



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”

Singra, Natore



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July, 2022

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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.

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 **Singra** Upazila of **Natore** District.

1 DESCRIPTION OF THE UPAZILA

1.1 GEOGRAPHY AND DEMOGRAPHY

The geographical area of Singra Upazila is 528.47 square kilometers and has 12 Unions, 446 mouzas and 424 villages. The Upazila is 22 km away from the District headquarters of Natore. There exists 6 rivers flowing over the Upazila, Bara Atrai, Soto Atrai, Nagar, Barnoi, Nandakuja & Gurr river. The total population of the Upazila is 3,64,000 of which 183,000 are male and 182,000 female, total number of households are 88791 and average household size is 4.09 with a population density of 689 (*as per population census 2011*).

1.2 EDUCATION FEATURES

According to the information of the relevant local government offices there are 110 government, 84 registered, 8 non-government primary, 175 NGO schools & 5 kindergarten schools. On the other hand, Singra has a government high school, 55 non-government high schools, 9 school & college that operates jointly with 1 govt college, 6 privet colleges and 45 madrashas. The literacy rate for the Upazila is 42.9% 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 Singra 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 Singra is 903.49 km and out of which, 395.01 km paved and 508.48 km earthen.

1.4 AGRICULTURE, FOOD PRODUCTION AND FISHERIES

Agriculture has a major importance for the economy of the people of Singra. There are 1,21,114 acres of arable land in the Upazila. In the fiscal year 2010-11 the Rice production was 11635, 57084 & 185870 metric tons for Aus, Aman & Boro seasons respectively. The Upazila also produced 4,080 metric tons of Wheat, 14,103 metric tons of Jute, 1,200 metric tons of Sugarcane, 10,840 metric tons of Potato and 4,141 metric tons of Oilseed in the same fiscal year 2010-11. There also exists only 655 poultry & 450 dairy farms. The Upazila has a large area within Chalanbeel, the largest beel of the country. The total area of beel/ pond/ dighee/ other wetlands is around 25,600 acres that produced 9,800 metric tons of fishes in 2010-11 as per BBS.

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 26 hatbazar and 6 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

Singra Upazila is located in the Northern Bangladesh under Natore District in Rajshahi Division. The location of the Upazila has been shown in the map. It is surrounded by Nandigram Upazila on the north, Gurudaspur Upazila on the south, Tarash and Sherpur (Bogra) Upazilas on the east, Natore Sadar, atrait and Raninagar' (Naogaon) Upazilas on the west. The Upazila is *Chalanbeel* inhabited depressed area, located between *Ganges & Brahmaputra River Basin*. Both the *Ganga (Padma) & Brahmaputra (Jamuna)* are trans-boundary rivers. The Ganges River rises in the western Himalayas in the Indian state of Uttarakhand. It flows south and east through the Gangetic plain of North India, receiving the right-bank tributary, the Yamuna, which also rises in the western Indian Himalayas, and several left-bank tributaries from Nepal that account for the bulk of its flow. In West Bengal, India, there exists '*Farakka Barrage*' that controls the flow of the Ganges towards downstream inside Bangladesh and the stream known as the **Padma River**. During monsoon, while the river carries a large amount of water from Himalayan snow melting & heavy rainfall, causes extensive flood along the Ganges River Basin. To minimize the flood effect inside India, all the gates of Farakka Barrage are opened, that causes catastrophic flash flood along the bank due to over flow of the Padma river inside Bangladesh. The river, Brahmaputra is another 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. During monsoon, the Brahmaputra discharges a large volume of flood water coming from upstream. The entire lower Brahmaputra (*i.e., the part inside Bangladesh and also known as Jamuna River*) overflows as the flood water exceeds it's carrying capacity and inundates the depressed areas of northern part of the country 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.

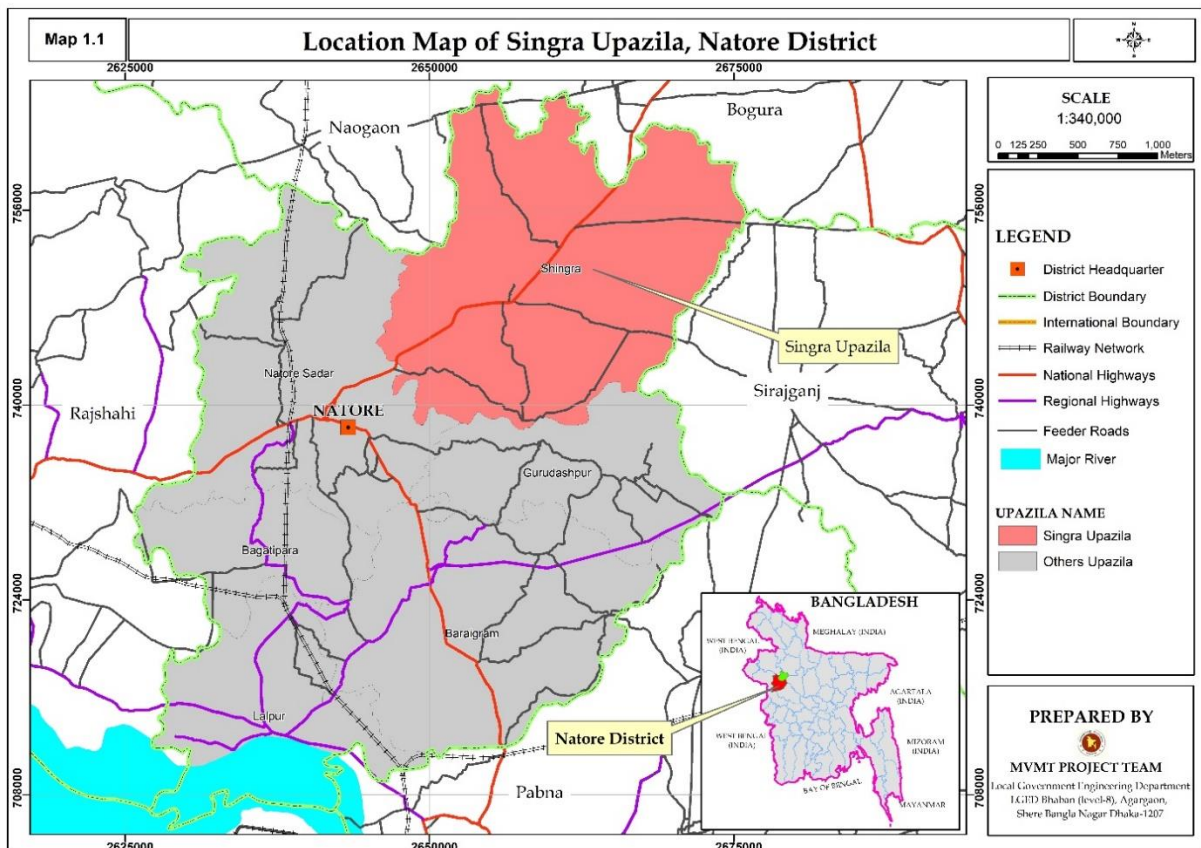


Figure 1: Upazila Location Map.

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.

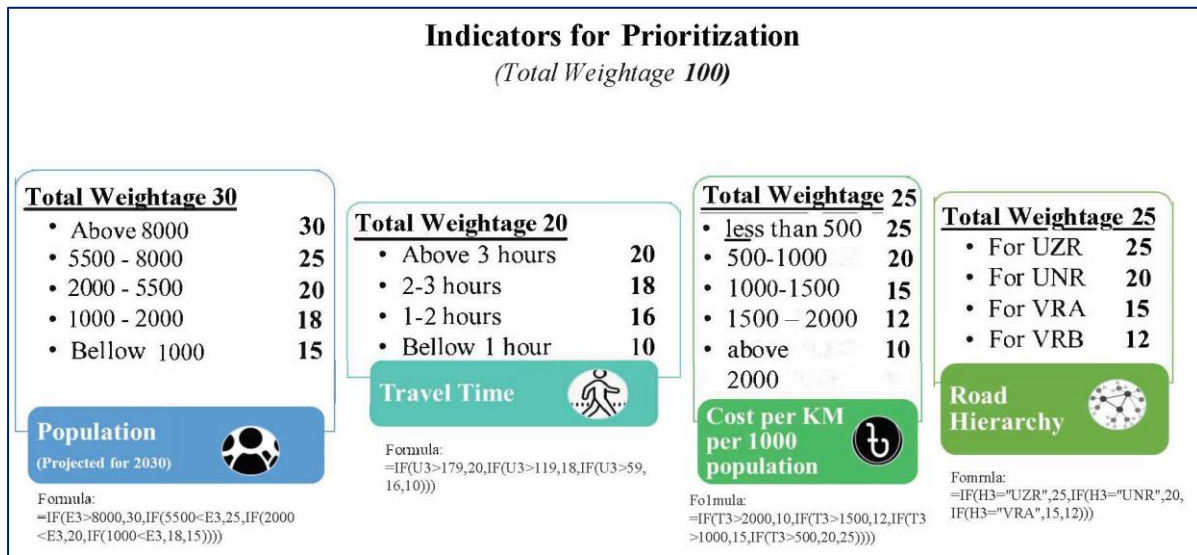


Figure 2: Prioritization indicators & their weightage values

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 RURAL ROAD CONNECTIVITY TO THE VILLAGES

