



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”

**Dakshin Surma Upazila, Sylhet**



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July, 2022

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## GLOSSARY

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**Hard-to-reach Villages** mean in the Study those villages that are not connected by any paved road with the respective Upazila HQ and/or Union Parishad, and to the nearest economic activity hub and social service centres. The following explanations are important for the concept of hard-to-reach villages.

- In haor areas, Villages connected with submersible roads dry season and connected with Riverine/haor routes in the monsoon season have been considered accessible and excluded from hard-to-reach villages.
- Within Upazila, Villages that need a bridge to connect have not been considered hard-to-reach villages.
- In the case of island Upazilas, villages that are accessible with paved roads from Upazila HQ have been considered accessible and excluded from hard-to-reach villages.
- In the case of villages that are connected with HBB (Herring-Bone-Bond) or Brick flat soling routes have been considered hard-to-reach villages

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

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

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

**Hat** Synonym of Bazar or market

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

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

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

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



## ABBREVIATIONS

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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

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### Context of the Project

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

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

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

### Context of the Report

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

This report contains the rural connectivity status and priority plan of the **Dakshin Surma** Upazila of **Sylhet** District.





# **1 DESCRIPTION OF THE UPAZILA**

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## **1.1 GEOGRAPHY AND DEMOGRAPHY**

The geographical area of Dakshin Surma Upazila is 187.66 square kilometers and has 9 unions, 104 mauzas, and 309 villages. The Upazila is 18km away from the district headquarters of Sylhet. Dakshin Surma is partly covered by 4 haors/ wetlands and there exist 5(five) rivers flowing over the Upazila. The total population of Upazila is 253388 of which 126315 are male and 127073 females, the total number of households are 43004 and the average household size is 5.9 with a population density of 1350 (as per population census 2011).

## **1.2 EDUCATION FEATURES**

According to the information of the relevant local government offices, there are 80 government & 29 non-government primary schools in the Upazila. On the other hand, Dakshin Surma has 24 non-government with no government high schools, 2 school & colleges, 4 private colleges, and 12 madrasahs. The literacy rate for the Upazila is 54.3% as per BBS 2011.

## **1.3 RURAL ROAD COMMUNICATIONS**

Bangladesh scored in the rural accessibility index at around 87 percent among South Asian and some other African countries. Generally, the people of Bangladesh get all-weather within 2 kilometers adjacent to their living places. But the feature of rural road communications in Dakshin Surma Upazila is contrasted. There are many villages, disconnected from the developed paved road network that brings huge suffering for the people of the villages. The total rural road network of Dakshin Surma is 532.07 km and out of which, 265.35 km are paved and 266.73 km earthen.

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

Though the aggregate (coarse sand, stone chips & stone) business is the main source of income for the inhabitants, agriculture too has major importance for the economy of the people of Dakshin Surma. There are 47990 acres of arable land in Upazila. In the fiscal year 2010-11, the Rice production was 4326, 39100 & 33500 metric tons for Aus, Aman & Boro seasons respectively. The Upazila also produced 6.4 metric tons of Wheat, and 1365 metric tons of Potato in the same fiscal year 2010-11. A notable quantity of vegetables is also produced here in this Upazila.

According to the BBS (2011) data, Dakshin Surma has 4412 Acre of haor, pond & dighee that produced 401 metric tons of fish. There also exist 157 poultry & 73 dairy farms.

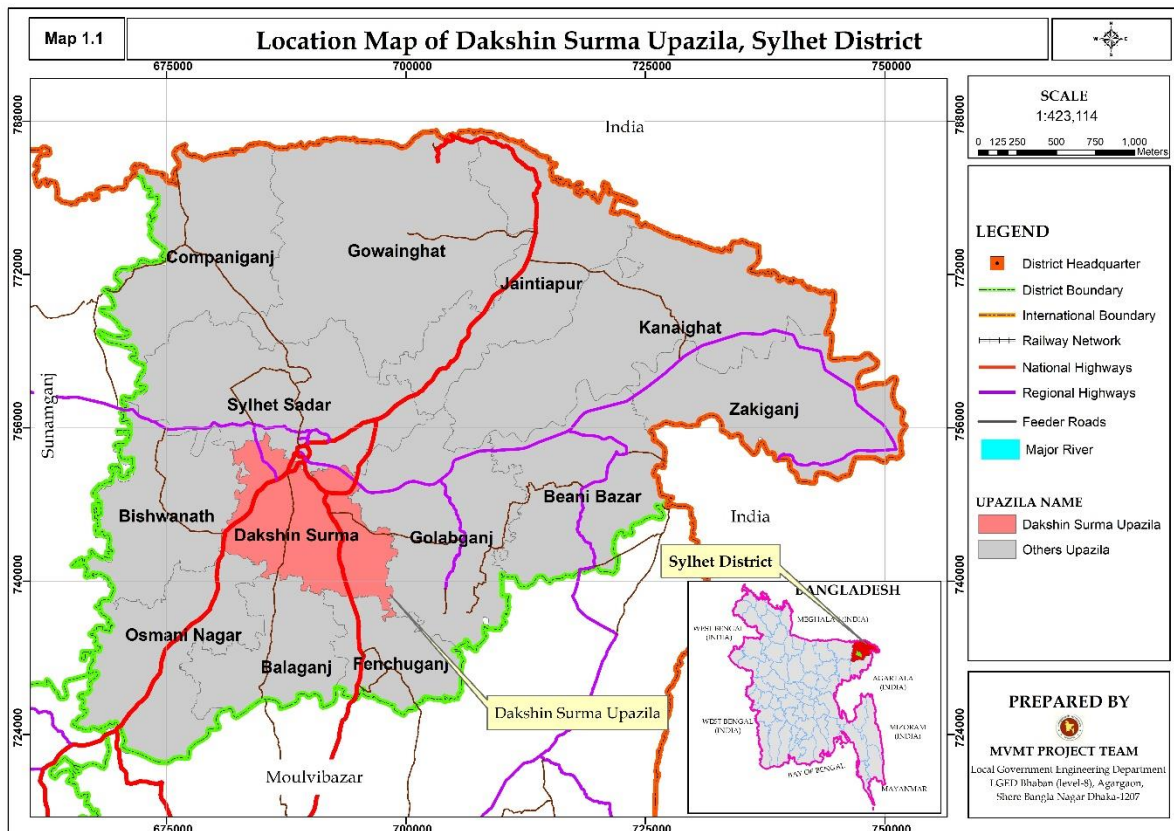
All the agricultural products are adequate to meet the demand of the Upazila and surpluses are sold outside of Dakshin Surma.

