



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”

**Galachipa, Patuakhali**



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DATA EXPERTS  
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 **Delight**  
Engineers & Consultants Ltd. (DECL)  
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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 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

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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 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 **Galachipa** Upazila of **Patuakhali** District.



# 1 DESCRIPTION OF THE UPAZILA

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## 1.1 GEOGRAPHY AND DEMOGRAPHY

The geographical area of Galachipa Upazila is 925.08 sq.km and has 12 Unions, 87 mouzas and 162 villages. The Upazila is 32 km away from District headquarters of Patuakhali. The total population of the Upazila is 2,58,525 of which 1,27,759 are male and 1,30,768 females. (as per *Bangladesh National Portal*).

## 1.2 EDUCATION FEATURES

According to the information of the Bangladesh National Portal, there are 88 government & 86 non-government primary schools, On the other hand, Galachipa has 46 high schools, 9 colleges, and 32 madrashas. The literacy rate for the Upazila is 34.89%.

## 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 Galachipa 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 Galachipa is 1788.57 km and out of which, 320.21 km paved and 1468.37 km earthen.

## 1.4 AGRICULTURE, FOOD PRODUCTION AND FISHERIES

Galachipa is a coastal Upazila, one of the largest fishing centers in the country. Apart from fish, Upazila is also famous for its rice, watermelon, potatoes, nuts and other agricultural products. As per BBS, there are 50,910 acres of arable land in the Upazila. In the fiscal year 2010-11 the Rice production was 37800, 130000 & 2200 metric tons for Aus, Aman & Boro seasons respectively. The Upazila also produced 3500 metric tons of Sugarcane, 81000 metric tons of Potato, 7287 metric tons of Ground nut and 7367 metric tons of Oilseed in the same fiscal year 2010-11. A notable quantity of Pepper & vegetable is also produced here in this Upazila.

According to the BBS (2010-11) data Galachipa has 34,506 Acre of pond, dhighee & other waterbodies that produced 1,150 metric tons of fishes. There also exists 216 poultry & 28 dairy farms. All the agricultural products are adequate to meet the demand of the Upazila and surpluses are sold to outside of Galachipa.

## 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 43 hatbazar and 6 growth centres in the Upazila. The structural development of hatbazar and growth is pivotal to boosting up the rural economy. A details of the growth center & hatbazar of the Upazila has been attached in the *Annexure-I*.

## 2 LOCATION OF THE UPAZILA

Galachipa Upazila of Patuakhali District is North-Eastern part of the country under Barisal division. The location has been shown in the map. It is bounded by Patuakhali Sadar, Bauphal and Dashmina Upazilas on the north, Bay of Bengal and Rangabali Upazila on the south, Dashmina and Char Fasson Upazilas on the east, Amtali and Kalapara Upazilas on the west. The Upazila is surrounded by the major coastal rivers of the region, *Tetulia* (i.e., originated from *Meghna River*) and its branch *Galachipa*. During coastal disasters and monsoon, both the river behave erosive and cause extensive river erosion that induces severe impacts in both the built and the natural environment. The effects of this disaster can be catastrophic and show extensive diversity, ranging from damages in buildings and infrastructure to impacts on vegetation, human lives and livestock.

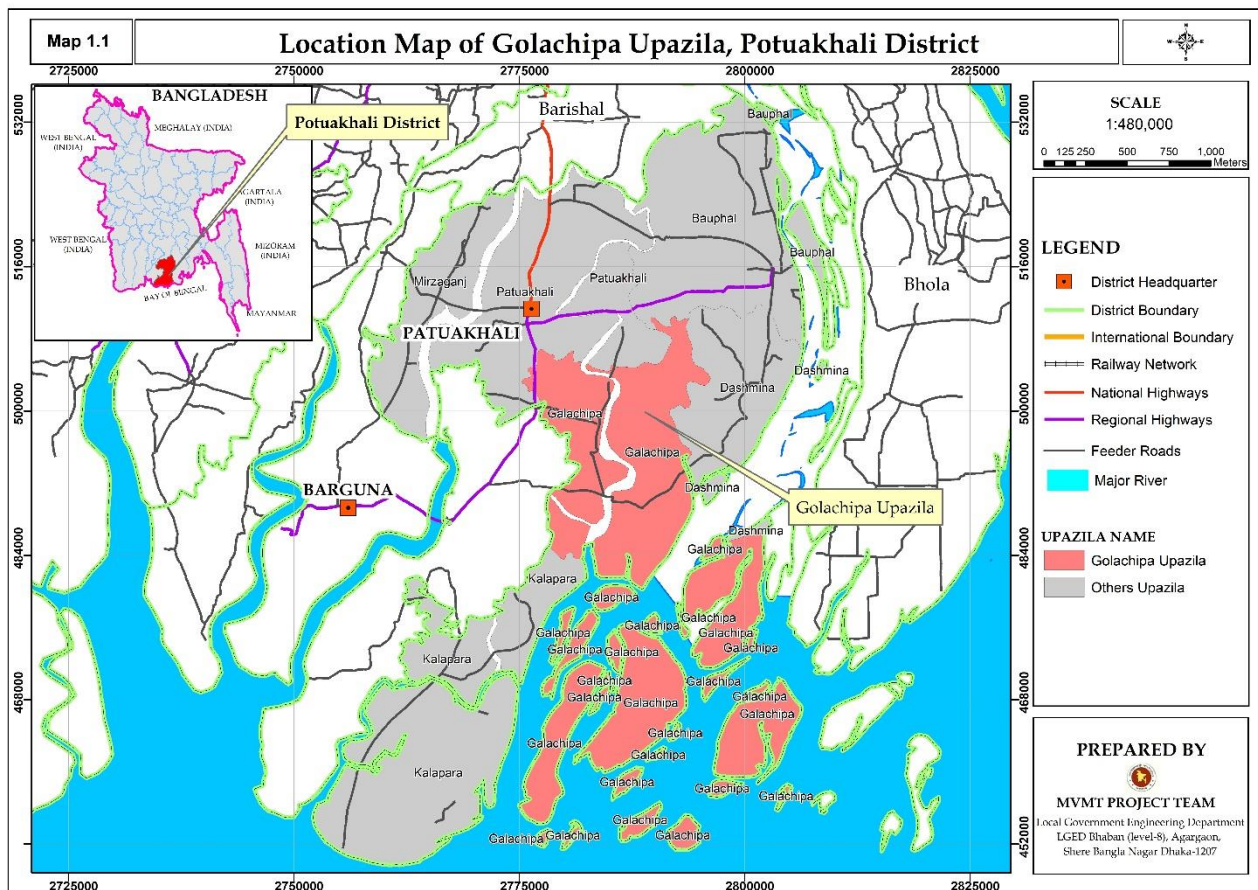


Figure 1: Upazila Location Map.