4.1 SUMMARY OF THE VILLAGE CONNECTIVITY

Singra is an Upazila with major Beels. The rural road communication is quite poor here. Out of 414 villages, 169 are disconnected from the developed paved road network that brings huge sufferings for the people of those villages. The total rural road network of Singra is 903.49 km and out of which, 395.01 km paved and 508.48 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	Chamari	30	23	7
2	Chaugram	31	11	20
3	Chhatar Dighi	34	16	18
4	Dahia	39	22	17
5	Hatiandaha	35	20	15
6	Italy	43	27	16
7	Kalam	26	10	16
8	Lalore	35	22	13
9	Ramananda Khajura	40	28	12
10	Sherkole	41	29	12
11	Sukash	50	37	13
12	Tajpur	10	0	10
Total=		414	245	169

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)
Chamari (30)	1	Bildaha	3811	Anandanagar	1891
	2	Chak Balaram	376	Chak Lalka	345
	3	Chak Kalikapur	404	Gutia	2295
	4	Chamari	494	Kandi Para	1115
	5	Chhota Kalikapur	404	Krishnanagar	2805
	6	Dari Mahishmari	953	Mahishmari	4593
	7	Fatha Para	1143	Sonapur	3437
	8	Gayan Para	463		
	9	Gutia Mahishmari	2100		
	10	Holaigari	728		
	11	Kailnagar	816		

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	12	Kandi Para	1299		
	13	Madhya Para	681		
	14	Natun Para	202		
	15	Pangasia	2258		
	16	Puran Para	591		
	17	Rampur	328		
	18	Raninagar	260		
	19	Rudia	962		
	20	Shibpur	873		
	21	Shyamerkul	332		
	22	Sonaghati	1250		
	23	Uttar Para	1055		
		Sub Total=		21783	
Chaugram (31)	1	Deabaria	92	Bagicha para	643
	2	Kaidighi	92	Taruhat	
	3	Kajlahar	262	Balal	4778
	4	Khurda Chaugram	747	Sowaib	
	5	Majhi Para Shibpur	74	Baria	398
	6	Nimakadma	385	Belgharia	93
	7	Pambaria	103	Boiragipara	154
	8	Panpara	280	Chaugaon	801
	9	Panruhar	191	Fotikahar	1043
	10	Paschim Barabaria	30	Rothbari	
	11	Phatikahar	92	Goalbaria	244
	12			Hulhulia	572
	13			Kaidirbaria	316
	14			Kantanagar	186
	15			Maria Para	92
	16			Mustigar	288
	17			Sardanagar	339
	18			Sreeballabhpur	92
	19			Terabaria	227
	20			Thapon Dighi	223
	Sub Total=		2348		10489
Chhatar Dighi (34)	1	Anandanagar	412	Aktabnagar	330
	2	Bhar Bargachha	828	Barabari	1764
	3	Chhatar Baria	762	Bhulbaria	1816
	4	Damkuri	891	Chhatar Dighi	1580
	5	Dhanuria	330	Eklaspur	1105
	6	Kaliganj	1193	Hosenpur	690
	7	Khurda Kaya	614	Jhina	2270
	8	Nikhira	1507	Karachmaria	423

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	9	Palsa	1479	Matikata	1110
	10	Pania Para	630	Mirzapur	826
	11	Purba Damkuri	576	Pakisa	1507
	12	Rudrabaria	486	Paota	1140
	13	Saidpur	1338	Paschim Bahadurpur	319
	14	Sarmoja	875	Paschim Banshbaria	410
	15	Sreerampur	374	Purba Bahadurpur	549
	16	Upar Kumaria	721	Radhanagar	579
	17			Ramnagar	1314
	18			Udisa	773
		Sub Total=	13016		18505
Dahia (39)	1	Ayes	1595	Baragaon	3052
	2	Bara Adumpur	702	Bera Bari	1064
	3	Baraichara	508	Chak Aditya	1133
	4	Bhaturia Jhina	346	Dahia	2996
	5	Bil Pakuria	406	Durgapur	3362
	6	Chhota Banshuria	849	Koipukuria	
	7	Chhota Kholabaria	329	Eksing	1252
	8	Chik Byas	3194	Garabari	913
	9	Hatigara	991	Hatian Dighi	817
	10	Ichhalbaria	568	Kadamkuri	254
	11	Kaidala	637	Kauatikri	961
	12	Kanchi Bhadra	1516	Kshirpota	1952
	13	Lalua	576	Pipulsan	1870
	14	Madha	655	Sharishabari	773
	15	Manik Chapar	776	Singra Jadunathpur	589
	16	Musigari	624	Taria	989
	17	Pakuria Para	317	Tenga Pakuria	905
	18	Panchpakhia	527		
	19	Paril	403		
	20	Paschim Bhengri	809		
	21	Purba Bhengri	620		
	22	Raghu Kadma	489		
		Sub Total=	17437		22882
Hatiandaha (35)	1	Achalkot	1574	Aladi	524
	2	Agalrua	1276	Arkandi	407
	3	Bara Sawail	3633	Bara Hatiandaha	1567
	4	Chak Pranpur	203	Chhota Hatiandaha	996
	5	Chaklarua	534	Dhuliadanga	1520

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	6	Char Patkol	0	Dighalgaon	1206
	7	Hasighati	679	Gunaikhara	1688
	8	Kaligaon	1196	Hajipur	862
	9	Kazi Para	184	Malbata Sardar Para	555
	10	Kazipara	568	Malochbaria	243
	11	Kushabari	1626	Narayanpur	657
	12	Mandal Para	1838	Natun Basti	911
	13	Mora Paria	607	Panchlarua	777
	14	Nalbata Gupti Para	458	Patsawail	907
	15	Nalbata Mirda Para	339	Saha Para	776
	16	Patkandi	368		
	17	Taltali Para	219		
	18	Tarapur	370		
	19	Ulupur	284		
	20	Uttar Sajura	453		
	Sub Total=		16409		13596
Italy (43)	1	Analia	241	Agtirail	1107
	2	Bakhanda	610	Bankuri	1805
	3	Bara Kholabaria	301	Bikrampur	621
	4	Barpara	257	Chhattar	819
	5	Bhasa	132	Indrasan	1721
	6	Bishnupur	775	Italy	2119
	7	Burikadma	219	Kumgaon	1417
	8	Chhatua	427	Munshi Bansbaria	2090
	9	Deogachha	560	Pakuria	2946
	10	Dhamaijgari	450	Paschim Kalaikuri	1225
	11	Dighi Para	545	Paschim Magura	455
	12	Gongar Baria	286	Ratal	673
	13	Hijli	1677	Sachan Dighi	250
	14	Icchakuri	222	Saguni	345
	15	Kayakhas	393	Salmara	1172
	16	Laksmikuri	324	Sonapatil	855
	17	Latabaria	521		
	18	Maidighi	482		
	19	Panchtirail	1053		
	20	Purba Magura	346		
	21	Salikha Para	330		
	22	Satara	548		
	23	Satpukuria	1933		

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	24	Sikichara	525		
	25	Sreekul	722		
	26	Tajpur	754		
	27	Tula Para	180		
	Sub Total=			14813	
Kalam (26)	1	Bijohnagar	813	Baliabari	1422
	2	Chak Rampur	0	Baliaghati	301
	3	Hat Kadamtali	896	Chandpur	989
	4	Jagatpur	343	Debdor	589
	5	Lakshmipur	524	Gutia	1418
	6	Mahesh Chandpur	2125	Raninagar	
	7	Nagar Para	909	Harina	1630
	8	Par Soail	1837	Kalinagar	5240
	9	Pundari	1964	Krishnapur	605
	10	Ramkrishnapur	408	Kumar Para	1149
	11			Mirzapur	1705
	12			Narpur	1849
	13			Nasiakanda	3053
	14			Nazarpur	2225
	15			Santanagar	534
	16			Surjyapur	1027
	Sub Total=			9818	
Lalore (35)	1	Ataikula	1375	Chhota Belgharia	451
	2	Bangal Para	502	Dakmandap	1445
	3	Bara Bari	1846	Dakshin Danga Para	965
	4	Bara Belgharia	984	Dakshin Dhakdhor	490
	5	Bhandar	1030	Gopandranagar	474
	6	Chhota Baraihati	518	Hapania	962
	7	Dakshin Para	904	Lalore	2717
	8	Gopalpur	439	Majhgati	717
	9	Hamirghosh(Part)	705	Neogigaon	387
	10	Madarigaon	551	Panchtikri	597
	11	Madhyapara	882	Sonaidanga	571
	12	Majhgram	1219	Uttar Danga Para	534
	13	Matgram	355	Uttar Dhakdhar	922
	14	Mohanpur	568		
	15	Nagar Majhgaon	1473		
	16	Nalbata	1048		
	17	Nilchara	0		
	18	Nutanpara	404		