## **1.5 GROWTH CENTRE AND HATBAZAR**

Growth Centre and Rural Hatbazar are one of the main centers of the rural economy. Hatbazar is like the heart of the development of the rural economy. Rural Hatbazar plays a role in increasing production and creating employment impacting the supply chain of agriculture and non-agriculture products. There are 27 Hatbazar and 11 growth centers in Upazila. The structural development of Hatbazar and its growth is pivotal to boosting the rural economy. Details of the growth center & hatbazar of the Upazila have been attached in **Annexure-1**.

## 2 LOCATION OF THE UPAZILA

Dakshin Surma Upazila of Sylhet district in the North-Eastern part of the country. The location has been shown on the map. The Upazila is situated just below the Sylhet sadar upazila. Flash floods induce severe impacts on both the built and the natural environment. The effects of flash floods can be catastrophic and show extensive diversity, ranging from damages to buildings and infrastructure to impacts on vegetation, human lives, and livestock.



*Figure 1: Upazila Location Map*

### 3 APPROACH & METHODOLOGY

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#### 3.1 STUDY TEAM COMPOSITION

A team consisting of Senior Rural Road Infrastructure Specialist, Associate Rural Infrastructure Specialist, and Assistant Engineer engaged by the Project Management Office (PMO) conducted the study. On the other hand, A team consisting of Deputy Team Leader cum Rural Infrastructure Engineer, Junior GIS expert, and Junior Engineer engaged by consulting firm (datEx & DECL JV) conducted the study. A participatory approach to review the database and identify priority transport infrastructure needs (‘sub-projects) was instrumental. At the stakeholder consultation meeting held in each district, the database was reviewed, and priority needs were identified and mapped working together with the LGI representatives and LGED technical team. LGED and LGI representatives surveyed each Upazila for the 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, the PMO team conducted the study in 50 Upazilas of Haor areas, and the rest of the Upazilas of Haor, Beel, Char, and Island areas are conducted by the consulting firm team. The Upazila technical staff of LGED supported in organizing stakeholder consultation meetings and in database review and mapping the Hard-to-reach villages and population during this study period. They also supported the field work and authentication check by visits to the sub-projects in their respective Upazila and looking at the feasibility of some proposed sub-projects from technical, social, and environmental perspectives.

#### 3.3 DATABASE REVIEW AND ANALYSIS

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

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

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

### **3.4 PRIORITIZATION CRITERIA OF SUB-PROJECTS**

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

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

### **3.5 WEIGHTAGE DISTRIBUTION FOR PRIORITIZATION**

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

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

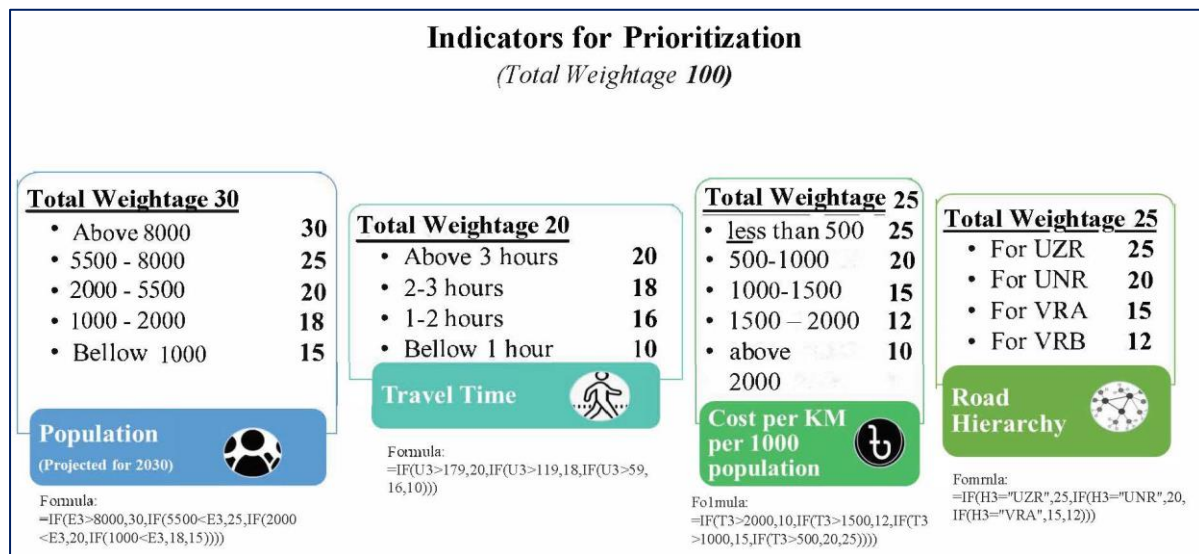


Figure 2: Prioritization indicators & their weightage values

### 3.6 MAPPING HARD-TO-REACH VILLAGES & POPULATION

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

### 3.7 WRAP UP MEETING

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

### 3.8 VALIDATION WORKSHOP

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

### **3.9 NATIONAL WORKSHOP**

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



## 4 DESCRIPTION OF WETLANDS

### 4.1 DISTRIBUTION OF THE HAORS/ WETLANDS

The Upazila has a large portion of flash flood zone that covers almost 50% of its land area. The roads within the flood zone become inundated during monsoon, which requires attention to take relevant measures during road construction and maintenance.

