

3) UzDRRAP of Chhatak, Sunamganj

**Upazila Disaster Risk Reduction
Action Plan**

Chhatak, Sunamganj

November 2023

**Upazila Disaster Management Committee
(UzDMC) of Chhatak**

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Preface

Bangladesh is one of the most disaster-prone countries in the world due to its geographical location. The frequency and intensity of disasters have been increased in recent years due to climate change as floods and storm surges are likely to become more severe with increases in intense tropical cyclones. Also, Geographically the country is located close to active seismic zone and susceptible to medium to large earthquakes. These disasters cause not only direct physical damages to the lives and assets, but also indirect and consequent losses to various sectors such as agricultural sectors, food security, water, health and sanitation, significantly impacting economy and livelihood of the local communities. To tackle the situation, the government has achieved breakthroughs in disaster risk management by mentioning this as one of the top priorities, as described in the 8th Five Year Plan (July 2020- June 2025) "a sustainable development pathway resilient to disaster and climate change" as a core theme.

In order to accelerate the disaster resilience of the country, it is vital to develop and implement local disaster risk reduction strategies and plans as also indicated in the Sendai Framework for Disaster Risk Reduction 2025-2030. Expectedly, by adopting a local disaster risk reduction plan in every Upazila, it is possible to effectively reduce the damage and loss caused by disaster, and enhance continuous and sustainable development of the country's economy and therefore achieving Vision 2041 of the government.

In light of this, " The Project for Capacity Enhancement on Formulation and Implementation of Local Disaster Risk Reduction Plan" has been implemented since December 2020 led by MoDMR and DDM, supported by the Japan International Cooperation Agency (JICA). In this Project, Upazila Disaster Risk Reduction Action Plans have been formulated in six pilot Upazilas of three districts, which are Cox's Bazar (Cox's Bazar Sadar and Chakria), Sunamganj (Chhatak and Jagannathpur) and Kurigram (Chilmari and Ulipur). These plans have been developed by unique approaches that are 1) Scientific analysis for local hazards; 2) Setting DRR targets based on risk quantification; 3) Involvement of project implementing agencies including BWDB, LGED, SoB, GSB, BMD, PWD, FSCD, and so on. These approaches have successfully established this effective plan and promote to execute projects to reduce disaster risk.

This plan is expected to save lives, livelihoods, and resources of the Upazila, as well as pave the way for the enhancing future development through disaster risk reduction in the country.

Implemented by the Department of Disaster Management (DDM)
Technical Assistance from the JICA Expert Team (JET) of "The Project for Capacity Enhancement on Formulation and Implementation of Local Disaster Risk Reduction Plan", and the Sacred Welfare Foundation (SWF)



Director General
Department Of
Disaster Management

Message

While Bangladesh is advancing rapidly on the path of development, natural disasters are hindering the ongoing dynamic development of Bangladesh. Although Bangladesh is disaster-prone due to geographical reasons, climate change adds insult to injury as one or the other disaster strikes the nation almost every year. As a result, the country's resources and lives are being lost on a large scale, which impedes the pace of development consequently. Natural disasters hampering sustainable development, therefore, make it impossible to achieve the desired progress.

In this context, the Bangladesh government has placed more importance on disaster risk reduction and pre-disaster investment, as well as in light of the Sendai Framework for Disaster Risk Reduction (SFDRR), the Ministry of Disaster Management and Relief (MoDMR) and the Department of Disaster Management (DDM) has taken a project named "The Project for Capacity Enhancement on Formulation and Implementation of Local Disaster Risk Reduction Plan" with the support of JICA. This project is piloting the formulation of the local disaster risk reduction plans in six Upazilas of three districts which had been selected in consideration of the different types of hazards, namely Cox's Bazar, Sunamganj, and Kurigram. This pilot activity is finally aimed at the establishment of the mechanism to spread this initiative nationwide in the country, by the leadership of the MoDMR and the DDM.

The local Upazila Disaster Risk Reduction Action Plan (UzDRRAP) formulation is significantly vital for Upazilas with a view to eliminating the actual damage and loss in their areas. The planning in cooperation among related agencies can promote sufficient proactive disaster risk management that the Bangladesh government has also emphasized, instead of post-disaster response.

It is my great pleasure to implement this pilot project activity with the strong leadership of the Upazila DMC and other stakeholders. This plan will contribute a lot to achieving the vision of 2021 of the Bangladesh government. We are hopeful that the success of this pilot project will add a positive dimension to the development process and this process will later be expanded across the country.

Md. Mijanur Rahman
(Additional Secretary)



Project Director
LDRRP Project
and
Director

Planning & Development
Department Of Disaster Management

Message

Natural disaster is the main obstacle to the development of this beautiful land of natural beauty. Almost every year this country is affected by cyclones, storm surges, landslides, flash floods, seasonal floods, thunderstorms, lightning, and so on, due to its geographical location. The amount of damage to property, crops, houses and infrastructure caused by the disasters is retarding the development of the country, which results in a decrease in GDP as well as a great barrier to sustainable development.

In aspect to this and in light of the Sendai Framework for Disaster Risk Reduction (SFDRR), the Ministry of Disaster Management and Relief (MoDMR) and the Department of Disaster Management (DDM) initiated a project named "The Project for Capacity Enhancement on Formulation and Implementation of Local Disaster Risk Reduction Plan" with the support of JICA. Under this project, six Upazilas of three districts, which are 1) Cox's Bazar Sadar and Chakaria Upazilas in Cox's Bazar District, 2) Chhatak and Jagannathpur Upazilas in Sunamganj District, and 3) Chilmari and Ulipur Upazilas in Kurigram District were selected as pilot sites in consideration of their different types of hazards due to their diverse geographical features, to formulate and implement the Upazila Disaster Risk Reduction Action Plans (UzDRRAPs). Since the project started in 2021, we have completed formulating the UzDRRAPs of Cox's Bazar and Sunamganj districts through the active participation of all stakeholders as this plan shows, and will start the project activities in Kurigram district soon in 2024. I firmly believe that the development and implementation of the UzDRRAP is significant for all Upazilas to reduce the rate of damage and loss of human and resources by disasters, which will support achieving the vision of 2021 of the Bangladesh government.

As a Project Director, it is my immense pleasure to accomplish this intended project activity through the strong leadership and guidance of the Upazila DMC and Union DMC, as well as the active participation and contributions of other DRR-related agencies. This plan will take us on the path of prosperity by reducing the disaster risks and will play a significant role in the development of the country.

Md. Firoz Uddin
(Additional Secretary)



Deputy Commissioner
Sunamganj District

Message

Sunamganj district, which consists of twelve Upazilas and four municipalities, is rich in various high-quality mineral resources such as sand, limestone, pebbles, and coal, as well as a major source of the country's fishery. While such natural beauties attract local and foreign tourists throughout the year, the district is at risk of disasters due to its geographical conditions such as the adjacency to Meghalaya Hill, and low-lying areas surrounded by Haor and the backward district as located in the foothills of Meghalaya, India. Disasters, especially flash floods, occur almost every year in Sunamganj and adversely affect the lives and livelihood of the people. Due to the flash flood, only one crop of Boro paddy in a year gets lost, and hence the farmers face difficulty to harvest the crop timely. Furthermore, lightning has been a major calamity for the past few years resulting in many casualties in this district. Disaster is an obstacle on the way to development of Sunamganj.

Last few years, the Government of Bangladesh has focused on disaster risk reduction and disaster preparedness, in addition to the post-disaster relief and rehabilitation. "The Project for Capacity Enhancement on Formulation and Implementation of Local Disaster Risk Reduction Plan", which is led by the Ministry of Disaster Management and Relief (MoDMR) and the Department of Disaster Management (DDM) with the support of JICA and is piloting in two Upazilas - Chhatak and Jagannathpur of Sunamganj district, is one of such initiatives. The pilot activity under this project was started in November 2022 and finally prepared the Upazila Disaster Risk Reduction Action Plans (UzDRRAPs) of both Upazilas by the active participation of public representatives, govt. officials of all departments and all stakeholders. I expect that the UzDRRAP formulation is very important for this district to reduce disaster damage and loss in the future.

I hereby would like to express my gratitude that this plan is completed within the stipulated time under the overall guidance of the Upazila Disaster Management Committee. I hope that the people of Sunamganj district will be benefited a lot through the proper implementation of the project. Finally, I would like to thank all those who were involved in the preparation and formulation of this Plan.

Dider-E- Alam Mohammad Maksud Chowdhury



Upazila Chairman
Chhatak Upazila Parishad
Sunamganj District

Message

Chhatak Upazila is a famous place in Sunamganj District for Cement factories, as several cement companies are located here. The area of this Upazila is 440.48 km² where 3 97642 people are residing under 13 unions (521 villages) and one municipality. Meghalaya Province of India is in the North, Doarabazar Upazila is in the West, Jagannathpur Upazila is in the South, Companyganj, Sylhet Sadar Upazila and Biswanath Upazila are in the East.

Note that Cherrapunji in Meghalaya state of India is one of the highest rainfall areas in the world, which is very close to Chhatak Upazila, for which heavy rainfall occurs. Due to rainwater coming from the upstream hill, every year this Upazila is severely inundated by the flash flood, which damages infrastructure, human life, homestead and other resources. To respond to these situations, we have been managing the disasters to some extent with the support of the national government, international donors and NGOs. However, further solutions are required in consideration of climate change and sustainable development here.

I am happy to know that "The Project for Capacity Enhancement on Formulation and Implementation of Local Disaster Risk Reduction Plan" has been taken in my Upazila with the support of JICA. As a public representative, I am very impressed to see this great activity, since I believe that a proper Upazila Disaster Risk Reduction Action Plan is significant to keep the development process moving by reducing the damage caused by disasters. This is a timely initiative under these circumstances for which the people of Chhatak Upazila will benefit from this activity. If the loss of assets can be reduced through proper planning, then the community people will get benefit as well, and Upazila will move forward in the way of development.

In conclusion, I convey my cordial thanks to the Upazila Disaster Management Committee (UzDMC), Union DMC, Govt. Officers and other stakeholders for their active participation and input. I hope this plan will be implemented properly and will contribute to further development in this upazila.

Md. Fazlur Rahman



Upazila Nirbahi Officer
Chhatak, Sunamganj District

Message

Chhatak is one of the business friendly Upazila in the larger Sylhet division. The businesses of cement, sand, stone, limestone, lime, stone-crusher, and so on are significant here. This Upazila is surrounded by hill, rivers and haor, so it is also full of natural beauty. Due to such geographical situation, this Upazila is high disaster-prone area, specifically due to its location close to the Cherapunji hill of India. Almost every year this Upazila is affected by flash flood and flood, which have caused damages of households, infrastructure, and crops. Although the government is active in disaster management to tackle the situation by collaboration with various NGOs and donor communities, we need to accelerate disaster risk reduction to mitigate the disaster damage in the Upazila. In this regard, the formulation of the Upazila Disaster Risk Reduction Action Plan (UzDRRAP) is significant for this Upazila with a view to set the strategy to reduce the rate of damage and loss.

The Ministry of Disaster Management and Relief (MoDMR) selected two Upazilas, which are Chhatak and Jagannathpur, in Sunamganj District as pilot sites for “The Project for Capacity Enhancement on Formulation and Implementation of Local Disaster Risk Reduction Plan” supported by JICA and linked with the “Sendai Framework for Disaster Risk Reduction (SfDRR)”. In order to develop this plan, we established Upazila Sub-Committee (UzSC) under the Upazila Disaster Management Committee (UzDMC) in light of Standing Order on Disaster (SoD)-2019. This UzSC played a vital role as conducted so many meetings for reviewing disaster risks and collecting necessary disaster risk reduction mitigation measures with active participation of Union DMC, government officers of various relevant departments and other stakeholders. I expect that this UzDRRAP will provide us with the proper direction for disaster mitigation in future which might save lives, livelihoods as well as national resources, and contribute achieving the Government’s Vision 2041.

It is our pride to formulate the UzDRRAP in a participatory approach under leadership and guidance of Upazila administration. I cordially acknowledge the hardship of UzDMC members, Union DMC and other relevant stakeholders for their active participation. If we can implement and update this plan appropriately, it will be meaningful, and this effort will be worthwhile.

Nurur Zaman Chowdhury

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Attachment 1: Proposed countermeasure list

Attachment 2: Member lists of UzDMC and UzSC

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Acronyms

ADP	Annual Development Programme
BBS	Bangladesh Bureau of Statistics
BMD	Bangladesh Meteorological Department
BCC	Building Construction Committee
BNBC	Bangladesh National Building Code
BWDB	Bangladesh Water Development Board
CRA	Community Risk Assessment
DAE	Department of Agricultural Extension
DDM	Department of Disaster Management
DDMC	District Disaster Management Committee
DEM	Digital Elevation Model
DMC	Disaster Management Committee
DPHE	Department of Public Health Engineering
DPP	Development Project Proposal
DRMP	Disaster Risk Management Plan
DRR	Disaster risk reduction
DRRO	District Relief & Rehabilitation Officer
FSCD	Fire Service and Civil Defence
GDP	Gross domestic product
GSB	Geological Survey of Bangladesh
GSD	Ground Sampling Distance
HED	Health Engineering Department
ID	Identity Document
JET	JICA Expert Team
JICA	Japan International Cooperation Agency
LGED	Local Government Engineering Department
MoDMR	Ministry of Disaster Management and Relief
NGO	Non-governmental Organization
NPDM	National Plan for Disaster Management
PGA	Peak Ground Acceleration
PIO	Project Implementation Officer
PWD	Public Works Department
RRAP	Risk Reduction Action Plan
SFDRR	Sendai Framework for Disaster Risk Reduction
SOB	Survey of Bangladesh

SOD	Standing Orders on Disaster 2019
SWF	Sacred Welfare Foundation
TSC	Technical Sub-Committee
UDD	Urban Development Directorate
UDMC	Union Disaster Management Committee
UNO	Upazila Nirbahi Officer
UPs	Union Parishads
URC	Upazila Resource Center
UzCC	Upazila Construction Committee
UzDMC	Upazila Disaster Management Committee
UzDMP	Upazila Disaster Management Plan
UzDRRAPs	Upazila Disaster Risk Reduction Action Plans
UzSC	Upazila Disaster Risk Reduction Action Plans Sub-Committee
VDP	Village Defence Party

Chapter-1. Introduction

1.1 Purpose and aim of the Plan

The purpose of the Chhatak Upazila Disaster Risk Reduction Action Plan (UzDRRAP) is to identify necessary countermeasures against natural disasters and implement them in cooperation with relevant stakeholders to reduce disaster risks in the Upazila. This Plan contributes to increasing investment in disaster risk reduction by ensuring a mechanism for project implementation of the line ministries' countermeasures and by promoting further funding from agencies.

1.2 Rationale for the formulation of the Plan

This Plan corresponds to the Risk Reduction Action Plan (RRAP) that is required to be developed as a part of the Disaster Risk Management Plan (DRMP) by Disaster Management Committees (DMC) at District, Upazila and Union DMCs, according to the Standing Orders on Disaster 2019 (SOD). In the SOD, it is recommended to prepare RRAP by local DMCs, as well as the Contingency Plan. While the disaster response which is covered by the Contingency Plan has been relatively conducted as required in emergencies, risk reduction measures based on the objective hazard and risk assessment had not been sufficiently implemented at the Upazila level. In consideration of this situation and the importance of the DRR investment for the further development of the country, this plan, therefore, emphasises disaster risk reduction and proposes the necessary actions as a master plan corresponding to the RRAP of the Upazila Disaster Management Plan (UzDMP), which directly leads to the preparation of Development Project Proposals (DPPs) and Annual Development Programmes (ADPs).



Figure 1.1. Risk Reduction Action Plan in the SOD

The formulation of the UzDRRAP and the implementation of the countermeasure against disasters are in line with government strategies, policies, and plans of the country, as listed below.

- The Bangladesh Delta Plan 2100 mentions the importance of strengthening the disaster risk management and combating the effects of climate change.
- 8th Five Year Plan (July 2020-June 2025) emphasizes appropriate policy and institutional capacity building to address their concerns on climate-resilient development and disaster management at all levels of the government, especially at the local government level where most of the programmes are to be implemented.

- The National Plan for Disaster Management (NPDM 2021-2025) focuses on “Making disaster risk reduction a development practice to achieve resilient public investment and the SDGs” and “Building capacity and leadership to implement NPDM 2021-2025 at the national and local level”.

In addition, from an international perspective, this plan directly contributes to the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR), specifically the Target (e) “To substantially increase the number of countries with national and local disaster risk reduction strategy”.

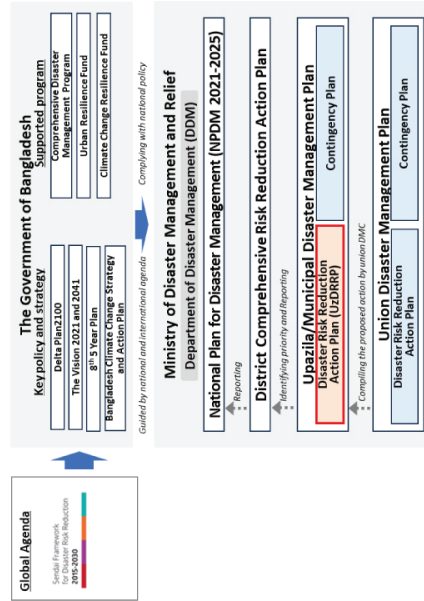


Figure 1-2. Relationship between national key policies and this plan

1.3 Relevance to other Upazila plans

Based on the Local Government (Upazila Parishad and Upazila Administration Reorganization) Act 1998 and the Local Government (Upazila Parishad) Act 2009, each Upazila shall prepare a development plan and land use plan. This plan and the proposed countermeasure against the disasters has been considered to ensure consistency with these plans in this Upazila.

1.4 Features of the Planning

The features of this Planning are 1) Scientific Analysis for Local Hazards, 2) Setting DRR Targets based on Risk Quantification, and 3) Involvement of Project implementing Agencies, which are expected to contribute to the actual execution of the effective countermeasures.

Feature 1: Scientific Analysis for Local Hazards:

The hazard maps were developed by simplified technical analysis, which processes are not adopted in the Community Risk Assessment (CRA), using observed disaster records of rainfall and tidal level, the Digital Elevation Model (DEM), and current hazard maps. The developed hazard maps represent the vulnerable areas of the Upazila and help promote to objectively understanding of the hazard potential.

Feature 2: Setting DRR Targets based on Risk Quantification:

Risks in this Upazila were quantified based on risk quantification using the hazard maps and various factors such as natural conditions and socio-economic factors and visualized to share with relevant agencies. A DRR target was set in consideration of the result of identifying which areas are highly affected by potential hazards, by these risk quantifications.

Feature 3: Involvement of Project Implementing Agencies:

The Upazila Sub-Committee (UzSC), which is composed of the Upazila chairman, UNO, PIO, engineers from LGED, BWDB, and DPHE in the Upazila, Upazila officials, Union Parishad chairman, was established to identify disaster risks and consider priorities of countermeasures against the disasters at the Upazila level. Since the committee at the Upazila level does not have the authority to determine the countermeasures listed in the plan to be implemented, the members from the line ministries at the central level are involved in the planning processes to promote the schemes/projects listed in the UzDRRAP and secure budgets.

1.5 Methodology for the development of the Plan

1.5.1 Institutional Arrangement

For the development of this Plan, an UzSC, that is stipulated in the SOD, was established in this Upazila. The roles and responsibilities of this committee are to:

- 1) Prepare this UzDRRAP by identifying existing DPPs and pipeline projects related to DRR, Union Parishads (UPs) priority, some development projects that might affect people or increase disaster risk;
- 2) Summarize DRR projects by examining needs of UPs and Risk Reduction Action Plans developed by UPs;
- 3) Identify possible DPP to be able to collaborate among line ministries on structural and non-structural measures to maximize the efficiency and effectiveness of DRR.

In addition to this UzSC at the Upazila level, Technical Sub Committee (TSC) was established to coordinate projects proposed by other Upazilas in addition to Chhatak Upazila at the central level. Implementation of the projects proposed in the UzDRRAP are determined by the line ministries at the central level. The roles and responsibilities of this TSC are to:

- 1) Summarize and monitor the progress of DRR related projects based on the plans that UzSCs submitted;
- 2) Request line ministries on the possibility to do further investigation on DRR project needs based on the UzDRRAP;
- 3) Make efforts to integrate DRR ideas into DPP, ADP and 5YP in Upazila and line ministries, considering disaster risk reduction target in the UzDRRAP;
- 4) Discuss among line ministries on development projects which might affect people or cause disaster;
- 5) Establish the guidelines and manuals to prepare Upazila Disaster Risk Reduction Action Plans
- 6) Take an initiative to start up UzSCs for the preparation of UzDRRAPs.

1.5.2 Planning Process and Methodology

This plan was established based on a combination of methods, namely JICA 8 steps and the CRA method which has been broadly utilized as a vulnerability assessment in the country, as shown in the figure below. For developing each chapter of this plan, the following methodology was introduced.

Chapter 2: Geographic, Socio-economic, and Meteorological Conditions

This chapter illustrates the characteristics of the Upazila, that is the conditions to develop the Action plan for DRR. The statistics data including the Census 2011 and meteorological data was collected and analyzed.

Chapter 3: Target Hazards and Disaster-prone Areas

This chapter explains the disaster records, target hazards, as well as disaster-prone areas by district and Upazila level. While disaster records of the Upazila were collected by the DRO of the district or online media sources, disaster-prone areas were identified through scientific analysis by utilizing data such as elevation data (DEM), probability rainfall data and so on. For flood, the BWDB's pre-monsoon danger level was considered. These hazard maps were then confirmed in workshops where the UzDMC members participated.

Chapter 4: Disaster Risk and DRR Targets of the Upazila

This chapter describes the estimations of damages caused by each hazard. The damage estimations are for floodtarget paddy fields, settlement areas, as well as the important public facilities and infrastructure, while those for earthquake shaking target households. These damages were estimated by overlaying hazard data with statistical data¹, and consequently confirmed by the JuzDMC members and the U2SC members in workshops and meetings, along with the priority discussions that were set by such disaster risk.

Chapter 5: Action Plan of DRR Countermeasures

This chapter shows the current status and issues of the countermeasures as well as the necessary projects for DRR. The current status of the countermeasures was identified and analyzed by the consultation with UzDMC and UzSC members, while the necessary projects were proposed by the UzDMC members. The proposed projects were then validated with line agencies, and prioritized with UzDMC and UzSC members.

^{a1} The risk assessment was conducted in accordance with the developed guideline – Guideline on Hazard and Risk Assessment.

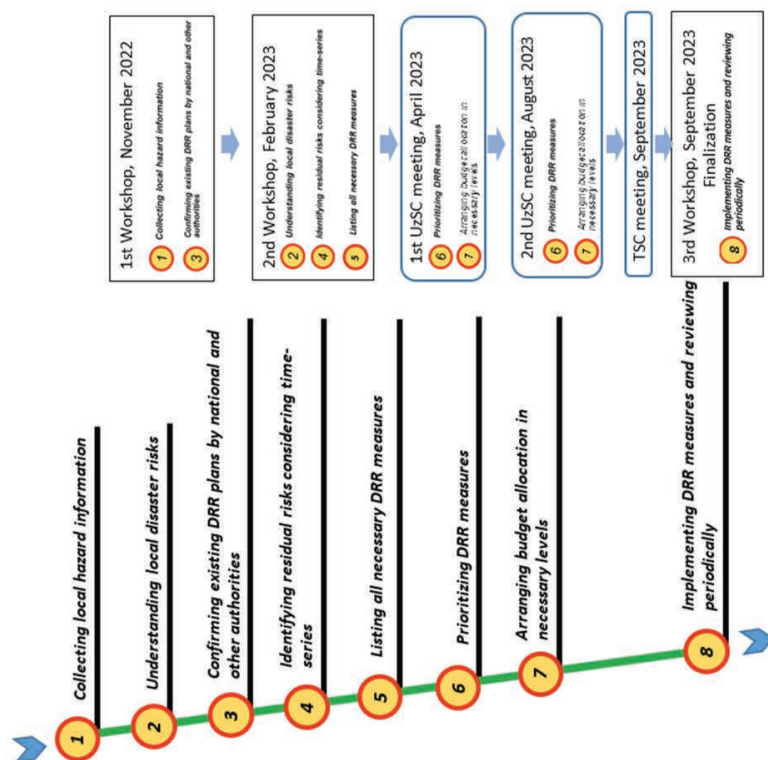


Figure 13. “8 Steps” for Upazila DRR Planning in case of this plan

Chapter-2. Geographic, Socio-economic, and Meteorological Conditions

2.1 Location and Geographic Conditions

2.1.1 Location of the Upazila

Chhatak Upazila is situated in the east of Sunamganj district and in the middle of divisional town, Sylhet, of the north-east part of Bangladesh. It is bordered by Jagannathpur Upazila to the north, Shantiganj Upazila to the west and Dowarabazar Upazila to the north-west under Sunamganj District and Bishwanath Upazila to the east, Companiganj Upazila to the north-east under Sylhet District. It is located 50 km north-west of the divisional headquarters city of Sylhet and 63 Km south-east of the district town Sunamganj. The area of the Upazila is 439.01 km².