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	19	Raksa	309		
	20	Rambati	70		
	21	Sanadanga	76		
	22	Uttarpara	856		
	Sub Total=			16114	
Ramananda Khajura (40)	1	Aloia	553	Bankuri	498
	2	Bakaikuri	830	Belta	1350
	3	Bara Panchpakhia	1068	Bhoga	1794
	4	Basantapur	0	Brikaya	938
	5	Begunbaria	375	Harini	1008
	6	Bigalgalia	777	Jhingabari	503
	7	Bingaon	2130	Kaygaon	3897
	8	Byas Para	322	Manik Chapra	700
	9	Chara	551	Mankur	1463
	10	Chou Pukuria	1299	Paik Pahari	504
	11	Damdighi	583	Soair	2617
	12	Delua	402	Tegharia	482
	13	Ekdiltala	771		
	14	Gadankuri	374		
	15	Galgalia	0		
	16	Gauri Para	257		
	17	Hapania	658		
	18	Kaya Para	723		
	19	Kayadom	57		
	20	Mali Para	314		
	21	Nurpur	698		
	22	Paschim Kuchaikuri	520		
	23	Poushakadma	44		
	24	Ramananda Khajura	1017		
	25	Talhara	1106		
	26	Thalkuri	316		
	27	Thaoil	1943		
	28	Thelkur	1243		
Sub Total=			18931		15754
Sherkole (41)	1	Agpara	4018	Bhagnagorkandi	1064
	2	Bairagi Para	445	Dur Mallika	297
	3	Baktarpur	260	Goal Bathan	500
	4	Bamanhat	568	Harubaria	1014
	5	Bara Mabakuri	167	Jor Mallika	1679
	6	Bara Nagarkandi	662	Kanshapur	1043

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)	
	7	Bhag Nagarkandi	1064	Palpara	553	
	8	Bhag Nagarkandi Bhatoapara	2062	Pamgaon	1108	
	9	Bhato Para	0	Panchberia	682	
	10	Bilbharat	568	Puthimari	2458	
	11	Chak Haripur	175	Raninagar	1821	
	12	Chakpur	659	Sonapur	618	
	13	Chhota Mabakuri	112			
	14	Dhulauri	1966			
	15	Khagorbari	1408			
	16	Kharamkuri	835			
	17	Krishnapur	1025			
	18	Kumar Para	0			
	19	Kuti Para	335			
	20	Math Para	393			
	21	Nawda Para	0			
	22	Nilchora	997			
	23	Panch Para Sherkul	1292			
	24	Sahabazpur	198			
	25	Siddhakhali	1956			
	26	Sreeramkul	0			
	27	Sreerampur	605			
	28	Teligaon	466			
	29	Temukh	395			
	Sukash (50)	Sub Total=		22631		12837
		1	Arjuni Madarbaria	121	Adhkhola	1001
		2	Baguni	753	Agmursan	1268
		3	Bamihal	1936	Bankurail	1728
		4	Belgari	602	Beloa	2494
		5	Bibi Adhkhola	552	Bhuiyan Masinda	624
6		Biswaspur	552	Binahar	969	
7		Boalia	1037	Chak Durgapur	419	
8		Chak Masinda	339	Dhursun	810	
9		Chak Ramkrishnapur	100	Durgapur	802	
10		Char Narayangari	294	Nischintapur	1555	

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	11	Chhota Panchpakhiya	754	Satakuri	431
	12	Dakshin Shukhangari	758	Sreekhanda	1409
	13	Daksin Chahatpur	49	Sukash	1905
	14	Dhapkurail	903		
	15	Hans Pukharia	518		
	16	Hat Mursun	1657		
	17	Jayakuri	715		
	18	Jiapara	663		
	19	Kachua	372		
	20	Kakian	504		
	21	Kasatia	637		
	22	Khajuria	604		
	23	Kuripakhia	1134		
	24	Laksmikul	1133		
	25	Madalbaria	399		
	26	Maria	495		
	27	Masinda	511		
	28	Maugaon	1434		
	29	Nalpukuria	475		
	30	Purba Kalaikuri	442		
31	Purba Kalakuri	139			
32	Salimpur	1077			
33	Sarangbaria	510			
34	Saru Para	338			
35	Sukhangari	68			
36	Talgharia	1221			
37	Tentulia	854			
	Sub Total=		24650		15415
Tajpur (10)	1			Bhaduripara	2440
	2			Tajpur	
	3			Kamorpur	
	4			Joynagar	2198
	5			Koyrabari	1444
	6			Noagaon	4189
	7			Khorshoti	
	8			Rakhalgacha	2576
	9			Rakhalgacha	4011
	10			Bojragar	
		Sub Total=		0	

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

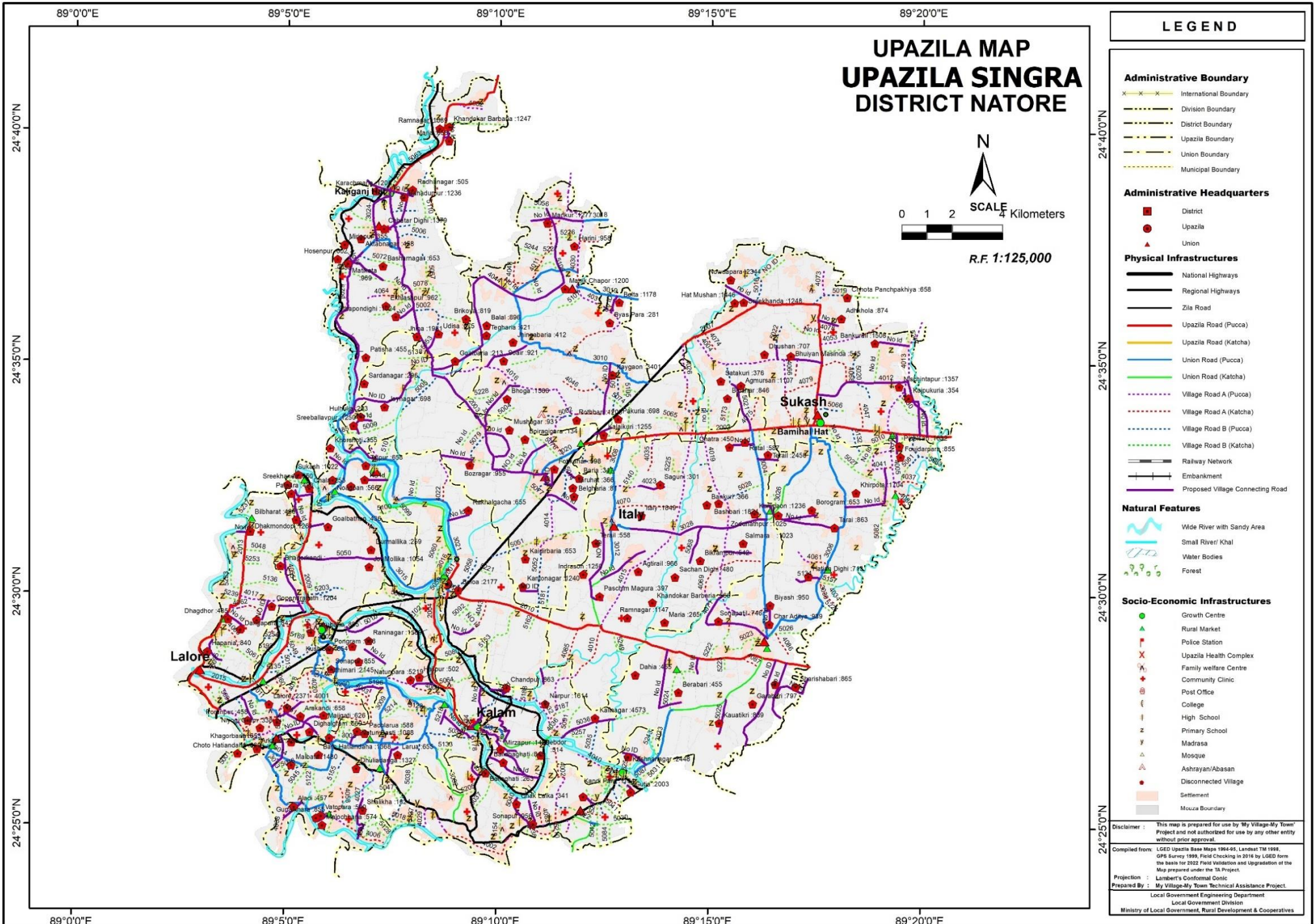


Figure 3: Upazila Map

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, Singra 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

Consultant visited ‘Dahia’, the case study Union in Singra Upazila through the alignment of “Kawatikri - Paril.Road.” having the Road ID: 169915025. 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



Figure 6: Condition of the visited road alignment at case study Union

The length of this submersible road is 1.4 km, that is totally earthen. The road connects Kauatikri village 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 fully inundated.

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

Singra Upazila is *Chalanbeel* inhabited depressed area, located between *Ganges & Brahmaputra River Basin*. There are 6 (six) major rivers that dominate the ecosystem & transport system of the Upazila. That are Bara Atrai, Soto Atrai, Nagar, Barnoi, Nandakuja & Gurr rivers. According to the Ue office, Singra, there exists 3 (three) riverine routes that can be used as multi-modal transport system. Generally Small Boat, Engine Boat, Trawler & Cargo are used throughout the year. At monsoon large area of the Upazila gets inundated due to being a depressed area i.e., beel area. During this part of the year waterways becomes the only mode of transport in the submerged area for transporting community & commodity.

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

Table 3: Proposed riverine routes 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	Singra Upazila – Bildahor GC- Gurudaspur Upazila	Atrai River	Perennial	Small Boat, Engine Boat, Trawler & Cargo	No
2	Raninagor Upzila- Kaligonj GC- Singra Upazila H/Q	Nagor River	Intermittent (May - Oct)	Small Boat, Engine Boat, Cargo	No
3	Naldanga Upazila – Kaligonj Bazar Sherkole GC – Bildahar GC	Gumani/Gurnai River	Intermittent (May - Oct)	Small Boat, Engine Boat, Cargo	No

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, 5 (five) bridges are needed to fulfil the purpose.

