



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”

Nagarpur, Tangail



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CONTENTS

GLOSSARY	i
Abbreviation	ii
Background	iii
1 Description of the Upazila	1
1.1 Geography and Demography	1
1.2 Education Features.....	1
1.3 Rural Road Communications.....	1
1.4 Agriculture, Food Production and Fisheries	1
1.5 Growth Centre and Hatbazar.....	1
2 Location of the Upazila	2
3 Approach & Methodology	3
3.1 Study Team Composition.....	3
3.2 Study Area.....	3
3.3 Database Review and Analysis	3
3.4 Prioritization Criteria of Sub-projects	4
3.5 Weightage Distribution for Prioritization.....	4
3.6 Mapping Hard-to-reach Villages & Population.....	5
3.7 Wrap Up Meeting.....	5
3.8 Validation Workshop.....	5
3.9 National Workshop.....	6
4 Rural Road Connectivity to the Villages	7
4.1 Summary of the Village Connectivity.....	7
4.2 Villages and their connectivity – Union level.....	7
4.3 Map of Hard-to-Reach Villages & Proposed Roads.....	13
5 Consultation Meeting & Field Visit	14
5.1 Upazila Level Meeting	14
5.2 Visit to Case Study Union	14
6 Data Collection & Analysis	16
6.1 Proposed Riverine routes	16
6.2 Proposed Roadway for Hard-to-Reach Villages:.....	16
6.2.1 Proposed All Weather Routes:.....	16
6.2.2 Proposed Submersible Routes:.....	18
6.2.3 Proposed Roads for Hard-to-Reach Villages Having No ID:	20
6.2.4 Priority for Road Development	21
7 Conclusion & Recommendations	22
Annexure - 1	23
Annexure - 2	27

List of Figures

Figure 1: Location Map of the Upazila.....	2
Figure 2: Prioritization indicators & their weightage values	5
Figure 3: The Upazila Map	13
Figure 4: Upazila level Consultation Meeting.....	14
Figure 5: Condition of the visited road alignment at Case Study Union	15

List of Tables

Table 1: Total villages in the Unions and their connectivity.....	7
Table 2: Union wise connected & Hard-to-Reach Villages and their population	7
Table 3: Summary of the rural roads in the Upazila.....	16
Table 4: Proposed all weather roads in the Upazila	16
Table 5: Proposed submersible roads in the Upazila	18
Table 6: Proposed roads for Hard-to-Reach Villages having No ID.....	20
Table 7: Considered weightage values for the prioritization.....	21

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.

ABBREVIATION

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 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 **Nagarapur** Upazila of **Tangail** District.

1 DESCRIPTION OF THE UPAZILA

1.1 GEOGRAPHY AND DEMOGRAPHY

The geographical area of Nagarpur Upazila is 262.70 square kilometers and has 12 Unions, 213 mouzas and 245 villages. The Upazila is 27 km away from District headquarters of Tangail. There are 3 rivers flowing over the Upazila- Jamuna, Dhaleshwari & Nowai. The total population of the Upazila is approx. 2,99,000 of which 1,42,000 are male and 1,57,000 female, total number of households are 66,000 and average household size is 4.33 with a population density of 1097 (*as per population census 2011*).

1.2 EDUCATION FEATURES

According to the information of the relevant local government offices there are 90 govt. primary, 49 registered primary, one non-government primary, 11 NGO schools & 37 kindergarten schools. On the other hand, Nagarpur has 40 non-government high schools with one govt college, 4 private colleges, and 24 madrasahs. The literacy rate for the Upazila is 42.7% as per BBS 2011.

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 Nagarpur 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 Nagarpur is 633.03 km and out of which, 162.47 km paved and 470.55 km earthen.

1.4 AGRICULTURE, FOOD PRODUCTION AND FISHERIES

Agriculture has a major importance for the economy of the people of Nagarpur. There are 64,095 acres of arable land in the Upazila. In the fiscal year 2010-11 the Rice production was 26.94, 8518 & 54354 metric tons for Aus, Aman & Boro seasons respectively. The Upazila also produced 7696 metric tons of Wheat, 6434 metric tons of Jute, 9944 metric tons of Sugarcane, 3,857 metric tons of Potato and 3,432 metric tons of Oilseed in the same fiscal year 2010-11. A notable quantity of fruits and vegetables are also produced here in this Upazila.

According to the BBS (2010-11) data Nagarpur has 1549.32 acres of pond, dhighee & wetlands that produced 3,860 metric tons of fishes. There also exists 108 poultry & 85 dairy farms.

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 56 hatbazar and 5 growth centers 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

Nagarpur Upazila is located in the Central Bangladesh under Tangail District in Dhaka Division. The location has been shown in the map. It is surrounded by Tangail Sadar and Delduar Upazilas on the north, Daulatpur (Manikganj) and Saturia Upazilas on the south, Mirzapur and Dhamrai Upazilas on the east, Chauhali and Shahjadpur Upazilas on the west. The Upazila is located within the **Brahmaputra River Basin**. The river, Brahmaputra is a trans-boundary river which flows through Tibet (mountains), India (Arunachal Pradesh & Assam), and Bangladesh and is the 9th largest river in the world by discharge. The river is prone to catastrophic flooding in the summer & monsoon (March – October) when the Himalayan snow melts along with the heavy rainfall in Meghalaya, India. This part of the year, the Brahmaputra discharges a large volume of water coming from upstream. The entire lower Brahmaputra (*i.e., the part inside Bangladesh, known as **Jamuna River***) and its branches carry a large amount of water during monsoon that overflows the river's carrying capacity and inundates the river basin as well as the Upazila. The effects of flooding can be devastating and cause significant damage to crops and households, serious bank erosion with consequent loss of structures, land, and loss of many lives and livestock.