### 3 APPROACH & METHODOLOGY

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#### 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.

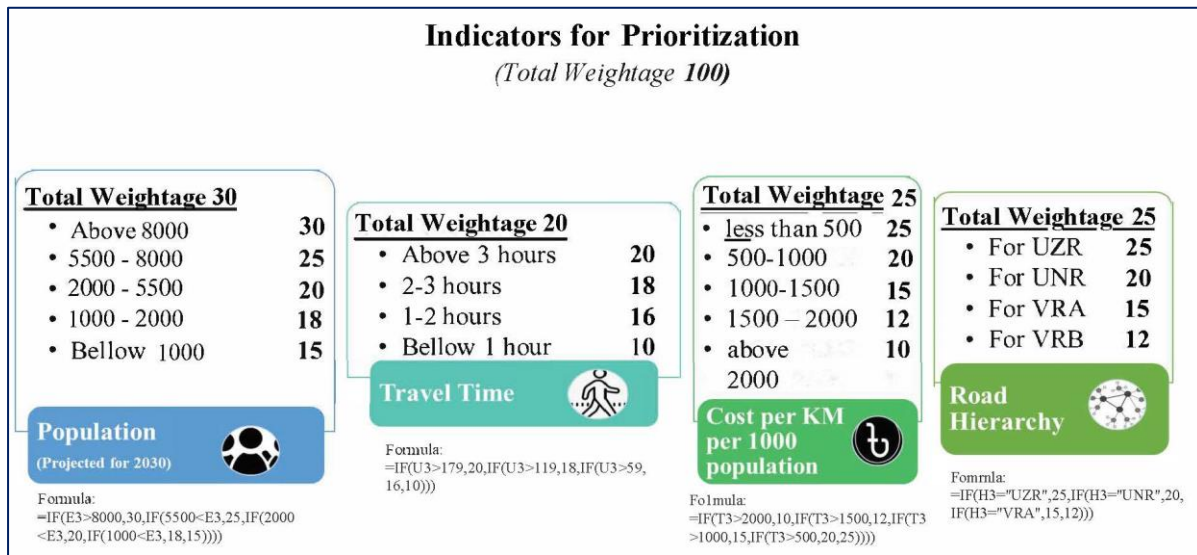


Figure 2: Prioritization indicators & their weightage values

### 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

Galachipa is an Island Upazila. The rural road communication is quite poor here. Out of 150 villages, 91 are disconnected from the developed paved road network that brings huge sufferings for the people of those villages. The total rural road network of Galachipa is 1788.57 km and out of which, 320.21 km paved and 1468.37 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	Amkhola	23	13	10
2	Bakulbaria	10	4	6
3	Char Bishwas	8	1	7
4	Char Kajal	9		9
5	Chiknikandi	7	2	5
6	Dakua	10	4	6
7	Galachipa	11		11
8	Gazalia	8	4	4
9	Golkhali	16	10	6
10	Kallankalas	4		4
11	Panpatty	18	6	12
12	Ratandi Taltali	26	15	11
<b>Total=</b>		<b>150</b>	<b>59</b>	<b>91</b>

### 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*

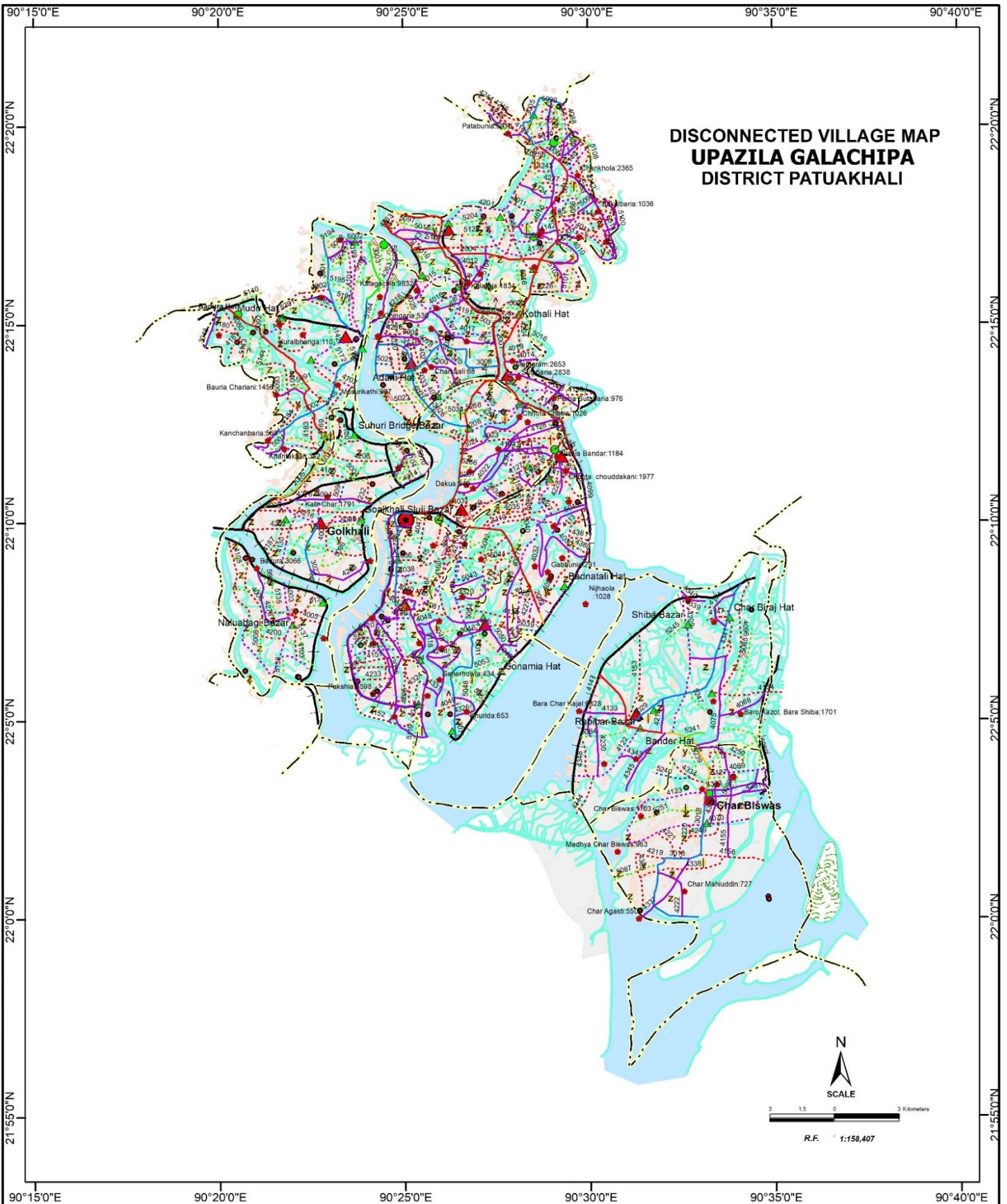
Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
Amkhola (23)	1	Banshbunia	1972	Algitafalbaria	1782
	2	Bhangra	2476	Bauria Chariani	1668
	3	Buria Kismat	2287	Chacibunia	201
	4	Char Amkhola	513	Chingaria	607
	5	Charcharia Baherchar	2861	Dakshin Balaikati	1000
	6	Chhailabunia	3427	Kanchanbaria	652
	7	Dakshin Amkhola	1874	Khantakhali	392
	8	Dari Baherchar	0	Kuralbhanga	126
	9	Guchhagram	0	Musurikathi	1039
	10	Kalaikisore	1880	Uttar Amkhola	3555