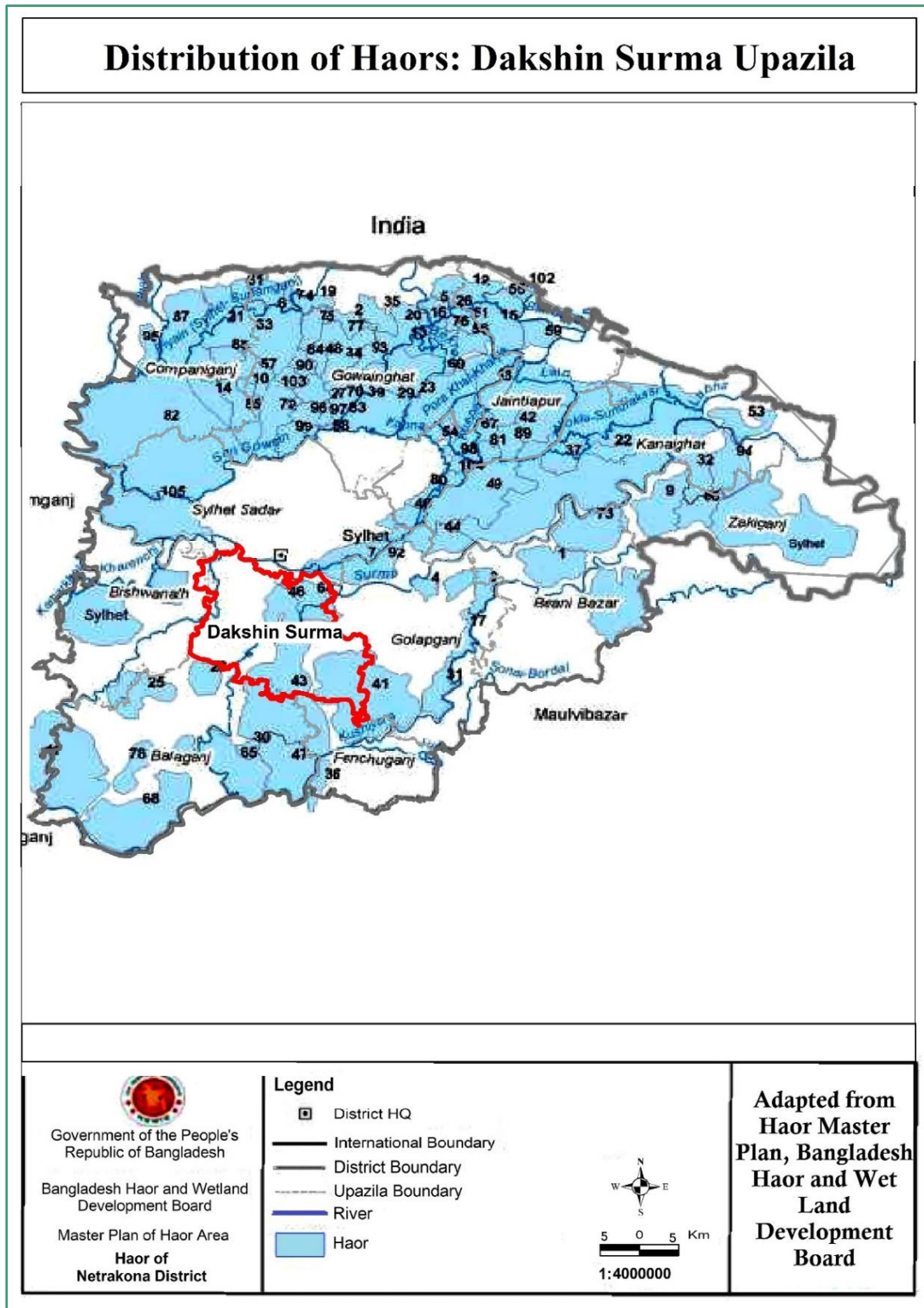


Figure 3: Haor Distribution Map

## 4.2 HAOR/ WETLAND CATEGORY

Most of the areas of Dakshin Surma Upazila are under floodplain. Therefore, road or other infrastructure development in this Upazila does not have any major environmental consequences.

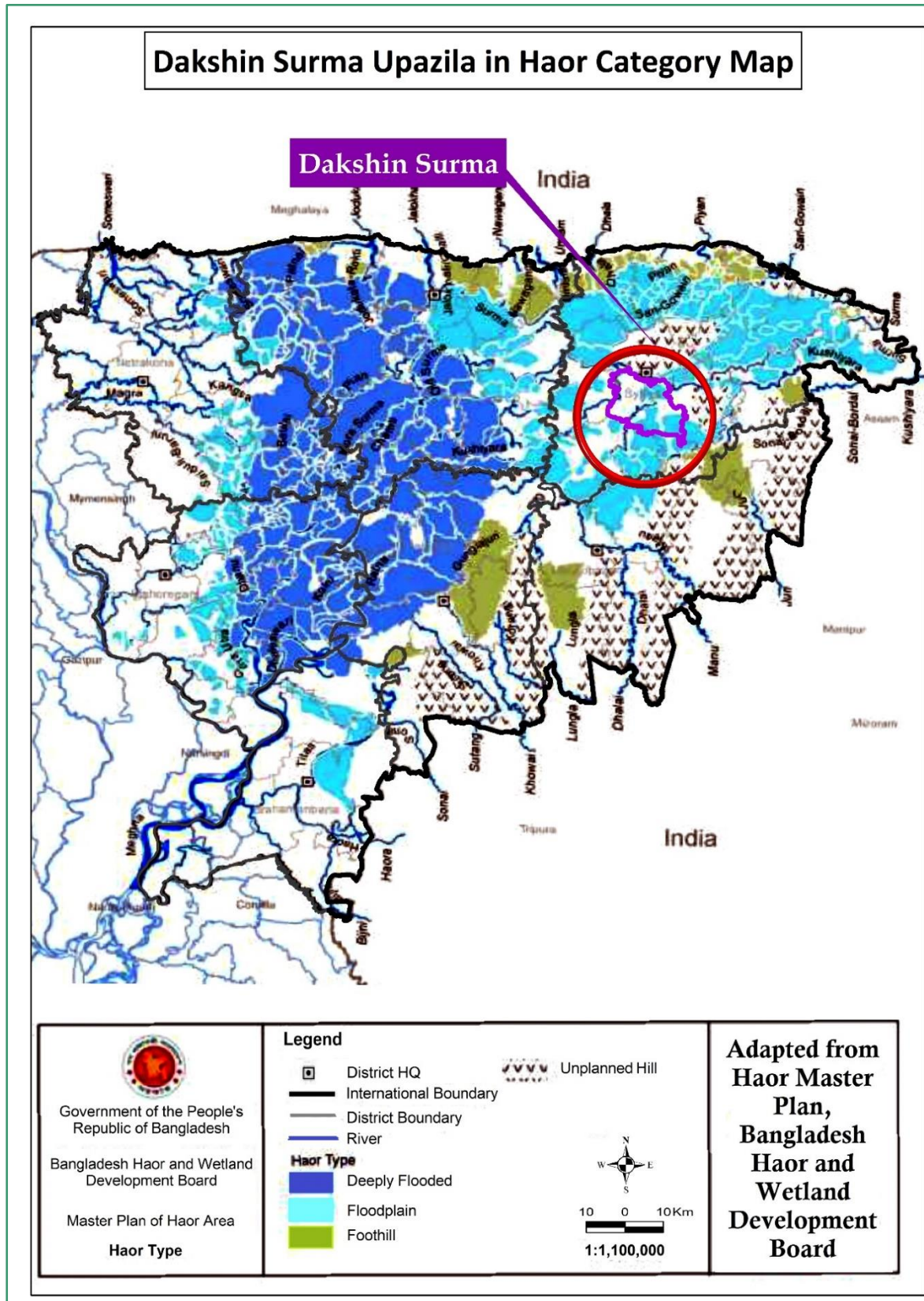


Figure 4: Haor Category Map.