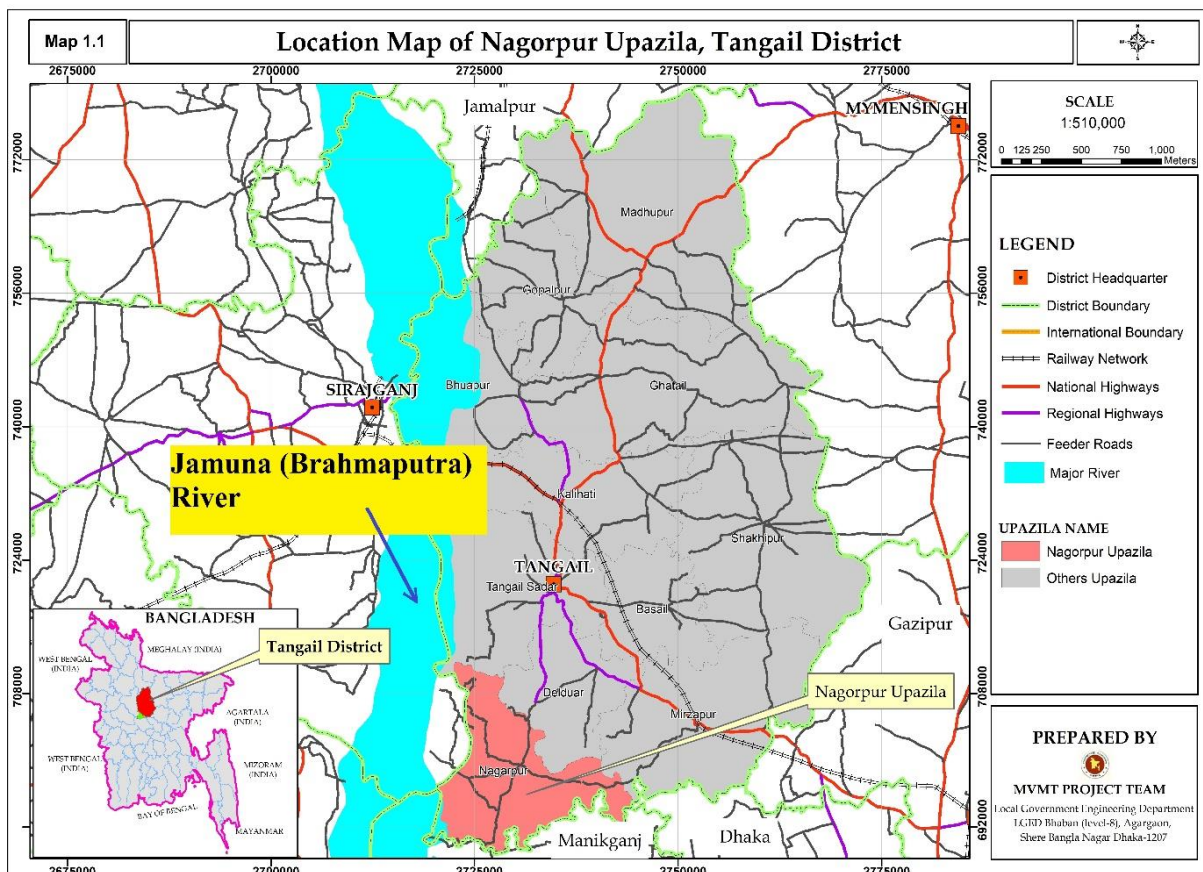


Figure 1: Location Map of the Upazila.

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.

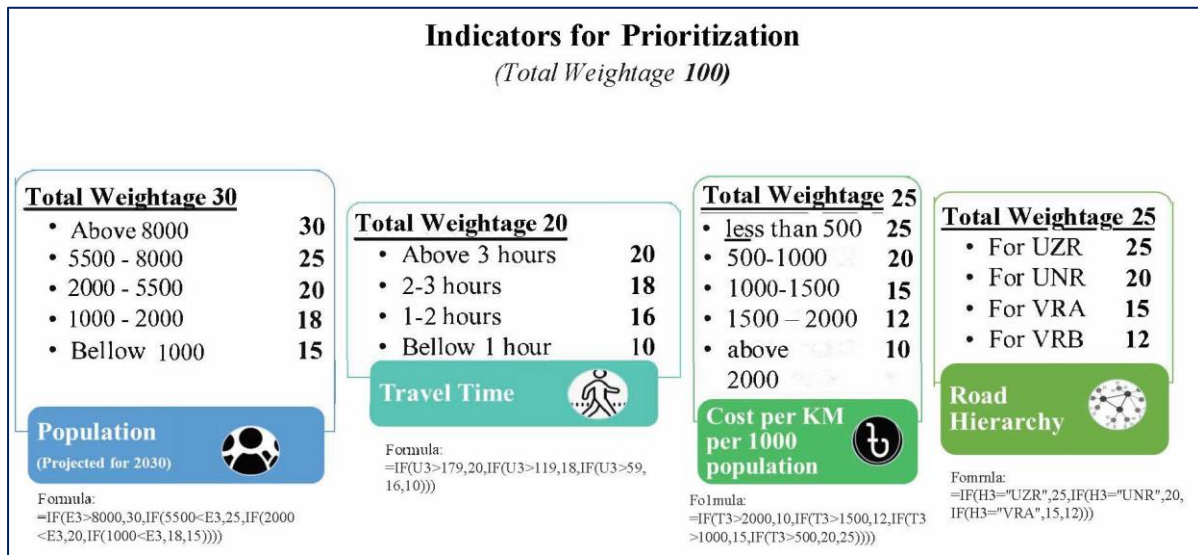


Figure 2: Prioritization indicators & their weightage values

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 RURAL ROAD CONNECTIVITY TO THE VILLAGES

4.1 SUMMARY OF THE VILLAGE CONNECTIVITY

Nagarpur is an Upazila with plenty of Char areas. The rural road communication is quite poor here. Out of 260 villages, 144 are disconnected from the developed paved road network that brings huge sufferings for the people of those villages. The total rural road network of Nagarpur is 633.03 km and out of which, 162.47 km paved and 470.55 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	Bekra	7	3	4
2	Bhadra	27	17	10
3	Bhara	25	12	13
4	Dhubaria	17	9	8
5	Duptiair	29	21	8
6	Gayhata	26	14	12
7	Mamudnagar	25	15	10
8	Mokhna	19	11	8
9	Nagarpur	18	12	6
10	Pakutia	17	11	6
11	Sahabatpur	30	19	11
12	Salimabad	20	2	18
Total =		260	146	114

4.2 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 & Hard-to-Reach Villages and their population

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
Bekra (7)	1	Barapusa	2471	Bekra	4857
	2	Bhalkutia	1129	Bir Baratia	852
	3	Konabari	520	Musuria	1000
	4			Naogaon (Nabagram)	926
	Sub Total=		4120		7635
Bhadra (27)	1	Arra Kumud	576	Ati Ulain	2074
	2	Bade Behali	1142	Balorampur	865
	3	Badiajan	446	Dhalthopa	385
	4	Behali Khamar	2673	Kaonhala	1124

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)	
	5	Beta	1646	Kashinara	505	
	6	Bhadra Bhikan	934	Khaguria	815	
	7	Chasha Bhadra	2640	Lakshmidia	897	
	8	Ichial Balarampur	139	Paishana	1172	
	9	Jalalia	646	Panan		
	10	Kodalia	1740	Sherail	1703	
	11	Panghadra	831			
	12	Patal	257			
	13	Patila Para	637			
	14	Randhuni Para	223			
	15	Seolaid	359			
	16	Singdair	1438			
	17	Tengri Para	1320			
	Sub Total=			17647		9540
	Bhara (25)	1	Adajan	235	Atpara	3332
		2	Arra	1425	Bhumuria	1414
		3	Bharra	2053	Chandak	600
4		Char Bharra	2271	Chaubaria	1102	
5		Char Chandal	457	Deojan Salil	934	
6		Dhalai	779	Marma	1179	
7		Khas Char Sutain	440	Mirkutia	1194	
8		Pachtara	1096	Pachasatia	1379	
9		Rangchhia Rangtala	457	Paschim Agdighalia	1738	
10		Saliara	1074	Purba Agdighalia	3193	
11		Shahajani	3278	Rehai Mirkutia	580	
12		Ulladah	1746	Sakail	2471	
13				Subarnatali	795	
Sub Total=			15311		19911	
Dhubaria (17)	1	Aronakhola	585	Bade Kagna	458	
	2	Bade Dhubaria	15	Balarampur	868	
	3	Dahar Pachuria	1155	Bishampur	451	
	4	Dhubaria	4955	Chak Gadadhar	1142	
	5	Gangair	330	Kachpai	643	
	6	Maguria	761	Krishna Diarkol	541	
	7	Satgachha	0	Kushtia	973	
	8	Tirchha	720	Sen Maijhali	550	
	9		472			
Sub Total=			8993		5626	
Duptiair (29)	1	Bade Bhugolhat	1150	Baghkatari	1011	
	2	Balia Bandar	473	Bazuartak	863	
	3	Baunialukai	158	Fayezpur	1464	