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	11	Nijsuhati	435		
	12	Ramananda	976		
	13	Ramdula	1415		
		<b>Sub Total=</b>	<b>20116</b>		<b>11022</b>
Bakulbaria (10)	1	Banshbaria Dariabad	0	Bakulbaria	1187
	2	Kalagachhia	0	Chankhola	2710
	3	Kharijjama	0	Doani Patuakhali	765
	4	Saikkati	1025	Guabaria	2687
	5			Lamna	4018
	6			Patabunia	4489
		<b>Sub Total=</b>	<b>1025</b>		<b>15856</b>
Char Bishwas (8)	1	Char Bangla	1817	Char Agasti	6302
	2			Char Biswas	1264
	3			Char Mahiuddin	833
	4			Madhya Char Biswas	1103
	5			Uttar Char Biswas	8830
	6			Uttar Paschim Char Biswas	1770
	7			Uttar Purba Char Biswas	1173
		<b>Sub Total=</b>	<b>1817</b>		<b>21275</b>
Char Kajal (9)	1			Bara Char Kajal	7250
	2			Bara Shibarchar	7048
	3			Char Kapalbera	4836
	4			Chhota Char Kajal	3490
	5			Chhota Shibarchar	6331
	6			Chotto Siba	1416
	7			Baro Kazol	1949
	8			Bara Shiba	
	9			Chotto kazol	36
		<b>Sub Total=</b>	<b>1817</b>		<b>28955</b>
Chiknikandi (7)	1	Chiknikandi	1585	Kalaraja	2101
	2	Kachua	1978	Kotkhali	1663
	3			Majgram	3040
	4			Pankhali	4231
	5			Sutabaria	3252
		<b>Sub Total=</b>	<b>3563</b>		<b>12186</b>
Dakua (10)	1	Hoglabunia	2631	Bara chatra	1726
	2	Krishnapur	685	Chhota chatra	1176
	3	Pachim Pardakua	3564	Dakua	1087

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	4	Purba Atkhali	3103	Paschim Atkhali	3213
	5			Phulkhali	1737
	6			Purba Pardakua	3457
	<b>Sub Total=</b>		<b>9983</b>		<b>12396</b>
Galachipa (11)	1			Boalia	5782
	2			Char Karfarma	402
	3			Dakshin Charkhali	3617
	4			Gorabala	474
	5			Londa	691
	6			Matibhanga	945
	7			Muradnagar	1713
	8			Paschim Ratandi	874
	9			Pakshia	4122
	10			Purba Ratandi	758
	11			Ratandi Kalikapur	2439
<b>Sub Total=</b>		<b>0</b>		<b>21817</b>	
Gazalia (8)	1	Bahir Gazalia	1548	Charkhali	78
	2	Chanrailerchar	2592	Gatalia	3121
	3	Haridebpur	3702	Ichadchar	1015
	4	Ichadijoar	2376	Uttar Purbo Gazalia	1283
	<b>Sub Total=</b>		<b>10218</b>		<b>5497</b>
Golkhali (16)	1	Badarpur	1359	Badura	3513
	2	Badura Natunchar	1171	Balaibunia	3609
	3	Bara Gabua	4187	Kalirchar	2052
	4	Bhadachar	398	Kismat Haridevpur	1176
	5	Chhota Gabua	2333	Naluabagi	3128
	6	Golkhali	4979	Purba Golkhali	4368
	7	Haridevpurchar	1858		
	8	Suhari (2nd Part Ii)	1156		
	9	Suhari (1st Part I)	529		
	10	Suhari Nijchar	1043		
<b>Sub Total=</b>		<b>19013</b>		<b>17846</b>	
Kallankalas (4)	1			Basbaria	989
	2			Kalagachia	11265
	3			Kalyankalas	4853
	4			Kharizzama	1439
<b>Sub Total=</b>		<b>0</b>		<b>18546</b>	
Panpatty (18)	1	Bashtala	736	Bibirhaola	917
	2	Geramarddan	1184	Gupterhaola	1446
	3	Hularam	1076	Joymanik	822
	4	Jugirhoala	621	Kawkaitabak	1381
	5	Taltali	541	Khurida	748
	6	Uttar Panpatty	1559	Nijhaola	1876
	7			Ratneswar	1188
	8			Satiram	1091
	9			Senerhowla	497

Union	Sl. No	Connected Villages	Population 2021 (Based on BBS 2011)	Hard-to-Reach Villages	Population 2021 (Based on BBS 2011)
	10			Soyani	2183
	11			Terogor	1271
	12			Tulatali	1384
	<b>Sub Total=</b>		<b>5717</b>		
Ratandi Taltali (26)	1	Bara Chouddakani	725	Bashkhali	4764
	2	Bishnuram	1098	Bhiarhaola	724
	3	Chander Haola	416	Chaaykani	721
	4	Chhayani	505	Chhota chouddakani	2265
	5	Gramarodon	1344	Chhota Manikchand	294
	6	Jangla	494	Gabbunia	333
	7	Kamarhaola	754	Kacharikanda	1973
	8	Kazikanda	697	Mamuntakti	703
	9	Labubunia	519	Nijhaola	1178
	10	Memsahed	728	Pachim Ratandi Taltali	1158
	11	Nimhaola	965	Ulania Bandar	1357
	12	Patabunia	1514		
	13	Satghar	636		
	14	Talukder Haola	697		
	15	Tattibunia	577		
<b>Sub Total=</b>		<b>11669</b>			<b>15470</b>

