

4) UzDRRAP of Jagannathpur, Sunamganj

**Upazila Disaster Risk Reduction
Action Plan**

Jagannathpur, Sunamganj

November 2023

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

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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 Sancred 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
Jagannathpur Upazila Parishad
Sunamganj District



Message

Sunamganj district is known throughout the country as Haor and low-land area. Fishes, Stones and Rice are recognized as the soul of the district. Jagannathpur Upazila under Sunamganj district surrounded by Haor is highly disaster-prone area. Although agriculture is the main livelihood option of the area, almost every year disaster, especially flash flood, hits every union of this Upazila and adversely affects the livelihood of the people. The flash flood occurs from mid-April to May due to heavy rainfall in the upstream of Meghalaya's hills resulting damage of not only standing Boro crops, fisheries, livestock, but also infrastructures, houses, and people's lives. Apart from the flash flood, the significant disasters of this Upazila are seasonal floods, tornados, thunderstorms, draughts and so on, which hampers different types of development initiatives of the government.

In spite of affecting this Upazila with disasters every year, no disaster management plan is prepared yet at Upazila level. Bangladesh government comes forward with a view to restoration of life and livelihoods, as well as reduces sufferings of community peoples living in this Upazila with the assistance of JICA through the project.

I am very much glad to involve in the process for formulation of Upazila Disaster Risk Reduction Action Plan (UzDRRAP). I strongly believe that the said UzDRRAP will play a vital role to reduce disaster risk of the area. I express my sincere thanks to everyone involved in the formulation of disaster risk reduction plan.

Md. Nurul Islam



Upazila Nirbahi Officer
Jagannathpur, Sunamganj

Message

Jagannathpur is an Upazila located in the northeast of the district of Sunamganj and in the middle of the division of Sylhet, Bangladesh. It is bordered by Chhatak and North Sunamganj to the north, Bishwanath and Osmani Nagar to the east, Derai to the west, and Nabiganj to the south. The major rivers are Kushiara and Dahuka, while the major Haors are Gaziala Group Haor, Pinglar Haor, Nalua Haor, and Paruar Haor. Agriculture is the main livelihood option of the area including fisheries. Various types of natural disaster are the main obstacle to the development where Flash flood is very prominent. Apart from this, other significant disasters including seasonal floods and thunderstorm also damage lives, wealth, and environment. It affects not only the person or the community of a society, but also slows down the national economic growth and irreplaceable resources. In order to reduce the risk of disasters and losses, a proper plan is needed.

Based on that reality, the Bangladesh government, specifically MoDMR and DDM, with the support of JICA, comes forward to prepare the Upazila Disaster Risk Reduction Action Plan (UzDRRAP) involving UzDMC (Upazila Disaster Management Committee) and UDMC (Union Disaster Management Committee), as well as the interaction with officials of relevant departments which are extremely realistic and well-timed. For the planning, we set the Upazila Sub-Committee for discussing needed DRR countermeasures, and conducted UzDRRAP formulation workshops several times. This plan contains general information of the Upazila including population, history of disaster, hazard and risk assessment, as well as the list of needed structural and non-structural countermeasures to reduce the disaster risks.

I believe this plan will play a vital role to reduce disaster risk of the area. I express thanks and gratitude to members of UDMC, UzDMC and DDMC for their tremendous efforts. I draw the attention to respective authorities for the successful implementation of UzDRRP on time.

Md. Shajedul Islam

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Attachment 2: Member lists of UzDMC and UzSC

Attachment 3: Activity photo

Acronyms

ADP	Annual Development Program
BBS	Bangladesh Bureau of Statistics
BCC	Building Construction Committee
BMD	Bangladesh Meteorological Department
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
GIS	Geographic Information System
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
LDRRP	Local Disaster Risk Reduction Plan
LGED	Local Government Engineering Department
MoDMR	Ministry of Disaster Management and Relief
MoE	Ministry of Education
NGO	Non-governmental Organization
NPDM	National Plan for Disaster Management
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
TSC	Technical Sub-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 Defense Party

Chapter-1. Introduction

1.1 Purpose and aim of the Plan

The purpose of the Jagannathpur 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).

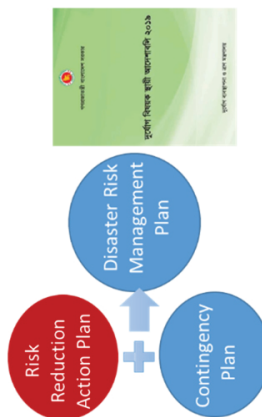


Figure 1-1. Risk Reduction Action Plan in the SOD

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".

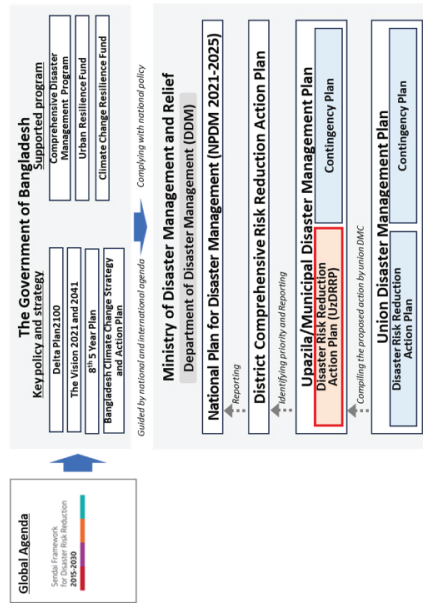


Figure 1-2. Relationship between national key policies and this plan

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 Jagannathpur 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 SYP 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 showing hazard maps. While disaster records of the Upazila were collected by the DRRD 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. 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 of flood target paddy fields, settlement areas, as well as the important public facilities and infrastructures, while those for earthquake shaking target households. These damages were estimated by overlaying hazard data with statistical data¹, and consequently confirmed by the UzDMC members and the UzSC members in workshops and meetings, along with the priority unions 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 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.

¹ The risk assessment was conducted in accordance with the developed guideline – Guideline on Hazard and Risk Assessment.

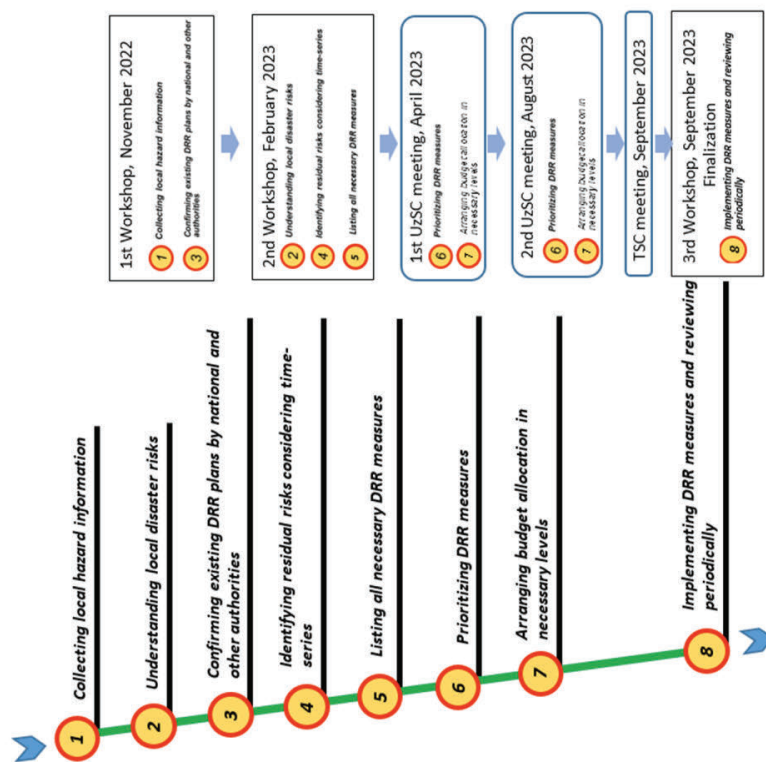


Figure 1-3. "8 Steps" for Upazila DRR Planning in case of this plan

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

2.1 Location and Geographic Conditions

2.1.1 Location of the Upazila

Jagannathpur Upazila is situated in the south-east of Sunamganj district and the middle of the divisional town, Sylhet, of the north-east part of Bangladesh. It is bordered by Chhatak Upazila to the north, Shantiganj Upazila to the north-west, and DeraI Upazila to the south-west under Sunamganj district and Bishwanath and Osmaniagar Upazila under Sylhet District to the east and Nabiniganj Upazila under Habiganj District to the south. It is located 50 km west of the divisional headquarters city of Sylhet and 43.3 Km north-east of the district town Sunamganj. The area of the Upazila is 335.97 km².



Figure 2-1. Location Map of Jagannathpur Upazila

2.1.2 Topography of the Upazila

The topography of Jagannathpur Upazila consists primarily of flat and low-lying plains with an elevation of less than 12 meters except for the high area comparatively. Therefore, the Upazila is vulnerable to flood and flash flood due to monsoon frequently. These flat areas are used for agriculture, fish and duck farming in the haor area, fishing in the open water body 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 the 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 Jagannathpur Upazila. In those upazilas, there are some wetlands called "Haor" and those rivers provide water into Haor from the 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 the Haor area becomes deeper and wider.

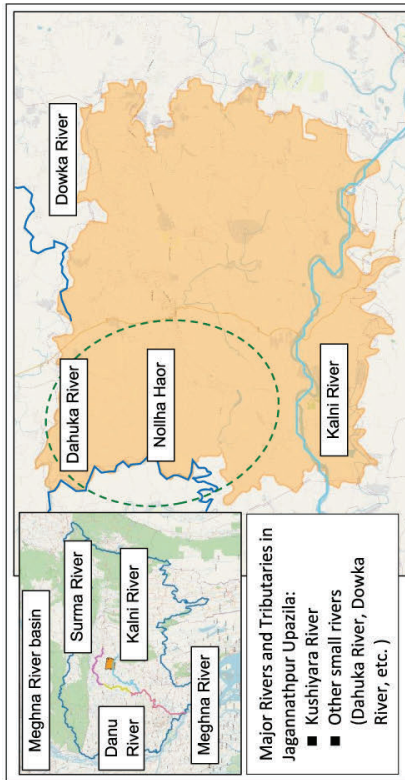


Figure 2-3. Major River, Small Rivers and Haors in Jagannathpur Upazila

2.2 Socio-economic Conditions

2.2.1 Demography

Jagannathpur Upazila is divided into eight unions: Asharkandi, Chilaura Holdipur, Kolkola, Mirpur, Pailgaon, Raniganj, Syedpur Shaharpara and Patli. Jagannathpur Paurashava is divided into 9 Wards and 43 Mahallas. The demography in Jagannathpur Upazila is shown below. According to the census 2011, the total population of the Upazila is 287,786 people.

Table 2-1. Demography of Jagannathpur Upazila

Union Name	Total Area (km ²)	Total Population	Number of Households
Asharkandi	51.22	37,005	4,136
Chilaura Holdipur	61.38	29,903	3,910
Kolkola	21.00	38,667	6,820
Mirpur	28.90	23,219	3,342
Pailgaon	42.44	32,925	5,310
Raniganj	49.37	38,114	5,004
Syedpur Shaharpara	22.29	24,369	3,342
Patli	32.52	22,885	3,062
Jagannathpur Paurashava	26.85	40,699	7,032
Total	335.97	287,786	41,958

Source: Population and Housing Census 2011 and interview with Unions

2.2.2 Economy and Industry

The economy of Jagannathpur Upazila is mainly depends on agriculture and agriculture-based farming. Out of total 41,958 households of this Upazila, 63.58% households are directly related to agriculture farming. They produce various crops mainly rice (Amon and Boro), wheat, vegetable, oil seeds and others which are sold both locally and to other parts of the district. Apart, fishing in open water body along with fishery in the wetland, Haor. Beel and even in the paddy field during the rainy season are the important economic activities of the area. Besides, Livestock, Duck farming, and Cottage industries (e.g., Bamboo and Cane work) are also the main sources of household income of this Upazila. There are a number of Fisheries, Dairies, Poultry and Duck hatcheries in this Upazila. The main export item from this Upazila is haor fish. Non-farm activities are not very much significant in this Upazila. Although males and females are equally involved in agriculture, female participation in non-farm activities is very much poor in rural areas.

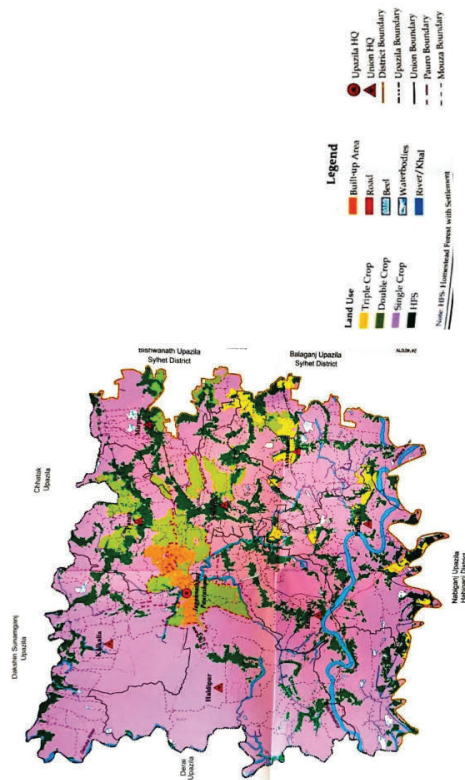
According to the district statistics (2011), agriculture contributes to economy 57.11%, non-agriculture sectors 6.87%, industry 0.42%, trade 9.42%, transport & communication 0.96%, remittance 9.70%, service 3.79%, construction 0.88%, religious service 0.34% and others 10.51%.

The following table shows the total establishments of different industries in Jagannathpur Upazila which are contributed to the national economy.

Table 2-2. The number of industries

Sl. no.	Name of industry	No. of industry	Sl. no.	Name of industry	No. of industry
1	Rice mill	19	6	Bamboo & cane industry	205
2	Pottery	02	7	Wooden furniture	15
3	Husking Crafts mill	130	8	Saw mill	24
4	Dry fish processing	20	09	Bakery	5
5	Cottage industry	50	10	Tailoring shop	127
Total of industries establishment =					597

(Source: District statistics- 2011)



(Source: National Land Zoning Project, Ministry of Land)

Figure 2-4. Land Use Zoning Map

2.2.3 Urbanization

The 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 upazila of Chataak, Deral, Jagannathpur and Sunamganj Sadar. The urbanization rate in Jagannathpur is 15.68 % in 2011 and the rate has expanded for 0.2 % which is not a significant increase. The highest urbanization rate observed in the Sunamganj district is 25.13% in Sunamganj Sadar. However, Jagannathpur upazila is one of the upazilas where urbanization is developing as Jagannathpur Paurashava is located as a growing center. Annual population growth rate in Jagannathpur upazilla is 1.08% in 2022 according to the comparison between 2011 and 2022, it is slightly lower than the average rate of Bangladesh of 1.22% (Population & Housing Census 2022). Annual population rate in the union of Asharkandi, Kolkolia and Chilaura Holdipur above the average of 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	
Jagannathpur Paurashava	40,699	40,499	-0.05%
Asharkandi	27,740	37,005	3.34%
Chilaura Holdipur	26,057	29,903	1.48%
Kolkolia	31,953	38,667	2.10%
Mirpur	21,364	23,219	0.87%
Pailgaon	30,117	32,925	0.93%
Patil	21,383	22,885	0.70%
Raniganj	36,295	38,114	0.50%
Syedpur Shaharpara	23,882	24,369	0.20%

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

2.3 Meteorological Conditions

The climate of Jagannathpur 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 October as shown in Figure 2-5. Then, the northeast monsoon flows and dries the area from November to March.

As shown in Figure 2-5, the Upazila has an annual rainfall of more than 2,000 mm. Most rainfall is concentrated during the rainy season, especially the 4 months between June to September, when a third of the annual rainfall occurs. Also, there is moderate rainfall in May and October. The heavy rainfall often devastates haor area of Jagannathpur Upazila and causes flooding in the area. In addition, flash flood also generally affects in late March to mid-April due to rainwater comes from upstream. Also, the thunderstorm causes tremendous damage for which may people dies in every year.

The Upazila has a little high temperature in comparison with the national average. The highest temperature reaches a maximum of 35.0°C in April and a minimum of 16.0°C in January. From February to October the temperature is prevailing within 30. 0°C to 35. 0°C (Figure 2-6).

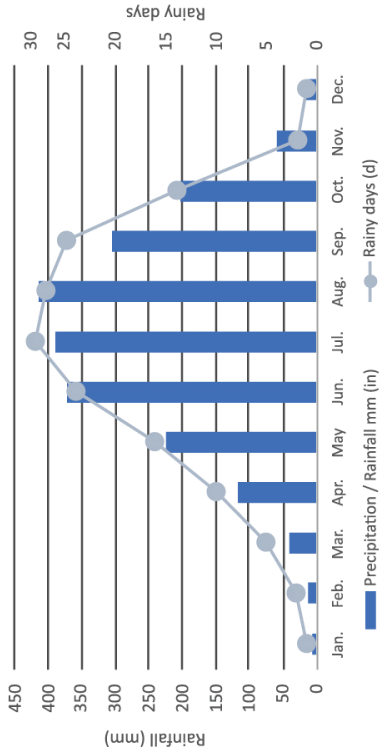


Figure 2-5. Average Annual Rainfall and Temperature

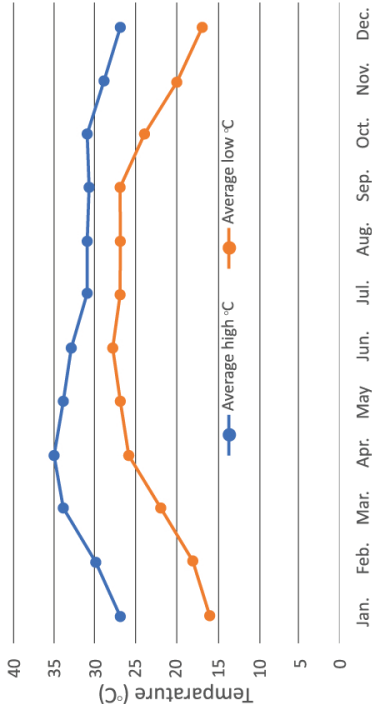


Figure 2-6. Average Temperature

Chapter-3. Target Hazards and Disaster-prone Areas

3.1 Disaster Record of the Upazila

Jagannathpur 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. One of the most historic and destructive disasters was the 2022 flood which severely affected the Upazila with over 6,000 damaged houses and 50,000 affected people.