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)	
	4	Char Amuria	280	Kamutia	987	
	5	Char Jalai	432	Kanda Pachuria	1322	
	6	Chhitkibari	810	Pang Myjhail	909	
	7	Dhunail	1202	Rehai Paikali	768	
	8	Duptair	2801	Saratiagazi	2191	
	9	Gotabagh	741			
	10	Haria	78			
	11	Hatkana	34			
	12	Jalai	1485			
	13	Kadimkagna	2385			
	14	Kash Bhugolhat	1465			
	15	Khas Paikail	844			
	16	Kumrakandi	544			
	17	Nabadia Mahadikhola	573			
	18	Nischintapur	2829			
	19	Pachh Arra	1064			
	20	Rehi Bhugolhat	804			
	21	Tati Nischintapur	506			
			Sub Total=	20658		9515
	Gayhata (26)	1	Agakutia	669	Agar Gayhata	2102
		2	Balainagar	264	Bhang Bangutia	451
3		Binod Bangutia	1088	Deoakutia	945	
4		Gayhata Naya Para	1239	Gopinathpur	833	
5		Ghirokol	2249	Nardahi	849	
6		Ghuni	1390	Pangakutia	420	
7		Irta	0	Pugli	1441	
8		Kaitala	592	Rasulpur Bangram	5804	
9		Kalia	1684	Sarishajani	1327	
10		Kayarmara	159	Shympur	697	
11		Paschim Gayhata	2203	Singjora	2908	
12		Purba Gayhata	2033	Tehalia	1233	
13		Shantinagar	1154			
14		Swalpa Akutia	1333			
		Sub Total=	16057		19010	
Mamudnagar (25)	1	Banagram	795	Bagherbari	1751	
	2	Barigram	2589	Bhararia	812	
	3	Beltail	521	Bhastala	1853	
	4	Bhulkutia	159	Kalmaid	3103	
	5	Chamta	818	Kauakhola	935	
	6	Charbagh	932	Kolkushtia	1376	

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	7	Danga Bausaid	1420	Mamudnagar	8845
	8	Dhukutia	573	Sreebartia	1706
	9	Gopalpur	769	Sudampara	3921
	10	Joybhog	662	Sunsi	3559
	11	Kedarpur	912		
	12	Meghna	2050		
	13	Mirzapur	1313		
	14	Pakutia	1037		
	15	Postkamari	1586		
			Sub Total=	16136	
Mokhna (19)	1	Betuajani	1776	Abar Dighalia	2389
	2	Dakaitmara	629	Bandha Jalsuka	813
	3	Gajutia	2422	Chand Para	885
	4	Guhali	3039	Della	424
	5	Jaktala	1270	Ghuni	622
	6	Karatia	2144	Gobindapur	211
	7	Konara	3168	Larugram	1932
	8	Mokhna	463	Pang Baratia	732
	9	Natang	860		
	10	Pang Baijora	568		
	11	Par Baijora	769		
			Sub Total=	17108	
Nagarpur (18)	1	Char Kathuri	607	Alakdia	1684
	2	Char Panan	929	Andhibari	1122
	3	Duajani	5480	Babna Para	4896
	4	Kamar Kathuri	272	Kalsibari	610
	5	Mirnagar	1300	Kasadaha	3189
	6	Nagarpur	3344	Ramchandrapur	683
	7	Nagdha	133		
	8	Nanginabari	1115		
	9	Paisana	1774		
	10	Panan	2109		
	11	Senchikata	637		
	12	Shib Kathuri	1095		
			Sub Total=	18795	
Pakutia (17)	1	Agtarail	479	Autpara	1006
	2	Chhota Bagjan	553	Bastakhola	401
	3	Haraipara	1001	Ghagra	1792
	4	Manara	2751	Kandapara	851
	5	Pachh Tarail	1432	Majhutia	831

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	6	Paikpara	379	Pukharia	1714
	7	Pailsura	526		
	8	Pakutia	1910		
	9	Rahadanga	313		
	10	Rautara	2888		
	11	Seoil	2006		
	Sub Total=		14238		6595
Sahabatpur (30)	1	Baddakar Para	415	Chechujani	2241
	2	Batra	1854	Chowbaria	1286
	3	Bhat Para	776	Shinjura	
	4	Bir Salil	1965	Mirkutia	
	5	Char Danga	1102	Danga Salin Para	1192
	6	Chowdhuridanga	1176	Ghona Para	930
	7	Danga Dhala Para	673	Ghuni Gazmati	1189
	8	Irta	1251	Jangalia	889
	9	Khamar Dhalla	1566	Kokadair	2344
	10	Mailajani	730	Per Dhalla	535
	11	Nalsandhya	778	Purba Nanda Para	2143
	12	Noapara	154		
	13	Pachhira	796		
	14	Pachuria Kazi	584		
	15	Palpara	964		
	16	Paschim Nanda Para	1406		
	17	Puratan Para	1240		
	18	Sahabatpur	1787		
	19	Tara Bari	811		
Sub Total=		20028		12749	
Salimabad (20)	1	Char Ghuni Para	3839	Bekra	4863
	2	Tarafram Ghuni Para	5387	Mushuria	
	3			Nabogram	
	4			Barotia	
	5			Kachpai	2184
	6			Khas ghuni Para	
	7			Maijhail	1726
	8			Nagarpur	8480
	9			Selimabad	
	10			Goyhata	
	11			Paiksa	1743
	12			Salimabad	7316
	13			Tebaria	4823
	14			Tebaria	3833

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	15			Ghunipara	
	16			Balorampur	
	17			Kakna	
	18			Duptiair	
	Sub Total=		922		