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



**DISCONNECTED VILLAGE MAP  
UPAZILA GALACHIPA  
DISTRICT PATUAKHALI**

**LEGEND**

<p><b>Administrative Headquarters</b></p> <ul style="list-style-type: none"> <li>District</li> <li>Upazila</li> <li>Union</li> </ul> <p><b>Administrative Boundary</b></p> <ul style="list-style-type: none"> <li>International Boundary</li> <li>Division Boundary</li> <li>District Boundary</li> <li>Upazila Boundary</li> <li>Union Boundary</li> <li>Municipal Boundary</li> </ul>	<p><b>Natural Features</b></p> <ul style="list-style-type: none"> <li>Wide River with Sandy Area</li> <li>Small River/ Khal</li> <li>Haor</li> <li>Forest</li> <li>Hill</li> </ul> <p><b>Physical Infrastructures</b></p> <ul style="list-style-type: none"> <li>National Highways</li> <li>Regional Highways</li> <li>Zila Road</li> </ul>	<ul style="list-style-type: none"> <li>Upazila Road (Pucca)</li> <li>Upazila Road (Katcha)</li> <li>Union Road (Pucca)</li> <li>Union Road (Katcha)</li> <li>Village Road A (Pucca)</li> <li>Village Road A (Katcha)</li> <li>Village Road B (Pucca)</li> <li>Village Road B (Katcha)</li> <li>Railway Network</li> </ul>	<ul style="list-style-type: none"> <li>Embankment</li> <li>Power Transmission Line</li> <li>Proposed Village Connecting Road</li> </ul> <p><b>Socio-Economic Infrastructures</b></p> <ul style="list-style-type: none"> <li>Growth Centre</li> <li>Rural Market</li> <li>Police Station</li> <li>Upazila Health Complex</li> <li>Family welfare Centre</li> <li>Community Clinic</li> </ul>	<ul style="list-style-type: none"> <li>Disconnected Village</li> <li>Post Office</li> <li>College</li> <li>High School</li> <li>Primary School</li> <li>Madrasa</li> <li>Mosque</li> <li>Ashrayan/Abasan</li> <li>Settlement</li> <li>Mouza Boundary</li> </ul>
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Disclaimer: This map is prepared for use by My Village My Town Project and not authorized for use by any other entity without prior approval.  
Compiled from: LGED Upazila Base Maps 1984-94, Landsat TM 1998, GPS Survey 1999, Field Checking in 2018 by LGED from the basis for 2022 Field Validation and Upgradation of the Map prepared under the TA Project.  
Projection: Lambert's Conformal Conic  
Prepared by: My Village My Town Technical Assistance Project, Local Government Engineering Department, Local Government Division, Ministry of Local Government, Rural Development & Cooperatives

Figure 3: Upazila Map

## 5 CONSULTATION MEETING & FIELD VISIT

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### 5.1 UPAZILA LEVEL MEETING

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

There are two case study Unions for the the Galachipa Upazila that are Char Kazal & Char Biswas.

As for **Char Kazal** Union, the consultant visited “Matibhanga sluice to Maddha Charkazal FRB road” (ID: 578574133) and observed the alignment of case study Union there. It’s an all-weather road and was selected considering the beneficiary population, educational institutes along the road. The road serves approximately 7500 people of the village Bara Char Kajal.

In accordance with LGED, the length of this road is 3 km that is 1 km paved and rest of the 2 km is earthen. During the case study Union visit, the condition of this Upazila road has observed. GPS data has been recorded along the alignment; photos have been taken subsequently to demonstrate the alignment condition clearly.



*Figure 4: Condition of the visited road alignment at Case Study Union*



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

The earthen part of this village road allows the road users to use mostly two-wheelers & electro powered auto rickshaws at present. It is noted, the road condition does not meet the standard for four-wheelers.



*Figure 6: Condition of the visited road alignment at Case Study Union*



*Figure 7: Condition of the visited road alignment at Case Study Union*



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



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



As for **Char Bishwas Union**, the consultant visited “Alom Hawlader bari - Salam Hawlader Bari Via Boubazar Via Uttar Charbiswas GPS Road” (ID: 578574332) and observed the alignment of case study Union there. It’s an all-weather road and was selected considering the beneficiary population, educational institutes along the road. The road serves approximately 9000 people of the village Uttar Paschim Char Biswas.

In accordance with LGED, the length of this road is 3.7 km that is completely earthen. During the case study Union visit, the condition of this Upazila road has observed. GPS data has been recorded along the alignment; photos have been taken subsequently to demonstrate the alignment condition clearly.

The earthen part of this village road allows the road users to use mostly two-wheelers & electro powered auto rickshaws at present. It is noted, the road condition does not meet the standard for four-wheelers.



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



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



*Figure 12: Condition of the visited road alignment at Case Study Union*



*Figure 13: Condition of the visited road alignment at Case Study Union*



*Figure 14: Condition of the visited road alignment at Case Study Union*

## 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

Galachipa is a coastal Upazila. There are 5 (five) rivers that dominate the ecosystem & transport system of the Upazila. That are Rabnabad, Tetulia, Agunmukha, Darchira & Kajla rivers. According to the UE, Monpura there exists a riverine route that can be used all the year and connects the scattered islands with the Upazila HQ. Generally Small Boat, Engine Boat, Cargo Ships are used to transport community & commodity.

The name of the riverine route & 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	Upazila H/Q - Charkajol Ghat Chotto Shiba Vill - Boro Shiba Vill - Char Biswas Union - Charfasan Upazila - Moddoh Charkajol - Dakhin Charkajol - Balar Char - Charmontaz Vill - Rangabali Up	Tetulia /Buragauranga River	Perennial	Small Boat, Engine Boat, Trawler, Cargo, Speed Boat, Fishing Trawler & Launch	Yes

### 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, 2 (two) bridges are needed to fulfil the purpose. 1788.57 km and out of which, 320.21 km paved and 1468.37 km earthen

*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)
1788.57	320.21	1468.37	320.6