### 4.3 BIO-ECOLOGICAL CHARACTERISTICS

The Bio-ecological characteristics map of the Upazila has been shown below. The map shows that it is mostly within the Meghna Floodplain zone and partially a haor basin. Therefore, adequate openings for the road and road structures should be maintained.

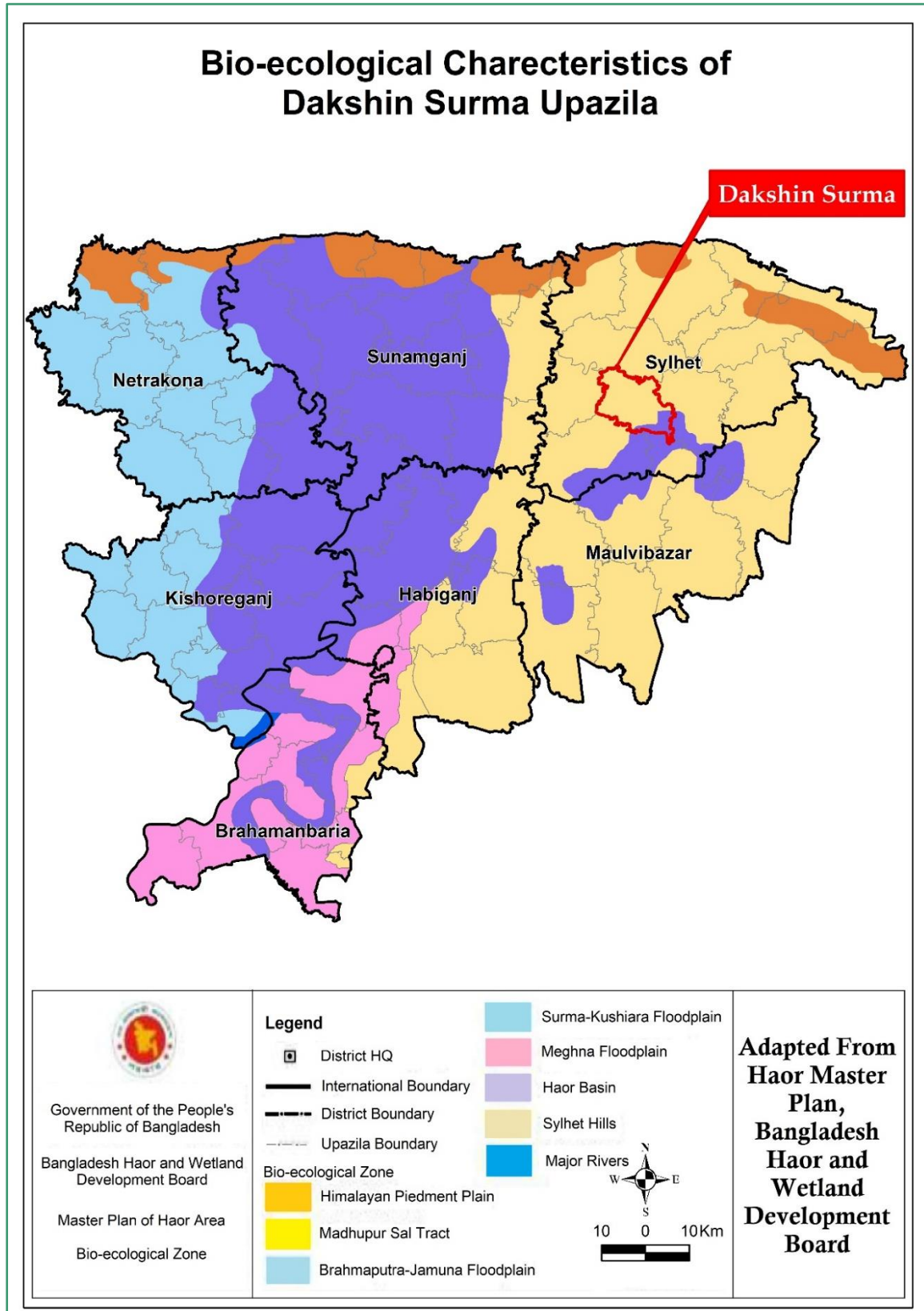


Figure 5: Bio Ecological Characteristics Map

## 5 RURAL ROAD CONNECTIVITY TO THE VILLAGES

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### 5.1 SUMMARY OF THE VILLAGE CONNECTIVITY

The feature of rural road communications in Dakshin Surma Upazila is contrasted. Out of 299 villages, 25 are disconnected from the developed paved road network which brings huge suffering for the people of those villages. The total rural road network of Dakshin Surma is 532.07 km and out of which, 265.35 km are paved and 266.73 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	Baraikandi	20	20	0
2	Daudpur	17	13	4
3	Jalalpur	49	35	14
4	Kuchai	16	16	0
5	Lala Bazar	41	41	0
6	Mogla Bazar	46	42	4
7	Mollargaon	36	36	0
8	Silam	41	40	1
9	Tetli	33	31	2
<b>Total</b>		<b>299</b>	<b>274</b>	<b>25</b>

## 5.2 VILLAGES AND THEIR CONNECTIVITY – UNION LEVEL

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

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

Union	Sl.No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
Baraikandi	1	Bakshipur	645		
	2	Baraikandi	3743		
	3	Chandai	851		
	4	Galimpur	345		
	5	Janipur	3162		
	6	Kamu Sena	279		
	7	Kazirkhola	1101		
	8	Luai	645		
	9	Mohammadpur	389		
	10	Nazarpur	261		
	11	Parbatipur	1372		
	12	Paschim Para	501		
	13	Pirijpur	2699		
	14	Reasat	300		
	15	Royergaon	1747		
	16	Sunampur	894		
	17	Talukder Para	775		
	18	Teli Para	490		
	19	Teorgaon	1043		
	20	Ummer Kabul	1097		
	<b>Sub Total</b>		<b>22339</b>		
Daudpur	1	Daudpur	5103	Binnakandi	412
	2	Daulatpur	2664	Innat Alipur	1186
	3	Hossanpur	477	Mirzanagar	1173
	4	Jhapa	2148	Rautkandi	1072
	5	Kandiarchar	1094	Sikdarpur	2248
	6	Kawakuli	1201		
	7	Manikpur	413		
	8	Naikhai	633		
	9	Panigaon	745		
	10	Surigaon	1191		
	11	Tirashigaon	1495		
	12	Turukhala	3090		
	<b>Sub Total</b>		<b>20254</b>		<b>6091</b>
	1	Abdullahpur	193	Alamdin	1823
	2	Azmatpur	682	Burunda	1318
	3	Badeshpur	445	Dupakandi	1070
	4	Bairagir Bazar	177	Gujarkandi	144