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

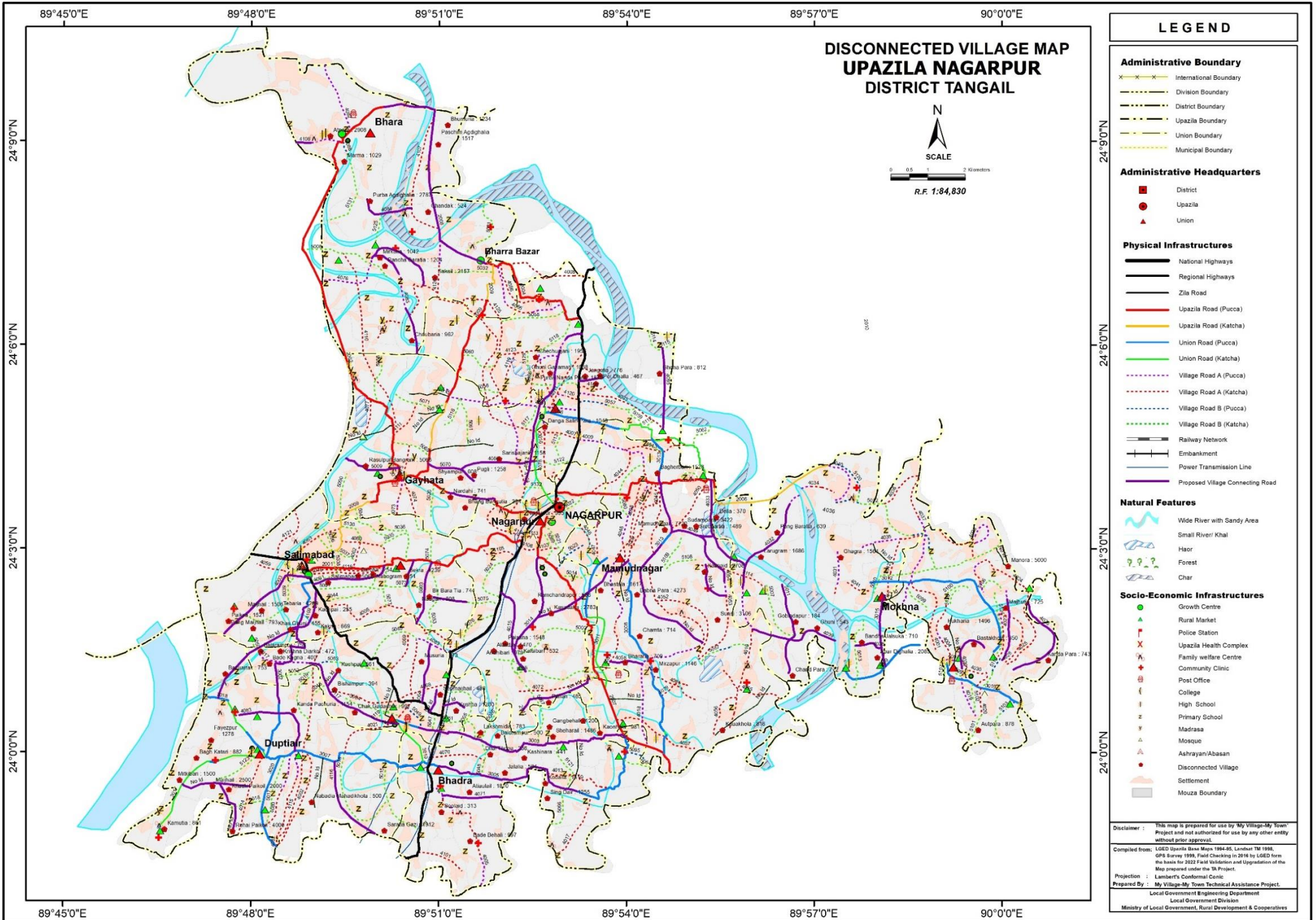


Figure 3: The Upazila Map

5 CONSULTATION MEETING & FIELD VISIT

5.1 UPAZILA LEVEL MEETING

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



Figure 4: 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.

5.2 VISIT TO CASE STUDY UNION

The team visited ‘Duptiar Union’, the case study Union in Nagarpur Upazila, through the alignment of “Bhugul hat Bazar - Nischintopur via Kandapachuria road” having the Road ID: 393764083. The road was selected for the site visit considering the beneficiary population, educational institutes along the road and the recommendations of the UE Office as the road has a priority within the Union.

The consultant observed and collected necessary information for the study discussing inhabitants and UE office. Team recorded GPS data, interviewed road users and took photos of the alignment condition.



Figure 5: Condition of the visited road alignment at Case Study Union

The length of this submersible road is 5.5 km, totally earthen. The road connects a major village of the Union named Kanda Pachuria having the total population of approx. 1500. People living here doesn't have any good road network with the Upazila HQ due to having unpaved road communication. During monsoon, the road becomes submerged.

6 DATA COLLECTION & ANALYSIS

The consultant collected data from the field on hard to reach/ Hard-to-Reach 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:3*) 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 RIVERINE ROUTES

Nagarpur Upazila has plenty of chars. There are 3 (three) major rivers that dominate the ecosystem of the Upazila. That are Jamuna, Dhaleshwari & Nowai rivers. During monsoon, these rivers carry huge sediments as well as flood water. Though the Upazila has a number of rivers, riverine transport is not available in this Upazila.

6.2 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 the road communication effective. Yet, 10 (ten) bridges are needed to fulfil the purpose.

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)
633.03	162.47	470.55	209

6.2.1 PROPOSED ALL WEATHER ROUTES:

There are 50 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

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
1	Nagarpur-Shahjani Road	393762002	All Weather	0.5
2	Bharah GC to Shahjani via Uladab	393762008	All Weather	6.5
3	Dhuburia UPC to Banagram Bazar via Shehrail	393763003	All Weather	4.75
4	Mamudnagar UPC-Jangalia Bazar	393763013	All Weather	3.5
5	Nagarpur Hospital - Panan Bazar via Miah Bari	393763014	All Weather	3
6	Mokna UPC-Dighulia Bazar	393763015	All Weather	2.5

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
7	Tebaria GC-Paiksha Bazar	393764003	All Weather	2.64
8	Nalsandha-Ghuni gojomoti	393764012	All Weather	2
9	Valkutia-Paisana via Alokdia	393764015	All Weather	4.5
10	Bekra UZR --Tebaria GC road (Shaid Gul Mohammad Bir protic)	393764016	all weather	2.64
11	Kandapara-- Barinda bazar via Shakkhipara	393764026	All Weather	4.5
12	Patchtarail-Nagarapur Mirzapur Road via Majhutia	393764027	All Weather	2.5
13	Pakutia Bazar -Outpara via bastokhola	393764029	All Weather	2
14	Pukuria pucca road--Bagjan bazar(Pkhuria Satish Kormokar House- Bagjan Chowrastha via Rouhodanga Pukuria Play Ground Road.)	393764031	All Weather	1.27
15	Pongbaizora-Pongborotia via Larugram	393764032	All Weather	4
16	Larugram-Khamardhalla via Della	393764033	All Weather	2
17	Agdighulia Bazar-Chcitora Road	393764038	All Weather	2.5
18	Betuajani Kheyaghat-Pongborotia Road	393764039	All Weather	2
19	Vatsala UZR-Sunsi	393764054	All Weather	4.2
20	Pakutia UZR-Vararia	393764058	All Weather	4
21	Nagarapur RHD-Tabaria GC at Bekra UZR road-- Gayhata-Salimabad road via Purbapara road Primari Scool	393764061	All Weather	2.5
22	Bekra-Dhuburia via Musuria	393764064	All Weather	3.5
23	Shobatpur Bazar - Cecuajani	393764067	All Weather	0.5
24	Gangbehali to Taluknagar Bazar	393764071	All Weather	2.5
25	Salpakutia - Subornotoli via Rongsia	393764076	All Weather	3.33
26	Brac office RHD-Shoabatpur UPC	393764078	All Weather	
27	Chandok Madrasha -Subornatoli Madrasha via Agdighulia Bazar	393764084	All Weather	4
28	Batra bazar-- Chowbaria bazar	393764085	All Weather	4
29	Batra Bazar-Chowbaria Bazar	393764085	All Weather	3.5
30	Kolia-Shorishajani Road	393764088	All Weather	4.25
31	Jangalia Bazar-Ghonapara High School	393764095	All Weather	3