Table 3-1. Recent Disaster Record in Jagannathpur Upazila

No.	Year	Damage
1. Flood		
(1)	May, 1999	Cause: Flash flood by heavy rain Affected population: 5,000 people Casualty: 00 dead people Damaged House: 200 Damaged Infrastructures: 20 km stretch of Haor embankment, school, tube well, and pond Other Damage: livestock, crop,
(2)	Jun. 2004	Cause: Flash flood Affected population: 50,000 people Casualty: 01 dead people Damaged House: 500 Damaged Infrastructures: 5.00 km stretch of Haor embankment, school, tube well, and pond Other Damage: livestock, crop,
	N.d. 2004	Cause: Seasonal flood Affected population: 60,000 people Casualty: 00 dead people Damaged House: 600 Damaged Infrastructures: 6.00 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: 6000 people Casualty: 00 dead people Damaged House: 100 Damaged Infrastructures: 1.00 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: 10,000 people Casualty: 00 dead people Damaged House: 56 Damaged Infrastructures: 1.00 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: 76,800 people Casualty: 00 dead people Damaged House: 6385 Damaged Infrastructures: 50.00 km stretch of Haor embankment, school, tube well, and pond Other Damage: livestock, crop,

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

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 Jagannathpur Upazila, targeting the pre-monsoon flash flood, which causes tremendous damage 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 the 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 Jagannathpur Upazila, Asharkandi, Chilaura Holdipur, and Kolkolia are particularly prone to flooding because the lands of such unions are low-lying and some hoars are located. The paddy fields and the settlement area in such unions are affected severely and widely.

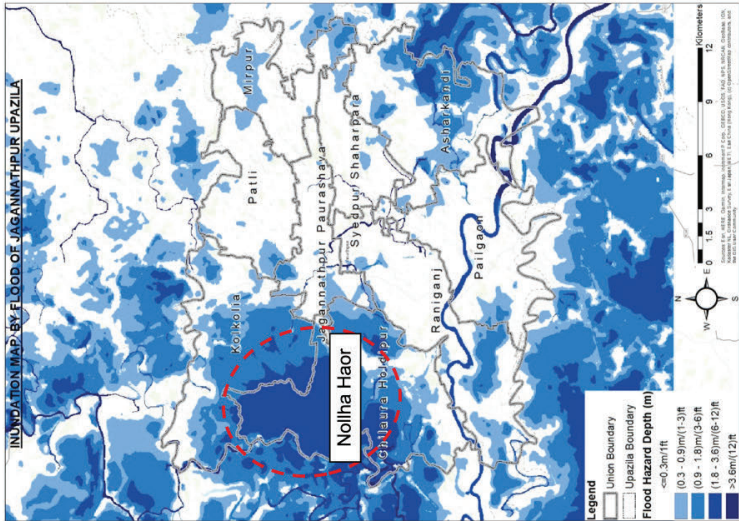


Figure 3-1. River Floods Hazard map in Jagannathpur Upazila

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 Jagannathpur 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 northwestern unions including Kolkola and Chilaura Holdipur Unions, are estimated with relatively weak shaking rather than other unions.

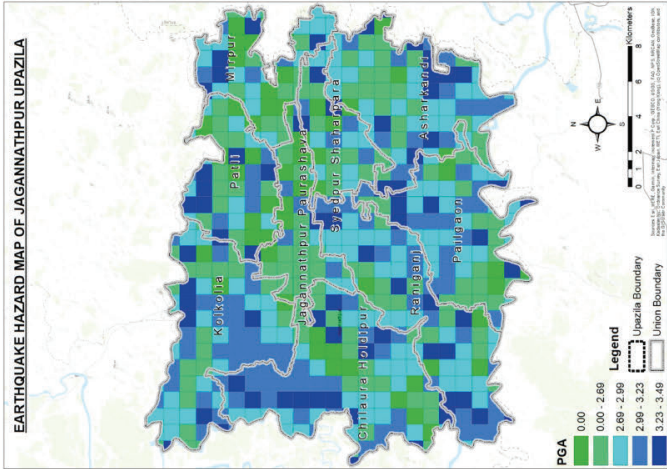


Figure 3-2. Earthquake Hazard map in Jagannathpur

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.
V330 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: Midonikawa 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: cultivation 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 Chilaura Holdipur and Kolkola Unions adjacent to Pingla Haor. The inundation areas are approximately 3,050 m² and 3,150 m², respectively. 82% of Asharkandi Union, located on the southeastern corner of Jagannathpur Upazila is also affected by flooding as it is adjacent to the Chalyyar, Saratir and Dayalang Hoars.

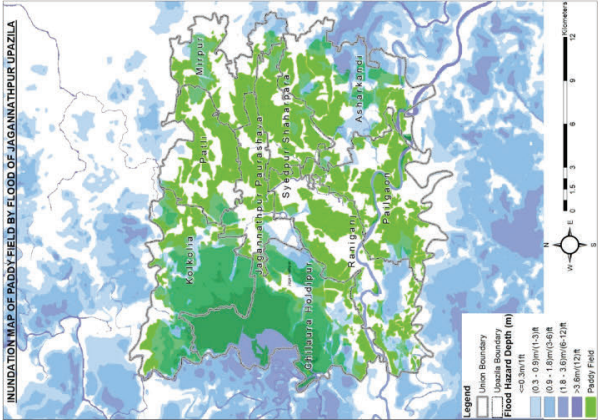


Figure 4-1. Inundated Paddy Field with danger water level of BWDB

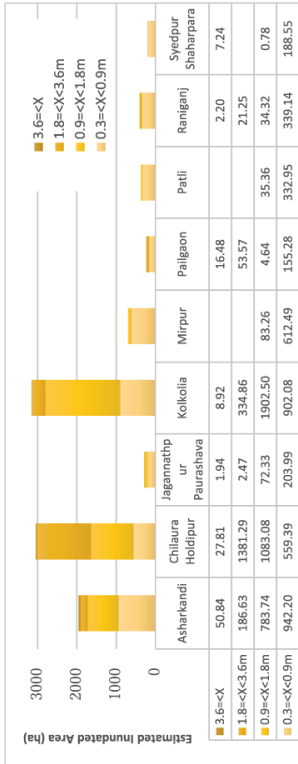


Figure 4-2. Inundated Area of Paddy Field with danger water level of BWDB

Total Economic loss estimated based on the areas of the inundated paddy fields, reaches about 864 million Taka. Kolkolia Union is most affected with about 263 million, followed by Chilaura Holdipur Union with 255 million Taka. Asharkandi Union will be most affected in terms of the percentage with 82.1% 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]
Asharkandi	1963.42	82.1%	164,276
Chilaura Holdipur	3051.57	68.0%	255,320
Jagannathpur Paurashava	280.72	21.0%	23,487
Kolkolia	3148.35	78.1%	263,417
Mirpur	695.75	53.0%	58,212
Paligaon	229.97	9.9%	19,241
Patli	368.32	19.8%	30,817
Raniganj	396.92	17.5%	33,210
Syedpur Shaharpura	196.57	12.2%	16,447
Total	10331.59	47.8%	864,427

Notes: 1. 3.52 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 Jagannathpur Upazila, DAEC" (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 23.75 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 risk in Chilaura Holdipur and Kolkolia Unions adjacent to Pingla Haor 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 interventions to prevent or mitigate the impact of pre-monsoon flash flood. In particular, in Asharkandi Union, the remaining inundation affected area (≥ 0.3m) is estimated at 1,963 m².

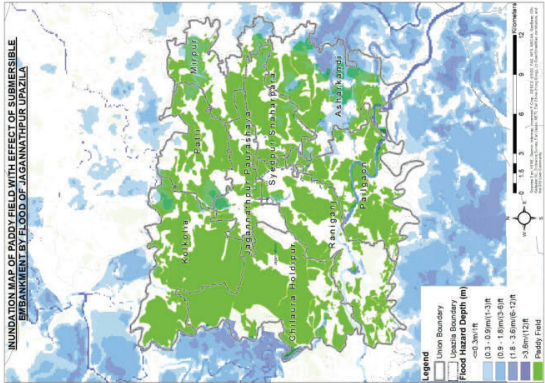


Figure 4-3. Inundated Paddy Field in case of functioning submersible embankment

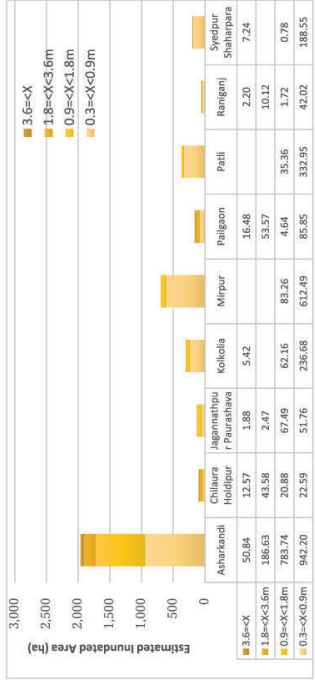


Figure 4-4. Inundated Area of Paddy Field in case of functioning submergible embankments

(2) Damage estimation of settlement area by flood

Figure 4-5 shows that portions of the settlement areas of Kolkolia, Chilaura Holdipur and Asharkandi Unions which are adjacent to some haors are affected by flooding. Comparing the affected settlement areas by union, Chilaura Holdipur and Kolkolia Unions are the most affected with approximately 7,590 m² and 6,500 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.

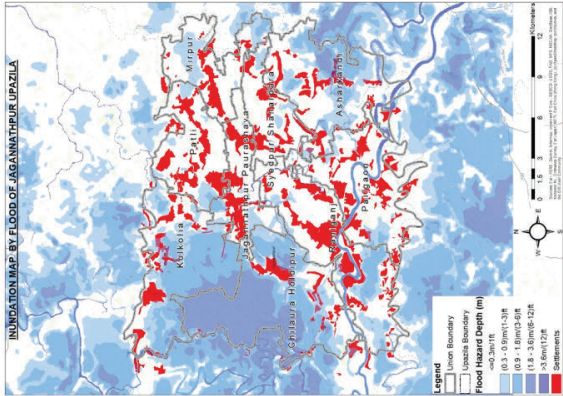


Figure 4-5. Inundated Settlement with danger water level of BWDB

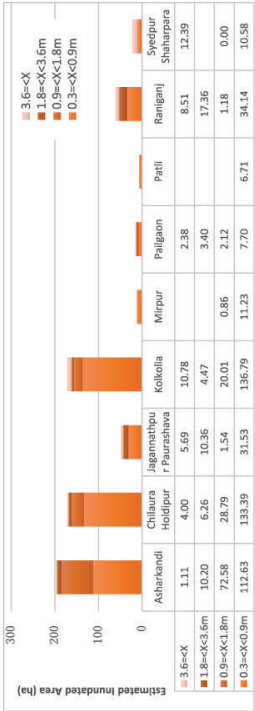


Figure 4-6. Inundated Area of Settlement with danger water level of BWDB

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

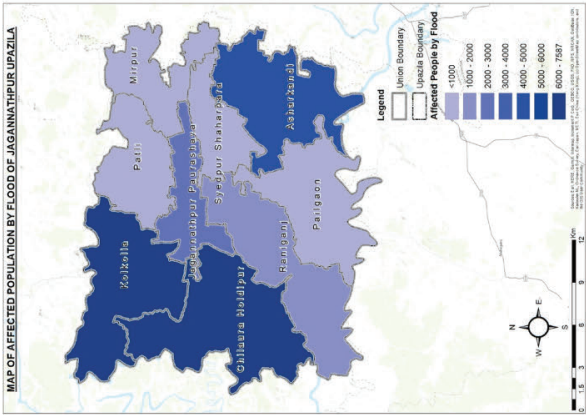


Figure 4-7. Affected Population with danger water level of BWDB

Table 4-2. Flood Affected Population by Union

Union	Population (Census,2011)	Affected Population	Percentage
Asharkandi	27,740	4,520	16.3%
Chilaura Holdipur	26,057	7,587	29.1%
Jagannathpur Paurashava	40,699	2,259	5.6%
Kolkolia	31,953	6,538	20.5%
Mirpur	21,364	326	1.5%
Pailgaon	30,117	328	1.1%
Patil	21,383	134	0.6%
Raniganj	36,295	1,468	4.0%
Syedpur Shaharpura	23,882	735	3.1%
Total	259,490	23,895	9.2%

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

Figure 4-8 and Table 4-3 illustrate the damage estimation of the DRR-related important facilities and infrastructures, 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 Chilaura Holdipur Union, are relatively severely affected by the flood. The union is located comparably lower elevation area, thus more prone to flooding.

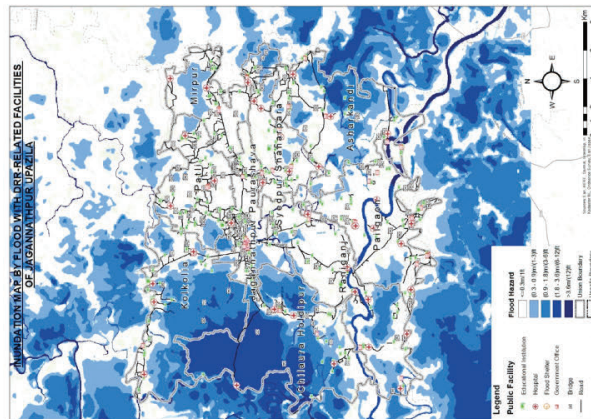


Figure 4-8. Inundation map by flood with DRR-related facilities and infrastructures²

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)		DRR-related important facilities (no.)		(Reference) Bridges	
	Total	Inundated (≥ 0.3m)	%	Total	Inundated (≥ 0.3m)	%
Asharkandi	43,378.9	2,666.6	6.1%	32	4	12.5%
Chilaura Holdipur	28,173.4	11,659.3	41.4%	31	8	25.8%
Jagannathpur	65,852.9	332.4	0.5%	39	1	2.6%
Paurashava	25,568.2	0.0	0.0%	35	3	8.6%
Kolkolia	42,776.5	1,391.7	3.3%	29	0	0.0%
Mirpur	41,047.1	0.0	0.0%	59	0	0.0%
Pailgaon	41,887.8	0.0	0.0%	38	0	0.0%
Patli	32,541.0	1,283.8	3.9%	47	0	0.0%
Raniganj	10,499.7	0.0	0.0%	41	2	4.9%
Syedpur Shaharpara						

4.1.2 Earthquake Shaking

The risk of earthquake shaking is high due to inadequate seismic resistant buildings in Jagannathpur Upazila. Figure 4-9 and Table 4-5 show that Jagannathpur Paurashava having the largest population in Sunamganj District, is most affected by the earthquake shaking, followed by Raniganj and Kolkolia Unions. The ratio of the affected households is highest in Kolkolia Union.

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

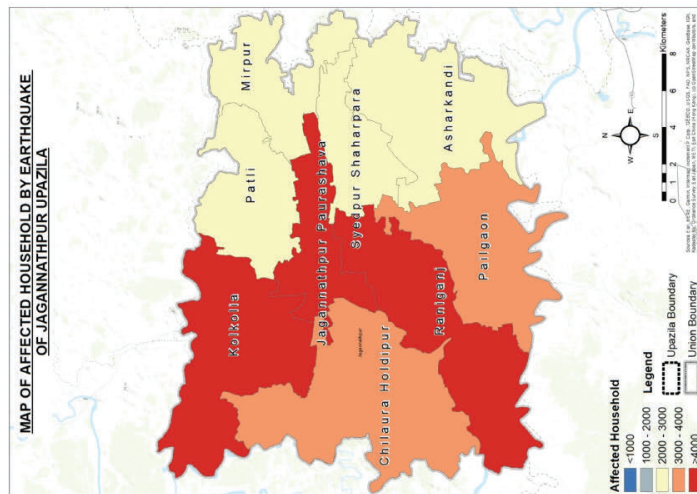


Figure 4-9. Number of Affected Households

- 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.

