHD - Rangpur Kochar Haor Upto Dhorerpar	690184055	VRA	Submersible	4.01	2		2.01	2.01	361.8	30	270	631.8	746	422	30	18	10	25	15	68
8	Fatehpur	Anantapur	1296	Barokuri bazar - Anantapur Road	690184003	VRA	Submersible	3.32	1.32		2	2	360	100	900	1260	648	972	30	18	10	20	15	63
9	Dhanpur	Chalita Doba	439	Rotoner Ghat UZR - Chalitardoba UNR Via Gamairtola GPS & Kaitkona GPS Road.	690184068	VRA	All Weather	5.185	1.15		4.035	4.035	484.2	20	180	664.2	109	1514	61	15	16	12	15	58
10	Fatehpur	Rangiar Char	344	Sreedharpur - Rangiarchar Road	690184045	VRA	Submersible	4.5			4.5	4.5	810		0	810	76	2357	68	15	16	10	15	56
11	Dhanpur	Katakhali	298	Katakhali- Gondamara via Seraj mia House Road	690185022	VRA	All Weather	2.985	0.2		2.785	2.785	334.2	22.5	202.5	536.7	107	1802	42	15	10	12	15	52
12	Fatehpur	Salmarra	557	Kholra Chanpur - Shalmarra Road	690184020	VRA	Submersible	3.22			3.22	3.22	579.6	200	1800	2379.6	173	4273	48	15	10	10	15	50
13	Solkabad	Ratargaon	2691	Ratargaon H.School - Kalipur Dolura via Adank	No ID	VRB	All Weather	4.5			4.5	4.5	540		0	540	598	201	68	20	16	25	12	73
14	Solkabad	Majar Tak	1434	Ratargaon H.School - Majhertek via Mendi Moulouvi's House	No ID	VRB	All Weather	3.5			3.5	3.5	420		0	420	410	293	53	18	10	25	12	65
15	Palash	Dighirpar, Dighal Bagh, Mothurkandi	906	Dighirpar Madrasa - Mothurkandi via Dighirpar & Digholbag	No ID	VRB	All Weather	2.5			2.5	2.5	300		0	300	363	331	38	15	10	25	12	62