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
32	Tangail-Aricha RHD --Nandapara river ghat	393764096	All Weather	1
33	Shakhail -Mirkutia Rongchia Bazar	393764107	All Weather	2
34	Duburia-Balarampur	393764117	All Weather	3.73
35	Bharrah Umeshchandra -Uladab Kheyaghat	393764126	All Weather	1
36	Bekra-satgacha Road	393765003	All Weather	1.5
37	Goyhata-Pukuria Road	393765009	All Weather	1.75
38	Betuajani-Chandpara	393765011	All Weather	2.18
39	Tebaria College Ghat -- Paiksha road	393765039	All Weather	1.5
40	Balarampur-Krisnodia akota hat	393765050	All Weather	3
41	Batra Bazar-Kokadair	393765061	All Weather	1.5
42	Kabi Nazrul Bazar-Pugli Road via Shympur	393765070	All Weather	2
43	Khas Shajani MA Karim High School-Marma Mosque	393765088	All Weather	1
44	Outpara--Daragram Connecting road	393765101	All Weather	2
45	Shingjura - Sharishajani	No ID	All Weather	2
46	Mamudnagar Pucca Road - Kashadaha Pucca Road Via Kashadaha Nabopara	No ID	All Weather	2
47	Mamudnagar Pucca Road-Nagarpur Hospita via H/O Supply Shaheb	No ID	All Weather	3
48	Banagram-Kolkushia	No ID	All Weather	1.5
49	Pakutia - Pukuria River Ghat	No ID	All Weather	1.5
50	Kalmaid Bazar - Sanka	No ID	All Weather	7

6.2.2 PROPOSED SUBMERSIBLE ROUTES:

There are 25 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 5: Proposed submersible roads in the Upazila

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
1	Tebaria GC --Doptair UPC office road	393763002	Submersible	3.75
2	Mamudnagar UZR-- Bawshaid via Sudampara road	393764049	Submersible	4

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
3	Bhugul hat Bazar -- Nischintopur via Kandapachuria	393764083	Submersible	5.5
4	Shahjani High School-- Jamuna Ghat Via Atapara primary school	393764108	Submersible	2.5
5	Dhuburia Chowhali RHD road at Kachpai--Khas Ghunipara kheya ghat	393764109	Submersible	1.5
6	Dhunail parchimpara mosque-Dulatpur Upazila road at Amtoli Via Sarutiagazi	393764116	Submersible	4
7	Bekra Madrasha --Bekra Sashan ghat road	393765078	Submersible	2
8	Mamudnagar Puratan Bazar - Kashadaha H/O Rabiul	No ID	Submersible	2
9	Mamudnagar H/O Azahar Doctor - Sunsi Via Surjapara	No ID	Submersible	3
10	Nabogram - Baropuisa Via Birbarotia	No ID	Submersible	4.8
11	Doptior Bazar - Kamutia Hat Via Taki Bagkatari	No ID	Submersible	5
12	Ichail - Bolarampur Via Lakkhidia GPS	No ID	Submersible	2
13	Kalmaid - Char Sunsi Via H/O Kajimuddin	No ID	Submersible	3.5
14	Tehalia - shinjura Madrasha Pucca Road	No ID	Submersible	2
15	Paishana - Panan Bazar Via Khaguria	No ID	Submersible	3
16	Dhuburia Bus stand - Senmaijhail Via Dhuburia Graveyard	No ID	Submersible	4
17	Kanda Pachuriya Bazar - Ekota Hat Via Balorampur	No ID	Submersible	4
18	Gopinathpur - Shalpo Akutia Pucca Road	No ID	Submersible	1.5
19	Deo Akutia - Ghuni Bazar	No ID	Submersible	2
20	Kodim Kakna - Nishcintopur Via Bazuartek	No ID	Submersible	2
21	Pang Akutia - Ghuni Bazar	No ID	Submersible	2
22	Khaguria - Kodalia Via Sehrail	No ID	Submersible	2
23	Tangail Aricha Hiway Robi Tower - Kushtia Noyapara Dhubria Barogram Road	No ID	Submersible	3
24	Kamutia bazar - bachamora bazar	No ID	Submersible	3
25	Daptiari Kol ghat - Paikail High School Via Rehaoi Paikail	No ID	Submersible	3

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

There are 24 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 6: Proposed roads for Hard-to-Reach Villages having No ID

Sl. No	Road Name	Road ID	Unpaved length (Km)
1	Shingjura - Sharishajani	No ID	2
2	Mamudnagar Pucca Road - Kashadaha Pucca Road Via Kashadaha Nabopara	No ID	2
3	Mamudnagar Pucca Road-Nagarpur Hospita via H/O Supply Shaheb	No ID	3
4	Banagram-Kolkushia	No ID	1.5
5	Pakutia - Pukuria River Ghat	No ID	1.5
6	Kalmaid Bazar - Sanka	No ID	7
7	Mamudnagar Puratan Bazar - Kashadaha H/O Rabiul	No ID	2
8	Mamudnagar H/O Azahar Doctor - Sunsi Via Surjapara	No ID	3
9	Nabogram - Baropuisa Via Birbarotia	No ID	4.8
10	Doptior Bazar - Kamutia Hat Via Taki Bagkatari	No ID	5
11	Ichail - Bolarampur Via Lakkhidia GPS	No ID	2
12	Kalmaid - Char Sunsi Via H/O Kajimuddin	No ID	3.5
13	Tehalia - shinjura Madrasha Pucca Road	No ID	2
14	Paishana - Panan Bazar Via Khaguria	No ID	3
15	Dhuburia Bus stand - Senmaijhail Via Dhuburia Graveyard	No ID	4
16	Kanda Pachuriya Bazar - Ekota Hat Via Balorampur	No ID	4
17	Gopinathpur - Shalpo Akutia Pucca Road	No ID	1.5
18	Deo Akutia - Ghuni Bazar	No ID	2
19	Kodim Kakna - Nishcintopur Via Bazuartek	No ID	2
20	Pang Akutia - Ghuni Bazar	No ID	2
21	Khaguria - Kodalia Via Sehrail	No ID	2
22	Tangail Aricha Hiway Robi Tower - Kushtia Noyapara Dhubria Barogram Road	No ID	3
23	Kamutia bazar - bachamora bazar	No ID	3
24	Daptiari Kol ghat - Paikail High School Via Rehaoi Paikail	No ID	3

6.2.4 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 7: 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.