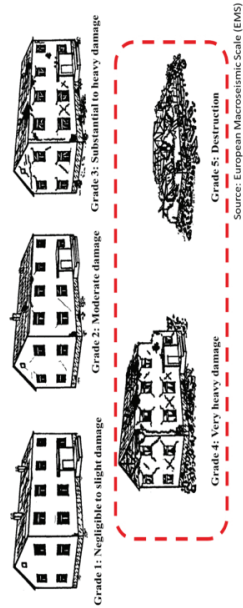


Figure 4-10. Building Damage Degree

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

	Number of Households	Percentage of Type of Structure			
		Pucca	Semi_pucca	Kutcha	Jhupri
Asharkandi	4,324	13.9	29.8	54.3	2.1
Chilaura Holdipur	4,280	10.8	15.6	72.1	1.5
Jagannathpur Paurashava	6,837	23.1	18.0	56.0	2.9
Kolkolia	5,489	10.2	13.5	74.8	1.5
Mirpur	3,318	28.0	17.8	52.4	1.8
Patli	4,951	5.8	27.4	63.8	3.0
Raniganj	3,501	23.7	17.1	58.4	0.9
Syedpur Shaharpara	6,021	18.3	17.6	61.5	2.6
Jagannathpur Upazila Total	3,775	25.0	23.7	50.8	0.6
	42,496	17.6	20.1	60.5	1.9

Table 4-5. Affected Household by Earthquake Shaking

Union	Households (Census, 2011)	Affected Households	Percentage
Asharkandi	4324	2955	68.3
Chilaura Holdipur	4280	3208	74.9
Jagannathpur Paurashava	6837	4599	67.3
Kolkolia	5489	4174	76.0
Mirpur	3318	2158	65.0
Patli	4951	3630	73.3
Raniganj	3501	2367	67.6
Syedpur Shaharpara	6021	4254	70.7
	3775	2443	64.7

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. Kolkolia is included in priority unions of both flood and earthquake shaking since it has relatively a much larger affected population and lands compared with other Upazilas.

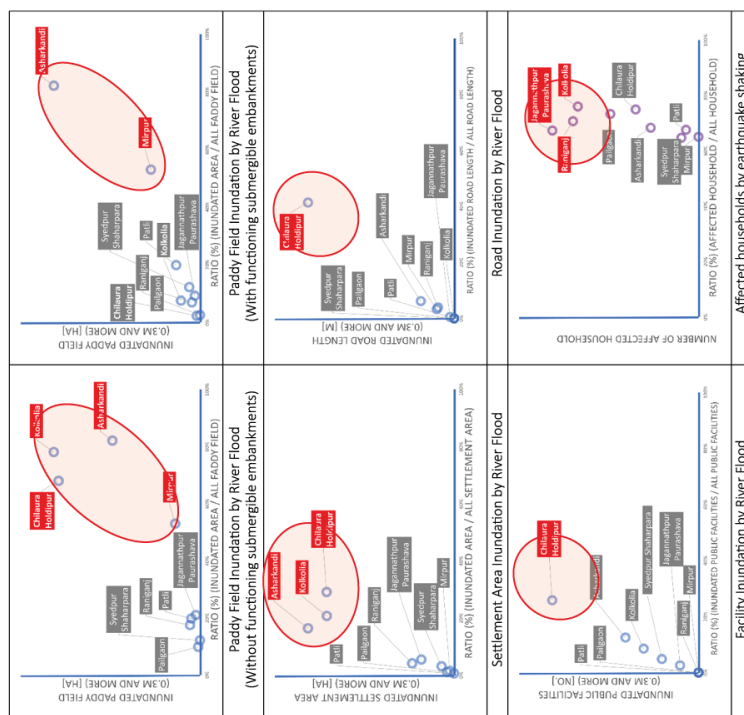


Figure 4-11. Relation between Affected Area or Population and its Ratio

Disaster	Priority Union
Flood	Asharkandi*, Mirpur*, Chilaura Holdipur, Kolkolia
Earthquake Shaking	Jagannathpur Paurashava, Kolkolia, Ranigani

*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 this 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 USFC 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**
 - Asharkandi Union
 - Mirpur Union
 - Chilaura Haldipur Union
 - Kolkolia Union
 - 2) Promotion of countermeasures to **prevent building collapse by earthquake shaking**
 - Jagannathpur Paurashava
 - Raniganj Union
 - Kolkolia Union
 - 3) Promotion of improvement of the infrastructure **for emergency operation**
 - Asharkandi Union
 - Mirpur Union
 - Chilaura Haldipur Union
 - Jagannathpur Paurashava
 - Raniganj Union
 - Kolkolia Union
- (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
 - Asharkandi Union
 - Mirpur Union
 - Chilaura Haldipur Union
 - Jagannathpur Paurashava
 - Raniganj Union
 - Kolkolia Union
 - 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 some 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		
Infrastructures for Protection and Control against Flood	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	Undertaken	Agency BWDB /Paurashava
	Canal Excavation and other river improvements (Widening and Deepening)	✓	BWDB/LGED
	Sluice gates	✓	BWDB/LGED
Structural Measures against Earthquake Shaking	Retarding Basin/Reservoir	Not undertaken	BWDB
	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)	Undertaken	agency BCC/UZCC/ Paurashava
	Building Assessment (Seismic Diagnosis)	Unknown	PWD
	Retrfitting of important facilities and Infrastructures	Not undertaken	LGED/PWD/ Paurashava /DDM

Shelter: Shelters (22 in total) are constructed by DDM and Paurashava in the Upazila.

Category	Current status of the countermeasures by type		
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. Jagannathpur Paurashava copes with the challenges of installing and rehabilitating drainage systems in urban areas. For rural areas, DPHE is responsible for the development of the required drainage systems to prevent the secondary effects of the disaster.		
	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/Mujib Killah	Undertaken	Agency DDM/Paurashava/LGED
	Roads	✓	DDM/LGED/Pauras hava
	Bridges	✓	
Infrastructures for Prevention of Other Disasters (Lightning, etc)	Culverts	✓	
	Drains	✓	DPHE/Paurashava
	Facilities for Water (Tube well, Pipeline and sanitation (Latrine))	✓	DPHE/NGOs
	There have been some cases of lightning disasters. However, no measures are taken in most of the area.		
	Lightning Arrester	Undertaken	Agency DDM/

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

Category	Current status of countermeasures by type		
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	Undertaken	Agency Upazila/UD
	Resettlement	Unknown	
Early Warning Information and Communication	Designating Special Warning Area	Unknown	
	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.		
	Installation of Monitoring System of Rainfall & Water Level	Undertaken	Agency BMD/BIWTA/BWDB /DDM

Category	Current status of countermeasures by type		
	Flood Forecasting and Warning System, including community radio	✓	BWDB FFWC/
	Telecommunication system for search and rescue	✓	BTRC/DDM
Disaster Management Training and Materials	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.		
	Type	Undertaken	Agency
	Preparation of SOP for emergency operation	Unknown	DDM/Donor
	Simulation and Exercise	Unknown	DDM/FSCD
	Evacuation drill / Shelter and evacuation route	Unknown	DDM/FSCD/UzDMC
Raising Public Awareness & Disaster Education	Training on DRR	Unknown	DDM
	Preparation for emergency operation	✓	DDM/FSCD/ DGHS
	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.		
	Type	Undertaken	Agency
	Publication of DRR Maps	Unknown	DDM
	Inventory preparation on vulnerable infrastructure such as hospitals, water wells, and schools based on the risk map	Unknown	UDD/PWD/FSCD/ DMC
	Disaster preparedness education in school	✓	DoPE/DoEE
	Awareness session on disaster, including Celebrating day's observation on disaster	✓	DDM
	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 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 UzSC will 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 the 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	Status	+	+	+	+/-
	<Continuing> Project	+	+	+	+/-
	<Pipeline> Project	+/-	-	-	-
	<New> Project	-	-	-	-
Type of Need Length	Unknown	-	-	-	-
	"Unknown" indicates "Union's needs" which has not yet been identified by line ministries	-	-	-	-
	Identification number in this Plan	-	-	-	-
	Required work such as repair, rehabilitation or new construction proposed	-	-	-	-
Official ID Number	The length of the individual infrastructures such as embankments and roads in case that the scale of the infrastructure is important information.	-	-	-	-
	ID by line agency in case of projects that are already identified by line agency	-	-	-	-
	Official project name used by the implementing agency, such as DDM, BWDB or LGED	-	-	-	-
	Proponents	-	-	-	-
Direct Beneficiaries/ Interests to be protected	The length of the countermeasure that was proposed by local people, line ministries or other stakeholders etc.,	-	-	-	-
	The beneficiary Union Parishads and wards along the installed countermeasures.	-	-	-	-
	The rate and unit price provided by every line department such as LGD, DDM, BWDB. It is shown in Lakh Tk.	-	-	-	-
	Short-Term Project; Mid-Term Project; or Long-Term Project	-	-	-	-
Estimated cost for Countermeasures	Those categories are based on the information by line agencies.	-	-	-	-
	Implementation Time Frame	-	-	-	-
	High Priority: Project in highly vulnerable Union Parishads.	-	-	-	-
	Medium Priority: Project in vulnerable Union Parishads.	-	-	-	-
Priority in Terms of Hazard Analysis	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	-	-	-	-
	Remarks	-	-	-	-
		-	-	-	-

5.2.1 Prioritized Structural Countermeasures

(1) Infrastructures for Protection and Control against flood

As shown in the flood hazard map in Chapter 3.1.1. and the flood risk assessment results in Chapter 4.1.1. Asharkandi is the most flood prone Union 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 Kushiara 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 Chilaura Holdipur, Mirpur and Kolkolia 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.

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

The map below shows infrastructures for flood prevention and mitigation. The areas where the higher priority are 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 1.

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.

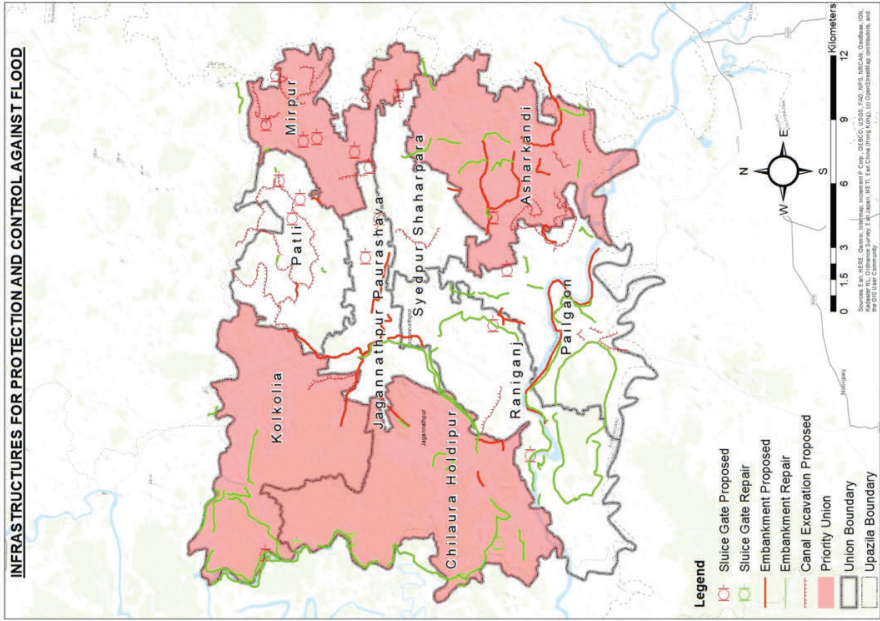


Figure 5-1. Priority Union for Countermeasure to Reduce Risk by Flood

(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 BNBC2020 with official instructions and monitoring when constructing new buildings.

(3) Infrastructures for Emergency Operations

According to the risk assessment results, Asharkandi, Mirpur, Chilaura Haidipur, Jagannathpur Paurashava, Raniganj, Kolkolia 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 Aserkandi UP-Kalnirchar Bazar Road (LGED-ID: 690473017), and the 3 Nos. bridge in different Chainage [Ch:1+450 km,Ch:2+200 km,Ch:3+750 km] at Aserkandi UP-Kalnirchar Bazar (LGED-ID: 690473017), 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 leads to smooth recovery and to consequently mitigate infectious diseases.

The category of the project for infrastructures for emergency operations is 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.

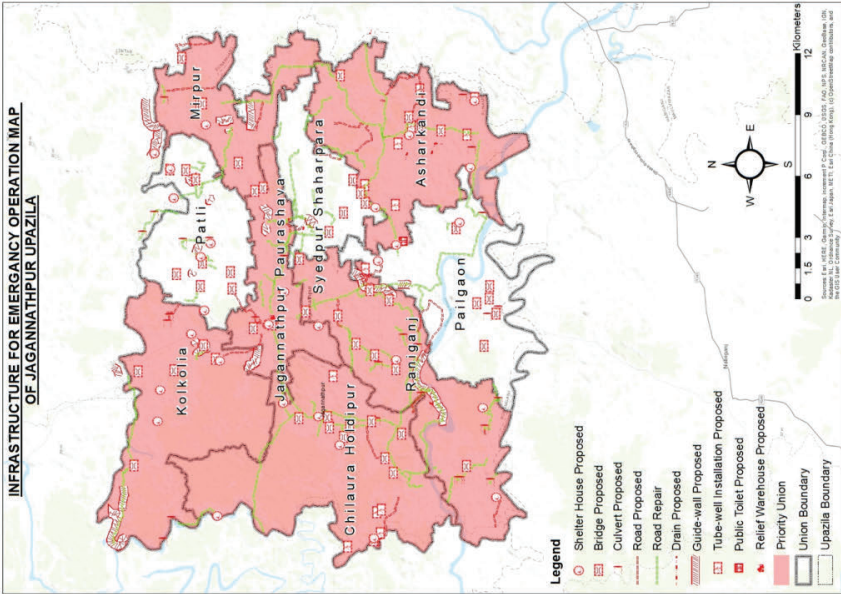


Figure 5-2. Location of Infrastructures for emergency operation

(4) Infrastructures for Prevention of Other disasters

- a) Lightning Conductor

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 improving 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/BIWTA 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 some 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 also 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 Chapter 5.2 and Attachment 1.

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.

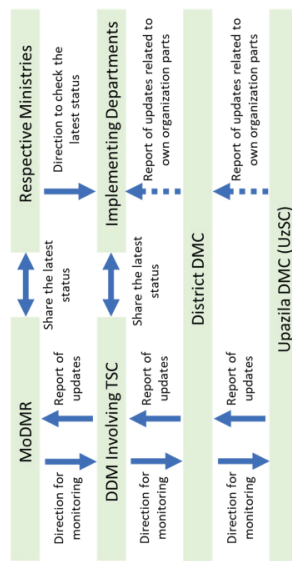


Figure 5-3. Conceptual diagram for monitoring and updating the plan

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)

a) Embankment/dyke - Embankment

Projects by BWDB

ID	Type of Need	Union	Length(m)	Official Number	Official Name of the Project/Infrastructure	Plan Status (e.g., New/Completed)	Propponents	Direct Beneficiaries/Proponents	Estimated Cost (Lakh Tk.)	Implementation Time Frame	Remarks
ASB-64	3.11 km	Ashadkandi	3.11	3.11	Unimproved Road	New Construction	3.11 km Embankment (Community Project)	World 4.7, 9 of Paurashava Union	94	Mid term	USDC has requested to include the BVBDD development plan
ASB-30	1.97 km	Ashadkandi	1.97	1.97	Unimproved Road	New Construction	1.97 km Embankment (Community Project)	World 4.7 of Ashadkandi Union	130	Mid term	USDC has requested to include the BVBDD development plan
ASB-31	3.62 km	Ashadkandi	3.62	3.62	Unimproved Road	New Construction	3.62 km Embankment (Community Project)	Chakraborty Union	109	Low	USDC has requested to include the BVBDD development plan
ASB-33	0.56 km	Ashadkandi	0.56	0.56	Unimproved Road	New Construction	0.56 km Embankment (Community Project)	World 5 of Ashadkandi Union	17	Low	USDC has requested to include the BVBDD development plan
ASB-34	0.65 km	Ashadkandi	0.65	0.65	Unimproved Road	New Construction	0.65 km Embankment (Community Project)	World 6.9 of Ashadkandi Union	20	Low	USDC has requested to include the BVBDD development plan
ASB-39	1.19 km	Ashadkandi	1.19	1.19	Unimproved Road	New Construction	1.19 km Embankment (Community Project)	World 4.8 of Ashadkandi Union	36	High	USDC has requested to include the BVBDD development plan
ASB-42	1.33 km	Ashadkandi	1.33	1.33	Unimproved Road	New Construction	1.33 km Embankment (Community Project)	World 9 of Ashadkandi Union	40	Medium	USDC has requested to include the BVBDD development plan
ASB-47	1.49 km	Chakraborty	1.49	1.49	Unimproved Road	New Construction	1.49 km Embankment (Community Project)	World 9 of Chakraborty Union	45	Short term	USDC has requested to include the BVBDD development plan
CHB-22	1.50 km	Chakraborty	1.50	1.50	Unimproved Road	New Construction	1.50 km Embankment (Community Project)	World 5.5, 7 of Chakraborty Union	275	Medium	USDC has requested to include the BVBDD development plan
CHB-61	5.09 km	Ashadkandi	5.09	5.09	Unimproved Road	New Construction	5.09 km Embankment (Community Project)	World 5.5, 7 of Ashadkandi Union	45	Low	USDC has requested to include the BVBDD development plan
CHB-65	2.18 km	Ashadkandi	2.18	2.18	Unimproved Road	New Construction	2.18 km Embankment (Community Project)	World 4.6 of Ashadkandi Union	150	Medium	USDC has requested to include the BVBDD development plan
CHB-69	2.70 km	Ashadkandi	2.70	2.70	Unimproved Road	New Construction	2.70 km Embankment (Community Project)	World 9 of Ashadkandi Union	300	Medium	USDC has requested to include the BVBDD development plan
CHB-84	2.00 km	Ashadkandi	2.00	2.00	Unimproved Road	New Construction	2.00 km Embankment (Community Project)	World 9 of Ashadkandi Union	100	Mid term	USDC has requested to include the BVBDD development plan