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 Hard-to-Reach Villages (KM)
903.49	395.01	508.48	199.3

6.2.1 PROPOSED ALL WEATHER ROUTES:

There are 75 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	Chowgram -Kaligonj GC Road.	169912003	All Weather	1.35
2	Kaligang GC-Chhatardighi up (Karasmaria).Road.	169913024	All Weather	1.2
3	SingraTajpur UP office- Kaligonj GC via Bhulbaria bazar Road.	169913029	All Weather	1.5
4	Ranbagha Hat-Lokhikhola.Road.	169914004	All Weather	1.5
5	Mirjapur CARE-Nasiar Kand.Road.	169914009	All Weather	1
6	Mirjapur CARE-Nasiar Kand.Road.	169914009	All Weather	3
7	Nischintapur-Laxmikola..Road.	169914012	All Weather	3
8	Sikichora Itali Road at Karbala-Bikrampur..Road.	169914023	All Weather	2
9	Dhuliadangha Hat-Shalikha Paglatala..Road.	169914027	All Weather	2
10	Narayanpur-Aglarua Hat..Road.	169914028	All Weather	1.7
11	Nasiarkandi Bottola - H/O Freedom Fighter Abdur Rashid	169914040	All Weather	2
12	Dewlia Briddge-Sthapondegghi (Goyalbaria More).Road.	169914044	All Weather	5
13	Jhingabaria Pucca road to Shoair.Road.	169914045	All Weather	3.5
14	Arcandi Pucca road-Achol coat Pucca Road	169914051	All Weather	2.3
15	Hatiandaha Saw Mill Pucca road - Gunaikhara pucca road via Eastpara Jame Mosque	169914052	All Weather	1.5
16	Bhagnagorkandi Rouf-Primary School	169914055	All Weather	2
17	Bhulbaria bazar-Bhulbaria Madrasha.Road.	169914081	All Weather	1
18	Bhulbaria bazar-Bhulbaria Madrasha.Road.	169914081	All Weather	1
19	Dhulauri Mosque-Maser Ali House.Road.	169915015	All Weather	2.5
20	Hatmurson-Agmurson Rd.	169915022	All Weather	1
21	Kalam H/School-Trimohoni Ghat.	169915033	All Weather	2.02
22	Chalk Lanka-Chalk Kalikapur.Road.	169915040	All Weather	1.5
23	Jhina-Brikaya via udisha.Road.	169915053	All Weather	1.8

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
24	Mahishmari Sonarmore - Bildahar via Gotia.Road.	169915088	All Weather	2
25	Aladia More-River ghat.Road	169915120	All Weather	1
26	Gunaikhara hat-Tarapur pucca road	169915121	All Weather	1.5
27	Hatiandaha Endpara-Gunaikhara Pucca road	169915126	All Weather	0.65
28	Borgram-Primary School-Shatiandeghi	169915134	All Weather	1
29	Timuk- Bilbharat via palpara.Road.	169915139	All Weather	2.5
30	Chowmahony hat - Lalore High School	169915143	All Weather	2
31	Natunbasti North Para- Larua GPS.Road.	169915165	All Weather	1.03
32	Bejoyneor Pucca road West para road.,	169915176	all weather	1.5
33	Bahadurpur Pucca road - Arme House road.	169915182	All Weather	1
34	Raninagor RHD H/O.Reza to WDB Bundth	169915201	All Weather	1
35	Baroshaoil H/O.Munsur to Natunpara Mosque road	169915218	All Weather	1.5
36	Baro Shaoil H/O.Panjab to H/O.Fazlu Shaha via per Shaoil Old Bridge	169915219	All Weather	2.5
37	Trimohany Bridge to Hapania Sluice gate via Hapania Bazar	169915234	All Weather	3.3
38	Khidrabilia Steel Bridge - Boria Village Road	169915236	All Weather	1
39	Ek sing Pucca Road - Singra Zodunathpur Pucca Road	No ID	All Weather	3
40	Radhanagar Pucca road - Chatar dighi Jame Mosque	No ID	All Weather	0.5
41	Kalam UP Office - Chadpur Village Embankment	No ID	All Weather	1
42	Sonapur Bot tola - H/O Jamal Via H/O taheer	No ID	All Weather	1
43	Khirpota Pucca Road - Pipolsun Mosque	No ID	All Weather	1
44	Durgapur Pucca Road - Koipukuria Village	No ID	All Weather	1
45	Kaygaon Narapaikor tola Eid gha to Graveyard Road	No ID	All Weather	1.25
46	Krishna nagar Pucca - Anondonagar Pucca Road	No ID	All Weather	1.5
47	Mahishmari Prem Bridge - Adv. Asadul ISlam Pukur	No ID	All Weather	1.5

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
48	Barogram Bazart - Madrasha Via Vodraboti River Bridge	No ID	All Weather	1.5
49	Bhaduripara Basher Bridge - Char Tajpur	No ID	All Weather	1.5
50	Chak Naogaon Madrasha - Khorshoti Kheyaghat	No ID	All Weather	1.8
51	Khandokar Barboria - Ramnagar Bot tola	No ID	All Weather	2
52	Horkan Mor - Kalur more Via Khagorbaria Geraveyard	No ID	All Weather	2
53	Dhagdhor Hafijia Madrasha - Shonaidanga	No ID	All Weather	2
54	Durgapur Pucca Road - Pipolson Madrasha	No ID	All Weather	2.1
55	Belta - Belta Village Road	No ID	All Weather	1
56	Surjyapur H/O. Abbas - Bottola Via Surjyapur Mosuqe Road	No ID	All Weather	1
57	Hosenpur Pucca Road - Mirjapur Club Ghar	No ID	All Weather	1.2
58	Itaty - Sathpukuria Road to Agtiral Road	No ID	All Weather	1.2
59	Ratal Bias Pucca Road - Chatra GPS	No ID	All Weather	1.2
60	Bonkurail Sonnashi tola - Hari mondir	No ID	All Weather	1.35
61	Bhoga Pucca Road - Bhoga Graveyard Road	No ID	All Weather	1.5
62	Sharishabari Madrasha - Thenga Pakuria Madrasha	No ID	All Weather	1.5
63	Huruni Pucca Road - H/O Rustam	No ID	All Weather	1.5
64	Dhakmondop amtola hote asram porjonto	No ID	All Weather	2
65	Majh gathi - Choto Belghoria	No ID	All Weather	2
66	Adkhola - Adkhola Village Road	No ID	All Weather	2
67	Bonkuri - Brikoya	No ID	All Weather	2.5
68	Harina Pucca Matha - Shantonagar GPS	No ID	All Weather	3
69	Bahadurpur Pucca Road - Koroc Maria Durgatola	No ID	all Weather	0.8
70	Durmollika - Kharamkuir Primary School	No ID	All Weather	1
71	Chougram Kaligonj Pucca Road - Sthapondighi Madarbox Gate	No ID	All Weather	1.5
72	Goalbatan GPS - Razzak More Via Goalbatan Para	No ID	All Weather	1.5

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
73	Chhota Belghoria Village Road	No ID	All Weather	1.5
74	Chandpur - Chandpur Village	No ID	All Weather	2
75	Bahshati - Terbaria Pucca Road	No ID	All Weather	1.5

6.2.2 PROPOSED SUBMERSIBLE ROUTES:

There are 38 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	Italy UP Office - Kumgram hat via Bashbaria road	169913028	Submersible	6.5
2	Sonapatil - Dahia hat Khola.Road.	169914071	Submersible	5
3	Beloa-Ratal Road.	169915021	Submersible	1.92
4	Kawatikri-Paril.Road.	169915025	Submersible	1.4
5	Kalinagar Paschimpara-Mathpara.Road.	169915036	Submersible	2.5
6	Joremallika-Shidhakhali Rd.	169915050	Submersible	3.68
7	Bikrampur-Shasondighi.Road.	169915068	Submersible	1
8	Shogni-Bashbaria road	169915071	Submersible	1.5
9	Putimary North side River to Kushabari	169915196	Submersible	1.5
10	Trimohany Bridge to Hapania Sluice gate via Hapania Bazar	169915234	Submersible	1.25
11	Indrasion Village to Terail Village	169915251	Submersible	2
12	Bamihal Pucca road - Pakuria Kalaikuri Moha Shashan via Kalaikuri bridge	169915255	Submersible	1.5
13	Ramnagar Bottola - Ramnagar H/O sukhbor Hazi	No ID	Submersible	0.5
14	Eklashpur Bazar - Patisha Community Clinic	No ID	Submersible	0.8
15	Rakhalgacha LGED Road - H/O Yunus Via Chahor	No ID	Submersible	1
16	Pongram - Pachbaria Road Via. Sonapur	No ID	Submersible	1