7 CONCLUSION & RECOMMENDATIONS

- Nagarpur Upazila is located within the *Brahmaputra River Basin* that has plenty of chars, topographically low land in the dry season but submerged during monsoon. The Upazila has enormous agricultural potential due to highly fertile soil gains from heavy sedimentation. There are 3 (three) major rivers dominate the ecosystem of the Upazila, that are Jamuna, Dhaleshwari & Nowai. Though the Upazila has a number of rivers, riverine transport is not available in this Upazila.
- The Upazila faces extensive flood and river erosion during monsoon, rural roads and structures are highly vulnerable in this Upazila.
- The Upazila has a total number of 114 Hard-to-Reach Villages. To develop rural connectivity, there are proposals for both all weather & 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 flood. Due to climate change, the vulnerability is getting intense.
- Case by case design of roads in this Upazila considering different aspects such as exposure to flood, erosion etc. is highly recommended. A special study regarding the road and structure design of the Upazila Nagarpur in Tangail 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		
Bhadra	Bhadra Hat	HB	Yes	General Market	Both	1	115	0.56	60	1.42	1.98	1.05	268200	257200
Bhadra	Beto Hat	HB	No											
Bhadra	Bihuli Khamar	HB	No											
Bhadra	Shewrail Hat	HB	No											
Bharara	Shahajani hat	GC	Yes	General Market	Both	2	190	0.95	95	1.05	2.00	1.18	4601225	2861225
Bharara	Bharrah hat	GC	Yes	General Market	Both	1	81	0.37	43	0.52	0.89	0.00	65500	56999
Bharara	Rangchhia Bazar	HB	No											
Bharara	Chowbaria Bazar	HB	No											
Bharara	Bir Salil Bazar	HB	No											
Bharara	Khorshed Market	HB	No											
Dhubaria	Kachpai Hat	HB	No											
Dhubaria	Dhubaria Hat	HB	No											
Dhubaria	Dhuburia Terasta Bazar	HB	No											
Dhubaria	Tirchha Hat	HB	No											
Doptiair	Duptair Hat	HB	Yes	General Market	Both	2	62	0.30	21	1.40	2.70	0.00	354100	268000
Doptiair	Kamutia Hat	HB	Yes	General Market	Wholesale	1	48	0.24	30	0.25	0.49	0.00	710	800
Doptiair	Janata Hat	HB	Yes	General Market	Wholesale	1	0	0.00	0	0.00	0.29	0.00	635	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		
Doptiair	Nishchintapur Hat	HB	No											
Doptiair	Kakna Hat	HB	No											
Doptiair	Khashpaikal Hat	HB	No											
Doptiair	Bhagol Hat	HB	No											
Gayhata	Gayhata Hat	HB	Yes	General Market	Both	1	260	1.24	150	2.34	4.09	0.00	476500	430120
Gayhata	Banagram Hat	HB	Yes	General Market	Wholesale	1	10	0.05	6	0.05	0.10	0.00	550	1000
Gayhata	Singora Hat	HB	No											
Mamudnagar	Mahmud Nagar Hat	HB	No											
Mamudnagar	Meghna Hat	HB	No											
Mamudnagar	Kalmaid Hat	HB	No											
Mamudnagar	Banagram Bazar	HB	No											
Mokna	Kedarpur Hat	HB	Yes	General Market	Both	1	201	1.00	79	1.57	2.57	0.00	100300	149000
Mokna	Larugram Hat	HB	No											
Mokna	Pongbaizora Hat	HB	No											
Mokna	Betuazani Bazar	HB	No											
Nagarpur	Babnapara Hat	HB	Yes	General Market	Both	1	83	0.40	35	1.89	4.19	1.90	956100	887500
Nagarpur	Panan Hat	HB	Yes	General Market	Both	1	130	0.62	70	0.62	1.24	0.00	221000	200500
Pakutia	Pakutia Hat	HB	Yes	General Market	Both	1	300	1.50	125	1.53	3.03	0.00	47200	37350
Pakutia	Rathura Hat	HB	Yes	General Market	Both	1	245	1.20	110	1.34	2.54	0.00	800	3200

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		
Pakutia	Barinda Hat	HB	Yes	General Market	Both	1	0	0.00	0	0.00	2.00	0.00	51500	54500
Pakutia	Agdighulia Bazar	HB	No											
Pakutia	Kederpur Bazar	HB	No											
Mokna	Larugram Hat	HB	No											
Mokna	Pongbaizora Hat	HB	No											
Mokna	Betuazani Bazar	HB	No											
Nagarpur	Babnapara Hat	HB	Yes	General Market	Both	1	83	0.40	35	1.89	4.19	1.90	956100	887500
Nagarpur	Panan Hat	HB	Yes	General Market	Both	1	130	0.62	70	0.62	1.24	0.00	221000	200500
Pakutia	Pakutia Hat	HB	Yes	General Market	Both	1	300	1.50	125	1.53	3.03	0.00	47200	37350
Pakutia	Rathura Hat	HB	Yes	General Market	Both	1	245	1.20	110	1.34	2.54	0.00	800	3200
Pakutia	Barinda Hat	HB	Yes	General Market	Both	1	0	0.00	0	0.00	2.00	0.00	51500	54500
Pakutia	Agdighulia Bazar	HB	No											
Pakutia	Kederpur Bazar	HB	No											
Pakutia	Dimukha Hat	HB	No											
Sahabatpur	Shahabatpur Hat	HB	Yes	General Market	Both	1	40	0.20	17	0.22	0.42	0.00	971999	576100
Sahabatpur	Batra Hat	HB	Yes	General Market	Both	1	108	0.53	45	0.64	1.17	0.00	92000	201550
Sahabatpur	Khamar Dhalla Hat	HB	Yes	General Market	Wholesale	1	0	0.00	0	0.03	0.03	0.00	1700	1950
Sahabatpur	Jangalia Hat	HB	No											
Salimabad	Tebaria chandgonj Hat	GC	Yes	General Market	Both	1	270	1.62	155	1.96	3.58	0.00	1560000	1290000

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		
Salimabad	Salimabad Hat	HB	Yes	General Market	Both	1	254	1.26	80	0.70	1.96	0.00	3860	3800
Salimabad	Paikshamaijal Hat	HB	No											
Salimabad	Katua Hat	HB	No											
Salimabad	Bekra Bazar	HB	No											
	Nagarpur Hat	GC												
	Lauhati hat	GC												