Union	Sl.No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)	
Jalalpur	5	Barachak	913	Hasampur	908	
	6	Bhuyargaon	171	Shibar Chak	491	
	7	Bramangaon	82	Karimpur	1798	
	8	Dakshin Karimpur	1569	Mirergaon	680	
	9	Dashpara	313	Murti	1219	
	10	Daudpur	353	Roykhal	1200	
	11	Daxintakirmura	379	Sabdalpur	2206	
	12	Dharpar	540	Sampur	1188	
	13	Jalalpur	3679	Sunampur	666	
	14	Jalalpur Bazar	687	Uttar Karimpur	740	
	15	Kadipur	1666			
	16	Khatira	1258			
	17	Konapara	106			
	18	Maizbagh	573			
	19	Malakandi	596			
	20	Mandabaz	219			
	21	Mirgaon	492			
	22	Mokam Doar	808			
	23	Naki Bara Chak	240			
	24	Nashir Raji	185			
	25	Noagaon	197			
	26	Pirilakona	187			
	27	Purba Mokam Doar	630			
	28	Satbila	597			
	29	Sekh Para	1580			
	30	Sekhpur	425			
	31	Sengram	629			
	32	Sharlong	177			
	33	Sikdargaon	225			
	34	Sunder Chak	260			
	35	Takir Mahal	657			
	46	Uttar Roykhal	374			
	47	Uttar Takirmura	1074			
		<b>Sub Total</b>		<b>23338</b>		<b>12583</b>
	Kuchai	1	Chita Sreerampur	416		
		2	Gotatkar	436		
		3	Habinandi	313		
		4	Kuchai	3247		
		5	Majlishpur	339		
		6	Manipur	832		
		7	Noagaon	2915		
		8	Palpur	970		
		9	Paschimbhag	1817		

Union	Sl.No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	10	Ruganpur	258		
	11	Samal Hasan	372		
	12	Sekh Para	729		
	13	Sharping	1101		
	14	Sreerampur	3592		
	15	Sultanpur Chak	1068		
	16	Tayab Kamal	760		
	<b>Sub Total</b>		<b>19165</b>		
Lala Bazar	1	Adityapur	504		
	2	Akarnadi	421		
	3	Alinagar	523		
	4	Babu Haji	565		
	5	Bagharkhala	700		
	6	Bahapur	721		
	7	Bhalki	504		
	8	Bharsona	710		
	9	Bhoraut	1384		
	10	Bibi Dail	1577		
	11	Bidsandi	411		
	12	Chakripur	445		
	13	Dakshin Noagaon	1337		
	14	Doshal	631		
	15	Faridpur	1146		
	16	Fuldi	684		
	17	Garadika	421		
	18	Gulna Khalpar	656		
	19	Hakiar Char	463		
	20	Jafrabad	975		
	21	Jhajar	524		
	22	Kaikari	679		
	23	Kaikash	727		
	24	Khalpar	568		
	25	Khatira	1306		
	26	Khokhalu	558		
	27	Kutubpur	396		
	28	Lalargaon	498		
	29	Mollarband	211		
	30	Narshingpur	470		
	31	Nazirgaon	631		
	32	Nurpur	436		
	33	Pakhi Pengar	617		
	34	Pakhi Tengar	614		
	35	Paschimbagh	1349		

Union	Sl.No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	36	Rajapur	697		
	37	Rajibari (Hilu)	621		
	38	Rashidpur	711		
	39	Sahasikandar	550		
	40	Sarabazpur	592		
	41	Senpara	522		
	<b>Sub Total</b>		<b>28055</b>		
<b>Mogla Bazar</b>	1	Banamalipur(Perer Chak)	261	Khalagaon	576
	2	Baraigaon	995	Mohammadpur	891
	3	Baurbagh	807	Negal	1048
	4	Bhogtipur	421	Sadatpur	817
	5	Bhupal	1028		
	6	Bir Mogal	461		
	7	Birmangal	330		
	8	Chhatighar	1146		
		Chalnia	440		
	9	Darampur	1447		
	10	Daudpur	273		
	11	Dhupkandi	934		
	12	Goaspur	97		
	13	Gopalgaon	1135		
	14	Hajigonj Bazar	682		
	15	Hara Gauri	1324		
	16	Harinathpur	603		
	17	Horinathpur	355		
	18	Jahanpur	973		
	19	Jalkarkandi	266		
	20	Kamdebpur	732		
	21	Kandiar Char	1524		
	22	Kandigram	960		
	23	Khalmukh Bazar	211		
	24	Kutubpur	809		
	25	Madhu Pasari	237		
	26	Mahmudabad	1174		
	27	Mayadharpur	154		
	28	Mirazpur	601		
	29	Mogla Bazar	676		
	30	Nadampur	155		
	31	Naikhai	1758		
	32	Nazirerchak	1374		
	33	Noagaon	507		
	Purnakhala	1097			
34	Purba Bhag	302			



Union	Sl.No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	35	Raghabpur	2003		
	36	Ramjanpur	196		
	37	Rifatpur	518		
	38	Sajidalad	498		
	39	Sarishapur	544		
	40	Sisrakandi	1187		
	<b>Sub Total</b>		<b>31195</b>		<b>3332</b>
Mollargaon	1	Betuar Muk	1109		
	2	Bhatergaon	249		
	3	Chitta Hajrai	308		
	4	Chowdhurygaon	1381		
	5	Goalgaon	790		
	6	Gopsha Haor	2173		
	7	Gupatrgaon	744		
	8	Khalpar	1028		
	9	Khanua	1464		
	10	Khidirpur	510		
	11	Krishnapur	647		
	12	Kurigram	1524		
	13	Lakshmi Basha	697		
	14	Lalpur	189		
	15	Lama Hajrai	1055		
	16	Latibpur	295		
	17	Majh Hajrai	960		
	18	Majidpur	331		
	19	Mandirkhola	782		
	20	Mollagaon	850		
	21	Mortashpur	398		
	22	Munshirgaon	571		
	23	Niamatpur	679		
	24	Nidanpur	370		
	25	Nobhagi	697		
	26	Purangaon	1582		
	27	Rifatpur	381		
	28	Sadharkhala	830		
	29	Sayedpur	1014		
	30	Shunupara	713		
	31	Sirajgonj	330		
	32	Suklampur	748		
	33	Supur	370		
	34	Tajpur	423		
	35	Teliroy	1178		
	36	Upur Hajrai	711		