### 6.2.1 PROPOSED ALL WEATHER ROUTES:

There are 114 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	Pangashia Bazar - Dakua UPC	578573021	All Weather	7.61
2	Chiknikandi UPC - Sutabaria Abason- Modupura Bazer.	578573028	All Weather	5.5
3	Gazipur GC-Noluabagi Bazar- Patua lunch Ghat	578573033	All Weather	9.5
4	Galachipa UPC-S/Pakia Ferry Ghat (Bazar)	578573036	All Weather	4.1
5	Gazipur GC-Balaibunia Bazar	578573043	All Weather	4.69
6	Panpatty UPC - Debupal Kheyaghat - Galachipa UPC	578573046	All Weather	2.37
7	Badura GC-Chula Bazar-Mollar Hat	578573048	All Weather	5.48
8	Chiknikandi UPC (Bridge bazar)- Gazalia Bazar-Kalaraja bazar Road.	578573049	All Weather	3.12
9	Gua baria Chowrasta-ranua Bazar	578574010	All Weather	2.4
10	Pangachia sluice (UZR)- Purbo Majgram GPS (UZR)	578574014	All Weather	3.15
11	Fulkhali Hamid Mrida-Gurinda bazar	578574022	All Weather	5.8
12	Badnatali Sluice-Gabbunia UZR	578574030	All Weather	4.57
13	Manik chand Madrasha (UZR)- Mafhya Ratandi Taltali GPS	578574032	All Weather	2.2
14	Dewan Bazar (RHD)-Boroband Matibanga UZR	578574033	All Weather	2.24
15	Nasir Profesir bari - Samudabath Road.	578574036	All Weather	0.8
16	Rahim Gazi bari-D.C Rd	578574039	All Weather	1.4
17	Akkaram Iron Bridge-Murad Nagar P/school	578574040	All Weather	1.1
18	Boalia Closure-Nadu's Ferry ghat Bridge up to north Boalia RHD.	578574048	All Weather	3.15
19	Hatem Matbbar Bari-Nur Alom Dokan-Purbo Kapelbera Closer	578574068	All Weather	3.6
20	South Pakhia Sluice-N/ Pakhia Old steamer ghat	578574074	All Weather	2.68
21	Barek Khalifa -Modonpura kanda-Kalemer Mosque	578574075	All Weather	2.08
22	Bibi ray-Gafur pada	578574087	All Weather	1.34
23	Majgram (UZR)-Nurul Islam master bari-Horidebpur Bridge	578574107	All Weather	4.03

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
24	Fulkhali Hamid Mrida bari-Fulkhali GPS via Mollah Bari	578574128	All Weather	2.6
25	Moddhe dakua GPS-Chinguria Bridge	578574131	All Weather	3.1
26	Matibhanga sluice to Maddha Charkazal FRB road	578574133	All Weather	2
27	Guabaria Grlis High School-Battala Via Gani Hazi GPS	578574142	All Weather	5.05
28	Mannan Hawlader bari-Char Agasti Hazi Ajahar Hawlader bari	578574155	All Weather	7
29	Choto siba Sombaria bazar- Ali Hossin Bari - Hajir Hat.	578574171	All Weather	4.9
30	Charta Khanka -Jafor hawlader bari Via Choto Chatra GPS	578574194	All Weather	3.7
31	Choto shiba Nitaisill bari - Dhakin Closer Bazar	578574212	All Weather	2.8
32	Char Agasti Alikhan house -East wapda Via Mobed ali Khan	578574222	All Weather	3.27
33	Boalia Sluice Bazar-Galachipa Powrashava Road	578574225	All Weather	10.5
34	Ulania RHD (Mahbub Bari)-Jainal Boyati Bari road.via Ratandi Taltali GPS-cum-CS.	578574228	All Weather	1.88
35	Choto Kazal Balabari - Patabunia GPS - Jintala Bazar	578574230	All Weather	2.9
36	Uttar Char Biswas Budberar Bazar-Amgachiya Lunch Ghat Via Abason	578574231	All Weather	2.23
37	Pakhya 5 nos Sluice-Char karfarma GPS road	578574235	All Weather	2
38	Lamna Baro Bazar-Ranua Bazar	578574241	All Weather	3.03
39	Lamna High School -Asraf pada bari	578574243	All Weather	1.2
40	Panpatty Bastala Shajahan Mirdha bari- North sener howla GPS-Bibirhowla GPS WAPDA	578574248	All Weather	1.6
41	Lamna Moslem Hawlader bari-bakul baria Afser Sikder bari	578574252	All Weather	1.84
42	LamnaJalil Pada house-Makbul Gazi bari	578574254	All Weather	0.94
43	Amkhola Sluice - Shobahan Mridha Bari-WAPDA Road.	578574263	All Weather	4.28
44	Mollaer hat- Badura GC (Arman Hawlader Bari Paka Road)	578574265	All Weather	2.85
45	Friday Hat - Abul Fakir bari-Khanta Khali Mozid padar bari	578574266	All Weather	3.93

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
46	Tafalbaria Bridge - Purbo Dulai Mridha Bari-Tulatoli Bazar.	578574271	All Weather	5
47	Sipai Hat - Akub Hawlader Bari-Tulatoli Bazar.	578574272	All Weather	5
48	Dakkin musurikati madrasha-Hazi Afaz uddin master bari	578574274	All Weather	1.1
49	KalirChar WAPDA - Elamabad Madrasha-Golkhali Dakhil Madrasha - RHD	578574276	All Weather	8
50	Char Badura GPS-Poschim Noluabagi GPS-Maddhe balaibunia GPS Bandth.	578574278	All Weather	5.65
51	Purbo Golkhali Abason-Purbo Golkhali GPS	578574286	All Weather	2.11
52	Jalia Bari Bandth - Chandu Doctor Bari Via Uttar Purbo Gazalia GPS.	578574300	All Weather	3.8
53	HaridebHaridebpur Nasir Farazir Bridge - Hanif Biswas Bari via Hafizia Madrasha.	578574305	All Weather	2.4
54	Pachim panpatty (Joymanik GPS-Doctorbaris front side pucca road via - Raintreetala Bazar& Uttar Paschim Ponpoty GPS	578574317	All Weather	3
55	Raintreetala Bazar -Khalek Chairman bari- Bow Bazar Road near Roybari via Dakhin Ulania GPS.	578574320	All Weather	3.8
56	Khalek Chairman Bari-Purbo Ponpoty GPS - Gramordhon Pacca road.	578574321	All Weather	2.44
57	Panpoty Kader kheyaghat - Kalam Howlader bari Soyani Zyderbad road	578574322	All Weather	1.66
58	Bastola Shahalom Howlader Bari-Parija Bazar- Panpoty Board GPS-panpotty UPC pucca road	578574326	All Weather	2.49
59	Satiram Bad west side Jalil chowkider bari- Bangobandhu High school	578574328	All Weather	1.26
60	Ponpoty UPC - Gupter howla GPS via Goutom Master bari.	578574330	All Weather	1.7
61	Panpoty UPC Pucca road -Tulatali Embankment Bazar via Utta Gupter howla GPS-cum -CS	578574331	All Weather	1.76
62	Alom Hawlader bari - Salam Hawlader Bari Via Boubazar Via Uttar Charbiswas GPS	578574332	All Weather	3.7