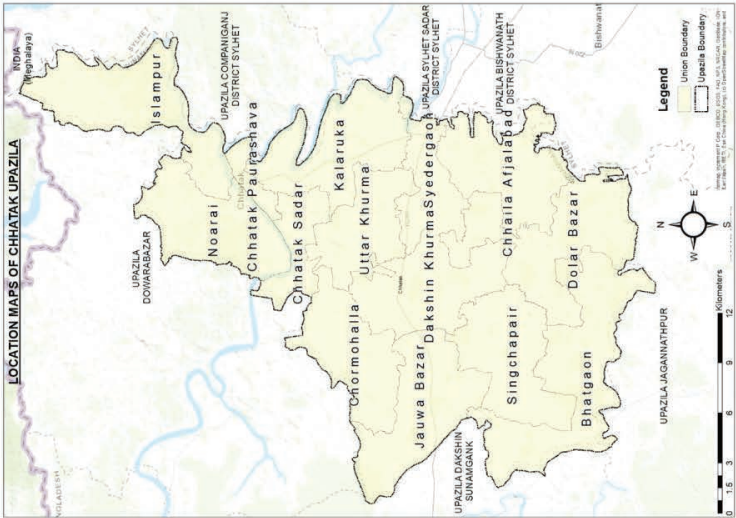


Figure 2-1. Location Map of ChhatakUpazila

2.1.2 Topography of the Upazila

The topography of Chhatak Upazila consists primarily of flat and low-lying plains with an elevation of less than 10-12 meters except for the high area comparatively. Therefore, the Upazila is vulnerable to flooding due to monsoon flood/flash flood frequently. The flat area is used for agriculture, fish and duck farming in the haor area, fishing in the open water body, river etc. and settlement.

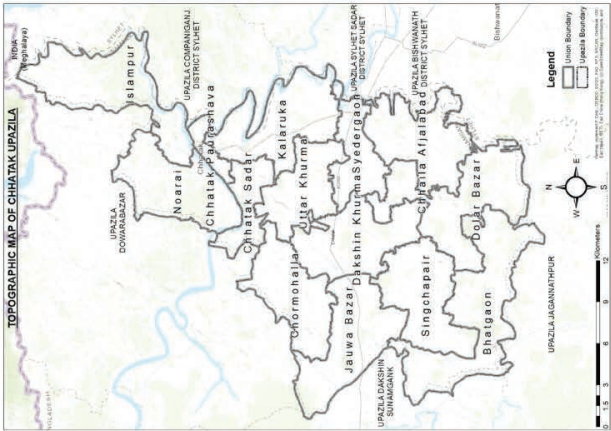


Figure 2-2. Topographic Map

2.1.3 River System of the Upazila

Sunamganj District has a major river, which is Surma River. Surma River originates in India, called as Barak River, and runs into Bangladesh through Assam, India (Figure 2-3). Barak River is divided into two rivers, which are Surma River running through the northern area of Sunamganj District and Kushiya River, connecting into Kalni River running on the south edge of the said district. Those rivers run into Meghna River, which is one of the major rivers in Bangladesh. The Meghna River's catchment area and its length are, approximately, 82,000 km² and 950 km, respectively. Of the total catchment area and its length, approximately 35,000 km² and 670 km are situated in Bangladesh. Surma River and Kalni River play the essential role of water resources in Sunamganj and those are utilized as resources of drinking water, irrigation for agriculture and fishery.

The Surma River flows through Chhatak Upazila and Kalni River runs through Jagganathpur Upazila. In those Upazilas, there are some wetlands called "Haor" and those rivers provides water into Haor from mountainous area.

According to the study by BWDB, there are three seasons' categories based on the precipitation patterns in the area, which are dry season, pre-monsoon season and monsoon season. The pre-monsoon season starts on March 15th and lasts until May 15th. The monsoon season follows the pre-monsoon season and continues until the end of October. The rest, from November to the middle of March is called the dry season. During the monsoon season, flooding occurs a lot along those rivers and Haor area becomes deeper and wider.

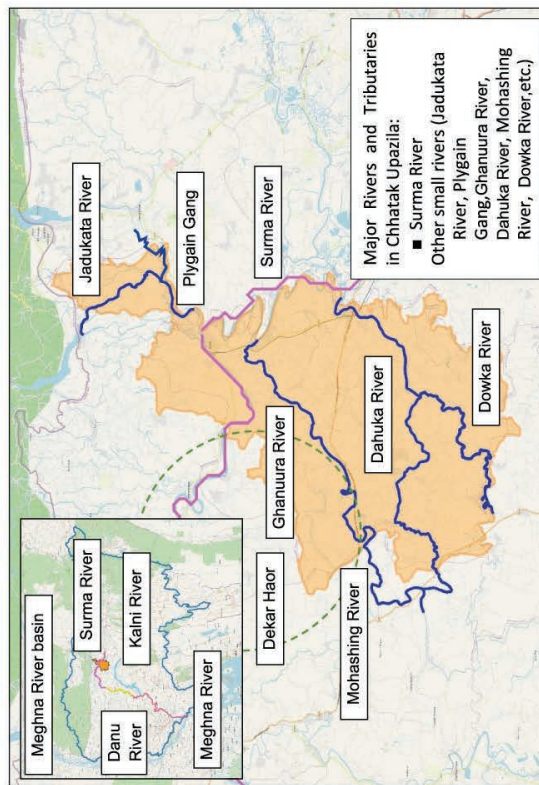


Figure 2-3. Major River, Small Rivers and Haors in Chhatak Upazila

2.2 Socio-economic Conditions

2.2.1 Demography

Chhatak Upazila is divided into 13 unions: Chhatak Sadar, Kalaruka, Jauwa Bazar, Islampur, Charmoholla, Syedergaon, Noarai, Uttar Khurma, Dakshin Khurma, Chhaila Afjalabad, Bhatgaon, Dolar Bazar, and Singchapair. In addition, there is the Chhatak Paurashava which is divided into 9 Wards and 22 Mahallas. The demography in Chhatak Upazila is shown below. According to the census 2011 and interviews with unions, the total population of the Upazila is 4,67,899 people.

Table 2-1. Demography of the Upazila

Union Name	Total Area (km ²)	Total Population	Number of Households
Chhatak Sadar	20.16	19,000	1,893
Kalaruka	36.04	33,238	5,515
Jauwa Bazar	36.93	49,661	6,294
Islampur	38.74	35,884	5,752
Chormoholla	32.73	24,565	4,266
Syedergaon	17.84	30,967	3,820
Noarai	32.55	42,004	6,850
Uttar Khurma	26.79	18,192	2,825
Dakshin Khurma	32.97	23,386	4,045
Chhaila Afjalabad	33.30	30,500	4,898
Bhatgaon	47.71	41,036	4,751
Dolar Bazar	40.35	41,520	5,650
Singchapair	31.10	23,123	4,818
Chhatak Paurashava	11.80	54,823	10,260
Total	439.01	4,67,899	71,637

Source: Population & Housing Census 2011 and interview with Unions

2.2.2 Economy and Industry

The economy of Chhatak Upazila is mainly depends on agriculture and agriculture-based farming. Out of total 71,637 households of this Upazila, 58.75% households are directly involved in agriculture farming. They produce various crops mainly rice, wheat, vegetable, oil seeds and others. Apart, fishing in open water body along with fishery in the wet land, Haor, Beel and even in the paddy field during the rainy season are the important economic activities of the area. Besides, livestock, duck farming, cottage industries are also the main sources of household income of this Upazila. It is also a mid-level commercial area in the district based on Cement factory, stone crush factory, sand and stone collection from river comes from Meghalaya of India. Main export item from this Upazila is haor fish, crashed stone and sand. According to the district statistics (2011), agriculture contributes to economy is 52.15%, non-agriculture sectors 10.33%, industry 0.66%, trade 10.19%, transport and communication 1.19%, remittance 3.23%, service 7.16%, construction 0.89%, religious service 0.42% and others 13.84%. The following table shows the total establishments of different industries in ChhatakUpazila which are contributed to the national economy.

Table 2-2. total establishments of different industries in Chhatak Upazila

Sl. no.	Name of industry	No. of industry	%
1	Rice mill	130	13.9%
2	Pottery	27	2.9%
3	Husking Crafts mill	157	16.8%
4	Printing press	3	0.3%
5	Cottage industry	37	3.9%
6	Weaving	15	1.6%
7	Handicraft	15	1.6%
8	Bamboo & cane industry	63	6.7%
9	Wooden furniture	35	3.7%
10	Saw mill	26	2.8%
11	Bakery	7	0.7%
12	Tailoring shop	315	33.6%
13	Flour mill	17	1.8%
14	Cement industry	3	0.3%
15	Stone crashing machine	85	9.1%
16	Akiz industry (Plastic item)	1	0.1%
17	Lime industry	1	0.1%
		937	

(Source: District statistics- 2011)

2.2.3 Urbanization

Urbanization rate (population living in the urbanized area) in Sunamganj district is relatively low compared to the average rate of Bangladesh of 31.51% (Population & Housing Census 2022). By the comparison of 2001 and 2011, the urbanization rate was increasing in the upazilla of Chhatak, Derai, Jagannathpur and Sunamganj Sadar. The urbanization rate in Chhatak 12.74 % in 2011 and the rate has expanded for 1.18 % which is a 10% increase and indicates a trend of urbanization. The highest urbanization rate observed in the Sunamganj district is 25.13% in Sunamganj Sadar. However, Chhatak is one of the upazillas where urbanization is developing as Chhatak Paurashava is located as a growing center.

Annual population rate in the union of Chhatak sadar, Jauwa Bazar and Bhatgaon is the top three highest growth rate in the upazila, which is one of the criteria to indicate the urbanization in these unions.

Table 2-3. Population growth rate of the Upazila

Paurashava / Union Name	Population		Annual Population Growth Rate (2011 - 2022)
	2011	2022	
Bhatgaon	29,487	41,036	3.92%
Chhatak Sadar	11,088	19,000	7.14%
Charmohalla	23,531	24,565	0.44%
Dolar Bazar	32,669	41,520	2.71%
Dakshin Khurma	23,526	(No data)	(No data)
Islampur	31,760	35,884	1.30%
Jauwa Bazar	34,372	49,661	4.45%
Kalaruka	33,238	(No data)	(No data)
Noarai	37,963	42,004	1.06%
Syedergaon	26,113	30,967	1.86%
Chhalla Ajjalabad	28,994	30,500	0.52%
Singchapai	23,123	(No data)	(No data)
Uttar Khurma	17,414	18,192	0.45%

Source: Population and Housing Census 2011, Community Report: Sunamganj BBS (Data for 2011), Interview to unions (Data for 2022)

2.3 Meteorological Conditions

The climate of Chhatak Upazila, or Sunamganj District widely, is dominated by the tropical monsoon and is distinguished in 2 seasons: a rainy season and a dry season. The southwest monsoon brings the rainy season from April to September and a moderate rainfall in October as shown in Figure2-4. Then, the northeast monsoon flows and dries the area from November to March.

As shown in Figure 2-4, the Upazila has an annual rainfall of more than 5,000 mm. Most rainfall is concentrated during the rainy season, especially the 3 months between June to August, when half of the annual rainfall occurs. Also, there is a moderate rainfall in the month of April and September. The heavy rainfall often devastates haor area of Chhatak Upazila and cause flooding in the area. In addition, flash flood also severely affects this Upazila in late March to mid-May due to rainwater comes from upstream even in 2022 flash flood affected severely in mid-June.

Chhatak Upazila has a relatively moderate temperature and high humidity climate. The highest temperature reaches to a maximum of 32.0°C in March - June and August -September and a minimum of 14.0°C in January. From February to November the average high temperature is prevailing within 29. 0°C to 32. 0°C (Figure 2-6).

Chapter-3. Target Hazards and Disaster-prone Areas

3.1 Disaster Record of the Upazila

Chhatak Upazila has experienced several disasters affecting the lives and livelihoods of the local communities, due to its topography and meteorology. The table below shows the disaster records in this Upazila. The most historic and destructive disasters is the 2022 flood which severely affected the Upazila with over 10,000 damaged houses and 120,000 affected people.

Table 3-1. Recent Disaster Record in Chhatak Upazila

No.	Year	Damage
1. Flood		
(1)	May, 1999	Cause: Flash flood by heavy rain Affected population: 6,000 people Casualty: 00 dead people Damaged House: 300 Damaged Infrastructures: 3.00 km stretch of Haor embankment, school, tube well, and pond Other Damage: livestock, crop,
(2)	Jun, 2004	Cause: Flash flood Affected population: 60,000 people Casualty: 01 dead people Damaged House: 600 Damaged Infrastructures: 6.00 km stretch of Haor embankment, school, tube well, and pond Other Damage: livestock, crop,
	2004	Cause: Seasonal flood Affected population: 70,000 people Casualty: 00 dead people Damaged House: 650 Damaged Infrastructures: 7.00 km stretch of Haor embankment, school, tube well, and pond Other Damage: livestock, crop,
(3)	Jul, 2010	Cause: Flash flood caused by heavy rain Affected population: 7000 people Casualty: 00 dead people Damaged House: 120 Damaged Infrastructures: 2.00 km stretch of Haor embankment, school, tube well, and pond Other Damage: livestock, crop,
(4)	2012	Cause: Flash flood caused by heavy rain Affected population: 12,000 people Casualty: 00 dead people Damaged House: 60 Damaged Infrastructures: 1.20 km stretch of Haor embankment, school, tube well, and pond Other Damage: livestock, crop,
(5)	2022	Cause: Flash flood caused by heavy rain Affected population: 190,000 people Casualty: 00 dead people Damaged House: 9,457 Damaged Infrastructures: 15.00 km stretch of Haor embankment, school, tube well, and pond Other Damage: livestock, crop,

Source: DRRO, Sunamganj (dated September 10, 2023.) and EOC,DDM.

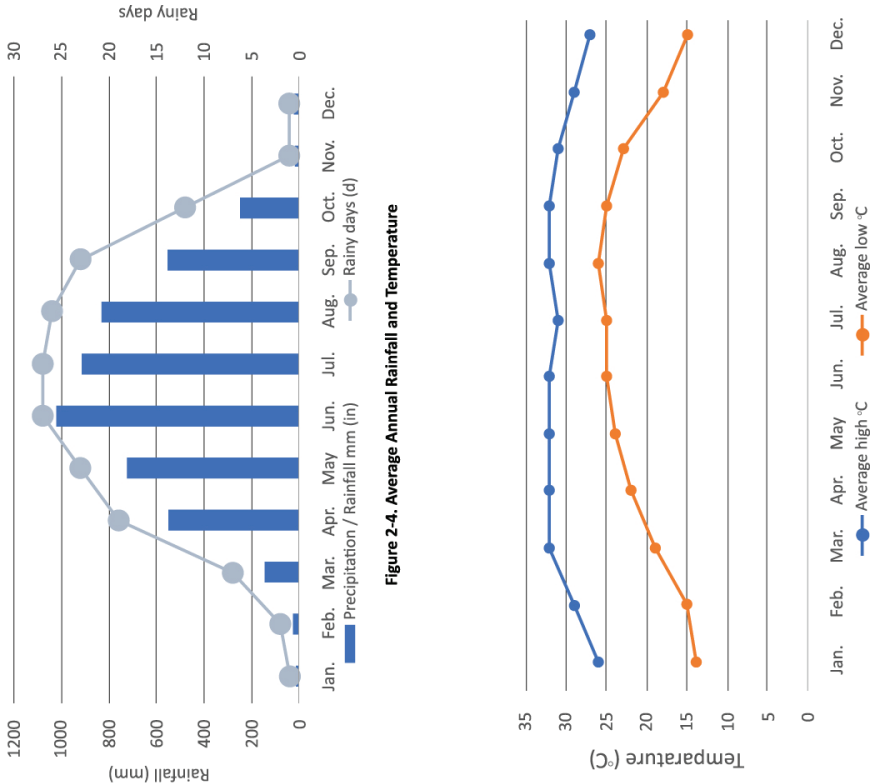


Figure 2-4. Average Annual Rainfall and Temperature

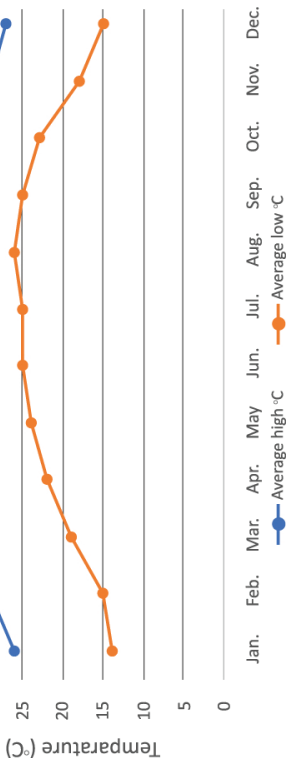


Figure 2-5. Average Temperature

3.2 Target Hazards of this Plan

Apart from the above, there are several types of other disasters that can also cause damage to this Upazila. This Plan targets all the possible disasters in the Upazila including lightning and drought, whereas it objectively and scientifically analyzes the following disasters with high damage potentials and shows hazard maps to identify the hazard potential in the Upazila.

- Flood
- Earthquake Shaking

3.3 Hazard Map and Disaster-Prone Areas by Each Hazard

3.3.1 Flood

Figure 3-1 shows a flood hazard map for Chhatak Upazila, targeting the pre-monsoon flash flood, which causes tremendous damages on the paddy production (cultivation). The flood hazard map was created utilizing danger water levels defined by BWDB. The danger water level is designed to be the water level above which the flood may cause damages to nearby crops and homesteads. It was fixed slightly below design flood level of the embankment, and it was also applied to submergible embankment height. In terms of the probability of occurrence, corresponding return period is approximately 2.33 years of the pre-monsoon season.

Among the unions in Chhatak Upazila, Bhatgaon, Chormohalla, Islampur and Jauwa Bazar are particularly prone to flooding because the lands of such unions are low-lying and some hoars are located. The paddy fields in such unions and the settlement area in Chormohalla are affected severely and widely.

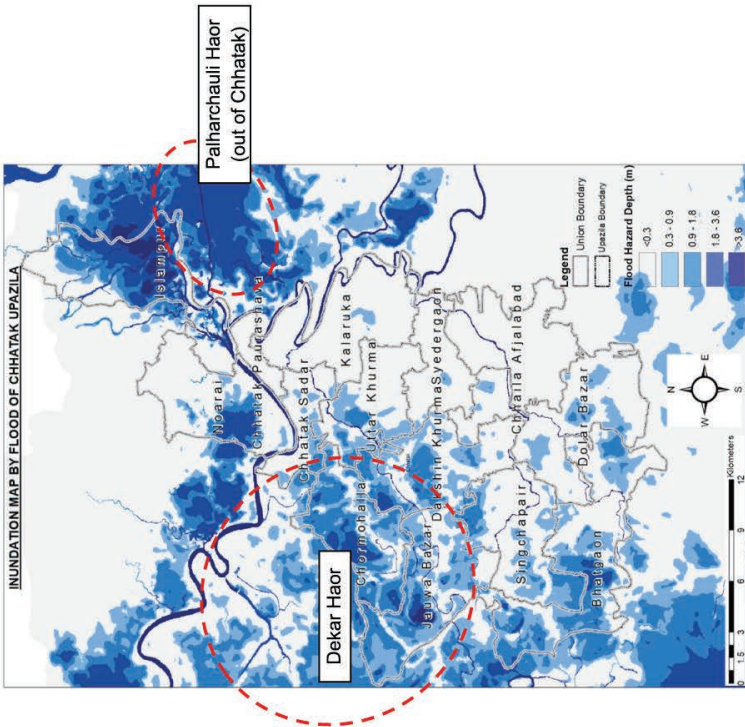


Figure 3-1. River Floods Hazard map in Chhatak Upazila

Analysis:

Water Level: BWDB danger water level (equivalent to approx. 2.33-year Return Period in pre-monsoon season)
Landform: Satellite-based DEM (AW3D)

Notes:

1. The hazard analysis and risk assessment (Chapter 4.1.1) introduced in this plan does not consider the possible effects of the climate change.
2. When viewing the flood hazard map, users are recommended to consider the elevation of their houses or unions and compare them with the flood depths indicated in the map.
3. Overlaying evacuation routes and shelter locations with the map, is helpful to identify where and how to evacuate before and during flood events.

3.3.2 Earthquake Shaking

Figure 3-2 shows an earthquake shaking hazard map for Chhatak Upazila. The earthquakes in Sunamganj District can be mainly caused by the collision of the Indian and Eurasian tectonic plates, which creates a complex fault system in the region. The areas vulnerable to earthquake shaking are dispersed throughout the Upazila, although there are relatively concentrated areas of relatively weak shaking in the Chhatak Sadar, Jauwa Bazar, Bhatgaon, and Kalaruka unions.

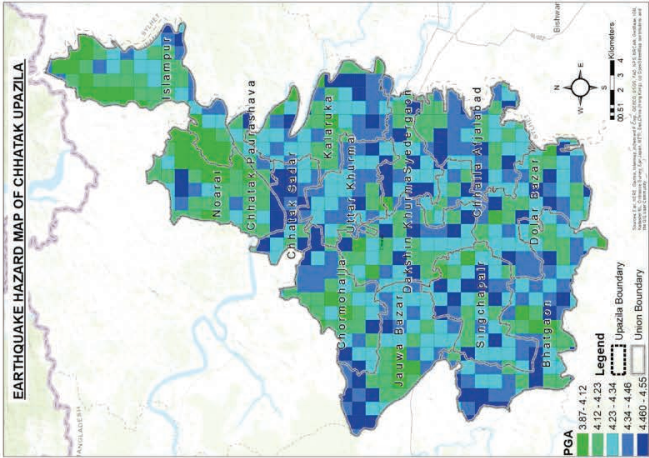


Figure 3-2. Earthquake Hazard map in Chhatak

Analysis: The PGA was estimated considering the ground conditions in Sunamganj based on the seismic zoning described in the Bangladesh National Building Code (BNBC) 2020.
vs30 model: the time-averaged shear-wave velocity to 30 m depth <<https://earthquake.usgs.gov/data/vs30/>>
Formula for estimation of the surface soil amplification factor: Midonkawa et al. (1994)
<https://isee.kenken.go.jp/eqflow/reference/4_1.htm>

Notes:

1. Hazard maps are not perfect. Actual situations may not follow the hazard maps exactly.
2. Each union shows also various PGA values based on its characteristic local topography and on-site sediment conditions.
3. The estimated results should be re-calculated if the reference data or assumptions are updated.

Chapter-4. Disaster Risk and DRR Targets of the Upazila

4.1 Disaster risk

4.1.1 Flood

The flood risk in the Upazila was estimated focusing on three major assets to be protected: agricultural field, settlement areas, as well as important infrastructures and public facilities. By overlaying the flood hazard map on these areas, the affected areas can be identified.

In general, the countermeasures against floods include 1) river and canal improvement such as construction of embankments, dredging and widening to increase flow capacity, 2) construction of retarding basins/reservoirs to temporarily store a portion of flood water, and 3) drainage improvement such as installation of sluice gates and pumping stations to drain the flood water to nearby rivers.

(1) Damage estimation of paddy field affected by flood

As shown in Figure 4-1 and Figure 4-2, the most vulnerable unions to flooding are Chormohalla and Jauwa Bazar Unions adjacent to Kachibanga Haor. The percentages of inundation areas are 92.6% and 85.9%, respectively. Meanwhile, the union with the largest flood affected area is Bhatgaon Union with 2,033 m² affected by the Jalyar Haor.

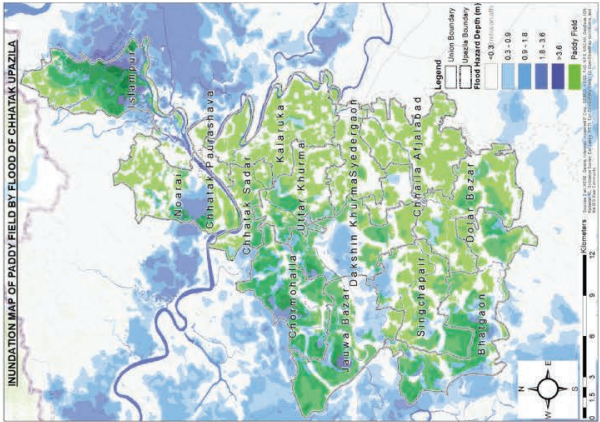


Figure 4-1. Inundated Paddy Field with danger water level of BWDB

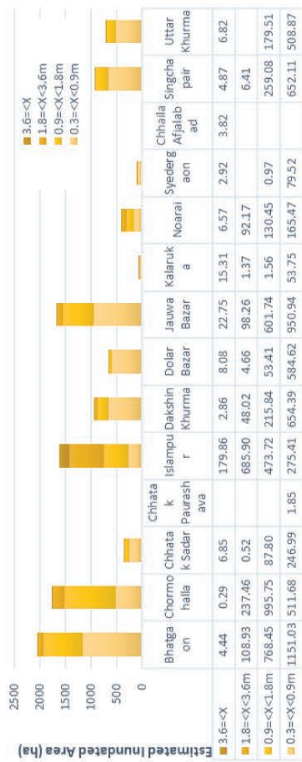


Figure 4.2. Inundated Area of Paddy Field with danger water level of BWDB

Total Economic loss estimated based on the areas of the inundated paddy fields, reaches about 1,444 million Taka. Bhatgaon Union is most affected with about 264 million, followed by Chormohalla Union with 227 million Taka. Chormohalla Union will be most affected in terms of the percentage with 92.6% of the paddy field inundated.