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
17	H/O Mamunur Rashid - Rikshaw stand Via Jainal Master House	No ID	Submersible	1
18	Sukash Madrasha - Nowdapara Road	No ID	Submersible	2
19	Dahia Bazar - Berabari Village	No ID	Submersible	2
20	Gopendranagor Pry, School sonaidanga	No ID	Submersible	2
21	Rakhalgacha Last Point - Chougram Bill	No ID	Submersible	3
22	Joynagar Village Last Point - Hulhulia Village	No ID	Submersible	3
23	Natore Bogura Highway Chougram Bustand - Dushkhola Majar Via Bagicha para	No ID	Submersible	5
24	Bogura Higway - Fatikahar Terbaria Pucca Road	No ID	Submersible	1
25	Malkur Pucca Road - Purba Para Majar Via H/O Khademul; Islam	No ID	Submersible	1.3
26	Biash Bazar Pucca Road - Chak Aditya Graveyard	No ID	Submersible	1.5
27	Panch Pakia Pucca Road - Shedhuli Pucca Road Via H/O Freedom Fighter Tofajjol Hossen	No ID	Submersible	1.75
28	Koirabari Footbal Field - Shidhlipara Via Koirabari GPS	No ID	Submersible	2
29	Temur Krishnapur Uttarpara Bridge - Dakkhin Para Bridge	No ID	Submersible	2.5
30	Sorishabari Pucca Road to Garabari Road	No ID	Submersible	1
31	Manikchapor Pucca Road - Manikchapor Mosque Via H/O Razzak Prof.	No ID	Submersible	1.2
32	Singra - Baruhas RCC Road to Tenga pakuria	No ID	Submersible	1.25
33	H/O Hasan Ali Pucca Road - Kantonagar Purba Field Para Road	No ID	Submersible	1
34	Sathpukuria to Panchim Magura Road	No ID	Submersible	1.5
35	Hulhulia Bazar - Sardanagar Submerge Road Via Sarder Para	No ID	Submersible	2
36	Shingra Baruhash Pucca Road - Kadamtuli	No ID	Submersible	1

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
37	Chougram UP Office - Chougram Pukur Para Pucca Road	No ID	Submersible	1
38	Kantonagar Buria Submerge Road - Koidighi Buria Via Pomburia	No ID	Submersible	2

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

There are 63 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 Hard-to-Reach Villages having No ID

Sl. No	Road Name	Road ID	Unpaved length (Km)
1	Ek sing Pucca Road - Singra Zodunathpur Pucca Road	No ID	3
2	Radhanagar Pucca road - Chatar dighi Jame Mosque	No ID	0.5
3	Kalam UP Office - Chadpur Village Embankment	No ID	1
4	Sonapur Bot tola - H/O Jamal Via H/O taheer	No ID	1
5	Kharpota Pucca Road - Pipolsun Mosque	No ID	1
6	Durgapur Pucca Road - Koipukuria Village	No ID	1
7	Kaygaon Narapaikor tola Eid gha to Graveyard Road	No ID	1.25
8	Krishna nagar Pucca - Anondonagar Pucca Road	No ID	1.5
9	Mahishmari Prem Bridge - Adv. Asadul Islam Pukur	No ID	1.5
10	Barogram Bazart - Madrasha Via Vodraboti River Bridge	No ID	1.5
11	Bhaduripara Basher Bridge - Char Tajpur	No ID	1.5
12	Chak Naogaon Madrasha - Khorshoti Kheyaghat	No ID	1.8
13	Khandokar Barboria - Ramnagar Bot tola	No ID	2
14	Horkan Mor - Kalur more Via Khagorbaria Geraveyard	No ID	2
15	Dhagdhor Hafijia Madrasha - Shonaidanga	No ID	2
16	Durgapur Pucca Road - Pipolson Madrasha	No ID	2.1
17	Belta - Belta Village Road	No ID	1
18	Surjyapur H/O. Abbas - Bottola Via Surjyapur Mosuqe Road	No ID	1
19	Hosenpur Pucca Road - Mirjapur Club Ghar	No ID	1.2
20	Itaty - Sathpukuria Road to Agtiral Road	No ID	1.2

Sl. No	Road Name	Road ID	Unpaved length (Km)
21	Ratal Bias Pucca Road - Chatra GPS	No ID	1.2
22	Bonkurail Sonnashi tola - Hari mondir	No ID	1.35
23	Bhoga Pucca Road - Bhoga Graveyard Road	No ID	1.5
24	Sharishabari Madrasha - Thenga Pakuria Madrasha	No ID	1.5
25	Huruni Pucca Road - H/O Rustam	No ID	1.5
26	Dhakmondop amtola hote asram porjonto	No ID	2
27	Majh gathi - Choto Belghoria	No ID	2
28	Adhkhola - Adhkhola Village Road	No ID	2
29	Bonkuri - Brikoya	No ID	2.5
30	Harina Pucca Matha - Shantonagar GPS	No ID	3
31	Bahadurpur Pucca Road - Koroc Maria Durgatola	No ID	0.8
32	Durmollika - Kharamkuir Primary School	No ID	1
33	Chougram Kaligonj Pucca Road - Sthapondighi Madarbox Gate	No ID	1.5
34	Goalbatan GPS - Razzak More Via Goalbatan Para	No ID	1.5
35	Chhota Belghoria Village Road	No ID	1.5
36	Chandpur - Chandpur Village	No ID	2
37	Bahshati - Terbaria Pucca Road	No ID	1.5
38	Ramnagar Bottola - Ramnagar H/O sukhbor Hazi	No ID	0.5
39	Eklashpur Bazar - Patisha Community Clinic	No ID	0.8
40	Rakhalgacha LGED Road - H/O Yunus Via Chahor	No ID	1
41	Pongram - Pachbaria Road Via. Sonapur	No ID	1
42	H/O Mamunur Rashid - Rikshaw stand Via Jainal Master House	No ID	1
43	Sukash Madrasha - Nowdapara Road	No ID	2
44	Dahia Bazar - Berabari Village	No ID	2
45	Gopendranagar Pry, School sonaidanga	No ID	2
46	Rakhalgacha Last Point - Chougram Bill	No ID	3
47	Joynagar Village Last Point - Hulhulia Village	No ID	3
48	Natore Bogura Highway Chougram Bustand - Dushkhola Majar Via Bagicha para	No ID	5
49	Bogura Higway - Fatikahar Terbaria Pucca Road	No ID	1
50	Malkur Pucca Road - Purba Para Majar Via H/O Khademul; Islam	No ID	1.3

Sl. No	Road Name	Road ID	Unpaved length (Km)
51	Biash Bazar Pucca Road - Chak Aditya Graveyard	No ID	1.5
52	Panch Pakia Pucca Road - Shedhuli Pucca Road Via H/O Freedom Fighter Tofajjol Hossen	No ID	1.75
53	Koirabari Footbal Field - Shidhlipara Via Koirabari GPS	No ID	2
54	Temur Krishnapur Uttarpara Bridge - Dakkhin Para Bridge	No ID	2.5
55	Sorishabari Pucca Road to Garabari Road	No ID	1
56	Manikchapor Pucca Road - Manikchapor Mosque Via H/O Razzak Prof.	No ID	1.2
57	Singra - Baruhas RCC Road to Tenga pakuria	No ID	1.25
58	H/O Hasan Ali Pucca Road - Kantonagar Purba Field Para Road	No ID	1
59	Sathpukuria to Panchim Magura Road	No ID	1.5
60	Hulhulia Bazar - Sardanagar Submerge Road Via Sarder Para	No ID	2
61	Shingra Baruhash Pucca Road - Kadamtuli	No ID	1
62	Chougram UP Office - Chougram Pukur Para Pucca Road	No ID	1
63	Kantonagar Buria Submerge Road - Koidighi Buria Via Pomburia	No ID	2

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 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.

7 CONCLUSION & RECOMMENDATIONS

- Singra Upazila is *Chalanbeel* inhabited depressed area, located between *Ganges & Brahmaputra River Basin*. There are 6 (six) major rivers that dominate the ecosystem & transport system of the Upazila. That are Bara Atrai, Soto Atrai, Nagar, Barnoi, Nandakuja & Gurr rivers. During monsoon, these rivers carry huge volume of flood water. Though the Upazila has a number of rivers, riverine transport is available in this Upazila only during May – October and some can be used throughout the year Small Boat, Engine Boat, Trawler & Cargo ships carrying agricultural products and passengers throughout the year.
- The Upazila is heavily flooded during monsoon. A mass structure is built on the on the river Ganges i.e., '*Farakka Barrage*', controls the flow of the river towards downstream inside Bangladesh (*Padma*). It causes severe flashflood nearby areas while all the gates of the barrage are opened. Due to this destructive flashflood, rural roads and structures are highly vulnerable in this Upazila.
- The Upazila has a total number of 169 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 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 Singra in Natore 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		
6 no. Hatiandaha	Nalbata hat	HB	Yes	General Market	Both	2	1	0.16	4	0.17	0.33	0.00	71100	55000
1 no Sukash	Boalia Hat	HB	Yes	General Market	Both	2	1						472000	1003500
11 no Chattardighi	Eakhaspur hat	HB	Yes	General Market	Both	2	1						115415	450200
12 no Ramananda Khajura	Binagram Bazar	HB	Yes	General Market	Both	2	1	0.54	6	0.75	1.29	0.00	1701000	1266505
12 no Ramananda Khajura	Thawoil Hat	HB	Yes	General Market	Both	2	1	0.74	4	0.80	1.54	0.00	1084501	730100
12 no Ramananda Khajura	Badopara Hat	HB	Yes	General Market	Both	2	1	0.39	4	0.40	0.79	0.00	8400	48000
3 no. Italy	Bashbaria hat	HB	Yes	General Market	Both	2	1						776000	666505
4 no kolom	Nurpur Hat	HB	Yes	General Market	Both	2	1						200000	150505
Chamari	Bildohur hat	GC	Yes	General Market	Both	2	1	0.48	55	0.90	1.38	0.00	1402910	1358000
Chamari	Pangasheya Hat	HB	Yes	General Market	Both	2	1	1.00	2	2.35	3.35	0.00	323000	215202
Chhatardighi	Kaliganj hat	GC	Yes	General Market	Both	1	1	1.74	60	3.50	5.24	0.00	1609000	1527000
Chowgram	Jamtoli Hat	HB	Yes	General Market	Both	2	1	0.40	0	0.60	0.10	0.00	2850000	1530100
Dahia	Biyas Hat	HB	Yes	General Market	Both	2	1	0.30	5	0.47	0.77		851000	792500
Dahia	Dahiya Hat	HB	Yes	General Market	Both	2	1	0.20	4	0.56	0.76		135000	40000
Dahia	Khirpota Hat	HB	Yes	General Market	Both	2	1	0.54	4	0.66	1.20	0.00	116500	100000