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
63	Uttar Charbiswas Mizan mir bari - Purbo WAPADA Via Saleha Khatun Dakhil Madrasha	578574333	All Weather	1.9
64	Char Agusti Forest Office-Harun Hawlader bari Via sona gazi bari Via gedu hawlader bari	578574337	All Weather	3.72
65	Char Biraj Sluice.Baro Shiba Launch Ghat-Char kajol Lunch Gat	578574340	All Weather	8.23
66	Choto Shiba Ali bari -Sonibaria Bazar- Bangla Bazar	578574343	All Weather	5.2
67	Choto Shiba Mojammel Bari - Dakhina WAPDA.	578574345	All Weather	4
68	Patabunia Bazar - Sharif Bari Bridge.	578574349	All Weather	2.18
69	Guabari Milon Munsu Bari Eid Ghah - Gubaria Chourasta Bridge.	578574355	All Weather	1.21
70	Maddhe kalagachia GPS-Chunnu Sikder bari	578574362	All Weather	0.5
71	Jhatibunia Bridge-dakkin kalla kalas GPS	578574364	All Weather	2.13
72	Patni bari (UZR) kalaraja bridge-purbo kalaraja GPS- Nikhil Sikari bari	578574368	All Weather	2.37
73	Kotkhali GPS - Purbo Kotkhali GPS.	578574369	All Weather	1.6
74	Pankhali GPS - Jalia Bari Bandth Via Dakua Bari.	578574370	All Weather	2.07
75	Muradnagar GPS - Aziaz Mollah Bari.	578574376	All Weather	1.7
76	Harun Bandar Bari - Mamun master - Sahin member bari.	578574377	All Weather	2
77	Ratondi Taltoli Gazi bari front side BC road-Goni Akon bari Ulania RHD.	578574383	All Weather	2
78	Talukderhawla Aziz Padda Bari - Badnatali embankment via sattantra Eftaydy Madrasha.	578574394	All Weather	1.5
79	Auliapur (Paka Road)-Chinguria Lanchghat.	578575002	All Weather	2.21
80	Patabunia GC-Mohisvanga Bridge Via Maddhe Sonkhala GPS	578575014	All Weather	5.19
81	kamol Raza Bridge-Naya mollah bari	578575018	All Weather	1.5
82	Nur Hossain Member bari-Unos Munchi Bari	578575020	All Weather	0.45
83	Otul Sarder bari-kalaraja (GPS)-Alauddin Sikder bari- Satter Gazi bari	578575022	All Weather	2.09

Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
84	sutabaria mujaffar Dhali bari - Shajahan Khan bari-mokbul pada bari (WAAPADA)	578575028	All Weather	2.01
85	Londa D.C Road - Moslem mia bari.	578575035	All Weather	1.2
86	Uttar pankhali odud Hawlader bari-Kachua Sulice (UZR)	578575036	All Weather	1.2
87	Sonirbor Bandth WAPDA-Tulatali Mistory Bari via Dalir Bazar	578575038	All Weather	1.13
88	Gurinda RHD-Katakhali UZR pucc road (Sarif bari)-Kalponer Bazar pucca road	578575043	All Weather	1.06
89	Mamun Takti PolloDir badth Bazar -Neam Howla Modina Moshid via neam howla Madrasha	578575045	All Weather	2.4
90	Kokaitabak Munshi bari pucca road -Mollar Hat Pucca Road via Dadon Membor Bari	578575050	All Weather	3.08
91	Dakkin Charbiswas Abdul Razzak Mollar bari- Shajahan Gazi bari Via Talukder bari	578575088	All Weather	3
92	Dakkin Kallan Kalos Sekander Hawlader bari-Unos Munchi bari	578575098	All Weather	0.44
93	Uttar Kallan Kalas GPS-Fajle Karim Mollha Bari	578575100	All Weather	1.6
94	Razzaque Mazumder bari-Sanu Musulli bari	578575103	All Weather	2
95	kallan kalas kali bari-Chipahi bari	578575105	All Weather	1.25
96	Kharizzama Sattar Akon bari-Bayati bari	578575106	All Weather	1.5
97	kalagachia Hatem Mridha bari-Afser khalifa bari	578575107	All Weather	0.7
98	Earthen killah to east Boalia kheyaghat.	578575118	All Weather	2
99	dakkin kalagachi Ebrahim Khar bari-Umar Faruker madrasha	578575124	All Weather	1.22
100	Horideb high school--Bridge at house of Noab Ali Mredha	578575132	All Weather	6.3
101	Shaheber Kachari-Nijamul Chatra GPS	578575153	All Weather	1.7
102	SehaKhati Paka Road- (Anower Mirda Bari)-Paka Brige-Chinguria Paka Road	578575188	All Weather	1.3
103	Khalifa Bari Madrasha (paka road)-Sanu Gazi Bari-kalam Hawlader Bari (paka road)	578575216	All Weather	1.2



Sl. No	Road Name	Road ID	Road Condition	Unpaved length (Km)
104	Baro Kajol Salam Dafader Bari-Maddho Kajol GPS-Kalam Biswas Bari.	578575246	All Weather	1.5
105	Khan Bazar Bridge-Bakulbaria GPS	578575248	All Weather	1
106	Nasir Mollha Member Bari -ulttar kachua GPS- Adu sikder bari	578575265	All Weather	2.11
107	Dhakkin Charkhali Dalu Khondoker Bari - Mojibar Matbbar bari.	578575273	All Weather	1
108	Katakhalı Mollaharhat Pucca road - Gramordon Gafur Dalal Bari's Pucca road	578575280	All Weather	1.75
109	solaiman mrider bari (bauriya) bala bari-asman Ali pada (Khanta khali)	578575296	All Weather	2.91
110	Baro kazol Salam Dafader Bar - Launchghat via Habibur Rahman Mollah Bari sonibaria bazar	No ID	All Weather	3.5
111	Matibanga Charbiswash UZR- Memsab community clenic – Mahabul Khan Bari	No ID	All Weather	2
112	Uttar Purbo Gazalia Dakhil Madarasha BC Road- Sunder Ali Hawlader Bari BC Road.	No ID	All Weather	0.9
113	Chan Mia Mridha Bari-Dhalu Hawlader Bari	No ID	All Weather	1.3
114	Dakhin Pankhali Manik Mollah bari-Mannan Master Bari	No ID	All Weather	1.2

### 6.2.2 PROPOSED SUBMERSIBLE ROUTES:

There are no submersible roads proposed to connect the HTRV within the Upazila.