Attachment 1 - 1

Upazila Disaster Risk Reduction Action Plan of Jagannathpur

Projects by DDM

Projects by DDM													
ID	Project Name	Type of Need	Union	Length(km)	Official Name of the Scheme	Official Name of the Scheme (in English)	Plan Status (e.g., Approved/Under Consideration)	Propponents	Direct Beneficiaries/Address to be provided	Estimated cost (Lakh)	Implementation Time Frame	Priority in Terms of Hazard Analysis	Remarks
12	Ward 4 of Rajnathpur	New	Rajnathpur aurahawab	3.00	-	From South to Rajnathpur	Continuing	3 km Embankment New from Community (Proposed)	Ward 4 of Rajnathpur	110	Mid Term	Low	Need Monitoring the effect from UZEC and TSC
45	Ward 1 of Kolika	Construction	Kolika	1.53	502710003	From Rajnathpur to Kolika	Continuing	1.53 km Embankment from Community (Proposed)	Ward 1 of Kolika	46	Short Term	High	Need Monitoring the effect from UZEC and TSC
46	Ward 1 of Kolika	Construction	Kolika	4.09	502710003	From Rajnathpur to Kolika	Continuing	4.09 km Embankment from Community (Proposed)	Ward 1 of Kolika	123	Short Term	High	Need Monitoring the effect from UZEC and TSC
47	Ward 1 of Kolika	Construction	Kolika	2.57	502710003	From Rajnathpur to Kolika	Continuing	2.57 km Embankment from Community (Proposed)	Ward 1 of Kolika	123	Short Term	High	Need Monitoring the effect from UZEC and TSC
48	Ward 1 of Kolika	Construction	Kolika	0.8	502710003	From Rajnathpur to Kolika	Continuing	1.35 km Embankment from Community (Proposed)	Ward 1 of Kolika	77	Short Term	Medium	Need Monitoring the effect from UZEC and TSC
49	Ward 1 of Kolika	Construction	Kolika	1.35	-	From Rajnathpur to Kolika	Continuing	1.35 km Embankment from Community (Proposed)	Ward 1 of Kolika	40	Short Term	Low	Need Monitoring the effect from UZEC and TSC
50	Ward 1 of Kolika	Construction	Kolika	0.78	-	From Rajnathpur to Kolika	Continuing	0.78 km Embankment from Community (Proposed)	Ward 1 of Kolika	23	Short Term	Low	Need Monitoring the effect from UZEC and TSC
51	Ward 1 of Kolika	Construction	Kolika	1.42	-	From Rajnathpur to Kolika	Continuing	1.42 km Embankment from Community (Proposed)	Ward 1 of Kolika	43	Mid Term	High	Need Monitoring the effect from UZEC and TSC
52	Ward 1 of Kolika	Construction	Kolika	1.03	-	From Rajnathpur to Kolika	Continuing	1.03 km Embankment from Community (Proposed)	Ward 1 of Kolika	30	Mid Term	Medium	Need Monitoring the effect from UZEC and TSC
53	Ward 1 of Kolika	Construction	Kolika	1.01	-	From Rajnathpur to Kolika	Continuing	1.01 km Embankment from Community (Proposed)	Ward 1 of Kolika	30	Mid Term	Medium	Need Monitoring the effect from UZEC and TSC
54	Ward 1 of Kolika	Construction	Kolika	0.83	-	From Rajnathpur to Kolika	Continuing	0.83 km Embankment from Community (Proposed)	Ward 1 of Kolika	2	Short Term	Medium	Need Monitoring the effect from UZEC and TSC
55	Ward 1 of Kolika	Construction	Kolika	0.67	-	From Rajnathpur to Kolika	Continuing	0.67 km Embankment from Community (Proposed)	Ward 1 of Kolika	10	Short Term	Low	Need Monitoring the effect from UZEC and TSC
56	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
57	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
58	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
59	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
60	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
61	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
62	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
63	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
64	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
65	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
66	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
67	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
68	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
69	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
70	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
71	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
72	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
73	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
74	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC
75	Ward 1 of Kolika	Construction	Kolika	0.50	-	From Rajnathpur to Kolika	Continuing	0.50 km Embankment from Community (Proposed)	Ward 1 of Kolika	15	Short Term	Low	Need Monitoring the effect from UZEC and TSC

Attachment 1-2

ID	Type of Need	Union	Length(km)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g.)	Proponents	Direct Beneficiaries/Interests (No. Lakh)	Estimated Implementation Time Frame	Priority in Hazard Analysis	Remarks
ASR-32	Repair & Renovation	Asharkandi	1.59	-	Katargang	New	1.59 km Embankment Repair (Proposed from Community People)	Ward 4 of Asharkandi Union	48	Low	Detailed Design Required
ASR-34	Repair & Renovation	Asharkandi	1.64	-	Hakhalai Embankment from 880 Road to Katangra	New	1.64 km Embankment Repair (Proposed from Community People)	Ward 4 of Asharkandi Union	49	Short Term	Detailed Design Required
ASR-35	Repair & Renovation	Asharkandi	0.76	-	From Fethi Jangra Mosque to Khatib Mazar	New	0.76 km Embankment Repair (Proposed from Community People)	Ward 6 of Asharkandi Union	49	Short Term	Detailed Design Required
EMB-36	Repair & Renovation	Asharkandi	1.98	-	Vikar Bazar near to Tikka Bazar	New	1.98 km Embankment Repair (Proposed from Community People)	Ward 3 of Asharkandi Union	23	Short Term	Detailed Design Required
EMB-37	Repair & Renovation	Asharkandi	1.98	-	Tikka Bazar	New	1.98 km Embankment Repair (Proposed from Community People)	Ward 3 of Asharkandi Union	60	Short Term	Detailed Design Required
ASR-38	Repair & Renovation	Asharkandi	1.61	-	From Koudra Jangra Mosque to naryapur	New	1.61 km Embankment Repair & Renovation (Proposed from Community People)	Ward 4 of Asharkandi Union	49	Short Term	Detailed Design Required
ASR-40	Repair & Renovation	Asharkandi	0.37	-	Madhaba to From Fethichora	New	0.37 km Embankment Repair (Proposed from Community People)	Ward 7 of Asharkandi Union	11	Short Term	Detailed Design Required
EMB-41	Repair & Renovation	Asharkandi	0.60	-	From Hiron Mazar to North Khatanchur west	New	0.60 km Embankment Repair (Proposed from Community People)	Ward 6 of Asharkandi Union	18	Short Term	Detailed Design Required
ASR-43	Repair & Renovation	Asharkandi	0.58	-	From Nayabandur to Greenway road	New	0.58 km Embankment Repair & Renovation (Proposed from Community People)	Ward 2 of Asharkandi Union	17	Short Term	Detailed Design Required
ASR-44	Repair & Renovation	Asharkandi	1.18	-	From New Tikka to old Tikka	New	1.18 km Embankment Repair (Proposed from Community People)	Ward 3 of Asharkandi Union	36	Short Term	Detailed Design Required
ASR-45	Repair & Renovation	Asharkandi	1.12	-	North Khatanchur Main road to Mad. Rohit	New	1.12 km Embankment Repair (Proposed from Community People)	Ward 6 of Asharkandi Union	34	Short Term	Detailed Design Required
EMB-46	Repair & Renovation	Asharkandi	1.01	-	From Mazar to Mad. Hiron Mazar	New	1.01 km Embankment Repair (Proposed from Community People)	Ward 2 of Asharkandi Union	30	Short Term	Detailed Design Required
EMB-48	Repair & Renovation	Paigaon	2.63	-	From Madhaba Gate to Sordaka Mazar	New	2.63 km Embankment Repair (Proposed from Community People)	Ward 7 of Paigaon Union	79	Short Term	Detailed Design Required
EMB-51	Repair & Renovation	Paigaon	2.63	-	From west of Jalapur to Gavepur to Jagpur	Continuing	2.63 km Embankment Repair (Proposed from Community People)	Ward 7 of Paigaon Union	79	Short Term	Need Monitoring the effect from UDS and TSC
EMB-53	Repair & Renovation	Paigaon	0.94	-	From Koda Mosque to East Koda Mosque	New	0.94 km Embankment Repair (Proposed from Community People)	Ward 8 of Paigaon Union	28	Short Term	Detailed Design Required
PAU-54	Repair & Renovation	Paigaon	0.78	-	Sata to Kadamata	New	0.78 km Embankment Repair (Proposed from Community People)	Ward 2 of Paigaon Union	23	Short Term	Detailed Design Required
EMB-55	Repair & Renovation	Paigaon	1.61	-	Overdash Teraha Makokuna	New	1.61 km Embankment Repair (Proposed from Community People)	Ward 1 of Paigaon Union	49	Short Term	Detailed Design Required
PAU-56	Repair & Renovation	Paigaon	1.50	-	Khatanchur Khatanchur para Ukhada Dam	New	1.50 km Embankment Repair (Proposed from Community People)	Ward 1 of Paigaon Union	45	Short Term	Detailed Design Required
EMB-57	Repair & Renovation	Paigaon	0.77	-	Sata Madhaba to Khatanchur river Dam	New	0.77 km Embankment Repair (Proposed from Community People)	Ward 2 of Paigaon Union	23	Short Term	Detailed Design Required

Attachment 1- 4

ID	Type of Need	Union	Length(km)	Official ID Number	Official Name of Countermeasures	Plan Status (e.g.) (New/Continuing/Proposed)	Proponents	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority in Hazard Analysis	Remarks	
KAL-EMB-03	Repair & Renovation	Kokila	1.44	-	Shreepur gatra Bridge to Jagodhpur	New	1.44 km Embankment Repair (Proposed from Community People)	Ward 2 of Kokila Union	43	Low	Detailed Design Required	
KAL-EMB-04	Repair & Renovation	Kokila	0.69	-	Chingpur North Head Bridge to Jagodhpur	New	0.69 km Embankment Repair (Proposed from Community People)	Ward 5 of Kokila Union	21	Low	Detailed Design Required	
KAL-EMB-05	Repair & Renovation	Kokila	2.71	-	Bahadur Chakrabarti to Jagodhpur via Bahadur Chakrabarti	New	2.71 km Embankment Repair (Proposed from Community People)	Ward 4,5,6 of Kokila Union	81	Short Term	Detailed Design Required	
KAL-EMB-07	Repair & Renovation	Union	1.69	-	Jagodhpur to Sadipur	New	1.69 km Embankment New Construction (Proposed from Community People)	Ward 3,4 of Kokila Union	51	Mid Term	Detailed Design Required	
PAT-EMB-10	Repair & Renovation	Paali	0.29	-	Chakrabarti Road to Paali	New	0.29 km Embankment Repair (Proposed from Community People)	Ward 5 of Paali Union	9	Short Term	Detailed Design Required	
MIR-EMB-11	New Construction	Paali	0.60	-	Bohtachar to Bauri Bagan Road via Dolari	New	0.60 km Embankment New Construction (Proposed from Community People)	Ward 8 of Paali Union	18	Mid Term	Detailed Design Required	
MIR-EMB-13	Repair & Renovation	Mirpur	1.50	-	Hoshikanta to Mid. Hiron Taker Bazar	New	1.50 km Embankment Repair (Proposed from Community People)	Ward 5 of Mirpur Union	45	Short Term	Detailed Design Required	
MIR-EMB-14	Repair & Renovation	Mirpur	0.21	-	House to s house	New	0.21 km Embankment Repair (Proposed from Community People)	Ward 6 of Mirpur Union	6	Short Term	Detailed Design Required	
MIR-EMB-15	Repair & Renovation	Union	0.19	-	Mid. Hiron Taker Bazar to Chidura Roadland to Hiron Taker Bazar	New	0.19 km Embankment Repair (Proposed from Community People)	Ward 6 of Mirpur Union	6	Short Term	Detailed Design Required	
CHU-EMB-16	Repair & Renovation	Chidura	0.60	-	Chidura Roadland to Hiron Taker Bazar	New	0.60 km Embankment Repair (Proposed from Community People)	Ward 3 of Chidura Union	2	Short Term	Detailed Design Required	
CHU-EMB-17	Repair & Renovation	Chidura	1.05	-	Chidura Roadland to Hiron Taker Bazar	New	1.05 km Embankment Repair (Proposed from Community People)	Ward 5 of Chidura Union	32	Short Term	Detailed Design Required	
CHU-EMB-18	Repair & Renovation	Chidura	0.73	-	Bank to Sadpur North Head	New	0.73 km Embankment Repair & Renovation (Proposed from Community People)	Ward 5 of Chidura Union	22	Short Term	Detailed Design Required	
CHU-EMB-19	New Construction	Chidura	1.74	-	Internal Road to Jagodhpur via Hiron Taker Bazar	New	1.74 km Embankment New Construction (Proposed from Community People)	Ward 7 of Chidura Union	52	Mid Term	Detailed Design Required	
CHU-EMB-20	New Construction	Chidura	0.76	-	Wardown main road to Hiron Taker Bazar	New	0.76 km Embankment New Construction (Proposed from Community People)	Ward 7 of Chidura Union	23	Mid Term	Detailed Design Required	
BAU-EMB-22	New Construction	Chidura	2.05	-	Ghodoshon Chakra to Hiron Taker Bazar	New	2.05 km Embankment New Construction (Proposed from Community People)	Ward 8 of Chidura Union	62	Mid Term	Detailed Design Required	
BAU-EMB-25	New Construction	Chidura	4.01	-	Bahagana Main Road to Hiron Taker Bazar	Continuing	4.01 km Embankment New Construction (Proposed from Community People)	Ward 4 of Chidura Union	121	Mid Term	Need Monitoring the effect from UDS and TSC	
BAU-EMB-26	Repair & Renovation	Chidura	1.02	-	Hiron Taker Bazar to Hiron Taker Bazar	New	1.02 km Embankment Repair (Proposed from Community People)	Ward 4 of Chidura Union	31	Short Term	Detailed Design Required	
BAU-EMB-27	Repair & Renovation	Chidura	2.03	-	Chidura Roadland to Hiron Taker Bazar	New	2.03 km Embankment Repair (Proposed from Community People)	Ward 5 of Chidura Union	61	Short Term	Detailed Design Required	
BAU-EMB-28	Repair & Renovation	Chidura	1.50	-	Chidura Roadland to Hiron Taker Bazar	New	1.50 km Embankment Repair (Proposed from Community People)	Ward 7 of Chidura Union	45	Short Term	Detailed Design Required	
ASH-EMB-29	New Construction	Ashakandi	1.80	-	Shubhakarapur from Jagodhpur to Jagodhpur	New	1.80 km Embankment New Construction (Proposed from Community People)	Ward 4,9 of Ashakandi Union	54	Short Term	High	Detailed Design Required

Attachment 1- 3

Attachment 1- 6

ID	Type of Need	Union	Length(km)	Official Number	Official 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
PAL-01	Repair & Renovation	Pailgon	1.14	-	From Tewatia house to Md. Dil Miah's	Undecided	Community People	Ward 2 of Pailgon Union	215	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
KAL-CC-01	Repair & Renovation	Kokolia Union	2.54	-	Hills to Islampur	Undecided	Community People	Ward 9 of Kokolia Union	479	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
PAT-CC-02	Repair & Renovation	Pailgon	4.51	-	House in front of Md. Sanur Ulabgon has raised up to 10m	Undecided	Community People	Ward 1,7 of Pailgon Union	853	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
PAT-CC-03	Repair & Renovation	Pailgon	11.23	-	Swarasi river to Chakdimpur	Undecided	Community People	Ward 3 of Pailgon Union	2,122	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
PAT-CC-04	Repair & Renovation	Pailgon	6.32	-	debas river to Rajpur river	Undecided	Community People	Ward 4 of Pailgon Union	119	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
PAT-CC-05	Repair & Renovation	Pailgon	6.71	-	komapara to Rajpur river	Undecided	Community People	Ward 6 of Pailgon Union	1,268	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
MIR-CC-06	Repair & Renovation	Mirpur Union	1.34	-	Bridge to Harat	Undecided	Community People	Ward 9 of Mirpur Union	252	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
MIR-CC-07	Repair & Renovation	Mirpur Union	1.66	-	Barer canal on west side of Mirpur	Undecided	Community People	Ward 1 of Mirpur Union	313	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
MIR-CC-08	Repair & Renovation	Mirpur Union	1.00	-	Hasan Fatemur Chowar Bridge to Jamaika Harat	Undecided	Community People	Ward 4 of Mirpur Union	189	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.