Table 4-1. Estimated Economic Loss by Flood

Union	Area of Inundated Paddy Field (≥ 0.3m) [ha]	Ratio (Inundated Area / All Paddy Field)	Estimated Economic Loss [Thousand Taka]
Bhatgaon	2032.85	65.5%	264,230
Chormohalla	1745.18	92.6%	226,839
Chhatak Sadar	342.17	35.4%	44,475
Chhatak Paurashava	1.85	1.3%	240
Islampur	1614.88	71.8%	209,903
Dakshin Khurma	921.11	61.0%	119,726
Dolar Bazar	650.78	24.3%	84,589
Jauba Bazar	1673.68	85.9%	217,545
Kalaruka	71.99	3.2%	9,357
Noarai	394.66	24.7%	45,449
Syedergaon	83.40	8.2%	10,840
Chhalla Afjalabad	3.82	0.2%	497
Singhapair	922.46	45.2%	119,902
Uttar Khurma	695.20	42.3%	90,362
Total	11154.03	44.0%	1,443,955

Notes: 1. 5.20 ton/ha of rice yield was used to estimate amount of affected rice production, which is based on data in "Yearly Production and Damage Report on Agriculture of Chhatak Upazila, DAEP"

(2020, 2021, and 2022). <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0261128>

2. The Unit price of rice was calculated with the data above (Note 1), to be 25 Taka/kg.

On the other hand, the below map shows the inundation risk areas in case that the submergible embankments properly work. In this case, while inundation risks in Bhatgaon, Chormohalla, and Jauba Bazar unions are significantly reduced by the embankments, there are some unions whose inundation risks remain. These remaining risk areas are currently not covered by BWDB's Haor sub-projects and not adequately equipped with other structural intervention to prevent or mitigate the impact of pre-monsoon flash flood. In particular, in Islampur Union, the remaining inundation affected area (≥ 0.3m) is estimated at 1,604m².

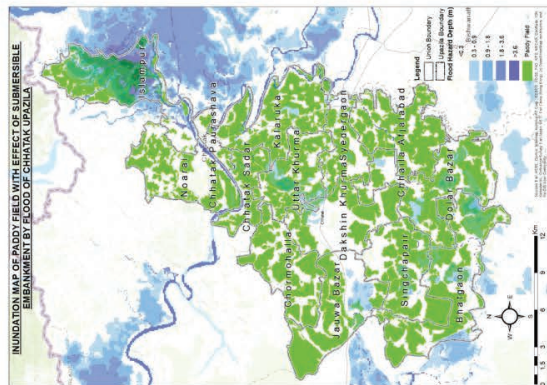


Figure 4-3. Inundated Paddy Field in case of functioning submergible embankments

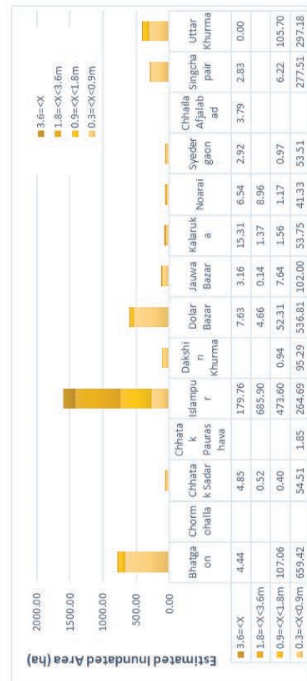


Figure 4-4. Inundated Area of Paddy Field in case of functioning submergible embankments

(2) Damage estimation of settlement area by flood

Figure 4-5 shows that the settlement areas of Chormohalla Union which is adjacent Kachibanga haor is affected by flooding. Comparing the affected settlement areas by union, Chormohalla and Islampur Unions are the most affected with approximately 10,460 m2 and 7,790 m², respectively. These unions are located comparably lower elevation areas, thus more prone to flooding. The flooding depth in the Upazila ranges from 0.3 m to 3.6m in most areas, widely depending on the topographic conditions.

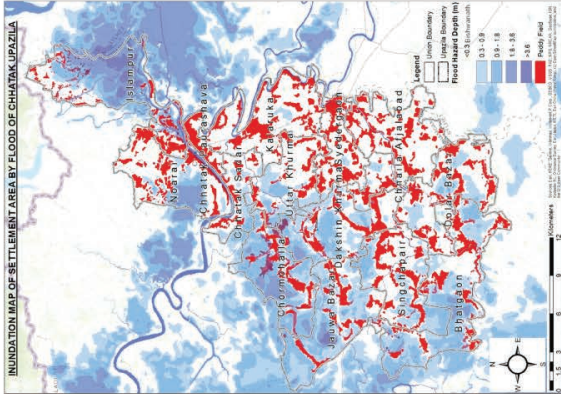


Figure 4-5. Inundated Settlement with danger water level of BWDB

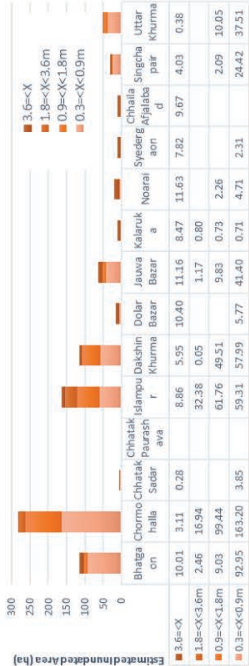


Figure 4-6. Inundated Area of Settlement with danger water level of BWDB

For both the number and percentage of population, Chormohalla Union is the most vulnerable to flooding (Figure 4-7 and Table 4-2). The population of Islampur Union is also vulnerable to flooding. These unions are located comparably lower elevation areas, thus more prone to flooding.

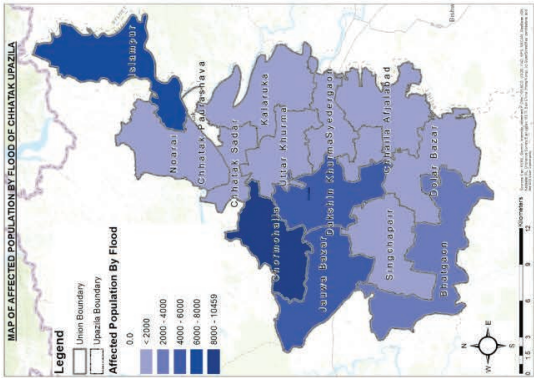


Figure 4-7. Affected Population with danger water level of BWDB

Table 4-2. Flood Affected Population by Union

Union	Population (Census,2011)	AffectedPopulation	Percentage
Bhatgaon	29,487	3,777	12.8%
Chormohalla	23,531	10,459	44.4%
Chhatak Sadar	11,088	169	1.5%
Chhatak Paurashava	44,364	0	0.0%
Islampur	31,792	7,792	24.5%
Dakshin Khurma	23,526	4,086	17.4%
Dolar Bazar	32,669	501	1.5%
Jauwa Bazar	34,372	4,132	12.0%
Kalaruka	33,238	386	1.2%
Noarai	37,963	1,079	2.8%
Syedergaon	26,113	395	1.5%
Chhaila Afjalabad	28,994	348	1.2%
Singchapor	23,123	1,069	4.6%
Uttar Khurma	17,414	1,774	10.2%
Total	397,642	35,967	9.0%

(3) Damage estimation of important facilities and infrastructures by flood

Figure 4-8 and Table 4-3 illustrates the damage estimation of the DRR-related important facilities and infrastructures in this Upazila, namely roads and bridges, government offices, schools and shelters, and hospitals, in consideration of the disaster management and emergency operation. As the Figure and the Table show, roads and public facilities in Chormohalla Union are relatively severely affected by the flood. The union is located comparably lower elevation area, thus more prone to flooding.

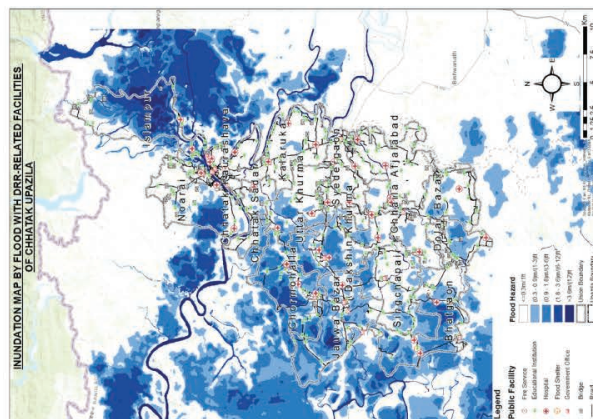


Figure 4-8. Inundation map by flood with DRR-related facilities and infrastructures²

Data source: SOB: "This map sheet has been compiled by digital photogrammetric method using colored aerial photographs of 50cm GSD taken during 2010-12 and also SPOT imagery of 2.5 m resolution acquired in 2011 and verified on the ground during 2014-2015.
Flood hazard map of 20-year return period (see Chapter 3.3.1)

² In this analysis, the facilities means government facilities (government office, government miscellaneous buildings, Paurashava office, Upazila office, Union Parishad office, fire service, police station, telephone office), education institutions (college/institute, educational miscellaneous buildings, high school, Madrasa, NGO school, Primary school), Shelter House and health building (Community clinic, Government hospitals, NGO hospital), and Power plant that are in the dataset of SOB. The data may not show all the current facilities and infrastructures and does not always show the exact locations due to its research/published year and its data scale.

Table 4-3. Flood affected facilities and infrastructure by Union

Union Name	Road length (m)		RRR-related important facilities (no.)		(Reference) Bridges	
	Total	Inundated (≥ 0.3m)	Total	Inundated (≥ 0.3m)	Total	Inundated (≥ 0.3m)
Bhatgaon	52,790.5	3,295.3	39	3	26	2
Chormohalla	36,329.2	9,884.2	32	12	4	0
Chhatak Sadar	16,589.7	0.0	10	0	3	0
Chhatak Paurashava	24,066.1	0.0	15	0	6	1
Dakshin Khurma	34,610.1	3,778.4	26	5	11	2
Dolar Bazar	34,878.6	0.0	41	0	23	1
Islampur	31,526.9	2,344.4	32	6	24	7
Jauwa Bazar	29,516.3	3,515.9	22	1	2	1
Kalaruka	39,319.3	0.0	44	0	12	0
Noarai	9,852.6	0.0	23	0	17	1
Syedergaon	43,816.5	0.0	30	0	8	0
Chhaila Afjalabad	22,710.7	0.0	36	0	10	0
Singhapair	7,803.5	0.0	23	0	10	0
Uttar Khurma	3,794.1	0.0	22	1	14	2

4.1.2 Earthquake Shaking

The risk of earthquake shaking is high due to inadequate seismic resistant buildings in Chhatak Upazila. Figure 4-9 and Table 4-5 shows that Noarai is most affected by the earthquake shaking, followed by Chhatak Paurashava and Jauwa Bazar Union. On the other hand, the ratio of the affected households is highest in Chormohalla Union.

In general, the earthquake resistance measure is to strengthen the buildings, which depends on the economic conditions of each government and household.

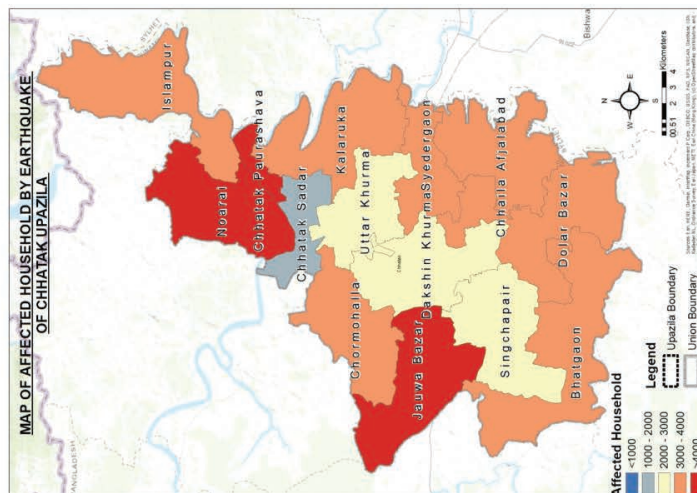


Figure 4-9. Number of Affected Households

- Notes: 1. The concrete values of the average PGA on unions are estimated with variation between 2.84 m/s² and 3.29 m/s².
 2. Grade 4 and 5 of the building damage degree in Figure 7, was used for estimation of the earthquake risk.
 3. The number of affected households was estimated by assuming that one household uses one building based on the number of households and ratio of house types in the Population & Housing Census 2011 below.

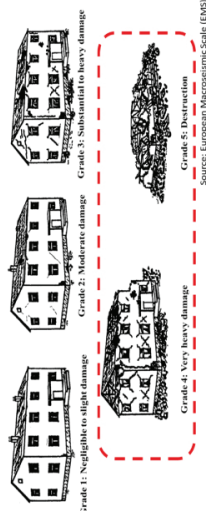


Figure 4-10. Building Damage Degree

Table 4-4. Percentage of Type of Structure and Number of Households

	Households	Percentage of Type of Structure			
		Pucca	Semi pucca	Kutcha	Jhupri
Bhatgaon	4,619	15.3	16.7	67.0	1.0
Chormohalla	4,182	8.2	9.7	81.8	0.3
Chhatak Sadar	1,916	11.7	14.6	73.1	0.6
Chhatak Paurashava	7,701	34.1	27.2	37.9	0.8
Islampur	5,144	4.1	18.9	58.6	18.4
Dakshin Khurma	3,879	13.2	10.6	75.3	1.0
Dolar Bazar	5,288	26.7	13.5	59.1	0.6
Jauwa Bazar	5,447	15.5	13.9	66.7	4.0
Kalaruka	5,330	16.4	20.1	62.6	0.8
Noarai	6,550	6.6	14.3	67.6	11.5
Syedergaon	4,537	18.2	19.6	61.4	0.9
Chhaila Afjalabad	5,122	14.7	23.4	58.9	3.1
Singhapair	3,733	14.6	14.1	70.0	1.3
Uttar Khurma	2,915	13.7	11.2	74.0	1.2
Chhatak Upazila Total	66,363	15.2	16.3	65.3	3.3

Table 4-5. Affected Household by Earthquake Shaking

Union	Households (Census, 2011)	Affected Households	Percentage
Bhatgaon	4,619	3,352	72.6
Chormohalla	4,182	3,276	78.3
Chhatak Sadar	1,916	1,446	75.5
Chhatak Paurashava	7,701	4,541	59.0
Islampur	5,144	3,990	77.6
Dakshin Khurma	3,879	2,932	75.6
Dolar Bazar	5,288	3,595	68.0
Jauwa Bazar	5,447	4,016	73.7
Kalaruka	5,330	3,750	70.4
Noarai	6,550	5,080	77.6
Syedergaon	4,537	3,184	70.2
Chhaila Afjalabad	5,122	3,617	70.6
Singhapair	3,733	2,758	73.9
Uttar Khurma	2,915	2,205	75.7

4.2 Priority Unions for Disaster Risk Reduction

Based on Chapter 4.1, priority unions were identified by disaster. According to the relation between the affected area or population and its ratio in Figure 4-11, the identified priority unions by disaster are shown in Table 4-6. While Bhatgaon, Chormohalla, Islampur, and Jauwa Bazar Union are included in priority unions of flood, Chhatak Paurashava and Noarai union are identified as priority unions against earthquake shaking.

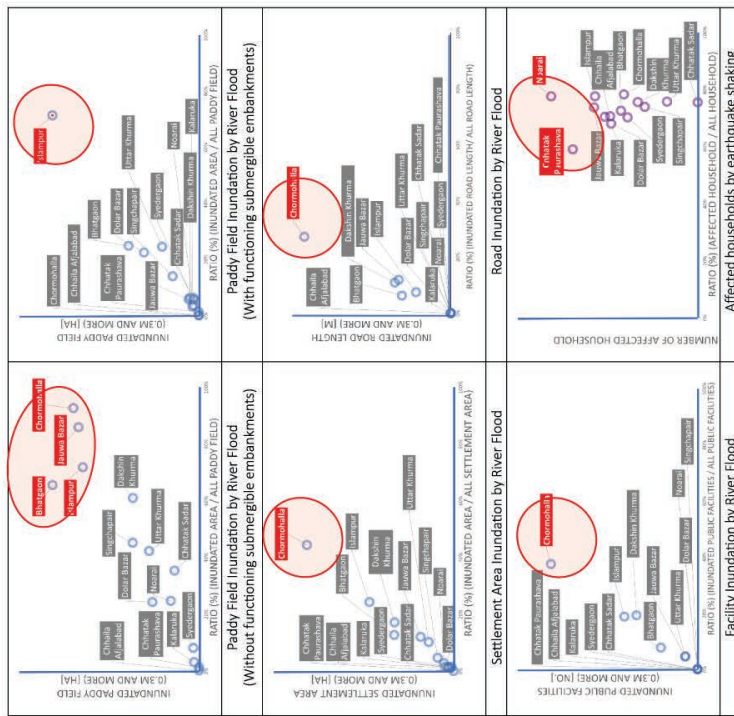


Figure 4-11. Relation between Affected Area or Population and its Ratio

Table 4-6. Priority Unions for Disaster

Disaster	Priority Union
Flood	Islampur*, Bhatgaon, Chormohalla, Jauwa Bazar
Earthquake Shaking	Chhatak Paurashava, Noarai

*High risk even if submergible embankments in the Upazila can be functional.

4.3 Disaster Risk Reduction Target

In the risk analysis in Chapter 4-1, the damages by disaster have been calculated. In consideration of these objective estimated results, the target to reduce disaster damages is set as follows.

[Disaster Risk Reduction Target - Mission]

The estimated human and economic damages by each disaster are reduced by 50% within 10 years (from 2023 to 2033).

In order to accomplish the above mission effectively with the limited budget and human resources, the following concrete countermeasures and areas were identified as prioritized areas, based on the risk assessment result identified in Chapter 4-1 and 4-2, as well as consultation results with the UZSC members.

[Disaster Risk Reduction Target- Concrete measures]

(1) Intensive implementation of countermeasures against disasters in high-risk areas

1) Promotion of countermeasures to **reduce inundated area by floods**

- Islampur
- Bhatgaon
- Chormohalla
- Jauwa Bazar

2) Promotion of countermeasures to **prevent building collapse by earthquake shaking**

- Chhatak Paurashava
- Noarai

3) Promotion of improvement of the infrastructure **for emergency operation**

- Islampur
- Bhatgaon
- Chormohalla
- Jauwa Bazar
- Chhatak Paurashava
- Noarai

(2) Comprehensive improvement of the capacity for disaster risk reduction to respond to residual risks and disasters exceeding the disaster risk reduction target.

1) Review of land use plan and restriction of development activities

- Islampur
- Bhatgaon
- Chormohalla
- Jauwa Bazar
- Chhatak Paurashava
- Noarai

2) Improvement of early warning information and communication system

- All unions

3) Implementation of disaster management training and materials

- All unions

4) Implementation of education and awareness raising for DRR

- All unions

Chapter-5. Action Plan of DRR Countermeasures

5.1 Current Status and Issues of the Structural and Non-Structural Countermeasures

The implementation status of each type of DRR countermeasures in this Upazila was summarized in the table below. As the table shows, most part of the flood prevention has been addressed by BWDB and LGED while countermeasures for earthquake shaking have not been covered enough by governmental agencies. These infrastructure projects for protection and control against floods have contributed to reducing inundation in the long term in this Upazila. Meanwhile, infrastructure projects such as road construction, water supply and sanitation, and shelter have contributed to reducing the secondary effects of flood disaster, helping to enhance the capacity of disaster response. It is further required to accelerate the structural and non-structural countermeasures that have been currently implemented in the Upazila, as well as to initiate promoting the coordination and discussion among related agencies to introduce countermeasures that have not been undertaken or unknown in the Table below.

Table 5-1. Structural Measures Which is Undertaken / not Undertaken

Category	Current status of the countermeasures by type		
	Type	Undertaken	Agency
Infrastructures for Protection and Control against Flood	Current status of the countermeasures by type		
	BWDB is making efforts to mitigate inundation through various types of countermeasures including embankment construction, canal excavation, sluice gate, while drain constructions has been conducted by DPHE.		
	Retarding basin and reservoir are not commonly applied, and no reservoir in the Upazila. In addition, BWDB constructed the several dams in different areas of the Upazila to protect the paddy fields.		
	Embankments/Dike	✓	BWDB/DDM/Paurashava
	Canal Excavation and other river improvements (widening and Deepening)	✓	BWDB
	Sluice gates	✓	BWDB/LGED
	Retarding Basin/Reservoir	Not undertaken	BWDB
Structural Measures against Earthquake Shaking	Drainage Facilities (Pumping Station etc)	Not undertaken	Paurashava/DPHE/BWDB
	Rubber Dam	✓	BWDB/LGED
	Retrofitting to cope with earthquake shaking is the process of modifying existing structures to make them more resistant to seismic activity, ground motion, or soil failure due to earthquakes.		
Infrastructure for Emergency	Compliance with the building code (BNBC-2020)	✓	BCC/UzCC/Paurashava
	Building Assessment (Seismic Diagnosis)	Unknown	PWD
	Retrofitting of important facilities and Infrastructures	Not undertaken	LGED/PWD/Paurashava/DDM
	Shelter: Shelters (55 in total) are constructed by DDM and Paurashava in the Upazila.		

Category	Current status of the countermeasures by type		
	Type	Undertaken	Agency
Operation	Transportation: LGED is the main responsible agency to develop and maintain the road and transportation infrastructure.		
	Drainage system: Improvement of drainage system is important to prevent prolonged inland flooding. Chhatak Paurashava copes with the challenges of installing and rehabilitating drainage systems in urban areas. For rural areas, LGED is responsible for the development of the required drainage systems.		
	Water and sanitation: Water and sanitation infrastructures are critical to provide safe water and keep the living environment hygiene. DPHE is the main agency to cope with water-related issues to prevent the secondary effects of the disaster.		
	Shelters	✓	DDM/LGED/Paurashava
	Roads	✓	DDM/LGED/Paurashava
	Bridges	✓	DDM/LGED/Paurashava
	Culverts	✓	DDM/LGED/Paurashava
Infrastructures for Prevention of Other Disasters (Lightning, etc)	Drains	✓	Paurashava/DPHE
	Facilities for Water (Tube well, Pipeline and sanitation (Latrine))	✓	DPHE/NGOs
	There have been frequent cases of lightning disaster in this Upazila. Some of structural countermeasures are taken against this kind of disaster.		
	Thunderstorm protecting tower construction	✓	DDM/Paurashava
	Installation of magnet pillars at various places to reduce the risk of Thunderstorm/Lightning.	✓	DDM/Upazila Admin

Table 5-2. Non-Structural Measures Which are Undertaken / not Undertaken

Category	Current status of countermeasures by type		
	Type	Undertaken	Agency
Land Use Planning	The urbanization control areas are supposed to restrict or regulate the development and conversion of land use, especially in the wetland (haor) areas that are prone to floods and environmental. However, the implementation and enforcement of the urbanization control in Sunamganj are weak due to lack of coordination among different agencies, political interference, population pressure, and poor awareness among the people.		
	To cope with this, it needs more vertical coordination and connection between governmental policy, district plan and strategy, and stakeholders in Union Parishads and Upazila administration. It's worth discussing in the UzSC continuously.		
	Urbanization Control	Unknown	Upazila/UDD
	Resettlement	Unknown	UDD
Early Warning Information and Communication	Designating Special Warning Area	Unknown	
	Early warning system Broadcasting system is utilized by BWDB, DRRO and PIO, BWDB collect meteorological information through line ministries. Mainly in rainy season, DRRO along with PIO office inform rainfall and water level at district level. District office (DRRO) inform those issues to DDM and MoDMR.		