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		
Dahia	Borgram Hat	HB	Yes	General Market	Both	2	1	0.53	10	1.00	1.53	0.00	811000	536000
Hatiandaha	Hatiandaha Hat	HB	Yes	General Market	Both	2	1	0.21	6	0.22	0.43	0.00	2330000	2233000
Hatiandaha	Gunai Khara Hat	HB	Yes	General Market	Both	2	1	0.23	3	0.40	0.63	0.00	1065666	821000
Hatiandaha	Bora Shawl Hat	HB	Yes	General Market	Both	2	1	0.18	5	0.60	0.78		23760	98600
Hatiandaha	Dhuliadanga Hat	HB	Yes	General Market	Both	2	1	0.30	0	0.20	0.05	0.00	39000	31500
Hatiandaha	Pachlarua Hat	HB	Yes	General Market	Both	2	1					0.00	19759	102000
Italy	Kumgram Hat	HB	Yes	General Market	Both	2	1	0.85	10	1.02	1.87	0.00	435000	401022
Italy	Pakuria Hat	HB	Yes	General Market	Both	2	1	0.28	7	1.00	1.28	0.00	600000	260100
Kalom	Kolom bazar	GC	Yes	General Market	Both	2	1	0.35	15	0.40	0.75	0.00	659500	579100
Sherkole	Sherkole hat	GC	Yes	General Market	Both	2	1	0.18	7	0.48	0.58	0.00	186000	146000
Sherkole	Bondor Hat	HB	Yes	General Market	Both	2	1	0.18	6	0.52	0.70	0.00	100000	246000
Sukash	Durgapur Hat	HB	Yes	General Market	Both	2	1	0.00	0	0.00	0.00	0.00	52520	72000
Sukash	Banihaj hat	GC	No											
Tajpur	Nawgaon Hat	HB	Yes	Collection Center	Both	7	1	0.90	10	0.13	0.22	0.00	79000	62100
Tajpur	Tajpur Hat	HB	Yes	General Market	Both	2	1	0.40	8	0.41	0.81	0.00	15010	14100
	Bamihal Hat	HB	Yes	General Market	Both	2	1	0.50	20	2.58	3.58	0.00	2800000	1171000
	Singra hat(m.a)	GC	No											

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 Pop	Weightage for Road Type	Total Weightage (21+22+23+24)
1	Italy	Italy, Bashbaria, Saguni, Bunkuri, Kumbaon	11414	Italy UP Office - Kumgram hat via Bashbaria road	169913028	UNR	Submersible	7.5	1		6.5	6.5	1170	20	180	1350	1756	118	98	30	16	25	20	91
2	Chhatar Dighi	Jhina	2270	Chowgram -Kaligonj GC Road.	169912003	UZR	All Weather	9.6	8.25		1.35	1.35	162		0	162	1681	71	20	20	10	25	25	80
3	Kalam	Baliabari, Krishnapur, Shantonagar	25591	Bejoyneor Pucca road West para road.,	169915176	VRB	all weather	1.5			1.5	1.5	180		0	180	17060	7	23	30	10	25	12	77
4	Sukash	Belo, Ratal, Bingram, Satakuri, Agmushon, Dhushon, Hatmushon	9272	Belo-Ratal Road.	169915021	VRB	Submersible	2.71	0.79		1.92	1.92	345.6	5	45	390.6	4829	42	29	30	10	25	12	77
5	Kalam	Kalinagar, Nasiarkandi, Narpur	10142	Kalinagar Paschimpara-Mathpara.Road.	169915036	VRB	Submersible	2.5			2.5	2.5	450		0	450	4057	44	38	30	10	25	12	77
6	Chaugram	Goalbaria, Balal, Sowaib	4383	Dewlia Briddge-Sthapondeghi (Goyalbaria More).Road.	169914044	VRA	All Weather	10	5		5	5	600	10	90	690	877	157	75	20	16	25	15	76
7	Italy	Sonapatil, Shalmara	2027	Sonapatil - Dahia hat Khola.Road.	169914071	VRA	Submersible	5			5	5	900	40	360	1260	405	622	75	20	16	20	15	71
8	Chhatar Dighi	Bhulbaria, Matikata, Basarnagar	2926	Bhulbaria bazar-Bhulbaria Madrasha.Road.	169914081	VRA	All Weather	1			1	1	120		0	120	2926	41	15	20	10	25	15	70
9	Hatiandaha	DhuliaDanga, Shalikka	4239	Dhuliadanga Hat-Shalikka Paglatala..Road.	169914027	VRA	All Weather	3.5	1.5		2	2	240		0	240	2120	57	30	20	10	25	15	70
10	Hatiandaha	Baro hatiandaha, Choto Hatiandaha	2563	Hatiandaha Saw Mill Pucca road -Gunaikhara pucca road via Eastpara Jame Mosqaue	169914052	VRA	All Weather	1.5			1.5	1.5	180		0	180	1709	70	23	20	10	25	15	70
11	Ramananda Khajura	Jhingabaria, Soair	3120	Jhingabaria Pucca road to Shoair.Road.	169914045	VRA	All Weather	3.5			3.5	3.5	420		0	420	891	135	53	20	10	25	15	70
12	Chhatar Dighi	Hosenpur	690	Kaliganj GC-Chhatardighi up (Karasmaria).Road.	169913024	UNR	All Weather	2.52	1.32		1.2	1.2	144		0	144	575	209	18	15	10	25	20	70
13	Kalam	Mirzapur, Balidaghati	2006	Mirjapur CARE-Nasiar Kand.Road.	169914009	VRA	All Weather	3.95		2.34	1.61	3.95	474		0	474	508	236	24	20	10	25	15	70
14	Hatiandaha	Larua, Narayanpur	1426	Narayanpur-Aglarua Hat..Road.	169914028	VRA	All Weather	1.7			1.7	1.7	204		0	204	839	143	26	18	10	25	15	68
15	Hatiandaha	Arkandi, Digholgram	1864	Arcandi Pucca road-Achol coat Pucca Road	169914051	VRA	All Weather	2.5	0.2		2.3	2.3	276		0	276	811	148	35	18	10	25	15	68
16	Kalam	Gutia, Raninagar	1418	Nasiarkandi Bottola - H/O Freedom Fighter Abdur Rashid	169914040	VRA	All Weather	2			2	2	240		0	240	709	169	30	18	10	25	15	68
17	Sherkole	Bhagnagorkandi	1064	Bhagnagorkandi Rouf-Primary School	169914055	VRA	All Weather	2			2	2	240		0	240	532	225	30	18	10	25	15	68
18	Sukash	Nischintapur	1555	Nischintapur-Laxmikola..Road.	169914012	VRA	All Weather	3			3	3	360		0	360	518	232	45	18	10	25	15	68
19	Italy	Kalaikuri, Pakuria	3385	Bamihal Pucca road - Pakuria Kalaikuri Moha Shashan via Kalaikuri bridge	169915255	VRB	Submersible	1.5			1.5	1.5	270		0	270	2256	80	23	20	10	25	12	67
20	Chamari	Gutia	2295	Mahishmari Sonarmore - Bildahar via Gotia.Road.	169915088	VRB	All Weather	4	2		2	2	240		0	240	1147	105	30	20	10	25	12	67
21	Lalore	Lalore, Hapania	3679	Trimohany Bridge to Hapania Sluice gate via Hapania Bazar	169915234	VRB	All Weather	3.3			3.3	3.3	396		0	396	1115	108	50	20	10	25	12	67
22	Sherkole	Putymari, Kushabari	2458	Putimary North side River to Kushabari	169915196	VRB	Submersible	1.5			1.5	1.5	270		0	270	1638	110	23	20	10	25	12	67
23	Italy	Indrasion, Terail	2741	Indrasion Village to Terail Village	169915251	VRB	Submersible	2			2	2	360	2	18	378	1370	138	30	20	10	25	12	67
24	Hatiandaha	Vatopara, Gunaikhara, Malochbaria	2052	Gunaikhara hat-Tarapur pucca road	169915121	VRB	All Weather	1.5			1.5	1.5	180	15	135	315	1368	154	23	20	10	25	12	67
25	Sherkole	Raninagar	1821	Raninagar RHD H/O.Reza to WDB Bundth	169915201	VRB	All Weather	1			1	1	120		0	120	1821	66	15	18	10	25	12	65
26	Hatiandaha	Natun basti, Panchlarua	1688	Natunbasti North Para- Larua GPS.Road.	169915165	VRB	All Weather	1.03			1.03	1.03	123.6		0	123.6	1639	73	15	18	10	25	12	65
27	Chamari	Kandi Para	1299	Bahadurpur Pucca road - Arme House road.	169915182	VRB	All Weather	1			1	1	120		0	120	1299	92	15	18	10	25	12	65
28	Sukash	Agmursan	1268	Hatmursan-Agmursan Rd.	169915022	VRB	All Weather	1.5	0.5		1	1	120		0	120	1268	95	15	18	10	25	12	65
29	Hatiandaha	Patsawail, Shahapara	1133	Baroshail H/O.Munsur to Natunpara Mosque road	169915218	VRB	All Weather	1.5			1.5	1.5	180		0	180	755	159	23	18	10	25	12	65
30	Lalore	Majhgate, Panchtikri	1314	Chowmahony hat - Lalore High School	169915143	VRB	All Weather	2			2	2	240		0	240	657	183	30	18	10	25	12	65
31	Sukash	Bhuiyan Masinda	624	Ranbagha Hat-Lokhikhola.Road.	169914004	VRA	All Weather	5.85	4.35		1.5	1.5	180		0	180	416	288	23	15	10	25	15	65
32	Sherkole	Harubaria	1014	Dhulauri Mosque-Maser Ali House.Road.	169915015	VRB	All Weather	2.5			2.5	2.5	300		0	300	406	296	38	18	10	25	12	65
33	Sherkole	Joremallika	1679	Joremallika-Shidhakhali Rd.	169915050	VRB	Submersible	3.68			3.68	3.68	662.4		0	662.4	456	395	55	18	10	25	12	65
34	Chaugram	Sardanagar	339	SingraTajpur UP office- Kaligonj GC via Bhulbaria bazar Road.	169913029	UNR	All Weather	4	2.5		1.5	1.5	180		0	180	226	531	23	15	10	20	20	65
35	Dahia	Hatian Dighi	817	Borgram-Primary School-Shatiandeghi	169915134	VRB	All Weather	1			1	1	120		0	120	817	147	15	15	10	25	12	62
36	Hatiandaha	Malbata Sardar Para	555	Hatiandaha Endpara-Gunaikhara Pucca road	169915126	VRB	All Weather	1		0.35	0.65	1	120		0	120	555	216	10	15	10	25	12	62
37	Hatiandaha	Aladi	524	Aladia More-River ghat.Road	169915120	VRB	All Weather	1			1	1	120		0	120	524	229	15	15	10	25	12	62
38	Italy	Bikrampur, Sachan Dighi	951	Bikrampur-Shasondighi.Road.	169915068	VRB	Submersible	1			1	1	180	5	45	225	951	237	15	15	10	25	12	62