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

There are 5 roads proposed to connect the HTRV within the Upazila that have no ID yet. The road name, ID and the length of the unpaved part are as bellow;

*Table 6: Proposed roads for Hard-to-Reach Villages having No ID*

Sl. No	Road Name	Road ID	Unpaved length (Km)
1	Baro kazol Salam Dafader Bar - Launchghat via Habibur Rahman Mollah Bari sonibaria bazar	No ID	3.5
2	Matibanga Charbiswash UZR- Memsab community clenic –Mahabul Khan Bari	No ID	2

Sl. No	Road Name	Road ID	Unpaved length (Km)
3	Uttar Purbo Gazalia Dakhil Madarasha BC Road- Sunder Ali Hawlader Bari BC Road.	No ID	0.9
4	Chan Mia Mridha Bari-Dhalu Hawlader Bari	No ID	1.3
5	Dakhin Pankhali Manik Mollah bari-Mannan Master Bari	No ID	1.2

#### 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 7: Considered weightage values for the prioritization*

Criteria	Weightage
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 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

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- Galachipa is a coastal Upazila. There are 5 (five) rivers that dominate the ecosystem & transport system of the Upazila. That are Rabnabad, Tetulia, Agunmukha, Darchira & Kajla rivers. During coastal disasters and monsoon, these rivers behave erosive and cause extensive river erosion that induces severe impacts in both the built and the natural environment. Though the Upazila has a number of rivers, riverine transport is available in this Upazila that can be used throughout the year. Small Boat, Engine Boat, Trawler, Cargo, Speed Boat, Fishing Trawler & Launch are used to transport community & commodity throughout the year.
- The Upazila faces extensive river erosion time to time, rural roads and structures are highly vulnerable in this Upazila.
- The Upazila has a total number of 87 Hard-to-Reach Villages. To develop rural connectivity, there are proposals only for all weather 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 coastal disasters. Due to climate change, the vulnerability is getting intense.
- Case by case design of roads in this Upazila considering different aspects such as exposure to cyclones, erosion etc. is highly recommended. A special study regarding the road and structure design of the Upazila Galachipa in Patuakhali 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		
Amkhola	Badura Hat	GC	Yes	Special Market	Both	1	20	0.35	75	0.70	1.00	1.00	6601000	4200000
Amkhola	Amkhola Hat	HB	Yes	Special Market	Both	1	60	0.30	70	0.80	1.10	1.00	1001000	951000
Amkhola	Shipair Hat	HB	Yes	General Market	Wholesale	1	0	0.00	25	0.00	0.40	0.60	162500	18100
Amkhola	Mudir Hat	HB	Yes	General Market	Wholesale	1	0	0.00	50	0.00	0.50	1.00	41130	125000
Amkhola	Serukhar Hat	HB	Yes	General Market	Wholesale	1	0	0.10	100	0.30	1.00	0.60	0	0
Amkhola	Chinguria Bazar	HB	Yes	General Market	Wholesale	1	0	0.00	10	0.00	0.50	10.00	0	0
Bakulbaria	Patabunia Hat	GC	Yes	Special Market	Both	1	30	0.20	50	0.25	0.25	1.00	2201000	1480000
Bakulbaria	Gila Baria Hat	HB	Yes	General Market	Wholesale	1	5	0.30	20	0.10	0.05	0.06	36000	23150
Bakulbaria	Dhali Fakir Har	HB	Yes	General Market	Wholesale	1	0	0.00	15	0.00	0.20	0.40	0	0
Bakulbaria	Basbaria Charushilpi Hat	HB	Yes	General Market	Wholesale	1	10	0.03	10	0.00	0.03	0.04	401000	135000
Bakulbaria	Kharizzama Hat	HB	Yes	General Market	Wholesale	1	10	0.05	40	0.10	0.80	0.40	0	0
Char Bishwas	Char Biswas Hat	GC	Yes	Special Market	Both	1	100	0.50	200	0.60	2.00	0.30	1226000	1188000
Char Bishwas	Bat Talar Hat	HB	Yes	General Market	Wholesale	1	10	0.05	40	0.00	0.20	0.70	151700	89100
Char Bishwas	Bander Hat	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Char Kajal	Rabibarer Hat	HB	Yes	Special Market	Both	1	40	0.20	60	0.25	1.00	0.50	1150000	9110100

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		
Char Kajal	Char Kazol bazar	HB	Yes	Special Market	Both	1	50	0.25	70	0.30	1.00	0.50	121500	90000
Char Kajal	Kapal Bera Bazar	HB	Yes	General Market	Wholesale	1	20	0.10	50	0.20	0.40	0.25	90000	42400
Char Kajal	Shiba Bazar	HB	Yes	General Market	Wholesale	1	0	0.00	30	0.00	0.20	0.50	0	1000
Char Kajal	Char Birajer Hat	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Chiknikandi	Chiknikandi Bazar	HB	Yes	Special Market	Both	1	120	0.60	200	0.80	1.00	2.00	2050000	1400000
Chiknikandi	Pankhali Hat	HB	Yes	General Market	Wholesale	1	0	0.00	0	0.00	0.30	0.40	0	0
Chiknikandi	Kala Raja Hat	HB	Yes	General Market	Wholesale	1	40	0.20	0	0.20	0.40	0.30	75080	130000
Chiknikandi	Courtkhali Hat	HB	Yes	General Market	Wholesale	1	0	0.00	20	0.00	0.20	0.40	0	0
Chiknikandi	Kachua Hat	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Chiknikandi	Sutaharia Hat	HB	Yes	General Market	Wholesale	1	0	0.00	30	0.00	0.20	0.40	0	0
Dakua	Tengatala Hat	HB	Yes	General Market	Wholesale	1	0	0.00	40	0.20	0.30	0.25	200000	640000
Dakua	Nizamul Chatra Hat	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Dakua	Pangasia Hat	HB	Yes	General Market	Wholesale	1	0	0.00	20	0.00	0.25	0.35	0	0
Galachipa	Boaliya Bazar	HB	Yes	General Market	Wholesale	1	10	0.50	60	0.00	0.20	0.40	125156	15000
Galachipa	Pokhia Bazar	HB	Yes	General Market	Wholesale	1	15	0.60	50	0.00	0.30	0.60	438200	195000
Galachipa	Boalia Kheya Ghat Bazar	HB	Yes	General Market	Wholesale	1	0	0.00	20	0.00	0.00	0.20	0	0
Galachipa	Galachipa Hat (M.A)	GC	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Gazalia	Gazalia Hat	HB	Yes	General Market	Wholesale	1	10	0.50	40	0.50	0.30	0.20	0	0