Category	Current status of countermeasures by type	
	Type	Undertaken
Disaster Management Training and Materials	Installation of Monitoring System of Rainfall & Water Level	✓
	Flood Forecasting and Warning System, including community radio	✓
	Telecommunication system for search and rescue	✓
	Disaster preparedness and response drills are conducted prior to the flood season. Regional evacuation drills are conducted once a year at the Union level. Following disaster management trainings for UDMC members is conducted once at least one year.	
Disaster Management Training and Materials	Preparation of SOP for emergency operation	Unknown
	Simulation and Exercise	Unknown
	Evacuation drill / Shelter and evacuation route	Unknown
	Training on DRR	Unknown
Raising Public Awareness and Disaster Education	Preparation for emergency operation	✓
	Disaster education is provided irregularly in both primary and secondary school classes. Awareness raising for disaster risk reduction is mainly conducted through TV and RADIO, however, in some areas NGOs conduct courtyard meetings, simulations, drills etc. when support by donors is available. The first Hazard Map was prepared in 1998 to identify disaster risk at upazila level. Several unions have emergency disaster preparedness equipment and emergency warehouses for stockpiled materials in the event of a disaster, and they are not functioning well due to a lack of coordination.	DDM/FCSD/ BGHS/
	Publication of DRR Maps	Unknown
	Inventory preparation on vulnerable infrastructure such as hospitals, water wells, and schools based on the risk map	Unknown
Raising Public Awareness and Disaster Education	Disaster preparedness education in school	✓
	Awareness session on disaster, including Celebrating day's observation on disaster	✓
	DRR Awareness Related Billboard	✓
		DDM/NGOs

5.2 Prioritized projects for DRR Target

In consideration of the hazard and risk assessment results in Chapter 3 and 4 as well as the current status and issues of the DRR countermeasures in Chapter 5.1, this Chapter describes the policies of DRR countermeasures by category. Furthermore, along with the strategy, concrete proposals of the DRR countermeasures are collected from the communities and implementing agencies, analyzed and prioritized by category, which are shown in the Attachment 1 including the prioritization (priority unions) with red highlights. The processes to propose these projects were as follows.

- The needs of Union Parishad were organized at the LDRRP development workshop held from November 2022 to February 2023.
- Existing projects, pipeline projects, and new projects of the implementing agencies were identified at the workshop and by collecting information from the implementing agencies.
- Information on Union Parishad's needs from the line ministries was reviewed and the correspondence between their projects and Union Parishad's needs was validated.

With the aim to achieve the DRR target (Mission), the UzSCwill encourage the project implementing agencies to include the proposed projects in their own plans and to implement them.

The legend of the proposed project list (See Attachment 1) is shown below.

Table 5-3. Legend of the proposed project list

Plan Status	Description				
	Status of the Project	F/S	DPP approved	ADP	Annual Budget
ID	<Continuing> Project	+	+	+	+/-
	<Pipeline> Project	+/-	-	-	-
	<New> Project	-	-	-	-
	Unknown	-	-	-	-
Type of Need	"Unknown" indicates "Union's needs" which has not yet been identified by line ministries				
Length	Identification number in this Plan				
Official ID Number	Required work such as repair, rehabilitation or new construction proposed				
Countermeasures	The length of the individual infrastructures such as embankments and roads in case that the scale of the infrastructure is important information.				
Proponents	ID by line agency in case of projects that are already identified by line agency				
Direct Beneficiaries/ Interests to be protected	Official project name used by the implementing agency, such as DDM, BWDB or LGED				
Estimated cost for Countermeasures	The length of the countermeasure that was proposed by local people, line ministries or other stakeholders etc.,				
Implementation Time Frame	The beneficiary Union Parishads and wards along the installed countermeasures.				
Priority in Terms of Hazard Analysis	The rate and unit price provided by every line department such as LGD, DDM, BWDB. It is shown in Lakh Tk.				
Remarks	Short-Term Project; Mid-Term Project; or Long-Term Project Those categories are based on the information by line agencies.				
	High Priority: Project in highly vulnerable Union Parishads. Medium Priority: Project in vulnerable Union Parishads. Low Priority: Project in less vulnerable Union Parishads.				
	"What to do or what has been done" such as DPP approval or next step of this proposal such as feasibility study				

5.2.1 Prioritized Structural Countermeasures

(1) Infrastructures for Protection and Control against floods

As shown in the flood hazard map in Chapter 3.1.1 and the flood risk assessment results in Chapter 4.1.1, Chormohalla Union is the most flood-prone due to its location and low-lying condition. In order to reduce flood disaster risk in this Upazila, in terms of protecting agricultural property in a way that is compatible with its unique hydrological characteristics as well as people's livelihood, development of submergible embankment and its ancillary work should be considered with higher priority. In order to mitigate the damage to settlement areas and critical infrastructures, strengthening the flow carrying capacity of Surma River and other main channels with embankment and other improvement works are also important. Apart from them, drainage management works including sluice gate and canal excavation in flood-prone areas such as Islampur, Jawar Bazar, and Bhatgaon are also highly required. The category of the project for flood prevention and mitigation are shown below. Although there are some types of countermeasures that have not been proposed by communities and line agencies currently, it is necessary to clarify the responsible agencies and implementing policies and to subsequently take actions to implement them.

- Embankment/dyke
- Other river improvement (e.g., Widening and Deepening)
- Sluice gates
- Retarding basin/reservoir
- Drainage Facilities (e.g., Pumping Station)
- Rubber Dam

The map below shows infrastructures for flood prevention and mitigation. The areas where the higher priority is put as DRR targets are the high-risk area highlighted in red (shown in Chapter 4). The proposed project list of each countermeasure by category are shown in Attachment.

In addition, there is a possibility that there will be a flood of a magnitude greater than the target level of the flood in the Plan. In such an event, it will be important to protect human life by expanding non-structural measures (see Chapter 5.2.2 for more detail).

Also, in the future, flood management infrastructure projects should be developed at a higher safety level than that is adopted in the Plan from a long-term perspective. It might be necessary to establish a safety level, which should be determined according to the development status of the region. Possible measures to achieve such a higher safety level include further widening of main channels, diversion of flood waters through construction of diversion channel and reduction of flood flows through construction of retarding basin in the upper reaches of the river, in addition to the development of said non-structural measures. The possibility of these measures should be examined taking into account the hydrological, topographic and geological characteristics of target areas as well as social and environmental conditions.

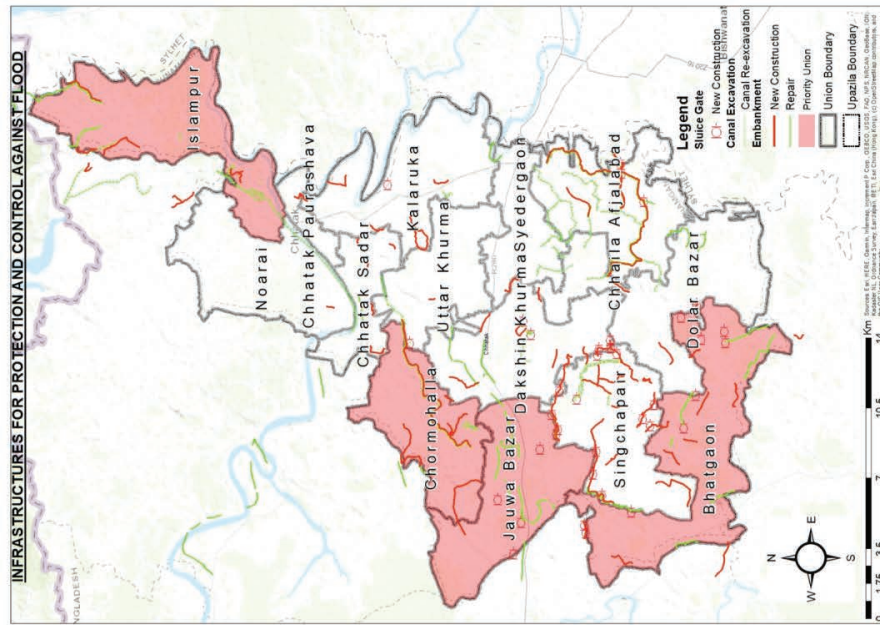


Figure 5-1. Priority Union for Countermeasure to Reduce Risk by Flood

(2) Structural Measures against Earthquake Shaking

- a) Compliance with the building code (BNBC-2020)
- b) Building Assessment (Seismic Diagnosis)
- b) Retrofitting of important facilities and infrastructure

There is no proposed project for structural measures against earthquake shaking by line ministries and communities so far. However, the seismic diagnosis as well as retrofitting of existing important facilities (e.g., schools, hospitals, shelters) and infrastructure (e.g., bridges, roads, embankments/dykes) are required in advance, for saving lives and evacuation during and after the earthquakes. At the same time, it is significant to promote complying with BNBC-2020 with official instructions and monitoring when constructing new buildings.

(3) Infrastructures for Protection and Control against Sediment Disasters

According to the risk assessment results, Islampur, Bhatgaon, Chormohalla, Jauwa Bazar, Chhatak Paurashava, and Noarai Unions are relatively high-disaster-prone areas in this Upazila. Although emergency operations are significant in all Upazilas and should be functional in the whole of the administrative area, this plan prioritizes to propose the improvement of the infrastructures for emergency operations in such highly disaster-prone areas first. Specifically, shelters need to be sited in safer sites and have the capacities of all expected evacuees in each above union. It is also significant to consider introducing multi-purpose shelters that can be utilized as schools and community centers in normal times, when newly constructing or maintaining shelters. Regarding public infrastructures, main roads and bridges connecting important facilities between unions, such as the road between Rathonpur village and Sonbari bazar (LGED-ID: 690234056), and Gonespur Ferrighat - Islampur Madrasa via UP Office Road Bridge (LGED-ID: 690233006), should be constructed or appropriately maintained with sufficient widths for emergency operation during the disasters. The improvement of culverts, drains, and other facilities for water is also necessary in inundation-prone-areas to drain the water to mitigate the stagnant water, which lead to smooth recovery and consequently mitigate infectious diseases.

The category of the project for infrastructures for emergency operations are shown below.

- a) Shelters
- b) Roads
- c) Bridges
- d) Culverts
- e) Drains
- f) Facilities for water (e.g., Tube well, pipeline and sanitation (Latrine))
- g) Other infrastructures and facilities for emergency operations

The map below shows infrastructures for emergency operation, highlighted in red are the high-risk areas where this plan puts priority as DRR targets (shown in Chapter 4). The proposed project list of each countermeasure by category are shown in Attachment 1.

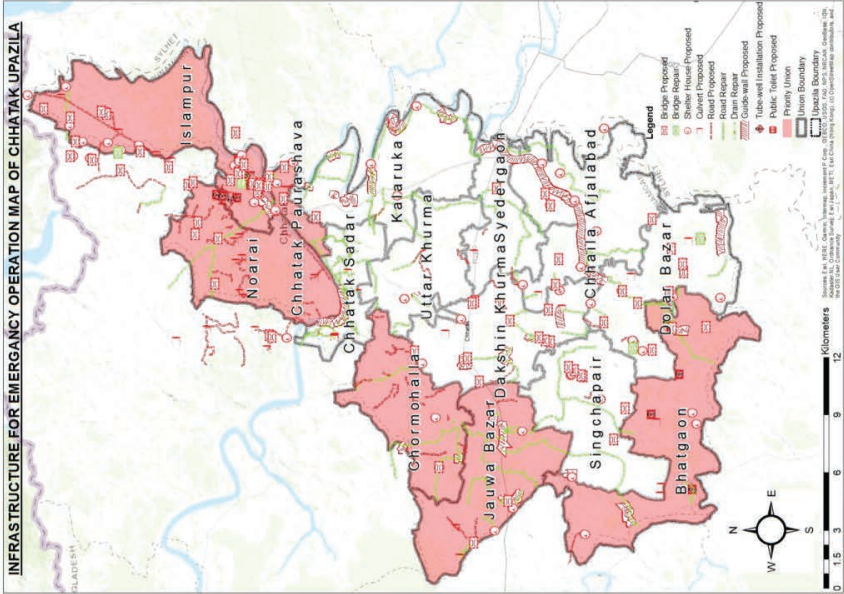


Figure 5-2. Location ofinfrastructures for emergency operation

(4) Infrastructures for Prevention of Other disasters

- a) Lightning Arrestor

There are few projects for improving infrastructures for prevention of lightning damage that were proposed by line ministries and communities. These projects are shown in the Attachment 1.

5.2.2 Needed Non-Structural Countermeasures

There are some non-structural countermeasures that have been relatively promoted in the Upazila, specifically early warning information and communication and raising public awareness and disaster education as shown in the Chapter 5.1. However, in consideration of the possibility of large-scale disasters as well as the residual (remaining) risks of proposed structural countermeasures, it is required to promote non-structural countermeasures, specifically evacuation plans (e.g., consideration of the location of the shelter and its capacity, evacuation roads) and early warning systems, at the same time with structural countermeasures. In addition, although land use regulations and controls have not been often seen in this Upazila, such drastic approach should be considered especially in severe high-disaster risk areas. The category of the non-structural countermeasures is shown below.

- (1) **Land use planning (Upazila/UDD)**
 - a) Urbanization Control
 - b) Resettlement
 - c) Designating Special Warning Area
- (2) **Early Warning Information and Communication (BWDB/DDM/FFWC/BWTA etc.)**
 - a) Installation of Monitoring System of Rainfall and Water level
 - b) Flood Forecasting and Warning System, including community radio
 - c) Telecommunication system for search and rescue
- (3) **Disaster Management Training and materials**
 - a) Preparation of SOP for emergency operation (DDM)
 - b) Simulation and exercise (DDM/FSCD)
 - c) Evacuation drill/shelter and evacuation route (DDM/FSCD)
 - d) Training on DRR (DDM)
 - e) Preparation for the emergency operation (DDM/FSCD/DGHS)
- (4) **Raising Public Awareness and Disaster Education**
 - a) Publication of DRR Maps (DDM)
 - b) Inventory preparation on vulnerable infrastructure (PWD/ DMC)
 - c) Disaster preparedness education in schools (DoPE/DoEE)
 - d) Awareness session on disaster, including Celebrating day's observation on disaster (DDM)
 - e) DRR awareness related billboard (DDM)
- (5) **Other non-structural countermeasures**

There are few projects related to the above countermeasures that were proposed by line ministries and communities, which are shown in Attachment 1. In order to further promote disaster risk reduction in the collaboration of structural and non-structural countermeasures, it is necessary to clarify the responsible agencies and implementing policies of the non-structural measures that had not been implemented or even proposed, and to subsequently take actions to execute them.

5.3 Monitoring and Updating of the Plan

For the appropriate implementation of the projects by project implementing agencies, this plan is to be monitored and updated by UzSC supported by TSC in the following steps.

Step 1: The UzSC in coordination with TSC will check the status (rate of progress) of the prioritized project annually, one year and two or three years after their development.

Table 5-4. Project Status

Status	F/S	DPP approved	ADP	Annual Budget
Continuing Project	+	+	+/-	+/-
Pipeline Project	+/-	-	-	-
New Project	-	-	-	-
Unknown	-	-	-	-

Step 2: The TSC will confirm the effectiveness of existing projects and the need for new proposed projects including the proposal mentioned in 5.2.

Step 3: For those areas where the need for feasibility studies has been identified, the implementing agencies will hold preparatory discussions for the preparation of a DPP including obtaining the budget for feasibility studies, and report back to the TSC.

Step 4: Based on the findings after the TSC meeting, the UzSC will re-examine the need for new proposals once a year.

Step 5: If any changes are identified, the UzSC will update the plan.

The conceptual model of the monitoring and updating the plan is proposed as shown below.

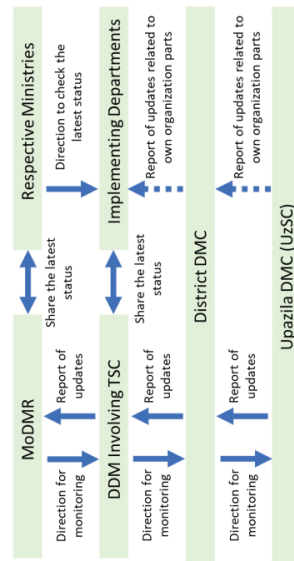


Figure 5-3. Conceptual diagram for monitoring and updating the plan

Attachment 1: Proposed countermeasure list

Attachment 2: Member lists of UzDMC and UzSC

Attachment 3: Activity photos

Attachment 1: Proposed Countermeasures List (Priority Unions (identified in Chapter 4.3) are highlighted in red color)

1. Infrastructures for Protection and Control against flood
a) Embankment/dyke- Embankment

Projects by BWDB

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ proposed/undecided)	Propponents	Direct Beneficiary/ Beneficiary to be protected	Estimated cost (Lakh Tk.)	Implement action time frame	Priority in terms of Hazard or Vulnerability	Remarks
BHA-11	New	Bhaggon	1207.07	-	From Uddin house to Akbar road	Undecided	Proposed by Community	1.1 km embankment	36	Mid Term	Medium	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-13	Repair and	Bhaggon	1439.27	-	Masumali sluice gate to road	Undecided	Repair (Proposed by Community people)	1.8 km embankment	43	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-14	Repair and	Bhaggon	1999.51	-	Sluice gate to embankment	Undecided	Repair (Proposed by Community people)	1.9 km embankment	57	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-15	New	Bhaggon	1250.90	-	Gate to Moumudabari	Undecided	Proposed by Community	1.25 km embankment	38	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-18	New	Bhaggon	1336.85	-	From Moya's house to ayna	Undecided	Proposed by Community	1.34 km embankment	40	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-19	Repair and	Bhaggon	2926.08	-	Kandupur bridge to Moya's house	Undecided	Repair (Proposed by Community people)	2.93 km embankment	88	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-20	New	Bhaggon	853.74	-	From Alirun's house to Charakotkoyas Mha's house	Undecided	Proposed by Community	0.83 km embankment	26	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-22	Repair and	Bhaggon	2514.30	-	South barak to embankment	Undecided	Repair (Proposed by Community people)	2.1 km embankment	75	Mid Term	Medium	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-23	Repair and	Bhaggon	2404.57	-	embankment	Undecided	Repair (Proposed by Community people)	2.40 km embankment	72	Mid Term	Medium	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-25	New	Bhaggon	1889.15	-	From Shalagun Alam culvert	Undecided	Proposed by Community people	1.85 km embankment	57	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-26	New	Bhaggon	494.39	-	From the bank of Barakhal bill to embankment	Undecided	Proposed by Community people	0.45 km embankment	15	Mid Term	Medium	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-27	New	Chornohalia	9415.88	-	From the bank of Barakhal bill to embankment	Undecided	Proposed by Community people	9.42 km embankment	282	Mid Term	Low	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
BHA-28	New	Chornohalia	3696.00	-	Karathah govt. primary school to Karmunaj school high school	Undecided	Proposed by Community	3.70 km embankment	111	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues

Attachment-1

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ proposed/undecided)	Propponents	Direct Beneficiary/ Beneficiary to be protected	Estimated cost (Lakh Tk.)	Implement action time frame	Priority in terms of Hazard or Vulnerability	Remarks
CHA-29	New	Chornohalia	3795.06	-	From Jalalichor bridge to Rajar char road	Undecided	Proposed by Community people	3.60 km embankment	114	Mid Term	Medium	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
CHA-32	Repair	Chornohalia	1274.98	-	Changur village Komor	Undecided	Repair (Proposed by Community people)	1.27 km embankment	38	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
CHA-34	Repair	Chornohalia	1265.83	-	Changur village of Dekar	Continuing	Repair (Proposed by Community people)	1.27 km embankment	38	Short Term	High	Need Monitoring the effect from USC and TSC
JWA-35	Repair and	Jawa Bazar	1576.12	23-PLC-14	Submersible	Continuing	Repair (Proposed by Community people)	1.58 km embankment	47	Short Term	High	Need Monitoring the effect from USC and TSC
ISLA-66	Repair and	Islampur	2238.76	-	From the paved road of bogomun va doragahal to bogomun va doragahal	Undecided	Repair (Proposed by Community people)	2.24 km embankment	67	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
ISLA-67	Repair and	Islampur	6647.93	-	From Nijagon via bogomun va doragahal to bogomun va doragahal	Undecided	Repair (Proposed by Community people)	6.55 km embankment	199	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
ISLA-68	New	Islampur	2105.56	-	From Shalagun Alam to Bogomun va doragahal	Undecided	Proposed by Community people	2.11 km embankment	63	Mid Term	Medium	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
ISLA-69	New	Islampur	1380.44	-	From doragahal to Bogomun va doragahal	Undecided	Proposed by Community people	1.38 km embankment	41	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
ISLA-70	New	Islampur	1431.95	-	From the house of Sidiq Ali's house to the village of Pandob	Undecided	Proposed by Community people	0.60 km embankment	43	Mid Term	Medium	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
ISLA-71	New	Islampur	602.28	-	From the house of Sidiq Ali's house to the village of Pandob	Undecided	Proposed by Community people	0.60 km embankment	18	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
ISLA-72	New	Islampur	683.97	-	From the house of Sidiq Ali's house to the village of Pandob	Undecided	Proposed by Community people	0.68 km embankment	21	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
ISLA-73	New	Islampur	1032.66	-	From the house of Sidiq Ali's house to the village of Pandob	Undecided	Proposed by Community people	1.03 km embankment	31	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
ISLA-74	New	Islampur	988.38	-	From the house of Sidiq Ali's house to the village of Pandob	Undecided	Proposed by Community people	0.97 km embankment	26	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
ISLA-75	New	Islampur	669.65	-	From the house of Sidiq Ali's house to the village of Pandob	Undecided	Proposed by Community people	0.67 km embankment	20	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues
ISLA-76	New	Islampur	1780.95	-	From the house of Sidiq Ali's house to the village of Pandob	Undecided	Proposed by Community people	1.78 km embankment	53	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues

Attachment-2

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/underfunded)	Propponents	Direct Beneficiaries/ Intervents to be protected	Estimated cost (Lakh Tk.)	Implemention Time Frame	Priority in Hazard	Remarks
47	on	Union			Kishagan main road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	1.66 km embankment	High	Need to take initiative from the technical committee.
52	on	Singhapur Union	1860.96		South side of village playground via side road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	2.04 km embankment	High	US\$24 to request to the WVB development plan
53	on	Singhapur Union	2936.44		Kishagan main road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	2.04 km embankment	High	US\$24 to request to the WVB development plan
54	on	Singhapur Union	2213.15		Kishagan main road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	2.04 km embankment	High	US\$24 to request to the WVB development plan
55	on	Singhapur Union	1708.10		Kishagan main road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	2.04 km embankment	High	US\$24 to request to the WVB development plan
56	on	Singhapur Union	702.26		Kishagan main road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	2.04 km embankment	High	US\$24 to request to the WVB development plan
57	on	Singhapur Union	883.01		Kishagan main road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	2.04 km embankment	High	US\$24 to request to the WVB development plan
58	on	Singhapur Union	1291.44		Kishagan main road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	2.04 km embankment	High	US\$24 to request to the WVB development plan
59	on	Singhapur Union	1100.02		Kishagan main road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	2.04 km embankment	High	US\$24 to request to the WVB development plan
60	on	Singhapur Union	1669.08		Kishagan main road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	2.04 km embankment	High	US\$24 to request to the WVB development plan
61	on	Singhapur Union	964.39		Kishagan main road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	2.04 km embankment	High	US\$24 to request to the WVB development plan
62	on	Singhapur Union	941.22		Kishagan main road		Proposed (Proposed by Community)	Singhapur Union	Ward 07	2.04 km embankment	High	US\$24 to request to the WVB development plan

Attachment- 4

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/underfunded)	Propponents	Direct Beneficiaries/ Intervents to be protected	Estimated cost (Lakh Tk.)	Implemention Time Frame	Priority in Hazard	Remarks
85	on	Nazari Union	417.88		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
86	on	Nazari Union	1453.90		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
87	on	Nazari Union	1505.71		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
88	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
89	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
90	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
91	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
92	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
93	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
94	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
95	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
96	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
97	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
98	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
99	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan
100	on	Nazari Union	916.67		Downstream road via Chhatak road		Proposed (Proposed by Community)	Nazari Union	Ward 01	0.42 km embankment	High	US\$42 to request to the WVB development plan