*** 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 Pop	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
39	Dahia	Kauatikri	961	Kawatikri-Paril.Road.	169915025	VRB	Submersible	1.4			1.4	1.4	252		0	252	687	262	21	15	10	25	12	62
40	Chhatar Dighi	Udisa	773	Jhina-Brikaya via udisha.Road.	169915053	VRB	All Weather	1.8			1.8	1.8	216		0	216	430	279	27	15	10	25	12	62
41	Chaugram	Baria	398	Khidrabaria Steel Bridge - Boria Village Road	169915236	VRB	All Weather	1.5	0.5		1	1	120		0	120	398	302	15	15	10	25	12	62
42	Hatiandaha	Hajipur, Notunpara	964	Baro Shaoil H/O.Panjab to H/O.Fazlu Shaha via per Shaoil Old Bridge	169915219	VRB	All Weather	2.5			2.5	2.5	300		0	300	385	311	38	15	10	25	12	62
43	Kalam	Debdor	589	Kalam H/School-Trimohoni Ghat.	169915033	VRB	All Weather	4.02	2		2.02	2.02	242.4		0	242.4	292	412	30	15	10	25	12	62
44	Italy	Saguni	345	Sikichora Itali Road at Karbala-Bikrampur..Road.	169914023	VRA	All Weather	2.82	0.82		2	2	240	8	72	312	172	905	30	15	10	20	15	60
45	Chamari	Chak Lalka	345	Chalk Lanka-Chalk Kalikapur.Road.	169915040	VRB	All Weather	1.5			1.5	1.5	180		0	180	230	522	23	15	10	20	12	57
46	Sherkole	Palpara	553	Timuk- Bilbharat via palpara.Road.	169915139	VRB	All Weather	2.5			2.5	2.5	300		0	300	221	542	38	15	10	20	12	57
47	Italy	Saguni	345	Shogni-Bashbaria road	169915071	VRB	Submersible	1.5			1.5	1.5	270		0	270	230	783	23	15	10	20	12	57
48	Dahia	Ek shing, Tarai, Borogram, Zodunathpur, Kshirpota	7514	Ek sing Pucca Road - Singra Zodunathpur Pucca Road	No ID	VRB	All Weather	3			3	3	360	30	270	630	2505	84	45	25	10	25	12	72
49	Kalam	Nazarpur, Kumarpara, Chadpur	4363	Kalam UP Office - Chadpur Village Embankment	No ID	VRB	All Weather	1			1	1	120		0	120	4363	28	15	20	10	25	12	67
50	Chhatar Dighi	Chatardighi, Radhanagar	2159	Radhanagar Pucca road - Chatar dighi Jame Mosque	No ID	VRB	All Weather	0.5			0.5	0.5	60		0	60	4317	28	8	20	10	25	12	67
51	Chhatar Dighi	Ramnagar, Khandokar Barbaria, Maria	3033	Ramnagar Bottola - Ramnagar H/O sukhbor Hazi	No ID	VRB	Submersible	0.5			0.5	0.5	90		0	90	6066	30	8	20	10	25	12	67
52	Chamari	Sonapur	3437	Sonapur Bot tola - H/O Jamal Via H/O taher	No ID	VRB	All Weather	1			1	1	120		0	120	3437	35	15	20	10	25	12	67
53	Chamari	Anandanagor, Krishnanagar	4695	Krishna nagar Pucca - Anondonagar Pucca Road	No ID	VRB	All Weather	1.5			1.5	1.5	180		0	180	3130	38	23	20	10	25	12	67
54	Ramananda Khajura	Kaygaon	3897	Kaygaon Narapaikor tola Eid gha to Graveyard Road	No ID	VRB	All Weather	1.25			1.25	1.25	150		0	150	3117	38	19	20	10	25	12	67
55	Chamari	Mahishmari	4593	Mahishmari Prem Bridge - Adv. Asdul Islam Pukur	No ID	VRB	All Weather	1.5			1.5	1.5	180		0	180	3062	39	23	20	10	25	12	67
56	Tajpur	Noagaon, Khorshoti	4189	Chak Naogaon Madrasha - Khorshoti Kheyaghat	No ID	VRB	All Weather	1.8			1.8	1.8	216		0	216	2327	52	27	20	10	25	12	67
57	Dahia	Kshirpota, Pipulsan	3822	Khirpota Pucca Road - Pipolsun Mosque	No ID	VRB	All Weather	1			1	1	120	10	90	210	3822	55	15	20	10	25	12	67
58	Chhatar Dighi	Patisha, Eklashpur	2611	Eklashpur Bazar - Patisha Community Clinic	No ID	VRB	Submersible	0.8			0.8	0.8	144		0	144	3264	55	12	20	10	25	12	67
59	Dahia	Durgapur, Koipukuria	3362	Durgapur Pucca Road - Koipukuria Village	No ID	VRB	All Weather	1			1	1	120	10	90	210	3362	62	15	20	10	25	12	67
60	Chhatar Dighi	Ramnagar, Khandokar Barbaria, Maria	3728	Khandokar Barboria - Ramnagar Bot tola	No ID	VRB	All Weather	2			2	2	240		0	240	1864	64	30	20	10	25	12	67
61	Sherkole	Pongram, Panchberia, Sonapur	2407	Pongram - Pachbaria Road Via. Sonapur	No ID	VRB	Submersible	1			1	1	180		0	180	2407	75	15	20	10	25	12	67
62	Tajpur	Rakhalgacha	2576	Rakhalgacha LGED Road - H/O Yunus Via Chahor	No ID	VRB	Submersible	1			1	1	180	2	18	198	2576	77	15	20	10	25	12	67
63	Dahia	Barogram	3052	Barogram Bazart - Madrasha Via Vodraboti River Bridge	No ID	VRB	All Weather	1.5			1.5	1.5	180	15	135	315	2035	103	23	20	10	25	12	67
64	Sukash	Sukash, Nowdapara, Sreekhanda, Chalapara	3367	Sukash Madrasha - Nowdapara Road	No ID	VRB	Submersible	2			2	2	360		0	360	1684	107	30	20	10	25	12	67
65	Lalore	Khagorbaria, Poranpur, Niyogi Gram	2119	Horkan Mor - Kalur more Via Khagorbaria Geraveyard	No ID	VRB	All Weather	2			2	2	240		0	240	1059	113	30	20	10	25	12	67
66	Lalore	Dhagdhor, Dangapara, Sonai Danga	2027	Dhagdhor Hafijia Madrasha - Shonaidanga	No ID	VRB	All Weather	2			2	2	240		0	240	1013	118	30	20	10	25	12	67
67	Kalam	Nazarpur	2225	H/O Mamunur Rashid - Rikshaw stand Via Jainal Master House	No ID	VRB	Submersible	1			1	1	180	10	90	270	2225	121	15	20	10	25	12	67
68	Sukash	Durgapur, Chak Durgapur, Foujdarpara, Poipukuria	2037	Durgapur Pucca Road - Pipolsun Madrasha	No ID	VRB	All Weather	2.1			2.1	2.1	252		0	252	970	124	32	20	10	25	12	67
69	Dahia	Dahia, Berabari	4061	Dahia Bazar - Berabari Village	No ID	VRB	Submersible	2			2	2	360	20	180	540	2030	133	30	20	10	25	12	67
70	Tajpur	Rakhalgacha, Bojragar	4011	Rakhalgacha Last Point - Chougram Bill	No ID	VRB	Submersible	3			3	3	540		0	540	1337	135	45	20	10	25	12	67
71	Tajpur	Bhaduripara, Tajpur, Kamorpur	2440	Bhaduripara Basher Bridge - Char Tajpur	No ID	VRB	All Weather	1.5			1.5	1.5	180	20	180	360	1627	148	23	20	10	25	12	67
72	Lalore	Gopendranath, SonaiDanga	2022	Gopendranagor Pry, School sonaidanga	No ID	VRB	Submersible	2			2	2	360		0	360	1011	178	30	20	10	25	12	67
73	Tajpur	Joynagar	2198	Joynagar Village Last Point - Hulhulia Village	No ID	VRB	Submersible	3			3	3	540		0	540	733	246	45	20	10	25	12	67
74	Chaugram	Chougram, Belghoria, Bagicha para, Taruhat	1540	Natore Bogura Highway Chougram Bustand - Dushkhola Majar Via Bagicha para	No ID	VRB	Submersible	10	5		5	5	900		0	900	308	584	75	18	16	20	12	66
75	Chhatar Dighi	Hosenpur, Mirjapur, Aktabnagar	1846	Hosenpur Pucca Road - Mirjapur Club Ghar	No ID	VRB	All Weather	1.2			1.2	1.2	144		0	144	1538	78	18	18	10	25	12	65
76	Ramananda Khajura	Belta	1350	Belta - Belta Village Road	No ID	VRB	All Weather	1			1	1	120		0	120	1350	89	15	18	10	25	12	65
77	Sukash	Bankurail	1728	Bonkurail Sonnashi tola - Hari mondir	No ID	VRB	All Weather	1.35			1.35	1.35	162		0	162	1280	94	20	18	10	25	12	65
78	Ramananda Khajura	Bhoga	1794	Bhoga Pucca Road - Bhoga Graveyard Road	No ID	VRB	All Weather	1.5			1.5	1.5	180		0	180	1196	100	23	18	10	25	12	65