Projects by BWDB

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

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Attachment 1- 5

ID	Type of Need	Union	Length(km)	Official Number	Official 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
EMB-66	Re- construction	Kokolia + Chilaura	6.40	-	Notar Harat (Folder 1)	Continuing	Notar Harat	6.40 km embankment repair ongoing BWDB	230	Short Term	High	Need Monitoring the effect from USC and TSC
EMB-67	Re- construction	Chilaura	3.80	-	Notar Harat (Folder 1)	Continuing	Notar Harat	3.80 km embankment repair ongoing BWDB	150	Short Term	High	Need Monitoring the effect from USC and TSC
EMB-68	Re- construction	Chilaura	11.37	-	Notar Harat (Folder 1)	Continuing	Notar Harat	11.37 km embankment repair ongoing BWDB	600	Short Term	High	Need Monitoring the effect from USC and TSC
EMB-69	Re- construction	Hodidpur	6.55	-	Notar Harat (Folder 1)	Continuing	Notar Harat	6.55 km embankment repair ongoing BWDB	230	Short Term	High	Need Monitoring the effect from USC and TSC
EMB-70	Re- construction	Raniganj	5.35	-	Notar Harat (Folder 2)	Continuing	Notar Harat	5.35 km embankment repair ongoing BWDB	220	Short Term	High	Need Monitoring the effect from USC and TSC
EMB-71	Re- construction	Raniganj	4.00	-	Notar Harat (Folder 2)	Continuing	Notar Harat	4.00 km embankment repair ongoing BWDB	200	Short Term	High	Need Monitoring the effect from USC and TSC
EMB-72	Re- construction	Raniganj	1.10	-	Notar Harat (Folder 2)	Continuing	Notar Harat	1.10 km embankment repair ongoing BWDB	50	Short Term	High	Need Monitoring the effect from USC and TSC
EMB-73	Re- construction	Raniganj + Surajya debiana	5.00	-	Hoar Scheme	Continuing	Surajya debiana	5.00 km embankment repair ongoing BWDB	220	Short Term	High	Need Monitoring the effect from USC and TSC
EMB-74	Re- construction	Raniganj + Surajya debiana	9.00	-	Hoar Scheme	Continuing	Surajya debiana	9.00 km embankment repair ongoing BWDB	430	Short Term	High	Need Monitoring the effect from USC and TSC
EMB-75	Re- construction	Raniganj + Hoar Scheme	6.50	-	Hoar Scheme	Continuing	Surajya debiana	6.50 km embankment repair ongoing BWDB	230	Short Term	High	Need Monitoring the effect from USC and TSC
EMB-76	Re- construction	Kushyara river	12.00	-	Right bank of Kushyara river	Continuing	Right bank of Kushyara river	12.00 km embankment repair ongoing BWDB	460	Short Term	High	Need Monitoring the effect from USC and TSC

Projects by BWDB

a) Embankment/dyke – Submergible Embankment

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ID	Type of Need	Union	Length(km)	Official Countermeasures ID Number	Official Name of Plan Status (e.g., new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiary/Inheritor	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority in Hazard of Analysis	Remarks
01	Repair & Renovation	Asharkandi	-	-	bee	Undecided	Renovation & Repair from Community People	383	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
02	Repair & Renovation	Pailganj	-	-	bee	Undecided	Renovation & Repair from Community People	17	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
03	Repair & Renovation	Pailganj	-	-	bee	Undecided	Renovation & Repair from Community People	21	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
04	Repair & Renovation	Kolkata	0.48	-	bee	Undecided	Renovation & Repair from Community People	48	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
05	Repair & Renovation	Kolkata	2.82	-	bee	Undecided	Renovation & Repair from Community People	282	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
07	Repair & Renovation	Pailganj	0.11	-	bee	Undecided	Renovation & Repair from Community People	11	Mid Term	Low	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
08	Repair & Renovation	Pailganj	0.35	-	bee	Undecided	Renovation & Repair from Community People	35	Mid Term	Low	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
10	Repair & Renovation	Pailganj	0.41	-	bee	Undecided	Renovation & Repair from Community People	41	Mid Term	Low	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
11	Repair & Renovation	Mirpur	1.27	-	bee	Undecided	Renovation & Repair from Community People	127	Mid Term	Low	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
12	Repair & Renovation	Mirpur	1.69	-	bee	Undecided	Renovation & Repair from Community People	169	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
13	Repair & Renovation	Mirpur	0.10	-	bee	Undecided	Renovation & Repair from Community People	10	Mid Term	Low	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
14	Repair & Renovation	Mirpur	0.70	-	bee	Undecided	Renovation & Repair from Community People	70	Mid Term	Medium	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
15	Repair & Renovation	Raniganj	2.01	-	bee	Undecided	Renovation & Repair from Community People	201	Mid Term	Medium	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.

Attachment 1- 8

ID	Type of Need	Union	Length(km)	Official Countermeasures ID Number	Official Name of Plan Status (e.g., new/continuing/ pipeline/undecided)	Propponents	Direct Beneficiary/Inheritor	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority in Hazard of Analysis	Remarks
09	Repair & Renovation	Mirpur	1.15	-	bee	Undecided	Renovation & Repair from Community People	217	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
10	Repair & Renovation	Mirpur	1.21	-	bee	Undecided	Renovation & Repair from Community People	229	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
11	Repair & Renovation	Mirpur	2.41	-	bee	Undecided	Renovation & Repair from Community People	455	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
12	Repair & Renovation	Mirpur	1.75	-	bee	Undecided	Renovation & Repair from Community People	330	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
13	Repair & Renovation	Mirpur	2.64	-	bee	Undecided	Renovation & Repair from Community People	499	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
14	Repair & Renovation	Mirpur	1.07	-	bee	Undecided	Renovation & Repair from Community People	202	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
15	Repair & Renovation	Raniganj	2.35	-	bee	Undecided	Renovation & Repair from Community People	444	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
16	Repair & Renovation	Syed Pur	3.01	-	bee	Undecided	Renovation & Repair from Community People	568	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
17	Repair & Renovation	Asharkandi	5.03	-	bee	Undecided	Renovation & Repair from Community People	950	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
18	Repair & Renovation	Asharkandi	1.00	-	bee	Undecided	Renovation & Repair from Community People	190	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
19	Repair & Renovation	Asharkandi	1.23	-	bee	Undecided	Renovation & Repair from Community People	232	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
20	Repair & Renovation	Pailganj	4.64	-	bee	Undecided	Renovation & Repair from Community People	877	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
21	Repair & Renovation	Pailganj	0.69	-	bee	Undecided	Renovation & Repair from Community People	131	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
22	Repair & Renovation	Pailganj	2.50	-	bee	Undecided	Renovation & Repair from Community People	473	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
23	Repair & Renovation	Pailganj	0.59	-	bee	Undecided	Renovation & Repair from Community People	112	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.
24	Repair & Renovation	Pailganj	2.75	-	bee	Undecided	Renovation & Repair from Community People	520	Mid Term	High	USC has to request to the BWDB district office to include the BWDB development plan considering all technical issues.

Attachment 1- 7

ID	Type of Need	Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. New/continuing/pipe-line/undecided)	Proponents	Direct Beneficiaries/Inverests cost (Lakh Tk.)	Estimated Implementation in Time Frame	Priority in Hazard Analysis	Remarks
KAL-SHEL-03	Construction	Kokila Union	-	At Hija Village	New	New Flood Shelter (Community People)	400	Mid Term	Low	Detailed Design Required
PAT-SHEL-03	Construction	Patali	-	Damasagram	New	New Flood Shelter (Community People)	400	Mid Term	Medium	Detailed Design Required
PAT-SHEL-06	Construction	Patali	-	Damasagram	New	New Flood Shelter (Community People)	400	Mid Term	Low	Detailed Design Required
PAT-SHEL-07	Construction	Patali	-	At Jijpur Village	New	New Flood Shelter (Community People)	400	Mid Term	Low	Detailed Design Required
PAT-SHEL-08	Construction	Patali	-	Nearby east Resapur shah	New	New Flood Shelter (Community People)	400	Mid Term	Low	Detailed Design Required

Projects by BDM

a) Shelters

ID	Type of Need	Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. New/continuing/pipe-line/undecided)	Proponents	Direct Beneficiaries/Inverests cost (Lakh Tk.)	Estimated Implementation in Time Frame	Priority in Hazard Analysis	Remarks
SOP-SU-15	Construction	Syed Pur	-	In the catenary Major river on eastern side of	Undecided	12m New Sluice Gate Construction (Proposed from Community People)	1,350	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
ASR-SU-16	Construction	Asharandi	-	Near Dwarai Singher Bill	Undecided	27m New Sluice Gate Construction (Proposed from Community People)	2,250	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
PAU-SU-17	New Construction	Pailganj	-	Midway to Doyabazar Road	Undecided	36.5m New Sluice Gate Construction (Proposed from Community People)	2,250	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
JGP-SU-18	New Construction	Jagannathpur	-	Pringar Hator	Undecided	12.1m New Sluice Gate Construction (Proposed from Community People)	300	Mid Term	Medium	USC has to request to the BWDB district office, considering all technical issues.
CHL-SU-19	Repair & Renovation	Chilaura	2912020	Betaka	Continuing	18.2m New Sluice Gate Construction (Proposed from Community People)	300	Mid Term	High	Need Monitoring the effect from USC and TSC
CHL-SU-20	Repair & Renovation	Chilaura	2912020	Betaka	Continuing	18.2m New Sluice Gate Construction (Proposed from Community People)	300	Mid Term	High	Need Monitoring the effect from USC and TSC
JGP-SU-21	Repair & Renovation	Jagannathpur	2912020	Alkara Regulator, ur	Continuing	5/2.00 X 5.00 Regulator (Proposed from BMD)	300	Mid Term	High	Need Monitoring the effect from USC and TSC
CHL-SU-22	Repair & Renovation	Chilaura	2912020	Regulator, Burubah	Continuing	18.2m New Sluice Gate Construction (Proposed from Community People)	300	Mid Term	High	Need Monitoring the effect from USC and TSC
CHL-SU-23	Repair & Renovation	Chilaura	2912020	Regulator, Burubah	Continuing	18.2m New Sluice Gate Construction (Proposed from Community People)	300	Mid Term	High	Need Monitoring the effect from USC and TSC
CHL-SU-24	Repair & Renovation	Chilaura	2912020	Regulator, Burubah	Continuing	18.2m New Sluice Gate Construction (Proposed from Community People)	300	Mid Term	High	Need Monitoring the effect from USC and TSC

Attachment 1- 10

ID	Type of Need	Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. New/continuing/pipe-line/undecided)	Proponents	Direct Beneficiaries/Inverests cost (Lakh Tk.)	Estimated Implementation in Time Frame	Priority in Hazard Analysis	Remarks
PAT-SU-01	Construction	Patali	-	Between Balapara	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	135	Mid Term	High	USC has to request to the BWDB district office, considering all technical issues.
SU-02	Construction	Patali	-	Adampur Prokha	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
PAT-SU-03	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
PAT-SU-04	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
SU-05	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
SU-06	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
SU-07	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
SU-08	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
SU-09	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
SU-10	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
SU-11	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
SU-12	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
SU-13	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
SU-14	Construction	Patali	-	Baru Manan	Undecided	9.1m New Sluice Gate Construction (Proposed from Community People)	900	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.

Projects by BWDB

c) Sluice gates

ID	Type of Need	Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. New/continuing/pipe-line/undecided)	Proponents	Direct Beneficiaries/Inverests cost (Lakh Tk.)	Estimated Implementation in Time Frame	Priority in Hazard Analysis	Remarks
BAU-GU-16	New Construction	Raniganj	2.00	Shilgaon Bazar to Shilgaon Bazar to	Undecided	2 km New Sluice Gate Construction (Proposed from Community People)	200	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.
BAU-GU-17	New Construction	Raniganj	0.50	Shilgaon Bazar to Shilgaon Bazar to	Undecided	0.50 km New Sluice Gate Construction (Proposed from Community People)	50	Mid Term	Low	USC has to request to the BWDB district office, considering all technical issues.

ID	Type of Need	Union	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 Terms of Hazard Analysis	Remarks
KAL-RD-01	Repair & Renovation	Kokolia	0.05	Road to Sridharpur Pasha	New	0.05 km Road Repair	Ward 2 of Kokolia	3	Mid Term	Medium	Required
CHL-RD-15	Repair & Renovation	Holodpur	0.23	Dula Mia's House to Chikura	New	0.23 km Road Repair & Renovation (Proposed from Community People)	Ward 2 of Chikura	45	Mid Term	Medium	Required
RAN-RD-20	Repair & Renovation	Kokolia	0.28	Kamrabai Primary school to the north of meherun	New	0.28 km Road New	Ward 1 of Rangani	14	Mid Term	Low	Required
RAN-RD-21	Repair & Renovation	Rangani	1.60	Hilapur main road to north field of Hilapur village	New	1.60 km Road Repair (Proposed from Community People)	Ward 1 of Rangani	80	Mid Term	High	Required
RAN-RD-22	Repair & Renovation	Rangani	0.66	Hilapur Mosque to meherandi village road	New	0.66 km Road Repair (Proposed from Community People)	Ward 1 of Rangani	33	Mid Term	Low	Required
RAN-RD-23	Repair & Renovation	Rangani	0.56	Hatla Madhaba road to jamaat Bazar	New	0.56 km Road Repair (Proposed from Community People)	Ward 6 of Rangani	28	Mid Term	Medium	Required
RAN-RD-25	Repair & Renovation	Rangani	1.33	Royal Bacha Mia's House to Embmentment	New	1.33 km Road Repair (Proposed from Community People)	Ward 2 of Rangani	67	Mid Term	Low	Required
RAN-RD-26	Repair & Renovation	Rangani	0.21	Dawar Shun	New	0.21 km Road Repair & Renovation (Proposed from Community People)	Ward 2 of Rangani	10	Mid Term	Low	Required
RAN-RD-27	Repair & Renovation	Rangani	0.21	Royal main road to Bank	New	0.21 km Road Repair (Proposed from Community People)	Ward 2 of Rangani	11	Mid Term	Low	Required
RAN-RD-28	Repair & Renovation	Rangani	0.74	House to Rajul Haque's House	New	0.74 km Road Repair (Proposed from Community People)	Ward 2 of Rangani	37	Mid Term	High	Required
RAN-RD-29	Repair & Renovation	Rangani	0.56	Sujanbhathe Main Road to Khat's House	New	0.56 km Road Repair & Renovation (Proposed from Community People)	Ward 4 of Rangani	28	Mid Term	Low	Required
RAN-RD-32	Repair & Renovation	Rangani	0.51	From Khat's house in Rampur village to paved road	New	0.51 km Road Repair & Renovation (Proposed from Community People)	Ward 6 of Rangani	35	Mid Term	Low	Required

Attachment 1- 12

Projects by BDM

b) Roads

ID	Type of Need	Union	Official 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 Terms of Hazard Analysis	Remarks
RAN-SHET-23	New Construction	Rangani	-	Meherandi/Honkandi Govt. Primary School	New	New Flood Shelter Construction (Proposed from PJO)	Ward 1 of Rangani	400	Mid Term	High	Detailed Design Required
RAN-SHET-24	New Construction	Rangani	-	Joyangor Govt. Primary School	New	New Flood Shelter Construction (Proposed from PJO)	Ward 1 of Rangani	400	Mid Term	High	Detailed Design Required
RAN-SHET-25	New Construction	Rangani	-	Boro Fashi Govt. Primary School	New	New Flood Shelter Construction (Proposed from PJO)	Ward 9 of Asharandi	400	Mid Term	High	Detailed Design Required
PAL-SHET-27	New Construction	Pailgaon	-	Katia Govt. Primary School	New	New Flood Shelter Construction (Proposed from PJO)	Ward 8 of Pailgaon	400	Mid Term	High	Detailed Design Required
ASH-SHET-26	New Construction	Asharandi	-	Shoga Govt. Primary School	New	New Flood Shelter Construction (Proposed from PJO)	Ward 8 of Asharandi	400	Mid Term	High	Detailed Design Required

Attachment 1- 11

ID	Type of Need	Union	Official 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 Terms of Hazard Analysis	Remarks
KAL-SHET-01	New Construction	Kokolia	-	Balakandi Notunpara	New	New Flood Shelter Construction (Proposed from Community People)	Ward 6 of Kokolia	400	Mid Term	Medium	Detailed Design Required
PAT-SHET-04	New Construction	Patali	-	Sera Mohammadpur	New	New Flood Shelter Construction (Proposed from Community People)	Ward 3 of Patali	400	Mid Term	Low	Detailed Design Required
PAT-SHET-05	New Construction	Patali	-	At Lohagan	New	New Flood Shelter Construction (Proposed from Community People)	Ward 9 of Patali	400	Mid Term	Medium	Detailed Design Required
PAT-SHET-09	New Construction	Patali	-	Nearby Kobrupur Govt. Primary School	New	New Flood Shelter Construction (Proposed from Community People)	Ward 4 of Patali	400	Mid Term	Low	Detailed Design Required
ASH-SHET-16	New Construction	Asharandi	-	South side of dhawari Jamia Mosque	New	New Flood Shelter Construction (Proposed from Community People)	Ward 4 of Asharandi	400	Mid Term	High	Detailed Design Required
PAL-SHET-19	New Construction	Pailgaon	-	Nearby Rangpur Govt. Primary School	New	New Flood Shelter Construction (Proposed from Community People)	Ward 1 of Pailgaon	400	Mid Term	Medium	Detailed Design Required

Projects by LGED

ID	Type of Need	Union	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 Terms of Hazard Analysis	Remarks
JGP-SHET-20	New Construction	Jagannathpur Paurashava	-	Beel Bar	New	New Flood Shelter Construction (Proposed from Community People)	Ward 4 of Jagannathpur Paurashava	500	Mid Term	Medium	Detailed Design Required
JGP-SHET-21	New Construction	Jagannathpur Paurashava	-	Habibnagar Village	New	New Flood Shelter Construction (Proposed from Community People)	Ward 7 of Jagannathpur Paurashava	500	Mid Term	Medium	Detailed Design Required
JGP-SHET-22	New Construction	Jagannathpur Paurashava	-	Creation Chat	New	New Flood Shelter Construction (Proposed from Community People)	Ward 8 of Jagannathpur Paurashava	500	Mid Term	Low	Detailed Design Required

Projects by Jagannathpur Paurashava

ID	Type of Need	Union	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 Terms of Hazard Analysis	Remarks
MAH-SHET-10	New Construction	Mirpur	-	Dewan Mahi	New	New Flood Shelter Construction (Proposed from Community People)	Ward 5 of Mirpur	400	Mid Term	Low	Detailed Design Required
CHL-SHET-11	New Construction	Chikura	-	Nowagan	New	New Flood Shelter Construction (Proposed from Community People)	Ward 1 of Chikura	400	Mid Term	High	Detailed Design Required
CHL-SHET-13	New Construction	Chikura	-	At Saradai Village	New	New Flood Shelter Construction (Proposed from Community People)	Ward 1.5 of Chikura	400	Mid Term	Medium	Detailed Design Required
CHL-SHET-14	New Construction	Chikura	-	Bakia Ghat	New	New Flood Shelter Construction (Proposed from Community People)	Ward 5 of Chikura	400	Mid Term	Low	Detailed Design Required
ASH-SHET-15	New Construction	Asharandi	-	At Kodomola	New	New Flood Shelter Construction (Proposed from Community People)	Ward 5 of Asharandi	400	Mid Term	Medium	Detailed Design Required
PAL-SHET-17	New Construction	Pailgaon	-	Dokanagar East village	New	New Flood Shelter Construction (Proposed from Community People)	Ward 2 of Pailgaon	400	Mid Term	Medium	Detailed Design Required
CHL-SHET-18	New Construction	Chikura	-	Chikura High School	New	New Flood Shelter Construction (Proposed from PJO)	Ward 4 of Chikura	400	Mid Term	High	Detailed Design Required
KAL-SHET-20	New Construction	Kokolia	-	Ataj Bangle	New	New Flood Shelter Construction (Proposed from PJO)	Ward 5 of Kokolia	400	Mid Term	High	Detailed Design Required