Attachment- 3

Projects by BWDB

a) Embankment/dyke-Submergible Embankment

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undecided)	Propponents	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
21	BMAT-EMB	Bahgaon Union	1339.29	-	Kachua canal	New	1.34 km embankment (Proposed by Community people)	40	Mid Term	Medium	Detailed Design Required
24	BHAT-EMB	Bahgaon Union	778.76	-	From Bortacharsadom) to house to house	New	0.78 km embankment (Proposed by Community people)	23	Mid Term	High	Detailed Design Required
30	CHAT-EMB	Chornohalla Union	626.97	-	Shankorchowra-Chat road to Chornohalla	New	0.63 km embankment (Proposed by Community people)	19	Mid Term	High	Detailed Design Required
31	CHAT-EMB	Chornohalla Union	548.94	-	Abdullahpur house to Chornohalla	New	0.55 km embankment (Proposed by Community people)	15	Mid Term	High	Detailed Design Required
39	SAUA-EMB	Chhailatrabadd Union	787.30	-	Burayabazachar	New	0.79 km embankment (Proposed by Community people and Union people)	24	Mid Term	High	Detailed Design Required
40	SAUA-EMB	Chhailatrabadd Union	587.04	-	Lakechawbazar	New	0.59 km embankment (Proposed by Community people and Union people)	18	Mid Term	High	Detailed Design Required
42	CHATS-EMB	Chhailatrabadd Union	140.21	-	Kachua river	New	0.14 km embankment (Proposed by Community people)	4	Mid Term	High	Detailed Design Required
43	CHATS-EMB	Chhailatrabadd Union	327.05	-	Kachua Goyar haror's canal and	New	0.33 km embankment (Proposed by Community people)	10	Mid Term	High	Detailed Design Required
44	CHATS-EMB	Chhailatrabadd Union	527.61	-	Barbari village to east side of Barbari	New	0.53 km embankment (Proposed by Community people)	16	Mid Term	High	Detailed Design Required
45	CHATS-EMB	Chhailatrabadd Union	188.06	-	Andharanahar road	New	0.19 km embankment (Proposed by Community people)	6	Mid Term	High	Detailed Design Required
46	CHATS-EMB	Chhailatrabadd Union	322.48	-	From Mukteson new Mosque to South-east	New	0.53 km embankment (Proposed by Community people)	10	Mid Term	High	Detailed Design Required
46	CHATS-EMB	Chhailatrabadd Union	511.45	-	South side of Mukteson	New	0.51 km embankment (Proposed by Community people)	15	Mid Term	High	Detailed Design Required
46	CHATS-EMB	Chhailatrabadd Union	365.76	-	High School to Mukteson	New	0.37 km embankment (Proposed by Community people)	11	Mid Term	High	Detailed Design Required
124	SING-EMB	Sing Chapair Union	3060	-	From Aynaband bridge via pargana beaz	New	3.06 km embankment (Proposed by Community people and BWDB)	92	Mid Term	High	Detailed Design Required
65	UKRU-EMB	Uttar Kruma Union	356.31	-	100 km from Aynaband bridge via pargana beaz	New	0.36 km embankment (Proposed by Community people)	11	Mid Term	High	Detailed Design Required

Attachment-1-6

Projects by DDM

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undecided)	Propponents	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
12	BHAT-EMB	Bahgaon Union	423.37	-	Kachua towards main road	New	0.42 km embankment (Proposed by Community people)	13	Mid Term	High	Detailed Design Required
16	BHAT-EMB	Bahgaon Union	754.08	-	From Bortacharsadom) to house to house	New	0.78 km embankment (Proposed by Community people)	23	Mid Term	High	Detailed Design Required
17	BHAT-EMB	Bahgaon Union	150.00	-	Over the kundola river	New	0.15 km embankment (Proposed by Community people)	5	Mid Term	High	Detailed Design Required

Attachment-1-5

Projects by Chhatak Paurashava

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undecided)	Propponents	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
86	CHATP-EMB	Chhailatrabadd Union	1139.95	-	Chhailatrabadd	New	1.14 km embankment (Proposed by Community people)	34	Mid Term	High	Detailed Design Required
77	DK-EMB	Dakshin Kruma Union	1387.75	-	From the head of Kachua canal to the mouth of Kachua canal	Undecided	1.38 km embankment (Proposed by Community people)	42	Mid Term	Medium	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues.
78	DK-EMB	Dakshin Kruma Union	896.11	-	From the head of Kachua canal to the mouth of Kachua canal	Undecided	0.96 km embankment (Proposed by Community people)	27	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues.
79	DK-EMB	Dakshin Kruma Union	1722.64	-	From the head of Kachua canal to the mouth of Kachua canal	Undecided	1.72 km embankment (Proposed by Community people)	52	Mid Term	Low	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues.
80	DK-EMB	Dakshin Kruma Union	1797.71	-	From the head of Kachua canal to the mouth of Kachua canal	Undecided	1.80 km embankment (Proposed by Community people)	54	Mid Term	Medium	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues.
81	DK-EMB	Dakshin Kruma Union	1010.41	-	From the head of Kachua canal to the mouth of Kachua canal	Undecided	1.01 km embankment (Proposed by Community people)	30	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues.
82	SAID-EMB	Syedgaon Union	1609.95	-	From the head of Kachua canal to the mouth of Kachua canal	Undecided	1.61 km embankment (Proposed by Community people)	48	Mid Term	Low	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues.
83	SAID-EMB	Syedgaon Union	2018.39	-	From the head of Kachua canal to the mouth of Kachua canal	Undecided	2.02 km embankment (Proposed by Community people)	61	Mid Term	Low	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues.
84	SAID-EMB	Syedgaon Union	1169.21	-	From the head of Kachua canal to the mouth of Kachua canal	Undecided	1.17 km embankment (Proposed by Community people)	35	Mid Term	High	USCAs to request to the BWDB district office to include the BWDB development plan considering all technical issues.

ID	Type of Need	Union	Length (m)	Official ID Number	Countermeasures	Plan Status (e.g. new/continuing/underfunded)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Taka Tk.)	Implementation Time Frame	Priority in Terms of Analysis	Remarks
100	Repair and Renovation	Jauva Bazar	641	Chhatak-Kabita-PIC-20	At Kuril Beel, Khartons of Dekar Haor	Continuing	On going (Ch-00 m-475 m, 00 m-453 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	22	Short Term	High	Need Monitoring the effect from UWSC and TSC
101	Repair and Renovation	Jauva Bazar	355	Chhatak-Kabita-PIC-21	At Korpaga Village of Chawli Haor	Continuing	On going (Ch-00 m-15 m, 00 m-125 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	14	Short Term	High	Need Monitoring the effect from UWSC and TSC
102	Repair and Renovation	Jauva Bazar	438	Chhatak-Kabita-PIC-22	At Masukhal of Dekar Haor	Continuing	On going (Ch-00 m-228 m, 00 m-144 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	24	Short Term	High	Need Monitoring the effect from UWSC and TSC
103	Repair and Renovation	Jauva Bazar	1300	Chhatak-Kabita-PIC-23	At Masukhal of Dekar Haor	Continuing	On going (Ch-410 m-1510 m, 00 m-130 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	16	Short Term	High	Need Monitoring the effect from UWSC and TSC
104	Repair and Renovation	Jauva Bazar	644	Chhatak-Kabita-PIC-31	At different closers of Chawli Haor (Fawal closer, 1 & 2/Neogang closer)	Continuing	On going (Ch-00 m-550 m, 00 m-13 m, 00 m-75 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	19	Short Term	High	Need Monitoring the effect from UWSC and TSC
105	Repair and Renovation	Jauva Bazar	203	Chhatak-Kabita-PIC-32	At different Bridge closers of Chawli Haor	Continuing	On going (Ch-00 m-40 m, 00 m-103 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	14	Short Term	High	Need Monitoring the effect from UWSC and TSC
106	Repair and Renovation	Jauva Bazar	305	Chhatak-Kabita-PIC-34	At Ashurpur closer- (Dowlatpur Bridge closer, 1 & 2/ Katak Bridge closer)	Continuing	On going (Ch-00 m-30 m, 00 m-131 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	22	Short Term	High	Need Monitoring the effect from UWSC and TSC
107	Repair and Renovation	Jauva Bazar	900	Chhatak-Kabita-PIC-37	At Dakhin Gant closer of Kachihanga Haor	Continuing	On going (Ch-00 m-500 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	17	Short Term	High	Need Monitoring the effect from UWSC and TSC
108	Repair and Renovation	Chomohalla Union	1070	Chhatak-Kabita-PIC-05	At Karmang Village of Dekar Haor	Continuing	On going (Ch-00 m-1070 m) rest of embankment need to rehabilitation (Proposed by BWDB)	Chomohalla Union	22	Short Term	High	Need Monitoring the effect from UWSC and TSC
109	Repair and Renovation	Chomohalla Union	600	Chhatak-Kabita-PIC-12	Nalia Village of Dekar Haor	Continuing	On going (Ch-00 m-500 m) rest of embankment need to rehabilitation (Proposed by BWDB)	Chomohalla Union	22	Short Term	High	Need Monitoring the effect from UWSC and TSC
110	Repair and Renovation	Chomohalla Union	117	Chhatak-Kabita-PIC-13	At Chandpur Dekar Haor	Continuing	On going (Ch-00 m-500 m, 00 m-27 m) rest of embankment need to rehabilitation (Proposed by BWDB)	Chomohalla Union	6	Short Term	High	Need Monitoring the effect from UWSC and TSC
111	Repair and Renovation	Chomohalla Union	275	Chhatak-Kabita-PIC-14	At Chandpur Village of Dekar Haor	Continuing	On going (Ch-00 m-10 m, 00 m-32 m, 00 m-13 m, 00 m-105 m) rest of embankment need to rehabilitation (Proposed by BWDB)	Chomohalla Union	11	Short Term	High	Need Monitoring the effect from UWSC and TSC

Attachment-1- 8

ID	Type of Need	Union	Length (m)	Official ID Number	Countermeasures	Plan Status (e.g. new/continuing/underfunded)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Taka Tk.)	Implementation Time Frame	Priority in Terms of Analysis	Remarks
87	Repair and Renovation	Jauva Bazar	895	Chhatak-Kabita-PIC-01	At Bagbari Village of Dekar Haor	Continuing	On going (Ch-00 m-895 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	23	Short Term	High	Need Monitoring the effect from UWSC and TSC
88	Repair and Renovation	Jauva Bazar	425	Chhatak-Kabita-PIC-02	At Bagbari Village of Dekar Haor	Continuing	On going (Ch-00 m-120 m, 00 m-125 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	21	Short Term	High	Need Monitoring the effect from UWSC and TSC
89	Repair and Renovation	Jauva Bazar	943	Chhatak-Kabita-PIC-03	At Bagbari Village of Dekar Haor	Continuing	On going (Ch-00 m-10 m, 00 m-55 m, 00 m-780 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	13	Short Term	High	Need Monitoring the effect from UWSC and TSC
90	Repair and Renovation	Jauva Bazar	740	Chhatak-Kabita-PIC-04	At Badewari Dekar Haor	Continuing	On going (Ch-00 m-125 m, 00 m-74 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	18	Short Term	High	Need Monitoring the effect from UWSC and TSC
91	Repair and Renovation	Jauva Bazar	862	Chhatak-Kabita-PIC-05	At Sungam Village of Dekar Haor	Continuing	On going (Ch-125 m-225 m, 00 m-22 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	23	Short Term	High	Need Monitoring the effect from UWSC and TSC
92	Repair and Renovation	Jauva Bazar	512	Chhatak-Kabita-PIC-06	At Dereggaon, Hupli Dekar Haor	Continuing	On going (Ch-00 m-450 m, 00 m-42 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	16	Short Term	High	Need Monitoring the effect from UWSC and TSC
93	Repair and Renovation	Jauva Bazar	698	Chhatak-Kabita-PIC-07	At Dereggaon Village of Dekar Haor	Continuing	On going (Ch-00 m-570 m, 00 m-20 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	19	Short Term	High	Need Monitoring the effect from UWSC and TSC
94	Repair and Renovation	Jauva Bazar	600	Chhatak-Kabita-PIC-08	At Gurindia Village of Dekar Haor	Continuing	On going (Ch-00 m-600 m, 00 m-660 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	22	Short Term	High	Need Monitoring the effect from UWSC and TSC
95	Repair and Renovation	Jauva Bazar	1392	Chhatak-Kabita-PIC-10	At Karmang Village of Dekar Haor	Continuing	On going (Ch-00 m-1360 m, 00 m-139 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	20	Short Term	High	Need Monitoring the effect from UWSC and TSC
96	Repair and Renovation	Jauva Bazar	1300	Chhatak-Kabita-PIC-11	At Chandpur Village of Dekar Haor	Continuing	On going (Ch-00 m-1300 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	20	Short Term	High	Need Monitoring the effect from UWSC and TSC
97	Repair and Renovation	Jauva Bazar	1351	Chhatak-Kabita-PIC-15	At Laksonkongandi Village of Dekar Haor	Continuing	On going (Ch-00 m-1330 m, 00 m-131 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	14	Short Term	High	Need Monitoring the effect from UWSC and TSC
98	Repair and Renovation	Jauva Bazar	828	Chhatak-Kabita-PIC-16	At Baro Beel under Korpaga Village of Dekar Haor	Continuing	On going (Ch-00 m-828 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	21	Short Term	High	Need Monitoring the effect from UWSC and TSC
99	Repair and Renovation	Jauva Bazar	307	Chhatak-Kabita-PIC-17	At Baro Beel and Korpaga village of Dekar Haor	Continuing	On going (Ch-00 m-1030 m, 00 m-105 m) rest of embankment need to rehabilitation (Proposed by BWDB)	All word of Jauva Bazar Union	17	Short Term	High	Need Monitoring the effect from UWSC and TSC

Attachment-1- 7

A3-4-156

[illegible]

b) Other river improvement (e.g. Widening and Deepening)

A3-4-156

[illegible]

ID	Type of Need of Union	Length (m)	Official Number	Official Name of Countermeasures	Plan Status (e.g. New/continuing/pipefitted/underdevelopment)	Propponents	Direct Beneficiaries/Interest s to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
UNHJ-CE-13	Repair	2793	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 07 of Karmama Union	84	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
UNHJ-CE-14	Repair	1379	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 07 of Karmama Union	41	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
DK-CE-15	Repair	1001	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 04 of Karmama Union	30	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
DK-CE-16	Repair	423	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 08 of Karmama Union	13	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SAD-CE-17	Repair	2308	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 03 of Karmama Union	69	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SAD-CE-18	Repair	2544	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 04 of Karmama Union	76	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SAD-CE-19	Repair	1420	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 04 of Karmama Union	43	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SAD-CE-20	Repair	1031	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 04 of Karmama Union	31	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SAD-CE-21	Repair	2159	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	65	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SALA-RE-01	Repair	12977	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 01 of Chhatak Union	389	Short Term	High	Need to take initiative from TSC
SING-RE-02	Repair	2863	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 02 of Karmama Union	86	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SING-RE-03	Repair	642	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 02 of Karmama Union	19	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
DK-RE-07	Repair	1725	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	52	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.

Attachment-12

ID	Type of Need of Union	Length (m)	Official Number	Official Name of Countermeasures	Plan Status (e.g. New/continuing/pipefitted/underdevelopment)	Propponents	Direct Beneficiaries/Interest s to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
JMA-GU-17	New Constructio	1419.1	5	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 07 of Karmama Union	114	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
KMA-CE-01	Repair	770	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	23	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
DUA-CE-02	Repair	1029	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 07 of Karmama Union	31	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SALA-CE-04	Repair	3039	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	91	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SALA-CE-05	Repair	1514	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	45	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SALA-CE-06	Repair	4350	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	131	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SALA-CE-07	Repair	1700	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	51	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SALA-CE-08	Repair	3777	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	113	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SALA-CE-09	Repair	1212	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	36	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SING-CE-10	Repair	1154	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	35	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SING-CE-11	Repair	155	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	5	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.
SING-CE-12	Repair	432	-	Re-elevation by Karmama Union	Undeveloped	Re-elevation by Karmama Union	Ward 05 of Karmama Union	13	Mid Term	High	USDC has requested the BWDB development plan considering all technical issues.

Attachment-11

ID	Type of Need	Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g.)	Propponents	Estimated cost (Lakh Taka)	Implementation Time Frame	Priority in Hazard Mitigation	Remarks
BHAT-SLU-03	New Construction	Bhagaton Union		East side of Monohor's house in Bhagaton Union	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
BHAT-SLU-04	New Construction	Bhagaton Union		Near Jangipukur/Manjandabbar	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
BHAT-SLU-05	New Construction	Bhagaton Union		Jalpa - Chatarol near Doyas Mals	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
BHAT-SLU-06	New Construction	Bhagaton Union		From Asstn's house toward Jalpa road to Chatarol Doyas Mals	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
BHAT-SLU-07	New Construction	Bhagaton Union		Offshoot bill near near Thourch Mals and	Undecided	Proposed by Community people	300	Mid Term	Medium	USCAs to request to the BWDB district office, to include the BWDB development plan
BHAT-SLU-08	New Construction	Bhagaton Union		DachinMokapur	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
BHAT-SLU-09	New Construction	Bhagaton Union		Near Angul-1 Sengkechakchakalim	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
BHAT-SLU-10	New Construction	Bhagaton Union		Near Karmur Gulap	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
BHAT-SLU-11	New Construction	Bhagaton Union		Near Bhagatpur/Sengkechakchakalim	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
BHAT-SLU-12	New Construction	Bhagaton Union		Back side of Pathi Moque	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
JMA-SLU-13	Construction	Bhagaton Union		DachinMokapur	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
JMA-SLU-14	Construction	Bhagaton Union		House of Afzal Mals	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
JMA-SLU-15	Construction	Bhagaton Union		House of Bismarck Mals	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
KAL-SLU-01	New Construction	Dular Union		Near the house of Karmabhar	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
DUL-SLU-02	New Construction	Dular Union		Chatarol near Chatarol Mals	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
SAILA-SLU-16	Construction	Chhatai Union		Chatarol near Chatarol Mals	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
SAILA-SLU-17	Construction	Chhatai Union		End of Lakshmi and house in Mirpurkhali	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
SAILA-SLU-18	New Construction	Chhatai Union		In the mouth of Kirtir village	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
SAILA-SLU-19	New Construction	Chhatai Union		Near Chhatai Mals	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
SAILA-SLU-20	New Construction	Chhatai Union		Near the house of Chhatai Mals	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
SAILA-SLU-21	New Construction	Chhatai Union		Near Chhatai Mals	Undecided	Proposed by Community people	300	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan

Attachment-14

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g.)	Propponents	Estimated cost (Lakh Taka)	Implementation Time Frame	Priority in Hazard Mitigation	Remarks
SAID-RE-08	Repair	Sydegaron Union	5363		From the house to the river	Undecided	Proposed by Community people	161	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
BWDB-RE-09	Repair	NA	11000		From the house to the river	Continuing	Proposed by Community people	500	Short Term	High	Need Monitoring the effect from USC and TSC
KALA-GUI-04	New Construction	Kalukha Union	1373.4		From the house to the river	Undecided	Proposed by Community people	110	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
KALA-GUI-05	New Construction	Kalukha Union	1524.3		From the house to the river	Undecided	Proposed by Community people	122	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
KALA-GUI-06	New Construction	Kalukha Union	1209.1		From the house to the river	Undecided	Proposed by Community people	97	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
DULA-GUI-07	New Construction	Dular Union	1080.2		From the house to the river	Undecided	Proposed by Community people	86	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
DULA-GUI-08	New Construction	Dular Union	1185.1		From the house to the river	Undecided	Proposed by Community people	175	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
SAILA-GUI-18	New Construction	Chhatai Union	853.74		From the house to the river	Undecided	Proposed by Community people	68	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
SAILA-GUI-19	New Construction	Chhatai Union	8596.2		From the house to the river	Undecided	Proposed by Community people	688	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
DK-GUI-24	New Construction	Dakin Union	978.71		From the house to the river	Undecided	Proposed by Community people	78	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan
SAID-GUI-29	New Construction	Sydegaron Union	1738.5		From the house to the river	Undecided	Proposed by Community people	139	Mid Term	High	USCAs to request to the BWDB district office, to include the BWDB development plan

c) Sluice gates
Projects by BWDB

Attachment-13

ID	Type of Need	Union	Official ID Number	Official Name of Union	Official Name of Project	Plan Status (e.g. new/continuing/pipe-line/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
43	ISLAM-SHEL-Construction	Islampur Union	-	-	Primary school	New	Community people	Shrinehouse proposed by community people	450	Mid Term	High	Detained Design Required
39	ISLAM-SHEL-Construction	Islampur Union	-	-	Primary school	New	Community people	Shrinehouse proposed by community people	450	Mid Term	High	Detained Design Required
38	ISLAM-SHEL-Construction	Islampur Union	-	-	Primary school	New	Community people	Shrinehouse proposed by community people	300	Mid Term	High	Detained Design Required
37	ISLAM-SHEL-Construction	Islampur Union	-	-	Govt. primary school	New	Community people	Shrinehouse proposed by community people	450	Mid Term	High	Detained Design Required
36	ISLAM-SHEL-Construction	Islampur Union	-	-	Govt. primary school	New	Community people	Shrinehouse proposed by community people	300	Mid Term	High	Detained Design Required
14	ISLAM-SHEL-Construction	Islampur Union	-	-	Govt. primary school	New	Community people	Shrinehouse proposed by community people	300	Mid Term	High	Detained Design Required

Projects by LGED

ID	Type of Need	Union	Official ID Number	Official Name of Union	Official Name of Project	Plan Status (e.g. new/continuing/pipe-line/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
54	CHATP-SHEL-Construction	Chhatrapur Union	Chh/01/S-03	Chhatrapur Union	Flood Shelter /Near Fokir Bog Camp	New	Shrinehouse proposed by community people	Shrinehouse proposed by community people	450	Mid Term	High	Detained Design Required
53	CHATP-SHEL-Construction	Chhatrapur Union	Chh/06/S-02	Chhatrapur Union	Flood Shelter /Bagbari old Pourosova office	New	Shrinehouse proposed by community people	Shrinehouse proposed by community people	300	Mid Term	High	Detained Design Required
52	CHATP-SHEL-Construction	Chhatrapur Union	Chh/09/S-01	Chhatrapur Union	Flood Shelter /Boula	New	Shrinehouse proposed by community people	Shrinehouse proposed by community people	450	Mid Term	High	Detained Design Required

Projects by Chhatak Paurashava

a) Shelters

3. Infrastructures for Emergency Operations

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Union	Official Name of Project	Plan Status (e.g. new/continuing/pipe-line/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
ISLAM-ROAD-01	ISLAM-ROAD-01	Islampur Union	45.72	-	-	On the Chhatak river	Undecided	Community people	30.72m Rubber Dam proposed by community people	1,600	Mid Term	Medium	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
ISLAM-ROAD-02	ISLAM-ROAD-02	Islampur Union	45.72	-	-	On the Chhatak river	Undecided	Community people	30.72m Rubber Dam proposed by community people	1,600	Mid Term	Medium	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
ISLAM-ROAD-03	ISLAM-ROAD-03	Islampur Union	45.72	-	-	On the Chhatak river	Undecided	Community people	30.72m Rubber Dam proposed by community people	1,600	Mid Term	Medium	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
ISLAM-ROAD-04	ISLAM-ROAD-04	Islampur Union	45.72	-	-	On the Chhatak river	Undecided	Community people	30.72m Rubber Dam proposed by community people	1,600	Mid Term	Medium	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
ISLAM-ROAD-05	ISLAM-ROAD-05	Islampur Union	45.72	-	-	On the Chhatak river	Undecided	Community people	30.72m Rubber Dam proposed by community people	1,600	Mid Term	Medium	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.

Projects by BWD

Attachment-15

f) Rubber Dam

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Union	Official Name of Project	Plan Status (e.g. new/continuing/pipe-line/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
DK-SLU-39	DK-SLU-39	Dakshin Khuma Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
DK-SLU-38	DK-SLU-38	Dakshin Khuma Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
UNGU-SLU-37	UNGU-SLU-37	Uttar Khuma Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-36	SING-SLU-36	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	27	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-35	SING-SLU-35	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-34	SING-SLU-34	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-33	SING-SLU-33	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	16	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-32	SING-SLU-32	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	16	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-31	SING-SLU-31	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	16	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-30	SING-SLU-30	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-29	SING-SLU-29	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-28	SING-SLU-28	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-27	SING-SLU-27	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-26	SING-SLU-26	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-25	SING-SLU-25	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-24	SING-SLU-24	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-23	SING-SLU-23	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.
SING-SLU-22	SING-SLU-22	Singhapur Union	-	-	-	Moqueest side 10mtr	Undecided	Community people	12 m sluice gate proposed by community people	300	Mid Term	High	USDCs to request to the BWD district office, to include the BWD development plan considering all technical issues.