*** 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 Pop	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
79	Kalam	Surjyapur	1027	Surjyapur H/O. Abbas - Bottola Via Surjyapur Mosuqe Road	No ID	VRB	All Weather	1			1	1	120		0	120	1027	117	15	18	10	25	12	65
80	Italy	Agtirail	1107	Itaty - Sathpukuria Road to Agtirail Road	No ID	VRB	All Weather	1.2			1.2	1.2	144		0	144	922	130	18	18	10	25	12	65
81	Italy	Ratal, Chatra	1492	Ratal Bias Pucca Road - Chatra GPS	No ID	VRB	All Weather	1.2			1.2	1.2	144	10	90	234	1243	157	18	18	10	25	12	65
82	Chaugram	Fotikahar, Rothbari, Mariapara	1137	Bogura Higway - Fatikahar Terbaria Pucca Road	No ID	VRB	Submersible	1			1	1	180		0	180	1137	158	15	18	10	25	12	65
83	Ramananda Khajura	Malkur	1463	Malkur Pucca Road - Purba Para Majar Via H/O Khademul; Islam	No ID	VRB	Submersible	1.3			1.3	1.3	234		0	234	1125	160	20	18	10	25	12	65
84	Dahia	Sharishabari, Thenga Pakuria	1679	Sharishabari Madrasha - Thenga Pakuria Madrasha	No ID	VRB	All Weather	1.5			1.5	1.5	180	10	90	270	1119	161	23	18	10	25	12	65
85	Ramananda Khajura	Panch Pakia	1931	Panch Pakia Pucca Road - Shedhuli Pucca Road Via H/O Freedom Fighter Tofajjol Hossen	No ID	VRB	Submersible	1.75			1.75	1.75	315		0	315	1103	163	26	18	10	25	12	65
86	Lalore	Dhakmondop	1445	Dhakmondop amtola hote asram porjonto	No ID	VRB	All Weather	2			2	2	240		0	240	722	166	30	18	10	25	12	65
87	Ramananda Khajura	Huruni	1008	Huruni Pucca Road - H/O Rustam	No ID	VRB	All Weather	1.5			1.5	1.5	180		0	180	672	179	23	18	10	25	12	65
88	Ramananda Khajura	Brikoya, Tegharia, Bankuri	1919	Bonkuri - Brikoya	No ID	VRB	All Weather	2.5			2.5	2.5	300	5	45	345	768	180	38	18	10	25	12	65
89	Kalam	Harina, Balidaghati	1932	Harina Pucca Matha - Shantonagar GPS	No ID	VRB	All Weather	3			3	3	360		0	360	644	186	45	18	10	25	12	65
90	Lalore	Majh gathi, Choto Belghoria	1169	Majh gathi - Choto Belghoria	No ID	VRB	All Weather	2			2	2	240		0	240	584	205	30	18	10	25	12	65
91	Sukash	Adhkhola	1001	Adhkhola - Adhkhola Village Road	No ID	VRB	All Weather	2			2	2	240		0	240	501	240	30	18	10	25	12	65
92	Dahia	Biash, Chak Aditya	1530	Biash Bazar Pucca Road - Chak Aditya Graveyard	No ID	VRB	Submersible	1.5			1.5	1.5	270	15	135	405	1020	265	23	18	10	25	12	65
93	Tajpur	Koyrabari	1444	Koirabari Footbal Field - Shidhlipara Via Koirabari GPS	No ID	VRB	Submersible	2			2	2	360	5	45	405	722	281	30	18	10	25	12	65
94	Sherkole	Krishnapur	1025	Temur Krishnapur Uttarpara Bridge - Dakkhin Para Bridge	No ID	VRB	Submersible	2.5			2.5	2.5	450		0	450	410	439	38	18	10	25	12	65
95	Chhatar Dighi	Karachmaria, Bahadurpur	691	Bahadurpur Pucca Road - Koroc Maria Durgatola	No ID	VRB	all Weather	0.8			0.8	0.8	96		0	96	864	139	12	15	10	25	12	62
96	Dahia	Garabari	913	Sorishabari Pucca Road to Garabari Road	No ID	VRB	Submersible	1			1	1	180		0	180	913	197	15	15	10	25	12	62
97	Kalam	Chandpur	989	Chandpur - Chandpur Village	No ID	VRB	All Weather	2			2	2	240		0	240	494	243	30	15	10	25	12	62
98	Dahia	Tenga Pakuria	905	Singra - Baruhas RCC Road to Tenga pakuria	No ID	VRB	Submersible	1.25			1.25	1.25	225		0	225	724	249	19	15	10	25	12	62
99	Ramananda Khajura	Manikchapor	700	Manikchapor Pucca Road - Manikchapor Mosque Via H/O Razzak Prof.	No ID	VRB	Submersible	1.2			1.2	1.2	216		0	216	583	309	18	15	10	25	12	62
100	Chaugram	Thapon Dighi, Mushtigar	511	Chougram Kaligonj Pucca Road - Sthapondighi Madarbox Gate	No ID	VRB	All Weather	1.5			1.5	1.5	180		0	180	341	352	23	15	10	25	12	62
101	Sherkole	Goalbatan	500	Goalbatan GPS - Razzak More Via Goalbatan Para	No ID	VRB	All Weather	1.5			1.5	1.5	180		0	180	333	360	23	15	10	25	12	62
102	Lalore	Chhota Belgharia	451	Chhota Belghoria Village Road	No ID	VRB	All Weather	1.5			1.5	1.5	180		0	180	301	399	23	15	10	25	12	62
103	Sherkole	Durmollika	297	Durmollika - Kharamkuir Primary School	No ID	VRB	All Weather	1			1	1	120		0	120	297	404	15	15	10	25	12	62
104	Chaugram	Hulhulia, Sreeballabhpur	663	Hulhulia Bazar - Sardanagar Submerge Road Via Sarder Para	No ID	VRB	Submersible	2			2	2	360		0	360	332	543	30	15	10	20	12	57
105	Italy	Paschim Magura	455	Sathpukuria to Panchim Magura Road	No ID	VRB	Submersible	1.5			1.5	1.5	270		0	270	303	594	23	15	10	20	12	57
106	Chaugram	Kantonagar	186	H/O Hasan Ali Pucca Road - Kantonagar Purba Field Para Road	No ID	VRB	Submersible	1			1	1	180		0	180	186	970	15	15	10	20	12	57
107	Dahia	Kadamkuri	254	Shingra Baruhash Pucca Road - Kadamtuli	No ID	VRB	Submersible	1			1	1	180	10	90	270	254	1061	15	15	10	15	12	52
108	Chaugram	Boiragipara	154	Chougram UP Office - Chougram Pukur Para Pucca Road	No ID	VRB	Submersible	1			1	1	180		0	180	154	1172	15	15	10	15	12	52
109	Chaugram	Terbaria	227	Bahshati - Terbaria Pucca Road	No ID	VRB	All Weather	1.5			1.5	1.5	180	10	90	270	151	1190	23	15	10	15	12	52
110	Chaugram	Kantonagar, Kaidirbaria	186	Kantonagar Buria Submerge Road - Koidighi Buria Via Pomburia	No ID	VRB	Submersible	2			2	2	360	30	270	630	93	3394	30	15	10	10	12	47

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*** Weightage Values; (Population = 30, Travel Time= 20, Cost per1000 people= 25, Road Hierarchy= 25)