Union	Market Name	Market Category (GC=Growth Center, HB=Hat Bazar)	Market Listed? (Yes/No)	Market Category (General/Special/ Collection center)	Market Category (Wholesale/ Retail/both)	Hat Day	Chandina Viti (Number)	Chandina Viti (Land)	Chandina Viti (Shop)	Land Area (Acre)			Lease/ Khas Collection BDT (2020)	Lease/ Khas Collection BDT (2019)
										Toha	Khas	Private		
Gazalia	Isadi Hat	HB	Yes	General Market	Wholesale	1	10	0.50	50	0.40	0.25	0.30	0	0
Gazalia	Adani Hat Khola	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Gazalia	Chndar Hat	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Golkhali	Julekhar Hat	HB	Yes	General Market	Wholesale	1	0	0.00	30	0.00	0.00	0.40	1751000	1377000
Golkhali	Naliabagi Sluij Hat	HB	Yes	General Market	Wholesale	1	30	0.15	80	0.40	0.60	0.40	1801186	810000
Golkhali	Sohuri Bridge Bazar	HB	Yes	General Market	Wholesale	1	0	0.00	20	0.00	0.30	0.50	187000	0
Golkhali	Goalkhali Sluij Bazar	HB	Yes	General Market	Wholesale	1	0	0.00	20	0.00	0.40	0.50	0	0
Golkhali	Naluabagi Hat	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Kallyankalax	Kalagachia Hat	GC	Yes	Special Market	Both	1	100	0.50	200	0.50	2.00	1.00	3865000	2681501
Kallyankalax	Kallan Kalas Hat	HB	Yes	General Market	Wholesale	1	0	0.00	15	0.00	0.50	0.60	17050	14000
Panpatty	Pan Patti Center Hat	HB	Yes	Special Market	Both	1	80	0.40	150	0.60	0.40	1.00	605000	610000
Panpatty	Panpatti Lanch Ghat	HB	Yes	General Market	Wholesale	1	20	0.10	20	0.00	0.60	0.00	0	0
Panpatty	Sonamia Hat	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0
Ratandi Taltali	Ulania Hat	GC	Yes	Special Market	Both	1	110	0.60	200	1.00	2.50	2.00	3070000	2100000
Ratandi Taltali	Badnatali Hat	HB	Yes	General Market	Wholesale	1	0	0.00	15	0.00	0.50	0.20	0	0
Ratandi Taltali	Shaheber Kanchari Hat	HB	No	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0









1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Priority	Connecting Union	Connecting Village	Population 2021 (Based on BBS 2011)	Road Name	Road ID	Road Type	Road Type by Surface Condition	Total Road Length (10+11+12)	Paved length (km)	HBB Length (km)	Unpaved length (km)	HBB + Unpaved (11+12) in (km)	Approx. Cost of Road (lac)	Structure/ Gap (meter)	Cost of Structure (in Lac)	Total Cost (in lac) (Roads + Structures)	Population /KM (4÷13)	Tentative Budget/1000 Population (in lac)	Travel Time (in min)	Weightage for Population	Weightage for Travel Time	Weightage for Cost per 1000 Population	Weightage for Road Type	Total Weightage (21+22+23+24)
102	Panpatty	Ratneswar	1188	Boalia Closure-Nadu's Ferry ghat Bridge up to north Boalia RHD.	578574048	VRA	All Weather	5.15	2		3.15	3.15	378	130	1170	1548	377	1303	47	18	10	15	15	58
103	Ratandi Taltali	Gabbunia	333	Badnatali Sluice-Gabbunia UZR	578574030	VRA	All Weather	4.57			4.57	4.57	548.4		0	548.4	73	1645	69	15	16	12	15	58
104	Ratandi Taltali	Bhiarhaola	724	Katakali Mollaharhat Pucca road - Gramordon Gafur Dalal Bari's Pucca road	578575280	VRB	All Weather	1.75			1.75	1.75	210	18	162	372	414	514	26	15	10	20	12	57
105	Ratandi Taltali	Mamuntakti	703	Gurinda RHD-Katakali UZR pucc road(Sarif bari)-Kalponer Bazar pucca road	578575043	VRB	All Weather	1.06			1.06	1.06	127.2	40	360	487.2	664	693	16	15	10	20	12	57
106	Amkhola	Khantakhali	392	solaiman mrider bari (bauriya) bala bari-asman Ali pada(Khanta khali)	578575296	VRB	All Weather	2.91			2.91	2.91	349.2		0	349.2	135	891	44	15	10	20	12	57
107	Amkhola	Kuralbhanga	126	Mollaer hat- Badura GC (Arman Hawlader Bari Paka Road)	578574265	VRA	All Weather	2.85			2.85	2.85	342		0	342	44	2714	43	15	10	10	15	50
108	Galachipa	Char Karfarma	402	Pakhya 5 nos Sluice-Char karfarma GPS road	578574235	VRA	All Weather	2			2	2	240	200	1800	2040	201	5073	30	15	10	10	15	50
109	Gazalia	Charkhali	78	Jalia Bari Bandth - Chandu Doctor Bari Via Uttar Purbo Gazalia GPS.	578574300	VRA	All Weather	3.8			3.8	3.8	456		0	456	21	5853	57	15	10	10	15	50
110	Ratandi Taltali	Paschim Ratandi Taltali	1158	Matibanga Charbiswash UZR- Memsab community clenic -Mahabul Khan Bari	No ID	VRA	All Weather	2			2	2	240		0	240	579	207	30	18	10	25	15	68
111	Char Kajal	Baro Kazol, Chotto kazol	1259	Baro kazol Salam Dafader Bar - Launchghat via Habibur Rahman Mollah Bari sonibaria bazar	No ID	VRA	All Weather	3.5			3.5	3.5	420		0	420	360	334	53	18	10	25	15	68
112	Chiknikandi	Sutabaria	3252	Chan Mia Mridha Bari-Dhalu Hawlader Bari	No ID	VRB	All Weather	1.3			1.3	1.3	156		0	156	2501	48	20	20	10	25	12	67
113	Gazalia	Uttar Purbo Gazalia	1283	Uttar Purbo Gazalia Dakhil Madarasha BC Road-Sunder Ali Hawlader Bari BC Road.	No ID	VRB	All Weather	0.9			0.9	0.9	108		0	108	1426	84	14	18	10	25	12	65
114	Chiknikandi	Dakhin Pankhali	991	Dakhin Pankhali Manik Mollah bari-Mannan Master Bari	No ID	VRB	All Weather	1.2			1.2	1.2	144		0	144	826	145	18	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)