[illegible]

Attachment1-17

[illegible]

Projects by DDM

[illegible]

Upazila Disaster Risk Reduction Action Plan of Chhatak

Attachment1- 19

[illegible]

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Taka Tk)	Estimated cost (USD \$)	Implementation Time Frame	Priority in Terms of Hazard Analysis	Remarks
BHAT-RD-14	Repair	Bhaggaon Union	1043	-	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	1.04km Road proposed by Community people	Ward 09 of Bhaggaon Union	104	104	Mid Term	High	Detailed Design Required
BHAT-RD-15	Repair	Bhaggaon Union	601	-	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	2.4km Road proposed by Community people	Ward 09 of Bhaggaon Union	157	157	Mid Term	High	Detailed Design Required
BHAT-RD-16	Repair	Bhaggaon Union	2243	-	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	1.25km Road proposed by Community people	Ward 09 of Bhaggaon Union	125	125	Mid Term	High	Detailed Design Required
CHAK-RD-17	New Construction	Chhanchhali Union	1246	-	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	Continuing	0.45km Road proposed by Community people	Ward 09 of Chhanchhali Union	49	49	Short Term	Medium	Need Monitoring from USC and TSC
CHAK-RD-22	New Construction	Chhanchhali Union	490	690234003	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	Continuing	1.57km Road proposed by Community people	Ward 09 of Chhanchhali Union	110	110	Mid Term	High	Detailed Design Required
CHAK-RD-24	New Construction	Chhanchhali Union	1567	-	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	1.23km Road proposed by Community people	Ward 04 of Chhanchhali Union	184	184	Mid Term	High	Detailed Design Required
CHAK-RD-25	New Construction	Chhanchhali Union	1229	-	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	0.70km Road proposed by Community people	Ward 04 of Chhanchhali Union	105	105	Short Term	Medium	Need Monitoring from USC and TSC
CHAK-RD-28	Repair	Chhanchhali Union	698	690234084	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	Continuing	0.77km Road proposed by Community people	Ward 07 of Chhanchhali Union	54	54	Short Term	High	Need Monitoring from USC and TSC
CHAK-RD-29	New Construction	Chhanchhali Union	774	690234105	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	Continuing	0.77km Road proposed by Community people	Ward 07 of Chhanchhali Union	54	54	Short Term	High	Need Monitoring from USC and TSC

Projects by BDM

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Taka Tk)	Estimated cost (USD \$)	Implementation Time Frame	Priority in Terms of Hazard Analysis	Remarks
DK-RD-155	Repair	Khuma Union	900m (ch-0-500m and 500m-1200m)	690233015	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	F Pipeline	3.73km Road proposed by LGED	Ward 09 of Khuma Union	373	373	Short Term	Medium	Need to take initiative from TSC
KALA-RD-156	Repair	Khuma Union	866m (ch-0-500m and 500m-1200m)	690234001	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	F Pipeline	8.66km Road proposed by LGED	All Ward's of Khuma Union	866	866	Short Term	High	Need to take initiative from TSC
KALA-RD-157	Repair	Khuma Union	790m (ch-0-500m and 500m-1200m)	690234002	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	F Pipeline	2.90km Road proposed by LGED	All Ward's of Khuma Union	290	290	Short Term	Low	Need to take initiative from TSC
KALA-RD-160	Repair	Khuma Union	3100m (ch-0-500m and 500m-1200m)	690234005	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	F Pipeline	3.10km Road proposed by LGED	All Ward's of Khuma Union	310	310	Short Term	Low	Need to take initiative from TSC
KALA-RD-161	Repair	Khuma Union	2000m (ch-0-500m and 500m-1200m)	690234013	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	F Pipeline	2.00km Road proposed by LGED	All Ward's of Khuma Union	200	200	Short Term	Low	Need to take initiative from TSC
CHAK-RD-162	Repair	Chhanchhali Union	2000m (ch-0-500m and 500m-1200m)	690234017	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	F Pipeline	2.00km Road proposed by LGED	Ward 04 of Chhanchhali Union	200	200	Short Term	High	Need to take initiative from TSC
SAD-RD-163	Repair	Chhanchhali Union	1200m (ch-0-500m and 500m-1200m)	690234033	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	F Pipeline	1.20km Road proposed by LGED	All Ward's of Chhanchhali Union	120	120	Short Term	High	Need to take initiative from TSC
DUAR-RD-166	Repair	Duar Bazar Union	5700m (ch-0-500m and 500m-1200m)	690234062	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	F Pipeline	5.70km Road proposed by LGED	All Ward's of Duar Bazar Union	570	570	Short Term	High	Need to take initiative from TSC
SAD-RD-170	Repair	Swadegaon Union	3000m (ch-0-500m and 500m-1200m)	690233010	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	F Pipeline	3.00km Road proposed by LGED	All Ward's of Swadegaon Union	300	300	Short Term	High	Need to take initiative from TSC

Attachment- 21

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Taka Tk)	Estimated cost (USD \$)	Implementation Time Frame	Priority in Terms of Hazard Analysis	Remarks
CHAK-RD-51	Repair	Chhanchhali Union	2000m (ch-0-500m and 500m-1200m)	690234057	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	2.00km Road proposed by Community people	Ward 07 of Chhanchhali Union	251	251	Mid Term	High	Detailed Design Required
CHAK-RD-54	Repair	Chhanchhali Union	610.21	690234057	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	0.61km Road proposed by Community people	Ward 08 of Chhanchhali Union	61	61	Mid Term	High	Detailed Design Required
CHAK-RD-64	Repair	Chhanchhali Union	1200 (ch-0-500m and 500m-1200m)	690235010	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	1.20km Road proposed by Community people	Ward 05 of Chhanchhali Union	57	57	Mid Term	High	Detailed Design Required
CHAK-RD-65	Repair	Chhanchhali Union	2350 (ch-0-500m and 500m-1200m)	690234102	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	2.35km Road proposed by Community people	Ward 04 of Chhanchhali Union	47	47	Mid Term	High	Detailed Design Required
CHAK-RD-72	New Construction	Chhanchhali Union	4000m (ch-0-500m and 500m-1200m)	690233015	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	4.00km Road proposed by Community people	Ward 06 of Chhanchhali Union	112	112	Mid Term	High	Detailed Design Required
CHAK-RD-74	Repair	Chhanchhali Union	1650m (ch-0-500m and 500m-1200m)	690234042	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	1.65km Road proposed by Community people	Ward 07 of Chhanchhali Union	74	74	Mid Term	High	Detailed Design Required
CHAK-RD-78	New Construction	Chhanchhali Union	1142m	690234083	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	1.14km Road proposed by Community people	Ward 04 of Chhanchhali Union	80	80	Mid Term	High	Detailed Design Required
DK-RD-94	Repair	Dakshin Khuma Union	1000m (ch-0-500m and 500m-1200m)	690235068	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	New	1.00km Road proposed by Community people	Ward 08 of Dakshin Khuma Union	124	124	Mid Term	High	Detailed Design Required
DK-RD-102	Repair	Dakshin Khuma Union	379m	690233013	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	Continuing	0.38km Road proposed by Community people	Ward 08 of Dakshin Khuma Union	27	27	Short Term	Medium	Need Monitoring from USC and TSC
JAWA-RD-142	Repair	Jawa Bazar Union	4100m (ch-0-500m and 500m-1200m)	690232002	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	P Pipeline	4.10km Road proposed by LGED	Bazar, Singhapur	410	410	Short Term	Medium	Need to take initiative from TSC
CHAK-RD-144	Repair	Chhanchhali Union	3800m (ch-0-500m and 500m-1200m)	690232004	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	P Pipeline	3.80km Road proposed by LGED	Ward 04 of Chhanchhali Union	380	380	Short Term	Medium	Need to take initiative from TSC
DUAR-RD-146	Repair	Duar Bazar Union	5000m (ch-0-500m and 500m-1200m)	690232007	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	P Pipeline	5.00km Road proposed by LGED	All Ward of Duar Bazar Union	50	50	Short Term	High	Need to take initiative from TSC
SAD-RD-148	Repair	Swadegaon Union	9275m (ch-0-500m and 500m-1200m)	690232010	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	P Pipeline	9.28km Road proposed by LGED	Chhanchhali Union, Duar Bazar Union, Chhanchhali Union	928	928	Short Term	Medium	Need to take initiative from TSC
CHAK-RD-149	Repair	Chhanchhali Union	8600m (ch-0-500m and 500m-1200m)	690233002	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	P Pipeline	2.00km Road proposed by LGED	All Ward's of Chhanchhali Union	220	220	Short Term	Medium	Need to take initiative from TSC
KALA-RD-150	Repair	Khuma Union	3100m (ch-0-500m and 500m-1200m)	690233004	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	P Pipeline	3.10km Road proposed by LGED	All Ward's of Khuma Union	335	335	Short Term	Medium	Need to take initiative from TSC
DUAR-RD-151	Repair	Duar Bazar Union	6650m (ch-0-500m and 500m-1200m)	690233008	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	P Pipeline	6.65km Road proposed by LGED	All Ward's of Duar Bazar Union	665	665	Short Term	Low	Need to take initiative from TSC
SAD-RD-152	Repair	Swadegaon Union	4000m (ch-0-500m and 500m-1200m)	690233009	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	P Pipeline	4.00km Road proposed by LGED	All Ward's of Swadegaon Union	400	400	Short Term	Medium	Need to take initiative from TSC
SAD-RD-153	Repair	Swadegaon Union	3000m (ch-0-500m and 500m-1200m)	690233012	From Anjanpur to Bhatgaon crossing of the road to the bank of the river.	P Pipeline	3.00km Road proposed by LGED	All Ward's of Swadegaon Union	300	300	Short Term	Low	Need to take initiative from TSC

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g., new/continuing/abandoned)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Terms of Analysis	Remarks
NOA-RD-128	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-124	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-123	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-122	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-121	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-120	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-119	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-118	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-116	New	Construction	Union				Continuing	Union			Required	
NOA-RD-115	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-114	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-113	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-110	New	Construction	Union				Proposed by	Union			Required	
NOA-RD-109	New	Construction	Union				Proposed by	Union			Required	
ISLAM-RD-91	New	Construction	Union				Proposed by	Union			Required	
ISLAM-RD-90	New	Construction	Union				Proposed by	Union			Required	
ISLAM-RD-89	New	Construction	Union				Proposed by	Union			Required	
ISLAM-RD-88	New	Construction	Union				Proposed by	Union			Required	
ISLAM-RD-86	New	Construction	Union				Proposed by	Union			Required	
ISLAM-RD-85	Repair	Union					Proposed by	Union			Required	

Attachment- 24

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g., new/continuing/abandoned)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Terms of Analysis	Remarks
ISLAM-RD-84	New	Union					Proposed by	Union			Required	
ISLAM-RD-83	New	Construction	Union				Proposed by	Union			Required	
ISLAM-RD-81	Repair	Union					Proposed by	Union			Required	
ISLAM-RD-79	New	Construction	Union				Proposed by	Union			Required	
JAWA-RD-50	New	Construction	Union				Proposed by	Union			Required	
JAWA-RD-49	New	Construction	Union				Proposed by	Union			Required	
JAWA-RD-48	Repair	Union					Proposed by	Union			Required	
JAWA-RD-47	New	Construction	Union				Proposed by	Union			Required	
JAWA-RD-45	Repair	Union					Proposed by	Union			Required	
JAWA-RD-44	New	Construction	Union				Proposed by	Union			Required	
JAWA-RD-43	Repair	Union					Proposed by	Union			Required	
JAWA-RD-42	Repair	Union					Proposed by	Union			Required	
JAWA-RD-41	Repair	Union					Proposed by	Union			Required	
JAWA-RD-40	Repair	Union					Proposed by	Union			Required	
JAWA-RD-39	Repair	Union					Proposed by	Union			Required	
JAWA-RD-37	Repair	Union					Proposed by	Union			Required	
JAWA-RD-35	Repair	Union					Proposed by	Union			Required	
CHAB-RD-34	New	Construction	Union				Proposed by	Union			Required	
CHAB-RD-33	New	Construction	Union				Proposed by	Union			Required	
CHAB-RD-32	New	Construction	Union				Proposed by	Union			Required	
CHAB-RD-31	New	Construction	Union				Proposed by	Union			Required	

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ID	Type of Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g., new/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh T)	Implementation Time Frame	Priority in Terms of Hazard	Remarks
CHATS-RD-58	Repair	225		From Andargoon land Office to Ward Amin house	New	Union	Renovation (Proposed) From Community	34	Mid Term	High	Detailed Design Required
CHATS-RD-59	Repair	338		Andargoon land Office to Bhamuak's house	New	Union	Renovation (Proposed) From Community	51	Mid Term	High	Detailed Design Required
CHATS-RD-60	Repair	1531		primary school via land Office	New	Union	Renovation (Proposed) From Community	230	Mid Term	Medium	Detailed Design Required
CHATS-RD-61	New Construction	151		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	23	Mid Term	High	Detailed Design Required
CHATS-RD-62	New Construction	209		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	21	Mid Term	Medium	Detailed Design Required
CHATS-RD-63	Repair	696		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	70	Mid Term	Medium	Detailed Design Required
CHATS-RD-66	Repair	241		From the front of Bachchu das house to main road	Continuing	Union	Renovation (Proposed) From Community	36	Short Term	High	Detailed Design Required
CHATS-RD-67	Repair	263		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	39	Mid Term	Low	Detailed Design Required
CHATS-RD-68	Repair	1331		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	133	Mid Term	High	Detailed Design Required
CHATS-RD-69	Repair	424		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	64	Mid Term	High	Detailed Design Required
CHATS-RD-70	Repair	973		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	146	Mid Term	Medium	Detailed Design Required
SING-RD-71	New Construction	705		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	71	Mid Term	High	Detailed Design Required
UNHU-RD-73	Repair	1275		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	127	Mid Term	High	Detailed Design Required
UNHU-RD-75	Repair	362		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	25	Mid Term	High	Detailed Design Required
UNHU-RD-76	Repair	526		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	53	Mid Term	High	Detailed Design Required
UNHU-RD-77	New Construction	2250		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	225	Mid Term	Medium	Detailed Design Required
DK-RD-92	Repair	855		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	60	Mid Term	Medium	Detailed Design Required
DK-RD-93	Repair	339		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	24	Mid Term	High	Detailed Design Required
DK-RD-95	New Construction	1593		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	112	Mid Term	Medium	Detailed Design Required

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ID	Type of Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g., new/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh T)	Implementation Time Frame	Priority in Terms of Hazard	Remarks
NOA-RD-129	New Construction	373		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	26	Mid Term	High	Detailed Design Required
NOA-RD-131	New Construction	1173		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	82	Mid Term	Medium	Detailed Design Required
NOA-RD-132	New Construction	1560		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	234	Mid Term	Medium	Detailed Design Required
NOA-RD-133	New Construction	684		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	48	Mid Term	High	Detailed Design Required
NOA-RD-135	New Construction	2754		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	413	Mid Term	High	Detailed Design Required
NOA-RD-136	New Construction	870		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	130	Mid Term	High	Detailed Design Required
NOA-RD-137	New Construction	1813		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	272	Mid Term	High	Detailed Design Required
NOA-RD-138	New Construction	1724		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	259	Mid Term	High	Detailed Design Required
NOA-RD-139	New Construction	2658		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	399	Mid Term	High	Detailed Design Required
NOA-RD-140	New Construction	1316		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	197	Mid Term	High	Detailed Design Required
NOA-RD-125	New Construction	909 m		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	136	Mid Term	High	Detailed Design Required
NOA-RD-126	New Construction	551m		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	55	Mid Term	High	Detailed Design Required
DULA-RD-04	New Construction	415		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	29	Mid Term	Medium	Detailed Design Required
DULA-RD-06	Repair	615		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	43	Mid Term	High	Detailed Design Required
DULA-RD-07	Repair	853		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	128	Mid Term	Medium	Detailed Design Required
DULA-RD-08	Repair	1513		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	106	Mid Term	Low	Detailed Design Required
CHATS-RD-82	Repair	923		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	65	Mid Term	High	Detailed Design Required
CHATS-RD-83	Repair	1265		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	89	Mid Term	High	Detailed Design Required
CHATS-RD-85	Repair	300		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	30	Mid Term	High	Detailed Design Required
CHATS-RD-86	Repair	1256		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	188	Mid Term	High	Detailed Design Required
CHATS-RD-87	Repair	485		From the front of Bachchu das house to main road	New	Union	Renovation (Proposed) From Community	73	Mid Term	High	Detailed Design Required

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Attachment- 28

ID	Type of Need	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
CHAB-BR-13	New Construction	690234116	Kamrang-Abhanga Village Road Connecting Bridge	New	27.43 m bridge	Proposed by Community people	27.4	Mid Term	High	Detailed Design Required
CHAB-BR-14	New Construction	690234046	Ujjanpur Bazar-Jawa Chhatrak Road via Histadon Connecting Bridge	New	60.36 m bridge	Proposed by Community people	61.0	Mid Term	High	Detailed Design Required
ISLAM-BR-24	New Construction	690234111	Islampur Bazar -Nort Islampur Road Bridge	New	60.36 m bridge	Proposed by Community people	61.0	Mid Term	High	Detailed Design Required
ISLAM-BR-27	New Construction	690234007	Islampur Jamuna Road Bridge	New	45.72 m bridge	Proposed by Community people	45.7	Mid Term	High	Detailed Design Required
ISLAM-BR-34	New Construction	690234007	Gonepur-Jamuna Road Bridge	New	60.36 m bridge	Proposed by Community people	61.0	Mid Term	High	Detailed Design Required
ISLAM-BR-44	New Construction	690234089	Gonepur-Ferghat Road Bridge	New	152.40 m bridge	Proposed by Community people	53	Mid Term	High	Detailed Design Required
ISLAM-BR-46	New Construction	690233006	Gonepur-Ferghat Islampur Madrasa via UP Office Road Bridge	New	152.40 m bridge	Proposed by Community people	152.4	Mid Term	High	Detailed Design Required
ISLAM-BR-47	New Construction	690234107	Gonepur P.Y. School Road Bridge	New	91.41 m bridge	Proposed by Community people	91.4	Mid Term	High	Detailed Design Required
ISLAM-BR-74	New Construction	690233008	Islampur Union Aliganj Bridge	New	90 Meter Bridge	Proposed by Community people	450	Mid Term	High	Detailed Design Required
NOA-BR-64	New Construction	690234018	Islampur Union Bazar Connecting Bridge	New	27.43 m bridge	Proposed by Community people	96	Mid Term	High	Detailed Design Required
NOA-BR-65	New Construction	690234018	Islampur Union Bazar Connecting Bridge	New	36.36 m bridge	Proposed by Community people	128	Mid Term	High	Detailed Design Required
NOA-BR-66	New Construction	690234022	Islampur Union Bazar Road Connecting Bridge	New	15.24 m bridge	Proposed by Community people	152	Mid Term	High	Detailed Design Required
NOA-BR-67	New Construction	690233507	Islampur Union Bazar Road Connecting Bridge	New	26.21 m bridge	Proposed by Community people	262	Mid Term	High	Detailed Design Required
DULA-BR-03	Reconstruction	690234068	Islampur Union Bazar Road Connecting Bridge	Continuing	12.79 m bridge	Proposed by Community people	43	Short Term	High	Detailed Design Required

Projects by LGED

ID	Type of Need	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
CHATP-BR-71	New Construction	Ch/07/Br-04	Bridge/Near Mondolghal mosque	New	7.62 m bridge	reconstruction	48	Mid Term	High	Detailed Design Required
CHATP-BR-72	New Construction	Ch/08/Br-05	Bridge/Near Chorier Bond Monu Mh's house	New	6.10 m bridge	reconstruction	38	Mid Term	Medium	Detailed Design Required
CHATP-BR-73	New Construction	Ch/07/Br-03	Bridge/Near Chhatrak Bazar Abhanga	New	6.10 m bridge	reconstruction	38	Mid Term	High	Detailed Design Required

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ID	Type of Need	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
CHATP-BR-69	New Construction	Ch/04/Br-01	Bachika Village	New	15.24 m bridge	reconstruction	1,250	Mid Term	Medium	Detailed Design Required
CHATP-BR-70	New Construction	Ch/09/Br-02	Bridge/Beside Islampur Mosque	New	30.48 m bridge	reconstruction	750	Mid Term	Medium	Detailed Design Required

Projects by Chhatrak Paurashava

c) Bridges

ID	Type of Need	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
DK-RD-96	Repair	2533	690234110	Road -Mukh-Mogrit-Nagorhampur School	Continuing	2.53m Road Repair & Resurfacing on Proposed Road	Ward 03 of Dakshin Khuma Union	380	Short Term	Medium	Need Monitoring US&C and TSC
DK-RD-97	Repair	1923	-	From Kaniyapuri Masjid to Bazar	New	1.95km Road Repair & Resurfacing	Ward 04 of Dakshin Khuma Union	288	Mid Term	High	Detailed Design Required
DK-RD-98	Repair	805	-	From Kaniyapuri Rice Mill to Bazar	New	0.80km Road Repair & Resurfacing	Ward 04 of Dakshin Khuma Union	121	Mid Term	Medium	Detailed Design Required
DK-RD-99	Repair	1706	690234103	Road : Khuma to Kaniyapuri Road	Continuing	1.71km Road Repair & Resurfacing	Ward 01 of Dakshin Khuma Union	256	Short Term	Medium	Need Monitoring US&C and TSC
DK-RD-100	New Construction	913	-	From Chhatak to Kaniyapuri	New	0.91km Road Repair & Resurfacing	Ward 01 of Dakshin Khuma Union	91	Mid Term	Medium	Detailed Design Required
DK-RD-101	Repair	1218	-	From Chhatak to Kaniyapuri	New	1.22km Road Repair & Resurfacing	Ward 01 of Dakshin Khuma Union	122	Mid Term	High	Detailed Design Required
DK-RD-103	New Construction	572	-	From Chhatak to Kaniyapuri	New	0.57km Road Repair & Resurfacing	Ward 01 of Dakshin Khuma Union	40	Mid Term	High	Detailed Design Required
DK-RD-104	New Construction	468	-	From Chhatak to Kaniyapuri	New	0.47km Road Repair & Resurfacing	Ward 01 of Dakshin Khuma Union	33	Mid Term	High	Detailed Design Required
DK-RD-105	New Construction	644	-	From Chhatak to Kaniyapuri	New	0.64km Road Repair & Resurfacing	Ward 01 of Dakshin Khuma Union	45	Mid Term	High	Detailed Design Required
DK-RD-106	New Construction	897	-	From Chhatak to Kaniyapuri	New	0.89km Road Repair & Resurfacing	Ward 01 of Dakshin Khuma Union	63	Mid Term	Medium	Detailed Design Required
SAID-RD-107	New Construction	411	-	From Chhatak to Kaniyapuri	New	0.41km Road Repair & Resurfacing	Ward 01 of Dakshin Khuma Union	41	Mid Term	Medium	Detailed Design Required
SAID-RD-108	Repair	1795	-	From Chhatak to Kaniyapuri	New	1.795m Road Repair & Resurfacing	Ward 01 of Dakshin Khuma Union	180	Mid Term	Medium	Detailed Design Required

ID	Type of Need	Official ID	Official Name of Countermeasures	Plan Status (e.g. New/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk.)	Implementation Time frame	Priority in Hazard Terms of Analysis	Remarks
ISLA-BR-40	New Construction	Islampur Union	Islampur Union	New	9.1 m bridge	Ward 01 of Islampur Union	32	Mid Term	High	Detailed Design Required
ISLA-BR-41	New Construction	Islampur Union	Islampur Union	New	10.67 m bridge	Ward 02 of Islampur Union	37	Mid Term	High	Detailed Design Required
ISLA-BR-42	Bridge repair and renovation	Islampur Union	Islampur Union	New	7.8 m bridge	Ward 03 of Islampur Union	76	Mid Term	High	Detailed Design Required
ISLA-BR-43	New Construction	Islampur Union	Islampur Union	New	30.48 m bridge	Ward 04 of Islampur Union	305	Mid Term	High	Detailed Design Required
ISLA-BR-45	New Construction	Islampur Union	Islampur Union	New	7.8 m bridge	Ward 05 of Islampur Union	27	Mid Term	High	Detailed Design Required
NOA-BR-43	New Construction	Neoral Union	Neoral Union	New	6.25 m bridge	Ward 01 of Neoral Union	21	Mid Term	High	Detailed Design Required
NOA-BR-44	New Construction	Neoral Union	Neoral Union	New	18.00 m bridge	Ward 02 of Neoral Union	180	Mid Term	Medium	Detailed Design Required
DULA-BR-01	New Construction	Dular Bazar Union	Dular Bazar Union	New	6.10 m bridge	Ward 01 of Dular Bazar Union	21	Mid Term	High	Detailed Design Required
DULA-BR-02	New Construction	Dular Bazar Union	Dular Bazar Union	New	15.24 m bridge	Ward 02 of Dular Bazar Union	53	Mid Term	High	Detailed Design Required
DULA-BR-04	New Construction	Dular Bazar Union	Dular Bazar Union	New	12.19 m bridge	Ward 03 of Dular Bazar Union	43	Mid Term	High	Detailed Design Required
DULA-BR-05	New Construction	Dular Bazar Union	Dular Bazar Union	New	30.48 m bridge	Ward 04 of Dular Bazar Union	305	Mid Term	High	Detailed Design Required
DULA-BR-07	New Construction	Dular Bazar Union	Dular Bazar Union	New	6.10 m bridge	Ward 05 of Dular Bazar Union	21	Mid Term	Low	Detailed Design Required
DULA-BR-08	New Construction	Dular Bazar Union	Dular Bazar Union	New	6.10 m bridge	Ward 06 of Dular Bazar Union	21	Mid Term	Low	Detailed Design Required
DULA-BR-09	New Construction	Dular Bazar Union	Dular Bazar Union	New	10.67 m bridge	Ward 07 of Dular Bazar Union	37	Mid Term	High	Detailed Design Required
DULA-BR-10	New Construction	Dular Bazar Union	Dular Bazar Union	New	9.1 m bridge	Ward 08 of Dular Bazar Union	32	Mid Term	High	Detailed Design Required
DULA-BR-11	New Construction	Dular Bazar Union	Dular Bazar Union	New	9.1 m bridge	Ward 09 of Dular Bazar Union	32	Mid Term	High	Detailed Design Required
SAILA-BR-16	New Construction	Chhatak Union	Chhatak Union	New	10.67 m bridge	Ward 01 of Chhatak Union	37	Mid Term	High	Detailed Design Required
SING-BR-17	New Construction	Sing Chapar Union	Sing Chapar Union	New	7.8 m bridge	Ward 02 of Sing Chapar Union	27	Mid Term	High	Detailed Design Required
SING-BR-18	New Construction	Sing Chapar Union	Sing Chapar Union	New	9.1 m bridge	Ward 03 of Sing Chapar Union	32	Mid Term	High	Detailed Design Required
SING-BR-19	New Construction	Sing Chapar Union	Sing Chapar Union	New	12.19 m bridge	Ward 04 of Sing Chapar Union	27	Mid Term	High	Detailed Design Required
SING-BR-20	New Construction	Sing Chapar Union	Sing Chapar Union	New	Community people	Chhatak Union	43	Mid Term	High	Detailed Design Required