Attachment 1- 13

Projects by Jageenathpur Pourashava									
ID	Type of Need	Union	Length(km)	Official ID Number	Official Name of Communes	Plan Status (e.g. new/continuing/undecided)	Proponents	Direct Beneficiary/Interests to be protected	Estimated cost (Lakh Tk.)
ICNP-RD-49	New Construction	Jageenathpur Pourashava	2.00	-	Kesupur Bazar to East Jageenathpur Via Kesupur Bazar Road	New	2km New Road from Community People	Ward 3 of Jageenathpur	60
ICNP-RD-50	New Construction	Jageenathpur Pourashava	1.00	-	Kesupur Bazar to Haldpur Kunti	New	2.34 km Road from Community People	Ward 1 of Jageenathpur	86
Projects by LGED									
ID	Type of Need	Union	Length(km)	Official ID Number	Official Name of Communes	Plan Status (e.g. new/continuing/undecided)	Proponents	Direct Beneficiary/Interests to be protected	Estimated cost (Lakh Tk.)
ICNP-RD-49	New Construction	Jageenathpur Pourashava	2.00	-	Kesupur Bazar to East Jageenathpur Via Kesupur Bazar Road	New	2km New Road from Community People	Ward 3 of Jageenathpur	60
ICNP-RD-50	New Construction	Jageenathpur Pourashava	1.00	-	Kesupur Bazar to Haldpur Kunti	New	2.34 km Road from Community People	Ward 1 of Jageenathpur	86
Projects by Jageenathpur Pourashava									
ID	Type of Need	Union	Length(km)	Official ID Number	Official Name of Communes	Plan Status (e.g. new/continuing/undecided)	Proponents	Direct Beneficiary/Interests to be protected	Estimated cost (Lakh Tk.)
ICNP-RD-49	New Construction	Jageenathpur Pourashava	2.00	-	Kesupur Bazar to East Jageenathpur Via Kesupur Bazar Road	New	2km New Road from Community People	Ward 3 of Jageenathpur	60
ICNP-RD-50	New Construction	Jageenathpur Pourashava	1.00	-	Kesupur Bazar to Haldpur Kunti	New	2.34 km Road from Community People	Ward 1 of Jageenathpur	86
Projects by Jageenathpur Pourashava									
ID	Type of Need	Union	Length(km)	Official ID Number	Official Name of Communes	Plan Status (e.g. new/continuing/undecided)	Proponents	Direct Beneficiary/Interests to be protected	Estimated cost (Lakh Tk.)
ICNP-RD-49	New Construction	Jageenathpur Pourashava	2.00	-	Kesupur Bazar to East Jageenathpur Via Kesupur Bazar Road	New	2km New Road from Community People	Ward 3 of Jageenathpur	60
ICNP-RD-50	New Construction	Jageenathpur Pourashava	1.00	-	Kesupur Bazar to Haldpur Kunti	New	2.34 km Road from Community People	Ward 1 of Jageenathpur	86

Upazila Disaster Risk Reduction Action Plan of Jagannathpur

Attachment 1-15

ID	Type of Need	Union	Length(km)	Official Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ suspended/undecided)	Proponents	Object Beneficiary/Interests to be Protected	Estimated cost (Lakh Tk.)	Implementation/ Project Time Frame	Priority in terms of Urgency	Remarks
SP-37	Repair & Renovation	Syed Pur	3.04	69045173	Habibpur Kograpara	New	Ludpur Sahabpur Union	2.9 km Road	608	Mid Term	Required	Detailed Design
SP-38	Renovation	Syed Pur	3.19	69045170	From the eastern bank of Haldia canal	New	Ward 1.8 of Syed Pur	1.9 km Road Repair & Renovation (Proposed)	637	Mid Term	Required	Detailed Design
SP-40	Renovation	Syed Pur	2.05	69045068	Manapabazar to Chhatrabazar	New	Ward 8 & Syed Pur	2.05 km Road Repair & Renovation (Proposed)	410	Mid Term	Required	Detailed Design
PAU-44	Repair & Renovation	Pailgon	1.39	69047215	From Bhangur Ghat to Sadat Bazar Kodopara Road	New	Ward 3 of Pailgon	1.39 km Road Repair & Renovation (Proposed)	278	Low	Required	Detailed Design
RAN-51	Repair & Renovation	Ranjan	1.5	69047005	Shibganj-Pur Begampur to Dhanu Shikha Bazar	New	Ward 6 of Raniganj	1.5 km Road Repair & Renovation (Proposed)	2,857	Mid Term	Required	Detailed Design
KAL-52	Repair & Renovation	Kolkata	8	690472007	From Rajghat, Kograpara to Dhanu Shikha Bazar	New	Ward 3 of Kolkata	8 km Road Repair & Renovation (Proposed)	1,534	Mid Term	Required	Detailed Design
CHU-53	Repair & Renovation	Chhatra	9.6	69047002	From Jagannathpur to Jagannathpur (part)	New	Ward 6 of Chhatra	9.6 km Road Repair & Renovation (Proposed)	1,824	Mid Term	Required	Detailed Design
ISP-54	Repair & Renovation	Purushothpur	2.02	69047003	From Jagannathpur road to Jagannathpur rd	New	Ward 2 of Purushothpur	2.02 km Road Repair & Renovation (Proposed)	423	Mid Term	Required	Detailed Design
MIR-55	Repair & Renovation	Mirpur	5.47	69047006	From Mirpur rd to Mirpur rd	New	Ward 5 of Mirpur	5.47 km Road Repair & Renovation (Proposed)	1,099	Mid Term	Required	Detailed Design
RAN-56	Construction	Ranjan	13.45	69047007	From Jagannathpur to Jagannathpur via Dhapogon road	New	Ward 1 of Raniganj	13.45 km new construction (Proposed)	2,555	Mid Term	Required	Detailed Design
SCP-57	Repair & Renovation	Syed Pur	4.78	69047008	From Syedpur UP to Jagannathpur via Jagannathpur road	New	Ward 6 of Syedpur	4.78 km Road Repair & Renovation (Proposed)	908	Mid Term	Required	Detailed Design
RAN-58	Repair & Renovation	Ranjan	7	69047010	From Jagannathpur to Jagannathpur via Jagannathpur rd	New	Ward 4 of Raniganj	7 km Road Repair & Renovation (Proposed)	1,300	Mid Term	Required	Detailed Design
RAN-59	Repair & Renovation	Ranjan	7.45	69047011	From Jagannathpur to Jagannathpur via Jagannathpur rd	New	Ward 4 of Raniganj	7.45 km Road Repair & Renovation (Proposed)	1,415	Mid Term	Required	Detailed Design
ASH-60	Repair & Renovation	Asharhandi	5.61	69047012	From Dwarai Bazar to Swara	New	Ward 6 of Asharhandi	5.61 km Road Repair & Renovation (Proposed)	1,055	Mid Term	Required	Detailed Design
RAN-61	Repair & Renovation	Ranjan	5.5	69047015	From Shibganj Bazar to Ranjan	New	Ward 9 of Asharhandi	5.5 km Road Repair & Renovation (Proposed)	1,045	Mid Term	Required	Detailed Design
ASH-62	Repair & Renovation	Asharhandi	5.7	69047017	From Asharhandi to Asharhandi via Asharhandi rd	New	Ward 4 of Asharhandi	5.7 km Road Repair & Renovation (Proposed)	108	Mid Term	Required	Detailed Design
ASH-63	Repair & Renovation	Asharhandi	4.2	69047018	From Asharhandi to Asharhandi via Asharhandi rd	New	Ward 4 of Asharhandi	4.2 km Road Repair & Renovation (Proposed)	798	Mid Term	Required	Detailed Design

ID	Type of Need	Union	Official ID	Official Name of Countermeasures	Plan Status (e.g. new/continuing/pipeline/unfunded)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority Hazard Analysis	Remarks
RA-94	Construction	Union			New	2.52 m New Bridge Construction (Proposed from Community People)	Ward 7 of Mirpur Union	152	Mid Term	Low	Detailed Design Required
MR-04	Construction	Mirpur			New	9.41 m New Bridge Construction (Proposed from Community People)	Ward 4 of Mirpur Union	183	Mid Term	Low	Detailed Design Required
MR-05	Construction	Chaurara			New	5.10 m New Bridge Construction (Proposed from Community People)	Ward 2 of Chaurara Union	183	Mid Term	Low	Detailed Design Required
CH-09	Construction	Chaurara			New	9.14 m New Bridge Construction (Proposed from Community People)	Ward 6 of Chaurara Union	183	Mid Term	Low	Detailed Design Required
CH-12	Construction	Chaurara			New	6.10 m New Bridge Construction (Proposed from Community People)	Ward 5 of Chaurara Union	183	Mid Term	Low	Detailed Design Required
RA-14	Construction	Hodgipur			New	15.34 m New Bridge Construction (Proposed from Community People)	Ward 2 of Hodgipur Union	122	Mid Term	Low	Detailed Design Required
RA-18	Construction	Rangganj			New	7.62 m New Bridge Construction (Proposed from Community People)	Ward 6 of Rangganj Union	305	Mid Term	Low	Detailed Design Required
RA-20	Construction	Rangganj			New	12.13 m New Bridge Construction (Proposed from Community People)	Ward 2 of Rangganj Union	152	Mid Term	Low	Detailed Design Required
RA-21	Construction	Rangganj			New	12.13 m New Bridge Construction (Proposed from Community People)	Ward 6 of Rangganj Union	244	Mid Term	Low	Detailed Design Required
RA-22	Construction	Rangganj			New	12.13 m New Bridge Construction (Proposed from Community People)	Ward 6 of Rangganj Union	244	Mid Term	Low	Detailed Design Required
SS-01	Construction	Syed Pur			New	12.13 m New Bridge Construction (Proposed from Community People)	Ward 1 of Syed Pur Union	244	Mid Term	Low	Detailed Design Required
AS-01	Construction	Ashkhandi			New	6.10 m New Bridge Construction (Proposed from Community People)	Ward 8 of Ashkhandi Union	213	Mid Term	Low	Detailed Design Required
PA-26	Construction	Pailgon			New	6.10 m New Bridge Construction (Proposed from Community People)	Ward 4 of Pailgon Union	110	Mid Term	Low	Detailed Design Required
PA-30	Construction	Pailgon			New	4.57 m New Bridge Construction (Proposed from Community People)	Ward 4 of Pailgon Union	91	Mid Term	High	Detailed Design Required
RA-31	Construction	Pailgon			New	5.49 m New Bridge Construction (Proposed from Community People)	Ward 4 of Pailgon Union	110	Mid Term	Low	Detailed Design Required
RA-34	Construction	Kokolia			New	10 m New Bridge Construction (Proposed from PPO)	Ward 8 of Kokolia Union	25	Mid Term	High	Detailed Design Required
RA-35	Construction	Kokolia			New	15 m New Bridge Construction (Proposed from PPO)	Ward 7 of Kokolia Union	30	Mid Term	High	Detailed Design Required
KA-01	Construction	Kokolia			New	10 m New Bridge Construction (Proposed from PPO)	Ward 9 of Kokolia Union	25	Mid Term	High	Detailed Design Required

Projects by BDM

c) Bridges

ID	Type of Need	Union	Length (km)	Official ID	Official Name of Countermeasures	Post Office - Naya Tikik Road	Plan Status (e.g. new/continuing/pipeline/unfunded)	Propponents	Direct Beneficiaries/Interests to be protected	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority Hazard Analysis	Remarks
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Attachment 1- 17

RA-99	Construction	Ashkhandi	1.65	690475294	Syed pur - Noyabondar Road from Purba Tikik	New	1.65m New Road (Proposed from LGED)	Ward 1, 2 of Ashkhandi Union	190	Mid Term	High	Detailed Design Required
RA-98	Construction	Ashkhandi	1	690475287	GPS Road	New	1.65m New Road (Proposed from LGED)	Ward 4 of Ashkhandi Union	212	Mid Term	High	Detailed Design Required
MR-07	Construction	Mirpur Union	1.12	690475264	Highway Approach - Culvert Approach	New	1.12km New Road (Proposed from LGED)	Ward 2 of Mirpur Union	332	Mid Term	High	Detailed Design Required
RA-06	Construction	Rangganj	1.75	690475247	Boromandi Haror Road	New	1.75km New Road (Proposed from LGED)	Ward 4 of Rangganj Union	285	Mid Term	High	Detailed Design Required
PA-05	Construction	Pailgon	1.5	690475215	Sadhabazar Hodgipura Road	New	1.5km New Road (Proposed from LGED)	Ward 4 of Pailgon Union	228	Mid Term	High	Detailed Design Required
RA-94	Construction	Ashkhandi	1.2	690475214	Mithavara Road	New	1.2km New Road (Proposed from LGED)	Ward 3 of Ashkhandi Union	372	Mid Term	High	Detailed Design Required
AS-01	Construction	Pailgon	1.96	690475213	Road from Romangpur Road from Romangpur Road	New	1.96km New Road (Proposed from LGED)	Ward 1 of Pailgon Union	171	Mid Term	High	Detailed Design Required
RA-02	Construction	Ashkhandi	0.9	690475212	Community Clinic Road	New	0.9km New Road (Proposed from LGED)	Ward 4 of Ashkhandi Union	148	Mid Term	High	Detailed Design Required
SS-01	Construction	Syed Pur	0.78	690475207	Community Clinic Road	New	0.78km New Road (Proposed from LGED)	Ward 4 of Syed Pur Union	570	Mid Term	High	Detailed Design Required
JAG-90	Construction	Jaganmathanpur	3	690475155	Jaganmathanpur - Rangganj Road	New	3km New Road (Proposed from LGED)	Ward 3 of Jaganmathanpur Union	570	Mid Term	High	Detailed Design Required
MR-09	Construction	Mirpur Union	3	690475144	Highway (LGED Road)	New	3km New Road (Proposed from LGED)	Ward 7 of Mirpur Union	95	Mid Term	High	Detailed Design Required
RA-08	Renovation	Rangganj	0.5	690475087	RHD - Narkhetala Govt. Road	New	0.5km Road (Proposed from LGED)	Ward 5 of Rangganj Union	480	Mid Term	High	Detailed Design Required
SS-07	Renovation	Syed Pur	2.53	690475072	Karnapur Road	New	2.53km Road (Proposed from LGED)	Ward 5.3 of Syed Pur Union	190	Mid Term	High	Detailed Design Required
PA-06	Repair & Renovation	Pail	1	690475037	Karapour - Rangganj Rd	New	1km Road Repair (Proposed from LGED)	Ward 4 of Pail Union	380	Mid Term	High	Detailed Design Required
CH-05	Repair & Renovation	Chaurara	2	690475014	Chaurara Bazar - Pail Rd	New	2km Road Repair (Proposed from LGED)	Ward 3 of Chaurara Union	294	Mid Term	High	Detailed Design Required
PA-04	Repair & Renovation	Mirpur Bazar	1.55	690475012	Mirpur Bazar - Pail Road	New	1.55km Road Repair (Proposed from LGED)	Ward 6.2 of Pail Union	190	Mid Term	High	Detailed Design Required
JAG-03	Construction	Jaganmathanpur	1	690475006	Highway - Rangganj Rd	New	1km Bridge (20m - 60m) Construction (Equation Bridge Length (e.g. 20m - 60m)) (Proposed from LGED)	Ward 4 of Jaganmathanpur Union	475	Mid Term	High	Detailed Design Required
MR-02	Repair & Renovation	Mirpur Union	2.5	690474077	Highway - Rangganj Rd	New	2.5km Road Repair (Proposed from LGED)	Ward 1 of Mirpur Union				

Projects by Jagannathpur Paurashava

[illegible]

Projects by LGED

ID	Type of Need	Union	Official ID/Number	Official Name of the measure	Plan Name (e.g. new/continuing/improved)	Proponents	Direct Benefits/interests to cost (Lakh)	Estimated implementation time (Lakh)	Form of Implementation	Remarks
BRI-32	New	Jaganpur	Number	Keshavnagar Bypass Road	Under the Rajpur Tree	New	US 4 in New Bridge Construction (Proposed From Community People)	80	Mid Term	Detailed Design Required
BRI-33	New	Jaganpur	-	nearby Keshavnagar	nearby Keshavnagar	New	36.58 in New Bridge Construction (Proposed From Community People)	80	Mid Term	Detailed Design Required