Union	Sl.No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	<b>Sub Total</b>		<b>28081</b>		
<b>Silam</b>	1	Agachar	729	Dangsree*	1379
	2	Akilpur	339		
	3	Bhupal	125		
	4	Birahimpur	687		
	5	Brahman Para	287		
	6	Char Katir Chak	731		
	7	Char Mohammadpur	827		
	8	Dhali Para	1237		
	9	Dumsiri	1204		
	10	Fakir Para	217		
	11	Gazipara	787		
	12	Goalgaon	1020		
	13	Hajipur	700		
	14	Ilaspur	578		
	15	Inkhai	97		
	16	Khalpar	327		
	17	Khararia	2650		
	18	Kismat Birahimpur	305		
	19	Majh Para	707		
	20	Majorgaon	631		
	21	Manjalal	599		
	22	Moktarpur	681		
	23	Mollar Chak	914		
	24	Naya Para	376		
	25	Nij Silam	880		
	26	Paschimpara	2847		
	27	Purba Para	2665		
	28	Purbapara	451		
	29	Sarkar Chak	448		
	30	Sekh Para	1121		
	31	Shahpur	314		
	32	Tekor Para	1202		
	33	Teli Para	1003		
	34	Thal Para	533		
	35	Tila Para	1511		
	36	Tilapara	626		
	37	Ulal Mahal	1268		
	<b>Sub Total</b>		<b>31624</b>		<b>1379</b>
<b>Tetli</b>	1	Ahmedpur	1210	Baneshwarpur	1516
	2	Akilpur	644	Tetli	2151
	3	Badikona	1196		
	4	Baldi	2281		

Union	Sl.No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	5	Bangaon	547		
	6	Baraikandi	590		
	7	Beturpar	684		
	8	Bhalki	1314		
	9	Dharadharpur	1740		
	10	Dhargaon	427		
	11	Dhupaghat	629		
	12	Gakulpur	489		
	13	Gangpar	547		
	14	Kaidipur	586		
	15	Lakshmipur	1282		
	16	Lalar Chak	408		
	17	Latifpur	497		
	18	Mandalpur	514		
	19	Mirerpara	508		
	20	Nijgaon	640		
	21	Nishchintapur	706		
	22	Purakastapur	780		
	23	Puran Tetli	566		
	24	Razibari Lalgaon	756		
	25	Reyasadpur	655		
	26	Shyampur	620		
	27	Sitabaldi	449		
	28	Sunampur	541		
	29	Surigaon	565		
	30	Talibpur	614		
	31	Tila Para	529		
		<b>Sub Total</b>	<b>23514</b>		<b>3667</b>

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

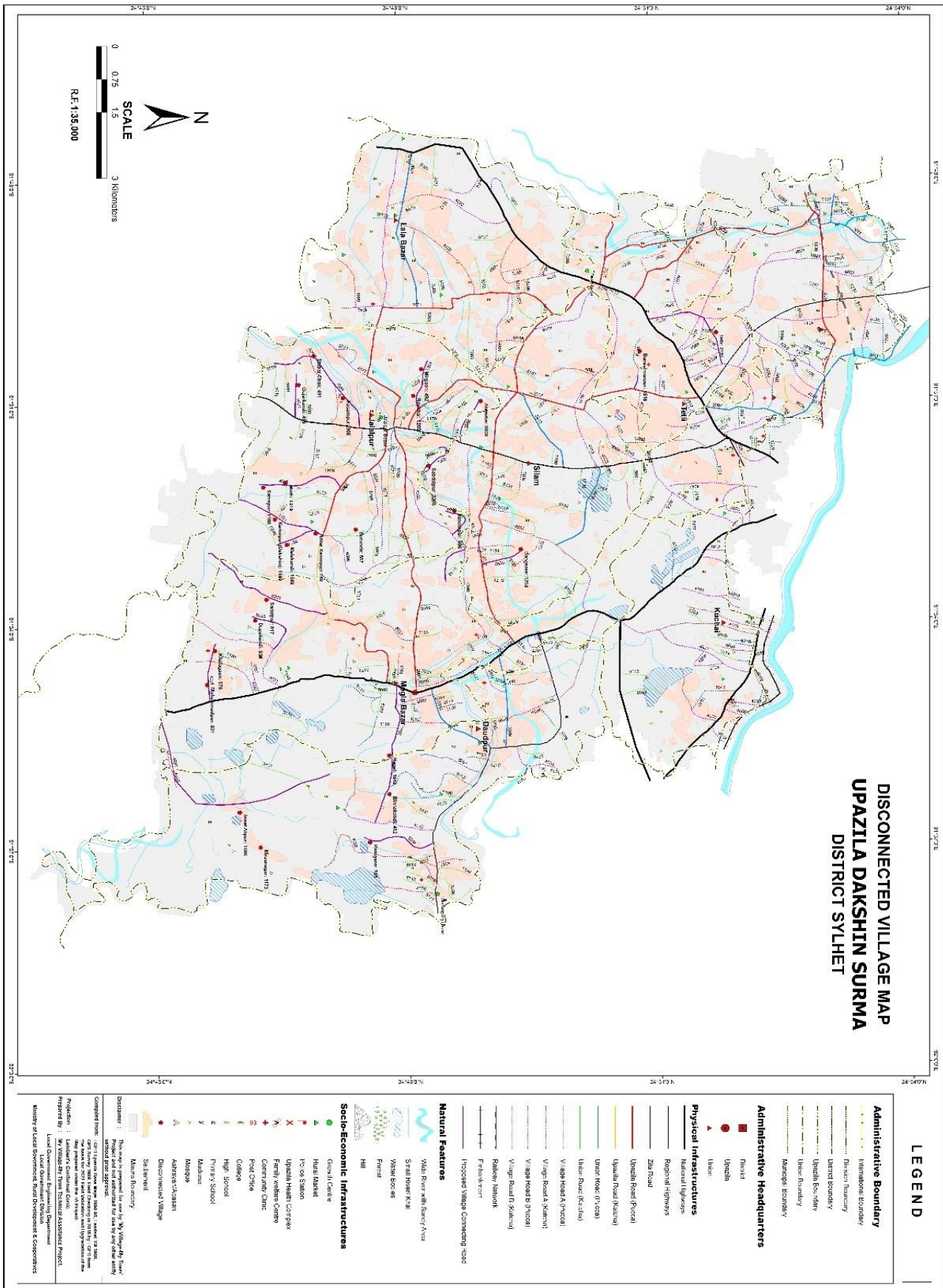


Figure 6: Upazila Map

## 6 DATA COLLECTION & ANALYSIS

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

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

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

*Table 3: Summary of the rural roads in the Upazila*

Total Road Length of the Upazila (KM)	Paved Length (KM)	Unpaved Length (KM)	Length of unpaved roads of Hard-to-Reach Villages (KM)
532.07	265.35	266.73	49.39