Attachment- 30

ID	Type of Need	Official ID	Official Name of Countermeasures	Plan Status (e.g. New/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk.)	Implementation Time frame	Priority in Hazard Terms of Analysis	Remarks
BHAT-BR-12	New Construction	Bhat Union	Bhat Union	New	10.67 m bridge	Ward 08 of Bhat Union	37	Mid Term	High	Detailed Design Required
JMA-BR-15	New Construction	Jama Bazar Union	Jama Bazar Union	New	45.72 m bridge	Ward 02 of Jama Bazar Union	457	Mid Term	High	Detailed Design Required
ISLA-BR-23	New Construction	Islampur Union	Islampur Union	New	18.29 m bridge	Ward 01 of Islampur Union	183	Mid Term	High	Detailed Design Required
ISLA-BR-25	New Construction	Islampur Union	Islampur Union	New	16.76 m bridge	Ward 02 of Islampur Union	168	Mid Term	High	Detailed Design Required
ISLA-BR-26	New Construction	Islampur Union	Islampur Union	New	4.2 m bridge	Ward 03 of Islampur Union	16	Mid Term	High	Detailed Design Required
ISLA-BR-28	New Construction	Islampur Union	Islampur Union	New	21.84 m bridge	Ward 04 of Islampur Union	213	Mid Term	High	Detailed Design Required
ISLA-BR-29	New Construction	Islampur Union	Islampur Union	New	13.75 m bridge	Ward 05 of Islampur Union	1,372	Mid Term	High	Detailed Design Required
ISLA-BR-30	New Construction	Islampur Union	Islampur Union	New	13.75 m bridge	Ward 06 of Islampur Union	1,372	Mid Term	High	Detailed Design Required
ISLA-BR-31	New Construction	Islampur Union	Islampur Union	New	30.48 m bridge	Ward 07 of Islampur Union	457	Mid Term	High	Detailed Design Required
ISLA-BR-32	Reconstruction	Islampur Union	Islampur Union	New	19.14 m bridge	Ward 08 of Islampur Union	305	Mid Term	High	Detailed Design Required
ISLA-BR-33	New Construction	Islampur Union	Islampur Union	New	18.29 m bridge	Ward 09 of Islampur Union	914	Mid Term	High	Detailed Design Required
ISLA-BR-35	New Construction	Islampur Union	Islampur Union	New	18.29 m bridge	Ward 10 of Islampur Union	183	Mid Term	High	Detailed Design Required
ISLA-BR-36	New Construction	Islampur Union	Islampur Union	New	9.1 m bridge	Ward 11 of Islampur Union	32	Mid Term	High	Detailed Design Required
ISLA-BR-37	New Construction	Islampur Union	Islampur Union	New	9.1 m bridge	Ward 12 of Islampur Union	32	Mid Term	High	Detailed Design Required
ISLA-BR-38	New Construction	Islampur Union	Islampur Union	New	9.1 m bridge	Ward 13 of Islampur Union	34	Mid Term	High	Detailed Design Required
ISLA-BR-39	New Construction	Islampur Union	Islampur Union	New	9.1 m bridge	Ward 14 of Islampur Union	32	Mid Term	High	Detailed Design Required

Projects by DDM

ID	Type of Need	Official ID	Official Name of Countermeasures	Plan Status (e.g. New/continuing/pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk.)	Implementation Time frame	Priority in Hazard Terms of Analysis	Remarks
DULA-BR-06	Repair	Dular Bazar Union	Dular Bazar Union	Continuing	Community people	Ward 06 of Dular Bazar Union	27	Short Term	Medium	Monitoring the effect from UISC and TSC

ID	Type of Need	Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g., new/continuing/pipeline/undecided)	Proponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
SING-CUL-12	New Construction	Sing Chapair Union	690233133	Featherhook Connecting Road Bridge	New	30.48 m Bridge Proposed by Community people	Ward 07 of Singchapair Union	107	Mid Term	High	Detailed Design Required
SING-CUL-13	New Construction	Sing Chapair Union	690233133	Featherhook Connecting Road Bridge	New	22.86 m Bridge Proposed by Community people	Ward 07 of Singchapair Union	80	Mid Term	High	Detailed Design Required

Projects by LGED

ID	Type of Need	Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g., new/continuing/pipeline/undecided)	Proponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
CHATP-CUL-37	New Construction	Chatrapurashava Union	CH/09/C-01	Culvert/Near Bhola graveyard	Pipeline	8.00m Culvert Proposed by Chatrapurashava	Ward 07 of Chatrapurashava	28	Short Term	High	Need to take initiative from TSC
CHATP-CUL-38	New Construction	Chatrapurashava Union	CH/07/C-02	Culvert/Near pourshova	Pipeline	8.00m Culvert Proposed by Chatrapurashava	Ward 07 of Chatrapurashava	28	Short Term	High	Need to take initiative from TSC

ID	Type of Need	Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g., new/continuing/pipeline/undecided)	Proponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
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Projects by Chhatak Paurashava

d) Culverts

ID	Type of Need	Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g., new/continuing/pipeline/undecided)	Proponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
SAD-08RI-62	New Construction	Sydegaon Union	-	Kalyanachala near Budu	New	Community people	Ward 05 of Sydegaon Union	53	Mid Term	Medium	Detailed Design Required
SAD-8RI-61	New Construction	Sydegaon Union	-	In front of Joyanta Koshan's house in Sydegaon village	New	Community people	Ward 06 of Sydegaon Union	21	Mid Term	High	Detailed Design Required
SAD-8RI-60	New Construction	Sydegaon Union	-	Babu's house	New	Community people	Ward 05 of Sydegaon Union	32	Mid Term	High	Detailed Design Required
SAD-8RI-59	New Construction	Sydegaon Union	-	Bahannepurpuritech	New	Community people	Ward 05 of Sydegaon Union	183	Mid Term	High	Detailed Design Required
DK-8RI-58	New Construction	Dakshin Khurma Union	-	In front of ramnagar Main	New	Community people	Ward 05 of Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-57	New Construction	Dakshin Khurma Union	-	In front of Baur Jame Masjid	New	Community people	Ward 08 of Dakshin Khurma Union	43	Mid Term	High	Detailed Design Required
DK-8RI-56	New Construction	Dakshin Khurma Union	-	In front of portakalMudgam	New	Community people	Ward 09 of Dakshin Khurma Union	32	Mid Term	High	Detailed Design Required
DK-8RI-55	New Construction	Dakshin Khurma Union	-	Baside of Shamuddin's	New	Community people	Ward 01 of Dakshin Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-54	New Construction	Dakshin Khurma Union	-	Sadrakar's house	New	Community people	Ward 02 of Dakshin Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-53	New Construction	Dakshin Khurma Union	-	Baside of Masjid Nirmal	New	Community people	Ward 02 of Dakshin Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-52	New Construction	Dakshin Khurma Union	-	School	New	Community people	Ward 09 of Dakshin Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-51	New Construction	Dakshin Khurma Union	-	West side of Monirgat High	New	Community people	Ward 09 of Dakshin Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-50	New Construction	Dakshin Khurma Union	-	In shuteraban behind the yasin house	New	Community people	Ward 04 of Dakshin Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-49	New Construction	Dakshin Khurma Union	-	Monirgat Chander Bari	New	Community people	Ward 04 of Dakshin Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-48	New Construction	Dakshin Khurma Union	-	Monirgat	New	Community people	Ward 04 of Dakshin Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-47	New Construction	Dakshin Khurma Union	-	Buaid Ayesh Store in village	New	Community people	Ward 04 of Dakshin Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-46	New Construction	Dakshin Khurma Union	-	In front of Faziul Haq's house	New	Community people	Ward 04 of Dakshin Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-45	New Construction	Dakshin Khurma Union	-	In front of Kumbayon Jama Mosque	New	Community people	Ward 04 of Dakshin Khurma Union	21	Mid Term	High	Detailed Design Required
DK-8RI-44	New Construction	Dakshin Khurma Union	-	In front of Nurul Islam's house	New	Community people	Ward 09 of Dakshin Khurma Union	53	Mid Term	High	Detailed Design Required
DK-8RI-43	New Construction	Dakshin Khurma Union	-	Hassan Ali Pasha at the sidegaon	New	Community people	Ward 09 of Dakshin Khurma Union	32	Mid Term	High	Detailed Design Required
DK-8RI-42	New Construction	Sing Chapair Union	-	In puranobor of Sing Chapair	New	Community people	Ward 03 of Sing Chapair Union	43	Mid Term	High	Detailed Design Required
DK-8RI-41	New Construction	Sing Chapair Union	-	Near Mohodi Bit tree.	New	Community people	Ward 03 of Sing Chapair Union	43	Mid Term	High	Detailed Design Required

Attachment- 34

ID	Type of Need	Union	Length (m)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undefined)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Taka Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
CHATP-DRI-01	Repair and Renovation	Chatrakpa Union	216.71	CH/09/01	RCC drain/From West house to Abdul Halim's house	Pipeline	Proposed by Chhatak Paurashava	Ward 09 of Chatrakpa Union	35	Short Term	high	Need to take initiative from TSC
CHATP-DRI-02	Repair and Renovation	Chatrakpa Union	676.35	CH/08/02	RCC drain/From West house to Abdul Kader Miah's house	Pipeline	Proposed by Chhatak Paurashava	Ward 08 of Chatrakpa Union	108	Short Term	high	Need to take initiative from TSC
CHATP-DRI-03	Repair and Renovation	Chatrakpa Union	199.95	CH/08/03	RCC drain/From choker bond house to Mowwar house	Pipeline	Proposed by Chhatak Paurashava	Ward 08 of Chatrakpa Union	32	Short Term	high	Need to take initiative from TSC
CHATP-DRI-04	Repair and Renovation	Chatrakpa Union	240.79	CH/08/04	RCC drain/From Chokerbond house to primary school	Pipeline	Proposed by Chhatak Paurashava	Ward 08 of Chatrakpa Union	39	Short Term	high	Need to take initiative from TSC
CHATP-DRI-05	Repair and Renovation	Chatrakpa Union	435.86	CH/05/05	RCC drain/From primary school to Babul Miah's house	Pipeline	Proposed by Chhatak Paurashava	Ward 05 of Chatrakpa Union	70	Short Term	high	Need to take initiative from TSC
CHATP-DRI-06	Repair and Renovation	Chatrakpa Union	386.79	CH/06/06	RCC drain/From Bagbarshumun house to Councilor House to kalbari	Pipeline	Proposed by Chhatak Paurashava	Ward 06 of Chatrakpa Union	62	Short Term	high	Need to take initiative from TSC

Projects by Chhatakpaushava

e) Drains

ID	Type of Need	Union	Official Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undefined)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Taka Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
DK-CUL-19	New	Dakshin Kuruma Union	-	Chohan West neighborhood	New	9.44 m Culvert Proposed by Community people	Ward 07 of Dakshin Kuruma Union	32	Short Term	High	Detailed Design Required
DK-CUL-20	New	Dakshin Kuruma Union	-	Near Dhunpurpurbari	New	6.0 m Culvert Proposed by Community people	Ward 09 of Dakshin Kuruma Union	21	Short Term	High	Detailed Design Required
DK-CUL-21	New	Dakshin Kuruma Union	-	To the south of Basul Miah's house in Sarapur	New	6.10 m Culvert Proposed by Community people	Ward 08 of Dakshin Kuruma Union	21	Short Term	High	Detailed Design Required
DK-CUL-22	New	Dakshin Kuruma Union	-	Infront of porakati Sorol Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 09 of Dakshin Kuruma Union	21	Short Term	High	Detailed Design Required
SMD-CUL-23	New	Sydegaon Union	-	Infront of Giasuddin's house of Borosidegaon Village	New	7.62 m Culvert Proposed by Community people	Ward 01 of Sydegaon Union	27	Short Term	High	Detailed Design Required

Attachment- 33

ID	Type of Need	Union	Official Number	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/undefined)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Taka Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
BHAT-CUL-03	New	Bhabgan Union	-	Infront of Mondobpurkumun Ali's house	New	4.57 m Culvert Proposed by Community people	Ward 05 of Mondobpurkumun Union	16	Short Term	High	Detailed Design Required
JWA-CUL-04	New	Jawar Barar Union	-	Front of Jawar Barar chala at the middle point of kurbilil road	New	5.10 m Culvert Proposed by Community people	Ward 06 of Jawar Barar Union	37	Short Term	High	Detailed Design Required
JWA-CUL-05	New	Jawar Barar Union	-	Front of Jawar Barar chala at the end of Banagorvillage	New	5.10 m Culvert Proposed by Community people	Ward 02 of Jawar Barar Union	36	Short Term	High	Detailed Design Required
JWA-CUL-06	New	Jawar Barar Union	-	Infront of Khajuria's house in Banagorvillage	New	25.31 m Culvert Proposed by Community people	Ward 01 of Jawar Barar Union	91	Short Term	High	Detailed Design Required
ISAM-CUL-14	New	Islampur Union	-	On the south side of the road near to the dead Khajuria's mosque at the south side	New	9.14 m Culvert Proposed by Community people	Ward 01 of Islampur Union	32	Short Term	High	Detailed Design Required
ISAM-CUL-15	New	Islampur Union	-	On the south side of the road near to the dead Khajuria's mosque at the south side	New	9.14 m Culvert Proposed by Community people	Ward 01 of Islampur Union	32	Short Term	High	Detailed Design Required
ISAM-CUL-16	New	Islampur Union	-	Infront of Boshkandi Muru's house	New	9.14 m Culvert Proposed by Community people	Ward 01 of Islampur Union	32	Short Term	High	Detailed Design Required
ISAM-CUL-17	New	Islampur Union	-	Infront of the house of Roshidul Alam's house	New	7.62 m Culvert Proposed by Community people	Ward 01 of Islampur Union	32	Short Term	High	Detailed Design Required
ISAM-CUL-18	New	Islampur Union	-	From old nowabari to Roshidul Alam's house	New	9.14 m Culvert Proposed by Community people	Ward 03 of Islampur Union	37	Short Term	High	Detailed Design Required
NOA-CUL-24	New	Noarai Union	-	In the end of Kujap village	New	4.57 m Culvert Proposed by Community people	Ward 03 of Noarai Union	16	Short Term	Medium	Detailed Design Required
NOA-CUL-25	New	Noarai Union	-	On the way of Fakiria Bede Pali	New	6.10 m Culvert Proposed by Community people	Ward 02 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-26	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-27	New	Noarai Union	-	In front of Fikura Ali Miah's house	New	9.14 m Culvert Proposed by Community people	Ward 03 of Noarai Union	32	Short Term	High	Detailed Design Required
NOA-CUL-28	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-29	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-30	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-31	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-32	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-33	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-34	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-35	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-36	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-37	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-38	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-39	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
NOA-CUL-40	New	Noarai Union	-	In front of Arimogor Jolar Ali's house	New	6.10 m Culvert Proposed by Community people	Ward 03 of Noarai Union	21	Short Term	Medium	Detailed Design Required
DULA-CUL-01	New	Dular Bazar Union	-	At east side of Rampur mosque	New	7.62 m Culvert Proposed by Community people	Ward 09 of Dular Bazar Union	27	Short Term	High	Detailed Design Required
DULA-CUL-02	New	Dular Bazar Union	-	In front of Rampur mosque	New	5.69 m Culvert Proposed by Community people	Ward 09 of Dular Bazar Union	19	Short Term	High	Detailed Design Required
SMIA-CUL-07	New	Chhalafai Union	-	Front of Umrahalu bridge	New	12.19 m Culvert Proposed by Community people	Ward 08 of Chhalafai Union	43	Short Term	High	Detailed Design Required
CHATP-CUL-08	New	Chatrakpa Union	-	East side of Bousha Islam uddin's house	New	3.66 m Culvert Proposed by Community people	Ward 08 of Chatrakpa Union	16	Short Term	High	Detailed Design Required
CHATP-CUL-09	New	Chatrakpa Union	-	East side of Bousha Islam uddin's house	New	3.66 m Culvert Proposed by Community people	Ward 08 of Chatrakpa Union	16	Short Term	High	Detailed Design Required
CHATP-CUL-10	New	Chatrakpa Union	-	East side of Bousha Islam uddin's house	New	3.66 m Culvert Proposed by Community people	Ward 08 of Chatrakpa Union	16	Short Term	High	Detailed Design Required
CHATP-CUL-11	New	Chatrakpa Union	-	East side of Bousha Islam uddin's house	New	3.66 m Culvert Proposed by Community people	Ward 08 of Chatrakpa Union	16	Short Term	High	Detailed Design Required
CHATP-CUL-12	New	Chatrakpa Union	-	East side of Bousha Islam uddin's house	New	3.66 m Culvert Proposed by Community people	Ward 08 of Chatrakpa Union	16	Short Term	High	Detailed Design Required
CHATP-CUL-13	New	Chatrakpa Union	-	East side of Bousha Islam uddin's house	New	3.66 m Culvert Proposed by Community people	Ward 08 of Chatrakpa Union	16	Short Term	High	Detailed Design Required
CHATP-CUL-14	New	Chatrakpa Union	-	East side of Bousha Islam uddin's house	New	3.66 m Culvert Proposed by Community people	Ward 08 of Chatrakpa Union	16	Short Term	High	Detailed Design Required
CHATP-CUL-15	New	Chatrakpa Union	-	East side of Bousha Islam uddin's house	New	3.66 m Culvert Proposed by Community people	Ward 08 of Chatrakpa Union	16	Short Term	High	Detailed Design Required

Projects by DDM

Facilities for water (e.g., Tube well, pipeline and sanitation (Latrine))

Projects by Chataak Paurashava

ID	Type of Need	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
CHAPT-17-23	Construction	-	Chataak Chh.O.G.P.	New	Chataak Paurashava	10	Mid Term	high	Detailed Design Required
CHAPT-17-17	Construction	01	Near Fokir Billa B&B camp	New	Chataak Paurashava	7	Mid Term	high	Detailed Design Required

Projects by DPHE

ID	Type of Need	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
BHAT-17-01	New Construction	-	Infront of Guppur Nur	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
BHAT-17-02	New Construction	-	Fajonbazar	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
BHAT-17-03	Construction	-	bazar	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
BHAT-17-04	Construction	-	House (CX.) Back side	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
BHAT-17-05	Construction	-	Near Algonbazar east side	New	Tubewell installation Proposed by DPHE	2	Mid Term	Medium	Detailed Design Required
BHAT-17-06	Construction	-	Northern side of Rukonai	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
CHAT-17-07	New Construction	-	Infront of Jalichor bridge	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-08	Construction	-	Mosque	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-09	Construction	-	Infront of Majonuk Stray	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-10	Construction	-	Infront of Moddoygonestpur Jamia	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-11	Construction	-	Mulapara mosque to West	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-12	Construction	-	In Ayub Ali's house to the north side of Mulapara	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-13	New Construction	-	Mulapara Bazar South Tilla	New	Tubewell installation Proposed by DPHE	2	Mid Term	Medium	Detailed Design Required
ISLAM-17-14	New Construction	-	Mohammadpur Ibrahim	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-15	Construction	-	Mohammadpur Ibrahim	New	Community people and Upazila	2	Mid Term	High	Detailed Design Required

Attachment- 35

ID	Type of Need	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
ISLAM-17-16	New Construction	-	Kuchbaripath Tilla	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-17	New Construction	-	Beside Islampurjama	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-18	New Construction	-	Islampur	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-19	New Construction	-	Near Sona ram's house to Ali's house	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-20	New Construction	-	Moddoygonestpur	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-21	New Construction	-	South Gonestpur	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
ISLAM-17-22	New Construction	-	Near Mra mas house to	New	Tubewell installation Proposed by DPHE	2	Mid Term	High	Detailed Design Required
BHAT-17-01	New Construction	-	Infront of Guppur Nur	New	Community people and Upazila	2	Mid Term	High	Detailed Design Required
BHAT-17-02	New Construction	-	Fajonbazar	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
BHAT-17-03	Construction	-	bazar	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
BHAT-17-04	Construction	-	House (CX.) Back side	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
BHAT-17-05	Construction	-	Near Algonbazar east side	New	Community people and Upazila	7	Mid Term	Medium	Detailed Design Required
ISLAM-17-06	Construction	-	Mosque	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
ISLAM-17-07	Construction	-	Infront of Majonuk Stray	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
ISLAM-17-08	Construction	-	Infront of Moddoygonestpur Jamia	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
ISLAM-17-09	Construction	-	Mulapara mosque to West	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
ISLAM-17-10	Construction	-	In Ayub Ali's house to the north side of Mulapara	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
ISLAM-17-11	Construction	-	Mulapara Bazar South Tilla	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
ISLAM-17-12	Construction	-	Beside Islampurjama	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
ISLAM-17-13	Construction	-	Islampur	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
ISLAM-17-14	Construction	-	Islampur	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required
ISLAM-17-15	New Construction	-	Near Sona ram's house to Ali's house	New	Community people and Upazila	7	Mid Term	High	Detailed Design Required

Category	ID	Type of Need	Length (m)	Official ID Number	Official Name of Plan Status (e.g. (new/continuing/ pipeline/undecided)	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Protection wall	BHAT-09	New	582.17		Paikar Bari Major Mitha's house to Mitha's house	New	Community people	Ward 02 of Bhagabon Union	47	Mid Term	High	Detailed Design Required
Protection wall	BHAT-10	New	157.46		Changpur Mitha's house to house to gopabara house	New	Community people	Ward 03 of Bhagabon Union	126	Mid Term	High	Detailed Design Required
Protection wall	CHAB-11	New	319.43		Changpur Mitha's house to house to gopabara house	New	Community people	Ward 09 of Bhagabon Union	26	Mid Term	High	Detailed Design Required
Protection wall	CHAB-12	New	277.37		Bedies of Kamarkhal gort. primary school	New	Community people	Ward 08 of Charnahila Union	22	Mid Term	High	Detailed Design Required
Protection wall	CHAB-13	New	60.66		Primary school	New	Community people	Ward 06 of Charnahila Union	5	Mid Term	High	Detailed Design Required
Protection wall	JAMBA-14	New	85.34	690234001	RHD Road- Gopur Charnahila	New	Community people	Ward 01 of Kairuka Union	7	Mid Term	High	Detailed Design Required
Protection wall	KALA-02	New	589.79	690234001	RHD Road- Gopur Charnahila	New	Community people	Ward 02 of Kairuka Union	47	Mid Term	High	Detailed Design Required
Protection wall	KALA-03	New	940.31	690234030	RHD Road- Gopur Charnahila	New	Community people	Ward 03 of Kairuka Union	75	Mid Term	High	Detailed Design Required

Projects by DDM

Category	ID	Type of Need	Length (m)	Official ID Number	Official Name of Plan Status (e.g. (new/continuing/ pipeline/undecided)	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Protection wall	JAMBA-14	New	85.34	690234001	RHD Road- Gopur Charnahila	New	Community people	Ward 01 of Kairuka Union	7	Mid Term	High	Detailed Design Required
Protection wall	KALA-02	New	589.79	690234001	RHD Road- Gopur Charnahila	New	Community people	Ward 02 of Kairuka Union	47	Mid Term	High	Detailed Design Required
Protection wall	KALA-03	New	940.31	690234030	RHD Road- Gopur Charnahila	New	Community people	Ward 03 of Kairuka Union	75	Mid Term	High	Detailed Design Required

Projects by LGED

Category	ID	Type of Need	Length (m)	Official ID Number	Official Name of Plan Status (e.g. (new/continuing/ pipeline/undecided)	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Protection wall	JAMBA-14	New	85.34	690234001	RHD Road- Gopur Charnahila	New	Community people	Ward 01 of Kairuka Union	7	Mid Term	High	Detailed Design Required
Protection wall	KALA-02	New	589.79	690234001	RHD Road- Gopur Charnahila	New	Community people	Ward 02 of Kairuka Union	47	Mid Term	High	Detailed Design Required
Protection wall	KALA-03	New	940.31	690234030	RHD Road- Gopur Charnahila	New	Community people	Ward 03 of Kairuka Union	75	Mid Term	High	Detailed Design Required

Attachment-38

Category	ID	Type of Need	Length (m)	Official ID Number	Official Name of Plan Status (e.g. (new/continuing/ pipeline/undecided)	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Protection wall	BHAT-09	New	582.17		Paikar Bari Major Mitha's house to Mitha's house	New	Community people	Ward 02 of Bhagabon Union	47	Mid Term	High	Detailed Design Required
Protection wall	BHAT-10	New	157.46		Changpur Mitha's house to house to gopabara house	New	Community people	Ward 03 of Bhagabon Union	126	Mid Term	High	Detailed Design Required
Protection wall	CHAB-11	New	319.43		Changpur Mitha's house to house to gopabara house	New	Community people	Ward 09 of Bhagabon Union	26	Mid Term	High	Detailed Design Required
Protection wall	CHAB-12	New	277.37		Bedies of Kamarkhal gort. primary school	New	Community people	Ward 08 of Charnahila Union	22	Mid Term	High	Detailed Design Required
Protection wall	CHAB-13	New	60.66		Primary school	New	Community people	Ward 06 of Charnahila Union	5	Mid Term	High	Detailed Design Required
Protection wall	JAMBA-14	New	85.34	690234001	RHD Road- Gopur Charnahila	New	Community people	Ward 01 of Kairuka Union	7	Mid Term	High	Detailed Design Required
Protection wall	KALA-02	New	589.79	690234001	RHD Road- Gopur Charnahila	New	Community people	Ward 02 of Kairuka Union	47	Mid Term	High	Detailed Design Required
Protection wall	KALA-03	New	940.31	690234030	RHD Road- Gopur Charnahila	New	Community people	Ward 03 of Kairuka Union	75	Mid Term	High	Detailed Design Required

Attachment-37

Category	ID	Type of Need	Length (m)	Official ID Number	Official Name of Plan Status (e.g. (new/continuing/ pipeline/undecided)	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Health Complex	ISLAM-01	New			Northern side of (new/continuing/ pipeline/undecided)	Undecided	Community people	Ward 02 of Islampur Union	225	Mid Term	High	UHC has to request to the HED any development Plans.
Health Complex	ISLAM-02	New			Northern side of (new/continuing/ pipeline/undecided)	Undecided	Community people	Ward 02 of Islampur Union	225	Mid Term	High	UHC has to request to the HED any development Plans.
Health Complex	ISLAM-03	New			Northern side of (new/continuing/ pipeline/undecided)	Undecided	Community people	Ward 02 of Islampur Union	225	Mid Term	High	UHC has to request to the HED any development Plans.