Attachment 1 - 19

ID	Type of Need	Union	Official Name of Countermeasures	Plan Status (e.g., (nmf/continuing))	Propponents	Direct Beneficiaries/Interests (Tab)	Estimated Implementation Time Frame (Yr.)	Remarks
PAT-01	New Construction	Patali	69045097	New	Asarapur V. Anandpur road from Chauri to Chik-2000m at ICJ-2000m	Ward 4 of Patali Union	914	Detailed Design Required
PAT-02	New Construction	Patali	69045135	New	Asarapur road from Chauri to Chik-2000m at ICJ-2000m	Ward 9 of Patali Union	792	Detailed Design Required
PAT-03	New Construction	Patali	690475097	Continuing	Agpur-CEED Road Approach/ Road from Agpur to Pashanpur Road	Ward 2 of Patali Union	914	High TSC
MIR-06	New Construction	Majpur Union	69045144	New	Agpur-CEED Road Approach/ Road from Agpur to Pashanpur Road	Ward of Majpur Union	305	Detailed Design Required
BHU-07	New Construction	Majpur Union	69045144	New	Agpur-CEED Road Approach/ Road from Agpur to Pashanpur Road	Ward of Majpur Union	183	Detailed Design Required
MIR-08	New Construction	Majpur Union	69045170	New	Shahpur-CEED Road Approach/ Road from Shahpur to Pashanpur Road	Ward of Majpur Union	853	Detailed Design Required
CHL-10	New Construction	Chikara	69047073	New	On the Shahpur Canal	Ward 3 of Chikara Union	610	Detailed Design Required
BHU-11	New Construction	Chikara	-	New	On the south Chikara anahar	Ward 4 of Chikara Union	731	High TSC
BHU-13	New Construction	Chikara	69047073	New	Malachik-keri Via Badoharan	Ward 4 of Chikara Union	244	Detailed Design Required

ID	Type of Need	Union	Official ID Number	Official Name of Civilian Committee	Plan Status (e.g., approved/unapproved)	Proponents	Direct Beneficiaries/Minors to be protected (Tb.)	Estimated Cost (Lakh)	Implementation of the Project	Remarks
CHL-15	New Construction	Chilpara	69043002	Island Ditch on the Kala river	New	36.5km New Bridge Construction (Proposed from Community)	Ward 6 of Chilpara	732	High	Desired Design required
CHL-16	New Construction	Chilpara	69043002	Chilpara Swastheta Vias	New	60.5km New Bridge Construction (Proposed from Community)	Ward 6 of Chilpara	732	Low	Desired Design required
CHL-17	New Construction	Chilpara	69043151	Gadmal UP (LECD Road)	New	12.19 m New Bridge Construction (Proposed from Community)	Ward 5 of Chilpara	244	Low	Desired Design required
ASH-20	New Construction	Ashokpur	69043243	Banopargup, GEB Shweta	New	18.2km New Bridge Construction (Proposed from Community)	Ward 8 of Ashokandi	366	Medium	Desired Design required
MR-21	Re-construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-22	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-23	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	63	Medium	Desired Design required
MR-24	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	76	Medium	Desired Design required
MR-25	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-26	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
CHL-27	New Construction	Chilpara	69043002	Chilpara Swastheta Vias	New	70.10km New Bridge Construction (Proposed from Community)	Ward 6 of Chilpara	1,402	Low	Desired Design required
CHL-28	New Construction	Chilpara	69043002	Chilpara Swastheta Vias	New	12.19 m New Bridge Construction (Proposed from Community)	Ward 5 of Chilpara	244	Low	Desired Design required
CHL-29	New Construction	Chilpara	69043151	Gadmal UP (LECD Road)	New	18.2km New Bridge Construction (Proposed from Community)	Ward 8 of Ashokandi	366	Medium	Desired Design required
MR-30	Re-construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-31	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	63	Medium	Desired Design required
MR-32	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	76	Medium	Desired Design required
MR-33	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-34	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
MR-35	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-36	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
MR-37	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-38	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
MR-39	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-40	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
MR-41	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-42	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
MR-43	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-44	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
MR-45	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-46	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
MR-47	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-48	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
MR-49	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-50	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
MR-51	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-52	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
MR-53	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-54	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required
MR-55	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	240	Medium	Desired Design required
MR-56	New Construction	Mirpur Union	69047001	Chilpara Swastheta Vias	New	20m Bridge Re-Construction (Proposed from Community)	Ward 8 of Mirpur	360	Medium	Desired Design required

Attachment 1- 24

Projects by HED

[illegible]

Category	ID	Type of Need	Official Number	Official Name of the Initiative (e.g., "New Roads Project")	Proposers	Estimated Budget (in Lakhs)	Timeline (Start/End)	Remarks
Gravelled	ASH-01	Gravelled	ASH-01	Gravelled Roads in Village A	New	25	Short Term	Gravelled Roads in Village A
Gravelled	ASH-02	Gravelled	ASH-02	Gravelled Roads in Village B	New	30	Short Term	Gravelled Roads in Village B
Water supply	ASH-03	Water supply	ASH-03	Water supply in Village C	New	40	Medium Term	Water supply in Village C
Water supply	ASH-04	Water supply	ASH-04	Water supply in Village D	New	35	Medium Term	Water supply in Village D
Water supply	ASH-05	Water supply	ASH-05	Water supply in Village E	New	30	Medium Term	Water supply in Village E
Water supply	ASH-06	Water supply	ASH-06	Water supply in Village F	New	30	Medium Term	Water supply in Village F
Water supply	ASH-07	Water supply	ASH-07	Water supply in Village G	New	30	Medium Term	Water supply in Village G
Water supply	ASH-08	Water supply	ASH-08	Water supply in Village H	New	30	Medium Term	Water supply in Village H
Water supply	ASH-09	Water supply	ASH-09	Water supply in Village I	New	30	Medium Term	Water supply in Village I
Water supply	ASH-10	Water supply	ASH-10	Water supply in Village J	New	30	Medium Term	Water supply in Village J
Water supply	ASH-11	Water supply	ASH-11	Water supply in Village K	New	30	Medium Term	Water supply in Village K
Water supply	ASH-12	Water supply	ASH-12	Water supply in Village L	New	30	Medium Term	Water supply in Village L
Water supply	ASH-13	Water supply	ASH-13	Water supply in Village M	New	30	Medium Term	Water supply in Village M
Water supply	ASH-14	Water supply	ASH-14	Water supply in Village N	New	30	Medium Term	Water supply in Village N
Water supply	ASH-15	Water supply	ASH-15	Water supply in Village O	New	30	Medium Term	Water supply in Village O
Water supply	ASH-16	Water supply	ASH-16	Water supply in Village P	New	30	Medium Term	Water supply in Village P
Water supply	ASH-17	Water supply	ASH-17	Water supply in Village Q	New	30	Medium Term	Water supply in Village Q
Water supply	ASH-18	Water supply	ASH-18	Water supply in Village R	New	30	Medium Term	Water supply in Village R
Water supply	ASH-19	Water supply	ASH-19	Water supply in Village S	New	30	Medium Term	Water supply in Village S
Water supply	ASH-20	Water supply	ASH-20	Water supply in Village T	New	30	Medium Term	Water supply in Village T
Water supply	ASH-21	Water supply	ASH-21	Water supply in Village U	New	30	Medium Term	Water supply in Village U
Water supply	ASH-22	Water supply	ASH-22	Water supply in Village V	New	30	Medium Term	Water supply in Village V
Water supply	ASH-23	Water supply	ASH-23	Water supply in Village W	New	30	Medium Term	Water supply in Village W
Water supply	ASH-24	Water supply	ASH-24	Water supply in Village X	New	30	Medium Term	Water supply in Village X
Water supply	ASH-25	Water supply	ASH-25	Water supply in Village Y	New	30	Medium Term	Water supply in Village Y
Water supply	ASH-26	Water supply	ASH-26	Water supply in Village Z	New	30	Medium Term	Water supply in Village Z
Water supply	ASH-27	Water supply	ASH-27	Water supply in Village AA	New	30	Medium Term	Water supply in Village AA
Water supply	ASH-28	Water supply	ASH-28	Water supply in Village AB	New	30	Medium Term	Water supply in Village AB
Water supply	ASH-29	Water supply	ASH-29	Water supply in Village AC	New	30	Medium Term	Water supply in Village AC
Water supply	ASH-30	Water supply	ASH-30	Water supply in Village AD	New	30	Medium Term	Water supply in Village AD
Water supply	ASH-31	Water supply	ASH-31	Water supply in Village AE	New	30	Medium Term	Water supply in Village AE
Water supply	ASH-32	Water supply	ASH-32	Water supply in Village AF	New	30	Medium Term	Water supply in Village AF
Water supply	ASH-33	Water supply	ASH-33	Water supply in Village AG	New	30	Medium Term	Water supply in Village AG
Water supply	ASH-34	Water supply	ASH-34	Water supply in Village AH	New	30	Medium Term	Water supply in Village AH
Water supply	ASH-35	Water supply	ASH-35	Water supply in Village AI	New	30	Medium Term	Water supply in Village AI
Water supply	ASH-36	Water supply	ASH-36	Water supply in Village AJ	New	30	Medium Term	Water supply in Village AJ
Water supply	ASH-37	Water supply	ASH-37	Water supply in Village AK	New	30	Medium Term	Water supply in Village AK
Water supply	ASH-38	Water supply	ASH-38	Water supply in Village AL	New	30	Medium Term	Water supply in Village AL
Water supply	ASH-39	Water supply	ASH-39	Water supply in Village AM	New	30	Medium Term	Water supply in Village AM
Water supply	ASH-40	Water supply	ASH-40	Water supply in Village AN	New	30	Medium Term	Water supply in Village AN
Water supply	ASH-41	Water supply	ASH-41	Water supply in Village AO	New	30	Medium Term	Water supply in Village AO
Water supply	ASH-42	Water supply	ASH-42	Water supply in Village AP	New	30	Medium Term	Water supply in Village AP
Water supply	ASH-43	Water supply	ASH-43	Water supply in Village AQ	New	30	Medium Term	Water supply in Village AQ
Water supply	ASH-44	Water supply	ASH-44	Water supply in Village AR	New	30	Medium Term	Water supply in Village AR
Water supply	ASH-45	Water supply	ASH-45	Water supply in Village AS	New	30	Medium Term	Water supply in Village AS
Water supply	ASH-46	Water supply	ASH-46	Water supply in Village AT	New	30	Medium Term	Water supply in Village AT
Water supply	ASH-47	Water supply	ASH-47	Water supply in Village AU	New	30	Medium Term	Water supply in Village AU
Water supply	ASH-48	Water supply	ASH-48	Water supply in Village AV	New	30	Medium Term	Water supply in Village AV
Water supply	ASH-49	Water supply	ASH-49	Water supply in Village AW	New	30	Medium Term	Water supply in Village AW
Water supply	ASH-50	Water supply	ASH-50	Water supply in Village AX	New	30	Medium Term	Water supply in Village AX
Water supply	ASH-51	Water supply	ASH-51	Water supply in Village AY	New	30	Medium Term	Water supply in Village AY
Water supply	ASH-52	Water supply	ASH-52	Water supply in Village AZ	New	30	Medium Term	Water supply in Village AZ
Water supply	ASH-53	Water supply	ASH-53	Water supply in Village BA	New	30	Medium Term	Water supply in Village BA
Water supply	ASH-54	Water supply	ASH-54	Water supply in Village BB	New	30	Medium Term	Water supply in Village BB
Water supply	ASH-55	Water supply	ASH-55	Water supply in Village BC	New	30	Medium Term	Water supply in Village BC
Water supply	ASH-56	Water supply	ASH-56	Water supply in Village BD	New	30	Medium Term	Water supply in Village BD
Water supply	ASH-57	Water supply	ASH-57	Water supply in Village BE	New	30	Medium Term	Water supply in Village BE
Water supply	ASH-58	Water supply	ASH-58	Water supply in Village BF	New	30	Medium Term	Water supply in Village BF
Water supply	ASH-59	Water supply	ASH-59	Water supply in Village BG	New	30	Medium Term	Water supply in Village BG
Water supply	ASH-60	Water supply	ASH-60	Water supply in Village BH	New	30	Medium Term	Water supply in Village BH
Water supply	ASH-61	Water supply	ASH-61	Water supply in Village BI	New	30	Medium Term	Water supply in Village BI
Water supply	ASH-62	Water supply	ASH-62	Water supply in Village BJ	New	30	Medium Term	Water supply in Village BJ
Water supply	ASH-63	Water supply	ASH-63	Water supply in Village BK	New	30	Medium Term	Water supply in Village BK
Water supply	ASH-64	Water supply	ASH-64	Water supply in Village BL	New	30	Medium Term	Water supply in Village BL
Water supply	ASH-65	Water supply	ASH-65	Water supply in Village BM	New	30	Medium Term	Water supply in Village BM
Water supply	ASH-66	Water supply	ASH-66	Water supply in Village BN	New	30	Medium Term	Water supply in Village BN
Water supply	ASH-67	Water supply	ASH-67	Water supply in Village BO	New	30	Medium Term	Water supply in Village BO
Water supply	ASH-68	Water supply	ASH-68	Water supply in Village BP	New	30	Medium Term	Water supply in Village BP
Water supply	ASH-69	Water supply	ASH-69	Water supply in Village BQ	New	30	Medium Term	Water supply in Village BQ
Water supply	ASH-70	Water supply	ASH-70	Water supply in Village BR	New	30	Medium Term	Water supply in Village BR
Water supply	ASH-71	Water supply	ASH-71	Water supply in Village BS	New	30	Medium Term	Water supply in Village BS
Water supply	ASH-72	Water supply	ASH-72	Water supply in Village BT	New	30	Medium Term	Water supply in Village BT
Water supply	ASH-73	Water supply	ASH-73	Water supply in Village BU	New	30	Medium Term	Water supply in Village BU
Water supply	ASH-74	Water supply	ASH-74	Water supply in Village BV	New	30	Medium Term	Water supply in Village BV
Water supply	ASH-75	Water supply	ASH-75	Water supply in Village BW	New	30	Medium Term	Water supply in Village BW
Water supply	ASH-76	Water supply	ASH-76	Water supply in Village BX	New	30	Medium Term	Water supply in Village BX
Water supply	ASH-77	Water supply	ASH-77	Water supply in Village BY	New	30	Medium Term	Water supply in Village BY
Water supply	ASH-78	Water supply	ASH-78	Water supply in Village BZ	New	30	Medium Term	Water supply in Village BZ
Water supply	ASH-79	Water supply	ASH-79	Water supply in Village CA	New	30	Medium Term	Water supply in Village CA
Water supply	ASH-80	Water supply	ASH-80	Water supply in Village CB	New	30	Medium Term	Water supply in Village CB
Water supply	ASH-81	Water supply	ASH-81	Water supply in Village CC	New	30	Medium Term	Water supply in Village CC
Water supply	ASH-82	Water supply	ASH-82	Water supply in Village CD	New	30	Medium Term	Water supply in Village CD
Water supply	ASH-83	Water supply	ASH-83	Water supply in Village CE	New	30	Medium Term	Water supply in Village CE
Water supply	ASH-84	Water supply	ASH-84	Water supply in Village CF	New	30	Medium Term	Water supply in Village CF
Water supply	ASH-85	Water supply	ASH-85	Water supply in Village CG	New	30	Medium Term	Water supply in Village CG
Water supply	ASH-86	Water supply	ASH-86	Water supply in Village CH	New	30	Medium Term	Water supply in Village CH
Water supply	ASH-87	Water supply	ASH-87	Water supply in Village CI	New	30	Medium Term	Water supply in Village CI
Water supply	ASH-88	Water supply	ASH-88	Water supply in Village CJ	New	30	Medium Term	Water supply in Village CJ
Water supply	ASH-89	Water supply	ASH-89	Water supply in Village CK	New	30	Medium Term	Water supply in Village CK
Water supply	ASH-90	Water supply	ASH-90	Water supply in Village CL	New	30	Medium Term	Water supply in Village CL
Water supply	ASH-91	Water supply	ASH-91	Water supply in Village CM	New	30	Medium Term	Water supply in Village CM
Water supply	ASH-92	Water supply	ASH-92	Water supply in Village CN	New	30	Medium Term	Water supply in Village CN
Water supply	ASH-93	Water supply	ASH-93	Water supply in Village CO	New	30	Medium Term	Water supply in Village CO
Water supply	ASH-94	Water supply	ASH-94	Water supply in Village CP	New	30	Medium Term	Water supply in Village CP
Water supply	ASH-95	Water supply	ASH-95	Water supply in Village CQ	New	30	Medium Term	Water supply in Village CQ
Water supply	ASH-96	Water supply	ASH-96	Water supply in Village CR	New	30	Medium Term	Water supply in Village CR
Water supply	ASH-97	Water supply	ASH-97	Water supply in Village CS	New	30	Medium Term	Water supply in Village CS
Water supply	ASH-98	Water supply	ASH-98	Water supply in Village CT	New	30	Medium Term	Water supply in Village CT
Water supply	ASH-99	Water supply	ASH-99	Water supply in Village CU	New	30	Medium Term	Water supply in Village CU
Water supply	ASH-100	Water supply	ASH-100	Water supply in Village CV	New	30	Medium Term	Water supply in Village CV
Water supply	ASH-101	Water supply	ASH-101	Water supply in Village CW	New	30	Medium Term	Water supply in Village CW
Water supply	ASH-102	Water supply	ASH-102	Water supply in Village CX	New	30	Medium Term	Water supply in Village CX
Water supply	ASH-103	Water supply	ASH-103	Water supply in Village CY	New	30	Medium Term	Water supply in Village CY
Water supply	ASH-104	Water supply	ASH-104	Water supply in Village CZ	New	30	Medium Term	Water supply in Village CZ
Water supply	ASH-105	Water supply	ASH-105	Water supply in Village DA	New	30	Medium Term	Water supply in Village DA
Water supply	ASH-106	Water supply	ASH-106	Water supply in Village DB	New	30	Medium Term	Water supply in Village DB
Water supply	ASH-107	Water supply	ASH-107	Water supply in Village DC	New	30	Medium Term	Water supply in Village DC
Water supply	ASH-108	Water supply	ASH-108	Water supply in Village DD	New	30	Medium Term	Water supply in Village DD
Water supply	ASH-109	Water supply	ASH-109	Water supply in Village DE	New	30	Medium Term	Water supply in Village DE
Water supply	ASH-110	Water supply	ASH-110	Water supply in Village DF	New	30	Medium Term	Water supply in Village DF
Water supply	ASH-111	Water supply	ASH-111	Water supply in Village DG	New	30	Medium Term	Water supply in Village DG
Water supply	ASH-112	Water supply	ASH-112	Water supply in Village DH	New	30	Medium Term	Water supply in Village DH
Water supply	ASH-113	Water supply	ASH-113	Water supply in Village DI	New	30	Medium Term	Water supply in Village DI
Water supply	ASH-114	Water supply	ASH-114	Water supply in Village DJ	New	30	Medium Term	Water supply in Village DJ
Water supply	ASH-115	Water supply	ASH-115	Water supply in Village DK	New	30	Medium Term	Water supply in Village DK
Water supply	ASH-116	Water supply	ASH-116	Water supply in Village DL	New	30	Medium Term	Water supply in Village DL
Water supply	ASH-117	Water supply	ASH-117	Water supply in Village DM	New	30	Medium Term	Water supply in Village DM
Water supply	ASH-118	Water supply	ASH-118	Water supply in Village DN	New	30	Medium Term	Water supply in Village DN
Water supply	ASH-119	Water supply	ASH-119	Water supply in Village DO	New	30	Medium Term	Water supply in Village DO
Water supply	ASH-120	Water supply	ASH-120	Water supply in Village DP	New	30	Medium Term	Water supply in Village DP
Water supply	ASH-121	Water supply	ASH-121	Water supply in Village DQ	New	30	Medium Term	Water supply in Village DQ
Water supply	ASH-122	Water supply	ASH-122	Water supply in Village DR	New	30	Medium Term	Water supply in Village DR
Water supply	ASH-123	Water supply	ASH-123	Water supply in Village DS	New	30	Medium Term	Water supply in Village DS
Water supply	ASH-124	Water supply	ASH-124	Water supply in Village DT	New	30	Medium Term	Water supply in Village DT
Water supply	ASH-125	Water supply	ASH-125	Water supply in Village DU	New	30	Medium Term	Water supply in Village DU
Water supply	ASH-126	Water supply	ASH-126	Water supply in Village DV	New	30	Medium Term	Water supply in Village DV
Water supply	ASH-127	Water supply	ASH-127	Water supply in Village DW	New	30	Medium Term	Water supply in Village DW
Water supply	ASH-128	Water supply	ASH-128	Water supply in Village DX	New	30	Medium Term	Water supply in Village DX
Water supply	ASH-129	Water supply	ASH-129	Water supply in Village DY	New	30	Medium Term	Water supply in Village DY
Water supply	ASH-130	Water supply	ASH-130	Water supply in Village DZ	New	30	Medium Term	Water supply in Village DZ
Water supply	ASH-131	Water supply	ASH-131	Water supply in Village EA	New	30	Medium Term	Water supply in Village EA
Water supply	ASH-132	Water supply	ASH-132	Water supply in Village EB	New	30	Medium Term	Water supply in Village EB
Water supply	ASH-133	Water supply	ASH-133	Water supply in Village EC	New	30	Medium Term	Water supply in Village EC
Water supply	ASH-134	Water supply	ASH-134	Water supply in Village ED	New	30	Medium Term	Water supply in Village ED
Water supply	ASH-135	Water supply	ASH-135	Water supply in Village EE	New	30	Medium Term	Water supply in Village EE
Water supply	ASH-136	Water supply	ASH-136	Water supply in Village EF	New	30	Medium Term	Water supply in Village EF
Water supply	ASH-137	Water supply	ASH-137	Water supply in Village EG	New	30	Medium Term	Water supply in Village EG
Water supply	ASH-138	Water supply	ASH-138	Water supply in Village EH	New	30	Medium Term	Water supply in Village EH
Water supply	ASH-139	Water supply	ASH-139	Water supply in Village EI	New	30	Medium Term	Water supply in Village EI
Water supply	ASH-140	Water supply	ASH-140	Water supply in Village EJ	New	30	Medium Term	Water supply in Village EJ
Water supply	ASH-141	Water supply	ASH-141	Water supply in Village EK	New	30	Medium Term	Water supply in Village EK
Water supply	ASH-142	Water supply	ASH-142	Water supply in Village EL	New	30	Medium Term	Water supply in Village EL
Water supply	ASH-143	Water supply	ASH-143	Water supply in Village EM	New	30	Medium Term	Water supply in Village EM
Water supply	ASH-144	Water supply	ASH-144	Water supply in Village EN	New	30	Medium Term	Water supply in Village EN
Water supply	ASH-145	Water supply	ASH-145	Water supply in Village EO	New	30	Medium Term	Water supply in Village EO
Water supply	ASH-146	Water supply	ASH-146	Water supply in Village EP	New	30	Medium Term	Water supply in Village EP
Water supply	ASH-147	Water supply	ASH-147	Water supply in Village EQ	New	30	Medium Term	Water supply in Village EQ
Water supply	ASH-148	Water supply	ASH-148	Water supply in Village ER	New	30	Medium Term	Water supply in Village ER
Water supply	ASH-149	Water supply	ASH-149	Water supply in Village ES	New	30	Medium Term	Water supply in Village ES
Water supply	ASH-150	Water supply	ASH-150	Water supply in Village ET	New	30	Medium Term	Water supply in Village ET
Water supply	ASH-151	Water supply	ASH-151	Water supply in Village EU	New	30	Medium Term	Water supply in Village EU
Water supply	ASH-152	Water supply	ASH-152	Water supply in Village EV	New	30	Medium Term	Water supply in Village EV
Water supply	ASH-153	Water supply	ASH-153	Water supply in Village EW	New	30	Medium Term	Water supply in Village EW
Water supply	ASH-154	Water supply	ASH-154	Water supply in Village EX	New	30	Medium Term	Water supply in Village EX
Water supply	ASH-155	Water supply	ASH-155	Water supply in Village EY	New	30	Medium Term	Water supply in Village EY
Water supply	ASH-156	Water supply	ASH-156	Water supply in Village EZ	New	30	Medium Term	Water supply in Village EZ
Water supply	ASH-157	Water supply	ASH-157	Water supply in Village FA	New	30	Medium Term	Water supply in Village FA
Water supply	ASH-158	Water supply	ASH-158	Water supply in Village FB	New	30	Medium Term	Water supply in Village FB
Water supply	ASH-159	Water supply	ASH-159	Water supply in Village FC	New	30	Medium Term	Water supply in Village FC
Water supply	ASH-160	Water supply	ASH-160	Water supply in Village FD	New	30	Medium Term	Water supply in Village FD
Water supply	ASH-161	Water supply	ASH-161	Water supply in Village FE	New	30	Medium Term	Water supply in Village FE
Water supply	ASH-162	Water supply	ASH-162	Water supply in Village FF	New	30	Medium Term	Water supply in Village FF