#### 6.1.1 PROPOSED ALL-WEATHER ROUTES:

There are 19 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 Type by Surface Condition	Unpaved length (Km)
1	RHD Gafurerbandh- Mohammadpur Road. Via A. Gofur GPS.	691954001	All Weather	2.256
2	Jalapur (Mohespur)-Hasanpur-Shiberchok Road.	691954034	All Weather	4.5
3	Inat Alipur-Mirzanagar-Ashugonjbazar Road.	691954035	All Weather	3.13
4	RHD Atirbari- Sunampur-Ahmedpur GPS Road.	691954050	All Weather	2.24
5	Mirargoan - Somospur - Murti Road.	691954086	All Weather	2.42
6	Anilgonj-Karimpur School-Malakandi Road.	691954101	All Weather	2.5
7	Raykhail BC-Mirergoan Road.	691954102	All Weather	1.02
8	RHD Rakhalgonj Madrasha - Panigaon Road.	691955002	All Weather	2.23

Sl No	Road Name	Road ID	Road Type by Surface Condition	Unpaved length (Km)
9	Surjamukhi GPS -Karimpur -Malakandi Road.	691955003	All Weather	3.13
10	Tetli Banesharpur Road.	691955013	All Weather	0.55
11	Horinathpur Jame Mosjid-Shahadotpur GPS Road.	691955033	All Weather	0.41
12	Bairagibazar-Borochock-Noagaon-Burunda Road.	691955048	All Weather	3.32
13	Bairagibazar-Nokiborchalk Road	691955049	All Weather	1.51
14	Amortol-Alamdin Road.	691955055	All Weather	1.1
15	Sunampu-Mokamduar-Sobdolpur Road.	691955062	All Weather	2
16	Gujarkandi Road.	691955076	All Weather	1
17	Uttar Karimpur Road.	691955077	All Weather	1
18	Uttar Karimpur Road.	691955077	All Weather	1
19	(Borigir bazar) Purba - Dangsree Road.	691955092	All Weather	2.3

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

There are 1 road proposed to connect the HTRV within the Upazila that have no ID yet. The road name, ID, and the length of the unpaved part are as bellow;

*Table 5: Proposed roads for Hard-to-Reach Villages having No ID*

Sl No	Road Name	Road ID	Road Type by Surface Condition	Unpaved length (km)
1	Moglabazar UP-Ashugonj	691953002	Submersible	2.476

### 6.1.3 PRIORITY FOR ROAD DEVELOPMENT

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

*Table 6: Considered weightage values for the prioritization*

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

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

## 7 CONCLUSION & RECOMMENDATIONS

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- Dakshin Surma Upazila is located within the ***Flood Plain zone***. Dakshin Surma is partly covered by 4 haors/ wetlands and there exist 5(five) rivers flowing over the Upazila that dominate the ecosystem, and transport system of the Upazila. During monsoons, these Rivers carry a huge volume of flood water.
- As the Upazila is heavily flooded during monsoon, rural roads and structures are highly vulnerable in this Upazila.
- The Upazila has a total number of 25 Hard-to-Reach Villages. To develop rural connectivity, there are proposals for both all-weather and submersible roads. This report contains a list of roads with their priority. The priority has been determined based on Population, Travel Time, Cost per KM/1000 people & Road Hierarchy.
- This Upazila is highly vulnerable to disasters. Due to climate change, vulnerability is getting intense. The year 2022 has shown catastrophic flood that was not seen over the last 18 years (*last in 2004 similar to 1998 & 1988*). Therefore, it is highly recommended to study the road alignments before going for investment.
- Case-by-case design of roads in this Upazila considering different aspects such as exposure to floods, erosion etc. is highly recommended. A special study regarding the road and structure design of the Upazila Dakshin Surma in Sylhet district is highly recommended.



## ANNEXURE - 1

### DETAILS OF GROWTH CENTER & HATBAZAR

Sl. No.	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		
1	Daudpur	Rakhalgonj bazar	GC	Yes	General Market	Wholesale	2	5	0.19	5	0.29	1.03	0.00	251501	15728
2	Daudpur	Chowdhory bazar	HB	Yes	General Market	Wholesale	3	22	0.18	16	0.03	0.25	0.00	2000	1850
3	Jalalpur	Jalalpur bazar	GC	Yes	General Market	Wholesale	2	191	0.32	177	0.17	0.73	0.00	1650000	1301130
4	Jalalpur	Onilgonj bazar	HB	Yes	General Market	Retail	1	59	0.73	59	0.47	2.08	0.00	3770	3770
5	Jalalpur	Boiragi bazar	HB	Yes	General Market	Wholesale	2	12	0.23	12	0.12	0.00	19.00	1200	1510
6	Kamalbazar	Kamal bazar	HB	Yes	General Market	Wholesale	2	46	0.23	46	0.26	0.82	0.00	55220	85020
7	Kuchai	Hajir bazar	HB	Yes	General Market	Wholesale	1	8	0.05	8	0.04	0.13	0.00	2500	1550
8	Lalabazar	Lalabazar	GC	Yes	General Market	Wholesale	2	168	0.50	168	1.08	1.58	0.00	1737000	1128810
9	Lalabazar	Nazirbazar	HB	Yes	General Market	Wholesale	2	91	1.16	91	1.16	0.87	0.29	40050	55555
10	Lalabazar	Rostumpur	HB	Yes	General Market	Wholesale	2	12	0.07	12	0.05	0.18	0.00	2350	3100
11	Lalabazar	Babur bazar	HB	Yes	General Market	Wholesale	2	17	0.02	17	0.04	0.24	0.00	0	0
12	Muglabazar	Muglabazar	HB	Yes	General Market	Wholesale	2	126	0.57	126	0.26	1.01	0.00	412500	342000
13	Muglabazar	Khalomuk bazar	HB	Yes	General Market	Wholesale	3	26	0.12	26	0.18	41.00	0.00	1025	1000
14	Mullargawn	Noyabazar	HB	Yes	General Market	Wholesale	2	25	0.06	25	0.07	0.13	0.00	550	1000