Projects by Chhatak Paurashava

Category	ID	Type of Need	Length (m)	Official ID Number	Official Name of Plan Status (e.g. (new/continuing/ pipeline/undecided)	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Health Complex	ISLAM-01	New			Northern side of (new/continuing/ pipeline/undecided)	Undecided	Community people	Ward 02 of Islampur Union	225	Mid Term	High	UHC has to request to the HED any development Plans.
Health Complex	ISLAM-02	New			Northern side of (new/continuing/ pipeline/undecided)	Undecided	Community people	Ward 02 of Islampur Union	225	Mid Term	High	UHC has to request to the HED any development Plans.
Health Complex	ISLAM-03	New			Northern side of (new/continuing/ pipeline/undecided)	Undecided	Community people	Ward 02 of Islampur Union	225	Mid Term	High	UHC has to request to the HED any development Plans.

(g) Other infrastructures and facilities for emergency operations

Category	ID	Type of Need	Length (m)	Official ID Number	Official Name of Plan Status (e.g. (new/continuing/ pipeline/undecided)	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Protection wall	CHAB-26	New	371.55	CH/01/PW-01	Guidewall: RCD Guidewall/Retaining wall/South side of house	New	Community people	Ward 01 of Chhatak Paurashava	48	Mid Term	High	Detailed Design Required
Protection wall	CHAB-27	New	636.73	CH/03/PW-02	Guidewall: RCD Guidewall/Retaining wall/South side of house	New	Community people	Ward 03 of Chhatak Paurashava	96	Mid Term	High	Detailed Design Required
Protection wall	CHAB-28	New	351.13	CH/07/PW-03	Guidewall: RCD Guidewall/Retaining wall/South side of house	New	Community people	Ward 07 of Chhatak Paurashava	53	Mid Term	High	Detailed Design Required
Relief center	CHAB-01	New	Length=46 Width=10	CH/06/-02	Relief Center: Near Bagbar primary school	New	Community people	Ward 06 of Chhatak Paurashava	125	Mid Term	High	Detailed Design Required

Projects by LGED

Category	ID	Type of Need	Length (m)	Official ID Number	Official Name of Plan Status (e.g. (new/continuing/ pipeline/undecided)	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Protection wall	ISLAM-57-16	New			Near Hira mai's house to	New	Community people	Ward 07 of Islampur Union	7	Mid Term	High	Detailed Design Required
Protection wall	DK-11-22	New			Paikar Bari Major Mitha's house to	New	Community people	Ward 08 of Dakshin Kurnia Union	2	Mid Term	High	Detailed Design Required
Protection wall	DK-11-23	New			In front of Pans Ali's house in	New	Community people	Ward 08 of Dakshin Kurnia Union	2	Mid Term	High	Detailed Design Required

Category	ID	Type of Need	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests cost (Lakh Tk)	Estimated Implementation Time Frame	Priority in Hazard Analysis	Detailed Design Required	Remarks
Seminar		Seminar	All Unions	Meeting of legal concern for protecting mass people at Union/Upazila level	New	Proposed by UDMC	Community people of this Upazila	3	Mid Term	High	Detailed Design Required
Meeting/Seminar		Meeting/ Seminar	All Unions	Established awareness bill boards in various places over the Upazila	New	Proposed by UDMC	Community people of this Upazila	3	Mid Term	High	Detailed Design Required
Established Bill Board		Established places over the Upazila	Bussy	Established awareness bill boards in various places in the Municipality and Union level	New	Proposed by UDMC	Community people of this Upazila	15	Mid Term	Medium	Detailed Design Required
Training		Training	All Unions	Disaster preparedness education in school.	New	Proposed by UDMC	Community people of this Upazila	5	Mid Term	Medium	Detailed Design Required
Awareness session		Awareness session	All Unions	Awareness session on disaster issues especially on water borne diseases for UDMC & community people.	New	Proposed by UDMC	Community people of this Upazila	4.6	Mid Term	Medium	Detailed Design Required
Days Observation		Days Observation	All Unions	Conducting day's observation on disaster and climate change at Union level.	New	Proposed by UDMC	Community people of this Upazila	5.6	Mid Term	Medium	Detailed Design Required
Printing & distribution of poster		Printing & distribution of poster	All Unions	Festoons, Leaflets and Posters etc.	New	Proposed by UDMC	Community people of this Upazila	6	Mid Term	Medium	Detailed Design Required
Training		Training	All Unions	Provide awareness training for community people to be safe from lightning.	New	Proposed by UDMC	Community people of this Upazila	3	Mid Term	High	Detailed Design Required

Projects by BDM

4.Raising Public Awareness and Disaster Education

Category	ID	Type of Need	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests cost (Lakh Tk)	Estimated Implementation Time Frame	Priority in Hazard Analysis	Detailed Design Required	Remarks
Training		Training	All Unions	Training on Disaster Management and Air Pollution for UDMC members and community people	New	Proposed by UDMC	Community people of this Upazila	3	Mid Term	High	Detailed Design Required
Training		Training	All Unions	Awareness training on what to do before, at that time and after flood	New	Proposed by UDMC	Community people of this Upazila	3	Mid Term	High	Detailed Design Required

Projects by BDM

<Non-structural countermeasures>
3. Disaster Management Training and materials

Category	ID	Type of Need	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests cost (Lakh Tk)	Estimated Implementation Time Frame	Priority in Hazard Analysis	Detailed Design Required	Remarks
Input distribution		Input distribution	All Unions	Notification people for tree plantation and distribution tree sapling to the community people of each Union	New	Proposed by UDMC	Community people of this Upazila	4.5	Mid Term	High	Detailed Design Required

Projects by BDM

4. Infrastructures for Prevention of Other disasters
a) Lightning Conductor

Category	ID	Type of Need	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiaries/Interests cost (Lakh Tk)	Estimated Implementation Time Frame	Priority in Hazard Analysis	Detailed Design Required	Remarks
Repair	JMA-03	Repair and Renovation	Union	Gravard Graveyard	New	Proposed by Community people	Ward 09 of Jauwa Union	12	Mid Term	High	Detailed Design Required
Repair	LSM-06	Repair and Renovation	Union	Bocharoad-Bahadurpur	New	Proposed by Community people	Ward 03 of Singha Union	20	Mid Term	High	Detailed Design Required
Shelter	SING-03	Construction	Union	Sing Chapar	New	Proposed by Community people	Ward 03 of Singha Union	150	Mid Term	High	Detailed Design Required
Repair	SR-04	Repair and Renovation	Union	Chakabali	New	Proposed by Community people	Ward 06 of Chakabali Union	26	Mid Term	High	Detailed Design Required
Repair	SR-05	Repair and Renovation	Union	Sing Chapar	New	Proposed by Community people	Ward 03 of Singha Union	87	Mid Term	High	Detailed Design Required
Repair	DK-68	Repair and Renovation	Union	Dakshin	New	Proposed by Community people	Ward 03 of Singha Union	82	Mid Term	High	Detailed Design Required
Repair	SAD-07	Repair and Renovation	Union	Sydegaron	New	Proposed by Community people	Ward 09 of Sydegaron Union	27	Mid Term	High	Detailed Design Required
Repair	SR-08	Repair and Renovation	Union	Gravard	New	Proposed by Community people	Ward 09 of Sydegaron Union	150	Mid Term	High	Detailed Design Required
Repair	SR-09	Repair and Renovation	Union	Gravard	New	Proposed by Community people	Ward 09 of Sydegaron Union	150	Mid Term	High	Detailed Design Required

5. Other non-structural countermeasures									
Projects by Chhatak Paurashava									
Category	ID	Type of Need	Official Name of Countermeasures	Official ID Number	Official Status (e.g. New/continuing/ pipeline/unfunded)	Proposers	Direct Beneficiaries/Investors to be protected	Estimated Implementation Time Frame	Priority in Terms of Analysis
Logistic support		Chhatak Paurashava	Provide Water carrying tank for	-	New	Proposed by Paurashava	Community people of Chhatak Paurashava	2	High
Logistic support		Chhatak Paurashava	Provide 2 Excavators (0.7 dia) and 1	-	New	Proposed by Paurashava	Community people of Chhatak Paurashava	100	High
Logistic support		Chhatak Paurashava	Provide Garbage carrying	-	New	Proposed by Paurashava	Community people of Chhatak Paurashava	33	High
Logistic support		Chhatak Paurashava	Tractor/Trolley- 4 for Paurashava	-	New	Proposed by Paurashava	Community people of Chhatak Paurashava	33	High
Remarks									

Projects by BDM									
Category	ID	Type of Need	Official Name of Countermeasures	Official ID Number	Official Status (e.g. New/continuing/ pipeline/unfunded)	Proposers	Direct Beneficiaries/Investors to be protected	Estimated Implementation Time Frame	Priority in Terms of Analysis
Logistic support		Chhatak Paurashava	Provide Steel-body Rescue boat	-	New	Proposed by Paurashava	Community people of Chhatak Paurashava	30	High
Logistic support		Chhatak Paurashava	Provide life jacket and training for	-	New	Proposed by Paurashava	Community people of Chhatak Paurashava	7	High
Logistic support		Chhatak Paurashava	Provide life jacket and training for	-	New	Proposed by Paurashava	Community people of Chhatak Paurashava	7	High
Logistic support		Chhatak Paurashava	Providing relief (food, water and necessary medicines) during the disaster and after disaster to the affected poor people.	-	New	Proposed by UOMC & PPO office	Community people of this Upazila	10	High
Logistic support		Chhatak Paurashava	Training Farmer Insurance for flood affected farmers.	-	New	Proposed by UOMC & PPO office	Community people of this Upazila	900	High
Logistic support		Chhatak Paurashava	Pic-up car (2-50-100 Ton) for relief distribution	-	New	Proposed by PPO office	Community people of this Upazila	50	High
Logistic support		Chhatak Paurashava	Generator set for communicating in emergency period	-	New	Proposed by PPO office	Community people of this Upazila	2	High
Logistic support		Chhatak Paurashava	Wireless set for communicating in emergency period	-	New	Proposed by PPO office	Community people of this Upazila	0.5	High
Remarks									

Attachment-1- 41

Attachment 2: List of the Members of UzDMC for the development of the LDRRA Plan in Chhatak

(1) UzDMC Members

Sl. No.	Name	Designation	Position in UzDMC
01.	Mr. Fazlur Rahman	Chairman, Upazila Parishad, Chhatak, Sunamganj	Chairperson
02.	Mr. Nurur Zaman Chowdhury	Upazila Nirbahi Officer, Chhatak, Sunamganj	Co-chairperson
03.	Mr. Abul Kalam Chowdhury	Mayor, Chhatak Municipality, Sunamganj	Member
04.	Mr. Abu Sahadat Lahin	Vice-Chairman (M), Upazila Parishad, Chhatak, Sunamganj	Member
05.	Ms. Lipi Begum	Vice-Chairman (F), Upazila Parishad, Chhatak, Sunamganj	Member
06.	Mr. Sufi Alam Sohel	Chairman, Islampur UP, Chhatak, Sunamganj	Member
07.	Mr. Dewan Pir Abdul Khaleque Raja	Chairman, Noarai UP, Chhatak, Sunamganj	Member
08.	Mr. Saiful Islam	Chairman, Chhatak (S) UP, Chhatak, Sunamganj	Member
09.	Mr. Owdud Alam	Chairman, Kalaruka UP, Chhatak, Sunamganj	Member
10.	Mr. Abul Hasnat	Chairman, Charnohallah UP, Chhatak, Sunamganj	Member
11.	Mr. Bilal Ahmed	Chairman, North Khurma UP, Chhatak, Sunamganj	Member
12.	Mr. Sahab Uddin Md. Sohel	Chairman, Singchapor UP, Chhatak, Sunamganj	Member
13.	Mr. Abu Bakar Siddique	Chairman, South Khurma UP, Chhatak, Sunamganj	Member
14.	Mr. Abdul Haque	Chairman, Jouwa Bazar UP, Chhatak, Sunamganj	Member
15.	Mr. Nurul Alam	Chairman, Dolar Bazar UP, Chhatak, Sunamganj	Member
16.	Mr. Alhaj Sundar Ali	Chairman, Gobindaganj Sydergaon UP, Chhatak, Sunamganj	Member
17.	Mr. Goyach Ahmed	Chairman, Chhaila Afjalabad UP, Chhatak, Sunamganj	Member
18.	Mr. Ahalad Hossain	Chairman, Batgaon UP, Chhatak, Sunamganj	Member
19.	Mr. Md. Islam Uddin	Asst. Commissioner (Land), Chhatak, Sunamganj	Member
20.	Mohammad Mahabubur Rahman	Officer In-charge, Chhatak, Sunamganj	Member
21.	Mr. Rajib Chakraborty	Uz. Health & Family Planning Officer, Chhatak, Sunamganj	Member
22.	Mr. Towfiq Hossain Khan	Uz. Agriculture Officer, Chhatak, Sunamganj	Member
23.	Mr. Md. Ibrahim Mian	Uz. Livestock Officer, Chhatak, Sunamganj	Member
24.	Ms. Shima Rani Das	Uz. Fishery Officer, Chhatak, Sunamganj	Member
25.	Mr. Masum Mian	Uz. Education Officer (Acting)	Member
26.	Mr. Afzar Ahmed	Uz. Engineer, LGED, Chhatak, Sunamganj	Member
27.	Mr. Shah Md. Shafur Rahman	Uz. Social Welfare Officer, Chhatak, Sunamganj	Member
28.	Mr. Chowdhury Razib Mostafa	Uz. Family Planning Officer, Chhatak, Sunamganj	Member
29.	Mr. Pinak Ranjan Bhattachariya	Uz. Food Control Officer, Chhatak, Sunamganj	Member
30.	Mr. Gopal Ch. Das	Uz. Youth Development Officer, Chhatak, Sunamganj	Member

Attachment 2- 1

Sl. No.	Name	Designation	Position in UZDMC
31.	Mr. Motiur Rahman	Uz. Cooperative Officer, Chhatak, Sunamganj	Member
32.	Mr. Pulin Ch. Roy	Uz. Secondary Education Officer, Chhatak, Sunamganj	Member
33.	Mr. Abdul Kadir	Uz. Anisar VDP Officer	Member
34.	Mr. Pronab Lal Das	Uz. Rural Development Officer, Mr. Abdul Kadir, Chhatak, Sunamganj	Member
35.	Mr. Miljanur Rahman	Sub-Assistant Engineer, DPHE, Chhatak, Sunamganj	Member
36.	Mr. Md. Jalal Ahmed	Station Master, Fire Service Civil Defense, Chhatak, Sunamganj	Member
37.	Mr. Mahamudul Hasan	Residential Engineer, PDB, Chhatak, Sunamganj	Member
38.	Mr. Towfiqul Islam	Branch Officer, BWDB, Chhatak, Sunamganj	Member
39.	Mr. Sumon Bhattacharjya	Manager, Sonali Bank, Chhatak, Sunamganj	Member
40.	Mr. Harun-Ur-Rashid	President, Press Club, Chhatak, Sunamganj	Member
41.	Mr. Tushar Charan Das	Principal, Govt. Degree College, Chhatak, Sunamganj	Member
42.	Mr. Anwar Hossain Totha	Commander of Freedom Fight, Chhatak, Sunamganj	Member
43.	Mr. Liton Hawlader	Branch Manager, Breeze NGO, Chhatak, Sunamganj	Member
44.	Mr. Mostafa Hasan Habib	Instructor, URC, Chhatak, Sunamganj	Member
45.	Mr. K.M. Mahabub Rahman	Project Implementation Officer, Chhatak, Sunamganj	Member Secretary



পাঞ্জপ্রজাতন্ত্রী বাংলাদেশ সরকার
উপজেলা নির্বাহী অফিসের কার্যালয়
ছাতক উপজেলা, সুনামগঞ্জ।

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তারিখ: ২২/০৭/২০১৬ খ্রিঃ

স্মারক নং: ৩৭০

বিষয়: "The Project for Capacity Enhancement on Formulation & Implementation of Local Disaster Risk Reduction Plan (LDRRP)" শীর্ষক প্রকল্পের আওতাধীন "স্থানীয় দুর্যোগ ঝুঁকি নিরূপণ পরিকল্পনা" প্রস্তুতকরণের লক্ষ্যে ছাতক উপজেলার সং-কমিটি (UZSC) গঠন প্রসঙ্গে।

উপরোক্ত বিষয়ের প্রেক্ষিতে জানানো যাচ্ছে যে, দুর্যোগ ব্যবস্থাপনা অধিদপ্তর (ডিউএম) এবং জাপান ইন্টারন্যাশনাল কো-অপারেশন এজেন্সি (JICA) কর্তৃক বাস্তবায়নীয় "The Project for Capacity Enhancement on Formulation and Implementation of Local Disaster Risk Reduction Plan (LDRRP)" শীর্ষক প্রকল্পের আওতাধীন সুনামগঞ্জ জেলার ছাতক উপজেলা "স্থানীয় দুর্যোগ ঝুঁকি নিরূপণ পরিকল্পনা" প্রস্তুতকরণের লক্ষ্যে উপজেলা দুর্যোগ ব্যবস্থাপনা কমিটির সমাপনের লক্ষ্যে প্রকল্পের সমাপ্তি পরবর্তীকালে এই কমিটির এবং স্থানীয় জন প্রতিনিধিদের সমন্বয়ে নিম্নোক্তভাবে একটি সং-কমিটি গঠন করা হলো।

ক্র. নং	কমিটির সদস্যদের নাম	পদবী (As of UZDMC)	সং-কমিটিতে পদবী
১	ডাঃ মোঃ মুর্তেজা রহমান	ডায়েরিয়ার উপজেলা পরিষদ এবং সং-কমিটি	উপ-সচিব
২	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা নির্বাহী কর্মকর্তা এবং সং-সম্পর্কিত	সদস্য
৩	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা জেলা এবং জামিন প্রদান কর্তৃক ও সদস্য	সদস্য
৪	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা কৃষি কর্মকর্তা এবং সদস্য	সদস্য
৫	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা প্রকৌশলী, এলিভেটরি এবং সদস্য	সদস্য
৬	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা ইন্সপেক্টর ও সদস্য	সদস্য
৭	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা জেলা এবং সং-সম্পর্কিত	সদস্য
৮	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা জেলা এবং সং-সম্পর্কিত	সদস্য
৯	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা জেলা এবং সং-সম্পর্কিত	সদস্য
১০	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা জেলা এবং সং-সম্পর্কিত	সদস্য
১১	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা জেলা এবং সং-সম্পর্কিত	সদস্য
১২	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা জেলা এবং সং-সম্পর্কিত	সদস্য
১৩	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা জেলা এবং সং-সম্পর্কিত	সদস্য
১৪	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা জেলা এবং সং-সম্পর্কিত	সদস্য
১৫	ডাঃ মোঃ মুর্তেজা রহমান	উপজেলা জেলা এবং সং-সম্পর্কিত	সদস্য

উপজেলা উপজেলা দুর্যোগ ব্যবস্থাপনা কমিটির সমাপনের লক্ষ্যে "Hazard Analysis and Risk Assessment" বিবরণী দ্রুত প্রস্তুতকরণের লক্ষ্যে স্থানীয় দুর্যোগ ঝুঁকি নিরূপণ পরিকল্পনা প্রস্তুতকরণের লক্ষ্যে উপজেলা, ইউনিয়ন এবং গ্রাম-পঞ্চায়েতসমূহের মাধ্যমে প্রয়োজনীয় তথ্য-বাহ্যিদের জন্য উক্ত সং-কমিটি কাজ করবে।

১২/০৭/১৬

(সং-মুর্তেজা রহমান)

উপজেলা নির্বাহী অফিসার ও সং-সম্পর্কিত
উপজেলা দুর্যোগ ব্যবস্থাপনা কমিটি (UZDMC),
ছাতক, সুনামগঞ্জ।

কমিটি : সদস্য জ্ঞানচি ও প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য প্রেরণ করা হলো-

- ১) জনন নির্বাহী দুর্যোগ গোষ্ঠীর (সং-সম্পর্কিত, পরিচালক (পরিচালনা ও উন্নয়ন), নির্বাহী এবং প্রকল্প পরিচালক, LDRRP শীর্ষক প্রকল্প, প্রকল্প।
- ২) জেলা প্রশাসক, সুনামগঞ্জ।
- ৩) জেলা প্রশাসক, উপজেলা পরিষদ, ছাতক, সুনামগঞ্জ।
- ৪) জেলা প্রশাসক ও পাবনা কর্মকর্তা, সুনামগঞ্জ।
- ৫) জেলা প্রশাসক, সুনামগঞ্জ।
- ৬) জেলা প্রশাসক, সুনামগঞ্জ।
- ৭) জেলা প্রশাসক, সুনামগঞ্জ।

(2) UzDMC Sub-Committee members for LDRRAP

Sl. No.	Name of the Committee Members	Designation	Position in the Sub-Committee
01.	Mr. Fazlur Rahman	Chairman, Upazila Parishad	Chairman
02.	Mr. Nurur Zaman Chowdhury	Upazila Nirbahi Officer	Co-chairman
03.	Dr. Rajib Chakraborty	Upazila Health & Family Planning Officer	Member
04.	Mr. Md. Towfiq Hossain Khan	Upazila Agriculture Officer	Member
05.	Mr. Afsar Ahmed	Upazila Engineer, LGED	Member
06.	Mr. Mostafa Ahasan Habib	Instructor, Upazila Resource Center (URC)	Member
07.	Dr. Md. Iman Al-Hossain	Veterinary Surgeon, Upazila Livestock Department	Member
08.	Mr. Dijendra Kumar Das	Sub-Assistant Engineer, Chhatak Municipality	Member
09.	Mr. Mijanur Rahman	Sub-Assistant Engineer, DPHE	Member
10.	Mr. Mohiuddin	Branch Officer, BWDB	Member
11.	Mr. Goyach Ahmed	Chairman, Salla Afjalabad Union Parishad	Member
12.	Mr. Bilal Ahmed	Chairman, North Khurma Union Parishad	Member
13.	Mr. Sahabuddin Md. Sahel	Chairman, Singchapoir Union Parishad	Member
14.	Mr. Saiful Islam	Chairman, Chhatak Sadar Union Parishad	Member
15.	Mr. KM Mahabub Rahman	Project Implementation Officer	Member of the Office Secretary

Attachment 3: Workshop and other planning activity photos in Chhatak



1st Workshop with UzDMC



2nd Workshop with UzDMC



UzSC Meeting presided by UNO



3rd (Final) Workshop with UzDMC



Meeting with District Disaster Management Committee (DDMC)



Collection and Validation of Risk and Hazard Information Consultation with Govt. Departments and Union Chairmen



[illegible]