ANNEXURE - 2

PRIORITY LIST FOR ROAD DEVELOPMENT

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	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	Mamudnagar	Mamudnagar, Sreebartia, Sudampara	14472	Mamudnagar UZR-- Bawshaid via Sudampara road	393764049	VRA	Submersible	4			4	4	720	30	270	990	3618	68	60	30	16	25	15	86
2	Salimabad	Tebaria, Ghunipara, Khas ghuni Para, Balorampur, Kakna, Duptiair	10860	Tebaria GC --Doptair UPC office road	393763002	UNR	Submersible	6.35	2.6		3.75	3.75	675	30	270	945	2896	87	56	30	10	25	20	85
3	Bhadra	Dhalthopa, Kaonhala, Sherail	3212	Dhuburia UPC to Banagram Bazar via Shehrail	393763003	UNR	All Weather	5.75	1		4.75	4.75	570	70	630	1200	676	374	71	20	16	25	20	81
4	Gayhata	Bhang Bangutia, Agar Gayhata, Nardahi	3403	Nagarpur-Shahjani Road	393762002	UZR	All Weather	17.9	17.4		0.5	0.5	60		0	60	6806	18	8	20	10	25	25	80
5	Salimabad	Nagorpur, Selimabad, Goyhata	15825	Nagarpur RHD-Tabaria GC at Bekra UZR road-- Gayhata-Salimabad road via Purbapara road Primari Scool	393764061	VRA	All Weather	2.5			2.5	2.5	300		0	300	6330	19	38	30	10	25	15	80
6	Nagarpur	Alakdia, Andhibari, Kalsibari, Paisana	5261	Valkutia-Paisana via Alokdia	393764015	VRA	All Weather	4.5			4.5	4.5	540		0	540	1169	103	68	20	16	25	15	76
7	Mamudnagar	Sunsi	3559	Vatsala UZR-Sunsi	393764054	VRA	All Weather	4.2			4.2	4.2	504		0	504	847	142	63	20	16	25	15	76
8	Bhara	Purba Agdighalia	3193	Chandok Madrasha -Subornatoli Madrasha via Agdighulia Bazar	393764084	VRA	All Weather	4			4	4	480		0	480	798	150	60	20	16	25	15	76
9	Mokhna	Larugram, Pang Baratia	2664	Pongbaizora-Pongborotia via Larugram	393764032	VRA	All Weather	4			4	4	480	85	765	1245	666	467	60	20	16	25	15	76
10	Bhara	Paschim Agdighalia, Chandak	2339	Bharah GC to Shahjani via Uladab	393762008	UZR	All Weather	8	1.5		6.5	6.5	780	280	2520	3300	360	1411	98	20	16	15	25	76
11	Mokhna	Abar Dighalia	2389	Mokna UPC-Dighulia Bazar	393763015	UNR	All Weather	2.5			2.5	2.5	300		0	300	956	126	38	20	10	25	20	75
12	Bhara	Bhumuria, Deoan Salil, Pachasarutia, Mirkutia, Subarnatali	5716	Salpakutia - Subornotoli via Rongsia	393764076	VRA	All Weather	6.33	3		3.33	3.33	399.6	95	855	1254.6	1717	219	50	25	10	25	15	75
13	Gayhata	Sarishajani	1327	Kolia-Shorishajani Road	393764088	VRA	All Weather	4.25			4.25	4.25	510		0	510	312	384	64	18	16	25	15	74
14	Mamudnagar	Bagherbari	1751	Mamudnagar UPC-Jangalia Bazar	393763013	UNR	All Weather	5.5	2		3.5	3.5	420		0	420	500	240	53	18	10	25	20	73
15	Gayhata	Rasulpur Bangram	5804	Goyhata-Pukuria Road	393765009	VRB	All Weather	3.5	1.75		1.75	1.75	210	20	180	390	3317	67	26	25	10	25	12	72
16	Duptyair	Saratiagazi	2191	Dhunail parchimpara mosque-Dulatpur upazila road at Amtoli Via Sarutiagazi	393764116	VRA	Submersible	4			4	4	720	65	585	1305	548	596	60	20	16	20	15	71
17	Sahabatpur	Chechuajani	2241	Shobatpur Bazar - Cecuajani	393764067	VRA	All Weather	2.2	1.7		0.5	0.5	60		0	60	4482	27	8	20	10	25	15	70
18	Bhara	Sakail	2471	Bharrah Umeshchandra -Uladab Kheyaghat	393764126	VRA	All Weather	2	1		1	1	120		0	120	2471	49	15	20	10	25	15	70
19	Sahabatpur	Jangalia, Nandopara Purba, Per dhalla	2089	Tangail-Aricha RHD --Nandapara river ghat	393764096	VRA	All Weather	1			1	1	120		0	120	2089	57	15	20	10	25	15	70
20	Salimabad	Maijhail, Paiksa	3468	Tebaria GC-Paiksha Bazar	393764003	VRA	All Weather	2.64			2.64	2.64	316.8		0	316.8	1314	91	40	20	10	25	15	70
21	Salimabad	Bekra, Mushuria, Nabogram, Barotia	4863	Bekra UZR --Tebaria GC road (Shaid Gul Mohammad Bir protic)	393764016	VRA	all weather	2.64			2.64	2.64	316.8	30	270	586.8	1842	121	40	20	10	25	15	70
22	Bhadra	Atia Ulail	2074	Gangbehali to Taluknagar Bazar	393764071	VRA	All Weather	2.5			2.5	2.5	300		0	300	830	145	38	20	10	25	15	70
23	Bhara	Atapara	3332	Shahjani High School-- Jamuna Ghat Via Atapara primary school	393764108	VRA	Submersible	2.5			2.5	2.5	450	15	135	585	1333	176	38	20	10	25	15	70
24	Bhara	Chowbaria, Mirkutia	2296	Batra bazar - Chowbaria bazar	393764085	VRA	All Weather	3.5	1.12		2.38	2.38	285.6	15	135	420.6	965	183	36	20	10	25	15	70
25	Salimabad	Kachpai, Khas ghuni Para, Maijhail	3916	Dhuburia Chowhali RHD road at Kachpai--Khas Ghunipara kheyta ghat	393764109	VRA	Submersible	1.5			1.5	1.5	270	50	450	720	2611	184	23	20	10	25	15	70
26	Dhubaria	Bade Kagna, Balorampur, Bishampur, Chak Gadadhar	2966	Duburia-Balarampur	393764117	VRA	All Weather	5.23	1.5		3.73	3.73	447.6	30	270	717.6	795	242	56	20	10	25	15	70
27	Duptyair	Kanda Pachuria	1322	Bhugul hat Bazar -- Nischintopur via Kandapachuria	393764083	VRA	Submersible	5.5			5.5	5.5	990		0	990	240	749	83	18	16	20	15	69
28	Pakutia	Ghagra	1792	Pukuria pucca road--Bagjan bazar(Pkhuria Satish Kormokar House- Bagjan Chowrastha via Rouhodanga Pukuria Play Ground Road.)	393764031	VRA	All Weather	1.27			1.27	1.27	152.4		0	152.4	1411	85	19	18	10	25	15	68
29	Sahabatpur	Danga Salin Para	1192	Brac office RHD-Shobatpur UPC	393764078	VRA	All Weather	1		1		1	120		0	120	1192	101	0	18	10	25	15	68
30	Sahabatpur	Ghuni Gazmati	1189	Nalsandha-Ghuni gojomoti	393764012	VRA	All Weather	2			2	2	240		0	240	595	202	30	18	10	25	15	68
31	Bekra	Musuria	1000	Bekra-Dhuburia via Musuria	393764064	VRA	All Weather	3.5			3.5	3.5	420		0	420	286	420	53	18	10	25	15	68