## ANNEXURE - 2

### PRIORITY LIST FOR ROAD DEVELOPMENT

SL No	Upazila	Connecting Union	Connecting Village	Village Population BBS 2011	Population 2021 (Based on BBS 2011)	Road Name	Road ID	Road Type	Road Type by Surface Condition	Total Road Length	Paved length (Km)	HBB Length (km)	Unpaved length (Km)	Total Road Length to be Developed	HBB + Unpaved in (km)	Approx. Cost of Road (Lac)	Structure/ Gap (Meter)	Cost of Structure (in Lac)	Total Cost (in lac) (Roads + Structures)	Population /KM (10÷17)	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	Priority
1	Dakshin Surma	Mogla Bazar, Daudpur	Nagal, Binnakhandi	1460	1673	Moglabazar UP-Ashugonj bazar Road.	691953002	UNR	Submersible	4.98	2.50		2.48	4.98	2.48	445.68	0.00	0.00	445.68	676	266.43	37.14	18	10	25	20	73	1
2	Dakshin Surma	Jalalpur	Alamdin	2000	2292	Amortol-Alamdin Road.	691955055	VRB	All Weather	1.10			1.10	1.10	1.10	132.00	0.00	0.00	132.00	2083	57.60	16.50	20	10	25	12	67	2
3	Dakshin Surma	Jalalpur	Sobdolpur	2206	2528	Sunampu-Mokamduar-Sobdolpur Road.	691955062	VRB	All Weather	2.00			2.00	2.00	2.00	240.00	0.00	0.00	240.00	1264	94.95	30.00	20	10	25	12	67	3
4	Dakshin Surma	Tetli	Tetli	2151	2465	RHD Atirbari-Sunampur-Ahmedpur GPS Road.	691954050	VRA	All Weather	3.74	1.50		2.24	3.74	2.24	268.80	0.00	0.00	268.80	1100	109.07	33.60	20	10	25	12	67	4
5	Dakshin Surma	Daudpur	Inat Alipur, Mirzanagar,	1842	2110	Inat Alipur-Mirzanagar-Ashugonjbazar Road.	691954035	VRA	All Weather	3.13			3.13	3.13	3.13	375.60	0.00	0.00	375.60	674	177.97	46.95	20	10	25	12	67	5
6	Dakshin Surma	Jalalpur	Dupakandi	934	1070	Horinathpur Jame Mosjid-Shahadotpur GPS Road.	691955033	VRB	All Weather	1.26	0.85		0.41	1.26	0.41	49.20	0.00	0.00	49.20	2610	45.98	6.15	18	10	25	12	65	6
7	Dakshin Surma	Tetli	Baneshorpur	1132	1297	Tetli Baneshorpur Road.	691955013	VRB	All Weather	2.01	1.46		0.55	2.01	0.55	66.00	0.00	0.00	66.00	2358	50.89	8.25	18	10	25	12	65	7
8	Dakshin Surma	Jalalpur	Karimpur	1569	1798	Anilgonj-Karimpur School-Malakandi Road.	691954101	VRA	All Weather	2.50			2.50	2.50	2.50	300.00	0.00	0.00	300.00	719	166.88	37.50	18	10	25	12	65	8
9	Dakshin Surma	Silam	Dangsree	1204	1379	(Borigir bazar)Purba - Dangsree Road.	691955092	VRB	All Weather	2.30			2.30	2.30	2.30	276.00	0.00	0.00	276.00	600	200.07	34.50	18	10	25	12	65	9
10	Dakshin Surma	Mogla Bazar	Mohammadpur & Kholagaon	1125	1289	RHD Gafurerbandh-Mohammadpur Road. Via A. Gofur GPS.	691954001	VRA	All Weather	2.26			2.26	2.26	2.26	270.72	10.00	90.00	360.72	571	279.85	33.84	18	10	25	12	65	10
11	Dakshin Surma	Daudpur	Malakandi	596	683	Uttar Karimpur Road.	691955077	VRB	All Weather	1.00			1.00	1.00	1.00	120.00	0.00	0.00	120.00	683	175.73	15.00	15	10	25	12	62	11
12	Dakshin Surma	Jalalpur	Raykhail ,Mirergoan	589	675	Raykhail BC-Mirergoan Road.	691954102	VRA	All Weather	1.02			1.02	1.02	1.02	122.40	0.00	0.00	122.40	662	181.37	15.30	15	10	25	12	62	12
13	Dakshin Surma	Jalalpur	Gujarkandi	458	525	Gujarkandi Road.	691955076	VRB	All Weather	1.00			1.00	1.00	1.00	120.00	0.00	0.00	120.00	525	228.68	15.00	15	10	25	12	62	13
14	Dakshin Surma	Jalalpur	Sunampu	666	763	Bairagibazar-Nokiborchalk Road	691955049	VRB	All Weather	1.51			1.51	1.51	1.51	181.20	0.00	0.00	181.20	505	237.46	22.65	15	10	25	12	62	14
15	Dakshin Surma	Mogla Bazar	Shadatpur	817	936	Surjamukhi GPS - Karimpur -Malakandi Road.	691955003	VRB	All Weather	3.13			3.13	3.13	3.13	375.60	0.00	0.00	375.60	299	401.24	46.95	15	10	25	12	62	15
16	Dakshin Surma	Jalalpur	Somospur, Murti	622	713	Mirargoan - Somospur - Murti Road .	691954086	VRA	All Weather	3.92	1.50		2.42	3.92	2.42	290.40	0.00	0.00	290.40	294	407.49	36.30	15	10	25	12	62	16
17	Dakshin Surma	Daudpur	Panigaon	578	662	RHD Rakhalganj Madrasha - Panigaon Road.	691955002	VRB	All Weather	2.57		0.34	2.23	2.57	2.57	308.40	0.00	0.00	308.40	258	465.68	38.55	15	10	25	12	62	17
18	Dakshin Surma	Jalalpur	Uttar Karimpur	219	251	Uttar Karimpur Road.	691955077	VRB	All Weather	1.00			1.00	1.00	1.00	120.00	0.00	0.00	120.00	251	478.24	15.00	15	10	25	12	62	18
19	Dakshin Surma	Jalalpur	Burunda	557	638	Bairagibazar-Borochock-Noagaon-Burunda Road.	691955048	VRB	All Weather	3.47		0.15	3.32	3.47	3.47	416.40	0.00	0.00	416.40	184	652.47	52.05	15	10	20	12	57	19
20	Dakshin Surma	Jalalpur	Hasampur, Shiberchok.	658	754	Jalapur(Mohespur)-Hasanpur-Shiberchok Road.	691954034	VRA	All Weather	5.50	1.00		4.50	5.50	4.50	540.00	110.00	990.00	1530.00	168	2029.42	67.50	15	16	10	12	53	20

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