*** 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 per1000 people= 25, Road Hierarchy= 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	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
32	Salimabad	Tebaria	4823	Tebaria College Ghat -- Paiksha road	393765039	VRB	All Weather	1.5			1.5	1.5	180		0	180	3215	37	23	20	10	25	12	67
33	Bekra	Bekra	4857	Bekra Madrasha --Bekra Sashan ghat road	393765078	VRB	Submersible	2			2	2	360		0	360	2428	74	30	20	10	25	12	67
34	Sahabatpur	Kokadair	2344	Batra Bazar-Kokadair	393765061	VRB	All Weather	1.5			1.5	1.5	180		0	180	1563	77	23	20	10	25	12	67
35	Gayhata	Pugli, Shympur	2138	Kabi Nazrul Bazar-Pugli Road via Shympur	393765070	VRB	All Weather	2			2	2	240		0	240	1069	112	30	20	10	25	12	67
36	Mamudnagar	Bhararia	812	Pakutia UZR-Vararia	393764058	VRA	All Weather	4			4	4	480		0	480	203	591	60	15	16	20	15	66
37	Pakutia	Kandapara	851	Kandapara-- Barinda bazar via Shakkhipara	393764026	VRA	All Weather	4.5			4.5	4.5	540		0	540	189	634	68	15	16	20	15	66
38	Bhara	Marma	1179	Khas Shajani MA Karim High School-Marma Mosque	393765088	VRB	All Weather	2.1	1.1		1	1	120		0	120	1179	102	15	18	10	25	12	65
39	Bekra	Bir Baratia, Naogaon (Nabagram)	1778	Bekra-satgacha Road	393765003	VRB	All Weather	2.5		1	1.5	2.5	300		0	300	711	169	23	18	10	25	12	65
40	Pakutia	Autpara	1006	Outpara--Daragram Connecting road	393765101	VRB	All Weather	2			2	2	240		0	240	503	239	30	18	10	25	12	65
41	Mokhna	Chand Para, Gobindapur	1095	Betuajani-Chandpara	393765011	VRB	All Weather	2.18			2.18	2.18	261.6		0	261.6	502	239	33	18	10	25	12	65
42	Pakutia	Majhutia	831	Patchtarail-Nagarpur Mirzapur Road via Majhutia	393764027	VRA	All Weather	2.5			2.5	2.5	300		0	300	332	361	38	15	10	25	15	65
43	Mokhna	Bandha Jalsuka	813	Agdighulia Bazar-Chcitora Road	393764038	VRA	All Weather	2.5			2.5	2.5	300		0	300	325	369	38	15	10	25	15	65
44	Bhara	Rehai Mirkutia	580	Shakhail -Mirkutia Rongchia Bazar	393764107	VRA	All Weather	2			2	2	240		0	240	290	414	30	15	10	25	15	65
45	Nagarpur	Ramchandrapur	683	Nagarpur Hospital - Panan Bazar via Miah Bari	393763014	UNR	All Weather	3			3	3	360		0	360	228	527	45	15	10	20	20	65
46	Pakutia	Bastakhola	401	Pakutia Bazar -Outpara via bastokhola	393764029	VRA	All Weather	2			2	2	240		0	240	201	598	30	15	10	20	15	60
47	Dhubaria	Krishna Diarkol	541	Balarampur-Krisnodia akota hat	393765050	VRB	All Weather	3			3	3	360		0	360	180	666	45	15	10	20	12	57
48	Mokhna	Ghuni	622	Betuajani Kheyaghat-Pongborotia Road	393764039	VRA	All Weather	2			2	2	240	85	765	1005	311	1615	30	15	10	12	15	52
49	Mokhna	Della	424	Larugram-Khamardhalla via Della	393764033	VRA	All Weather	2			2	2	240	85	765	1005	212	2371	30	15	10	10	15	50
50	Sahabatpur	Ghona Para	930	Jangalia Bazar-Ghonapara High School	393764095	VRA	All Weather	3			3	3	360	500	4500	4860	310	5224	45	15	10	10	15	50
51	Mamudnagar	Mamudnagar, Bhastala	8845	Mamudnagar Puratan Bazar - Kashadaha H/O Rabiul	No ID	VRB	Submersible	2			2	2	360		0	360	4423	41	30	30	10	25	12	77
52	Mamudnagar	Mamudnagar, Bhastala, Sunsi	8845	Mamudnagar H/O Azahar Doctor - Sunsi Via Surjapara	No ID	VRB	Submersible	3			3	3	540	17	153	693	2948	78	45	30	10	25	12	77
53	Duptiair	Baghkatari, Kamutia, Fayezipur	3461	Doptior Bazar - Kamutia Hat Via Taki Bagkatari	No ID	VRA	Submersible	5			5	5	900	200	1800	2700	692	780	75	20	16	20	15	71
54	Nagarpur	Babnapara	4896	Mamudnagar Pucca Road-Nagarpur Hospita via H/O Supply Shaheb	No ID	VRB	All Weather	3			3	3	360		0	360	1632	74	45	20	10	25	12	67
55	Nagarpur	Kasadaha	3189	Mamudnagar Pucca Road - Kashadaha Pucca Road Via Kashadaha Nabopara	No ID	VRB	All Weather	2			2	2	240		0	240	1594	75	30	20	10	25	12	67
56	Gayhata	Shinjora	2908	Shingjura - Sharishajani	No ID	VRB	All Weather	2			2	2	240		0	240	1454	83	30	20	10	25	12	67
57	Mamudnagar	Kalmaid	3103	Kalmaid - Char Sunsi Via H/O Kajimuddin	No ID	VRB	Submersible	3.5			3.5	3.5	630	5	45	675	886	218	53	20	10	25	12	67
58	Bhadra	Balorampur, Lakshmidia, Kashinath	2272	Ichail - Bolarampur Via Lakkhidia GPS	No ID	VRB	Submersible	2			2	2	360	60	540	900	1136	396	30	20	10	25	12	67
59	Pakutia	Pukharia	1714	Pakutia - Pukuria River Ghat	No ID	VRB	All Weather	1.5			1.5	1.5	180		0	180	1143	105	23	18	10	25	12	65
60	Mamudnagar	Kolkushtia	1376	Banagram-Kolkushia	No ID	VRB	All Weather	1.5			1.5	1.5	180		0	180	917	131	23	18	10	25	12	65
61	Gayhata	Tehalia	1233	Tehalia - shinjura Madrasha Pucca Road	No ID	VRB	Submersible	2			2	2	360		0	360	616	292	30	18	10	25	12	65
62	Gayhata	Gopinathpur	833	Gopinathpur - Shalpo Akutia Pucca Road	No ID	VRB	Submersible	1.5			1.5	1.5	270		0	270	555	324	23	15	10	25	12	62
63	Gayhata	Deo Akutia	945	Deo Akutia - Ghuni Bazar	No ID	VRB	Submersible	2			2	2	360		0	360	473	381	30	15	10	25	12	62
64	Duptiair	Bazuartak	863	Kodim Kakna - Nishcintopur Via Bazuartek	No ID	VRB	Submersible	2			2	2	360		0	360	431	417	30	15	10	25	12	62
65	Bekra	Bir Boratia	852	Nabogram - Baropuisa Via Birbarotia	No ID	VRA	Submersible	4.8			4.8	4.8	864	30	270	1134	178	1330	72	15	16	15	15	61
66	Bhadra	Paishana, Panan	1172	Paishana - Panan Bazar Via Khaguria	No ID	VRB	Submersible	3			3	3	540	50	450	990	391	845	45	18	10	20	12	60

*** 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 per1000 people= 25, Road Hierarchy= 25)

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)
67	Mamudnagar	Kauakhola	935	Kalmaid Bazar - Sanka	No ID	VRB	All Weather	7			7	7	840	35	315	1155	134	1235	105	15	16	15	12	58
68	Dhubaria	Senmaijhail	550	Dhuburia Bus stand - Senmaijhail Via Dhuburia Graveyard	No ID	VRB	Submersible	4			4	4	720	5	45	765	137	1391	60	15	16	15	12	58
69	Dhubaria	Kachpai	643	Kanda Pachuriya Bazar - Ekota Hat Via Balorampur	No ID	VRB	Submersible	4			4	4	720	20	180	900	161	1400	60	15	16	15	12	58
70	Dhubaria	Kushtia	973	Tangail Aricha Hiway Robi Tower - Kushtia Noyapara Dhubria Barogram Road	No ID	VRB	Submersible	3			3	3	540		0	540	324	555	45	15	10	20	12	57
71	Duptiair	Pang Myjhail	909	Kamutia bazar - bachamora bazar	No ID	VRB	Submersible	3			3	3	540		0	540	303	594	45	15	10	20	12	57
72	Duptiair	Rehai Paikail	768	Daptiari Kol ghat - Paikail High School Via Rehai Paikail	No ID	VRB	Submersible	3			3	3	540		0	540	256	703	45	15	10	20	12	57
73	Gayhata	Pang Akutia	420	Pang Akutia - Ghuni Bazar	No ID	VRB	Submersible	2			2	2	360		0	360	210	856	30	15	10	20	12	57
74	Bhadra	Khaguria	917	Khaguria - Kotalia Via Sehrail	No ID	VRB	Submersible	2			2	2	360	60	540	900	458	982	30	15	10	20	12	57

*** 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 per1000 people= 25, Road Hierarchy= 25)