Projects by BDM

(g) Other intrastuctures and facilities for emergency operations

Category	ID	Type of Need	Union	Number of Condominium Units	Official Name of New/Existing Compassionate Pipelines	On high ground submerged village	On high ground of Fort St. J. village	New	New	New	Ward 4 of Ashlandi	Ward 5 of Ashlandi	Ward 6 of Ashlandi	Ward 4 of Ashlandi	Ward 1 of Ashlandi	Ward 2 of Ashlandi	20	Implementation Time Frame	Terms of Hazard Analysis	Remarks
Tubewell	11-	New Construction	Ashlandi	11	On high ground submerged village	On high ground of Fort St. J. village	New	New	New	New	Ward 6 of Ashlandi	Ward 5 of Ashlandi	Ward 4 of Ashlandi	Ward 4 of Ashlandi	Ward 1 of Ashlandi	Ward 2 of Ashlandi	0.550	Short Term	Medium	Need to take initiative from 75% to 100%
Tubewell	12-	New Construction	Ashlandi	12	On high ground submerged village	On high ground of Fort St. J. village	New	New	New	New	Ward 6 of Ashlandi	Ward 5 of Ashlandi	Ward 4 of Ashlandi	Ward 4 of Ashlandi	Ward 1 of Ashlandi	Ward 2 of Ashlandi	0.550	Short Term	Low	Need to take initiative from 75% to 100%
Tubewell	13	New Construction	Ashlandi	13	On high ground submerged village	On high ground of Fort St. J. village	New	New	New	New	Ward 6 of Ashlandi	Ward 5 of Ashlandi	Ward 4 of Ashlandi	Ward 4 of Ashlandi	Ward 1 of Ashlandi	Ward 2 of Ashlandi	0.550	Short Term	Medium	Need to take initiative from 75% to 100%
Tubewell	14-	New Construction	Pailgaon	14-	On high ground submerged village	On high ground of Fort St. J. village	New	New	New	New	Ward 6 of Ashlandi	Ward 5 of Ashlandi	Ward 4 of Ashlandi	Ward 4 of Ashlandi	Ward 1 of Ashlandi	Ward 2 of Ashlandi	0.550	Short Term	Medium	Need to take initiative from 75% to 100%
Tubewell	14-	New Construction	Pailgaon	14-	On high ground submerged village	On high ground of Fort St. J. village	New	New	New	New	Ward 6 of Ashlandi	Ward 5 of Ashlandi	Ward 4 of Ashlandi	Ward 4 of Ashlandi	Ward 1 of Ashlandi	Ward 2 of Ashlandi	0.550	Short Term	Medium	Need to take initiative from 75% to 100%
Public Toilet	01	Public Toilet	Pailgaon	01	On high ground submerged village	On high ground of Fort St. J. village	New	New	New	New	Ward 6 of Ashlandi	Ward 5 of Ashlandi	Ward 4 of Ashlandi	Ward 4 of Ashlandi	Ward 1 of Ashlandi	Ward 2 of Ashlandi	0.550	Mid Term	Low	Need to take initiative from 75% to 100%

Attachment 1-23

Category	ID	Type of Need	Union	Official Number	Official Commentaries	Project Name of the Status (as of 2019)	Propponents	Beneficiaries to be Protected	Estimated cost (Tb. million)	Implementation time frame	Terms of reference	Remarks
Tubewell	Part-1	Construction	Peash	07	China	At Khairat village	New Tubewell installation (proposed from Community People)	Ward of Pailai Union	0.650	Short Term	Need to take initiative from TSC & USC	
Tubewell	07	Construction	Chitragua	02	Chitragua	At Khairat village	New Tubewell installation (proposed from Community People)	Ward of Chitragua Union	0.650	Short Term	Need to take initiative from TSC & USC	
Tubewell	03	Construction	Chitragua	02	Chitragua	At Khairat village	New Tubewell installation (proposed from Community People)	Ward of Chitragua Union	0.650	Short Term	Need to take initiative from TSC & USC	
Tubewell	04	New	Wakanda	04	Wakanda	At Khairat village	New Tubewell installation (proposed from Community People)	Ward of Chitragua Union	0.650	Short Term	Need to take initiative from TSC & USC	
Chitragua	04	New	Chitragua	04	Chitragua	At Khairat village	New Tubewell installation (proposed from Community People)	Ward of Chitragua Union	0.650	Short Term	Need to take initiative from TSC & USC	
Tubewell	06	Construction	Chitragua	05	Chitragua	At Khairat village	New Tubewell installation (proposed from Community People)	Ward of Chitragua Union	0.650	Short Term	Need to take initiative from TSC & USC	
Tubewell	07	Construction	Chitragua	05	Chitragua	At Khairat village	New Tubewell installation (proposed from Community People)	Ward of Chitragua Union	0.650	Short Term	Need to take initiative from TSC & USC	
Tubewell	08	New	Chitragua	05	Chitragua	At Khairat village	New Tubewell installation (proposed from Community People)	Ward of Chitragua Union	0.650	Short Term	Need to take initiative from TSC & USC	
Tubewell	09	New	Chitragua	05	Chitragua	At Khairat village	New Tubewell installation (proposed from Community People)	Ward of Chitragua Union	0.650	Short Term	Need to take initiative from TSC & USC	
Tubewell	10	Construction	Chitragua	05	Chitragua	At Khairat village	New Tubewell installation (proposed from Community People)	Ward of Chitragua Union	0.650	Short Term	Need to take initiative from TSC & USC	

Projects by DPHE

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

ID	Type of Need	Official Name of the Project/Institution/Constituents	Number of Children	Length (km)	Distance (km)	Propaganda	Remarks
MIR-04	Construction	New	0.305			New	From Rajakulja Village site to Rajakulja Village
RAN-05	Construction	New	0.279			New	Bag main bridge to Bag main Mahaling Nagar
RAN-06	Construction	New	0.233			New	Disrupt primary school to Government
BNR-07	Construction	New	0.290			New	From Shivamudra to Shivamudra
BNR-08	Construction	New	0.480			New	From Shivamudra to Shivamudra
BNR-09	Construction	New	0.832			New	From Shivamudra to Shivamudra
ASH-10	Construction	New	0.321			New	From Shivamudra to Shivamudra
ASH-11	Construction	New	0.868			New	From Shivamudra to Shivamudra
ASH-12	Construction	New	0.282			New	From Shivamudra to Shivamudra

Category	ID	Type of Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Proposed by UDMC	Proposed by UDMC	People of Pail Union	Direct Beneficiaries/Interests cost (Lakh Tk.)	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Training		All Unions & Pourashova	-	Provide Disaster management Training for UDMC members.	New	Proposed by UDMC	Proposed by UDMC	Community People of all Unions	2	2	Short Term	High	Need to take initiative from TSC & UJSC
Training		All Unions & Pourashova	-	Provide awareness Training on what to do before, at that time and after flash flood for UDMC.	New	Proposed by UDMC	Proposed by UDMC	People of Pail Union	2	2	Short Term	High	Need to take initiative from TSC & UJSC

Projects by BDM

3. Disaster Management Training and materials

Category	ID	Type of Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Proposed by UDMC	Proposed by UDMC	People of Pail Union	Direct Beneficiaries/Interests cost (Lakh Tk.)	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Wireless means of Emergency		All Unions & Pourashova	-	Installation of Wireless network	New	Proposed by UDMC	Proposed by UDMC	All union of Upazila	1	1	Short Term	High	Need to take initiative from TSC & UJSC
Wireless means of Emergency		All Unions & Pourashova	-	Installation of Wireless network	New	Proposed by UDMC	Proposed by UDMC	All union of Upazila	1	1	Short Term	High	Need to take initiative from TSC & UJSC

Projects by BDM

2. Early Warning Information and Communication (BWDB/BDM)

<Non-structural countermeasures>

Category	ID	Type of Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Proposed by UDMC	Proposed by UDMC	People of Pail Union	Direct Beneficiaries/Interests cost (Lakh Tk.)	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Input Distribution		All Unions & Pourashova	-	Plantation and Distribution tree sapling to community people of each Union & Pourashova.	New	Proposed by UDMC	Proposed by UDMC	Community People of all Unions	3	3	Short Term	High	Need to take initiative from TSC & UJSC
Input Distribution		All Unions & Pourashova	-	Motivated people for tree plantation and Distribution tree sapling to community people of each Union & Pourashova.	New	Proposed by UDMC	Proposed by UDMC	Community People of all Unions	3	3	Short Term	High	Need to take initiative from TSC & UJSC

Projects by BDM

a) Lightning Conductor

4. Infrastructures for Prevention of Other disasters

Category	ID	Type of Union	Official ID Number	Official Name of Countermeasures	Plan Status (e.g. (new/continuing/ pipeline/undecided)	Proposed by UDMC	Proposed by UDMC	People of Pail Union	Direct Beneficiaries/Interests cost (Lakh Tk.)	Estimated cost (Lakh Tk.)	Implementation Time Frame	Priority in Hazard Analysis	Remarks
Guideline wall	KAL-03	New	69047407	Kolokola Union	New	Proposed by UDMC	Proposed by UDMC	Ward 9 of Kolokola Union	15.5	15.5	Medium	Medium	Detailed Design Required
Guideline wall	PAT-06	New	69047404	Pail Union	New	Proposed by UDMC	Proposed by UDMC	Ward 9 of Pail Union	12.7	12.7	Medium	Low	Detailed Design Required
Guideline wall	PAT-09	New	69047403	Pail Union	New	Proposed by UDMC	Proposed by UDMC	Ward 2 of Pail Union	18	18	Medium	Low	Detailed Design Required
Guideline wall	SPD-19	New	69047200	Syedpur Union	New	Proposed by UDMC	Proposed by UDMC	Ward 6 of Syedpur Union	49	49	High	High	Detailed Design Required
Wall	RAN-22	New	69047200	Rangani Union	New	Proposed by UDMC	Proposed by UDMC	Ward 6 of Rangani Union	67	67	Medium	Low	Detailed Design Required
Wall	RAN-23	New	69047200	Rangani Union	New	Proposed by UDMC	Proposed by UDMC	Ward 6 of Rangani Union	68	68	Medium	Low	Detailed Design Required
Wall	KAL-24	New	69047200	Kolokola Union	New	Proposed by UDMC	Proposed by UDMC	Ward 6 of Kolokola Union	113	113	Medium	Low	Detailed Design Required
Wall	CHI-25	New	69047300	Chilaura Union	New	Proposed by UDMC	Proposed by UDMC	Ward 6 of Chilaura Union	960	960	Medium	Low	Detailed Design Required
Wall	JAN-26	New	69047300	Jagannathpur Union	New	Proposed by UDMC	Proposed by UDMC	Ward 6 of Jagannathpur Union	223	223	Medium	Low	Detailed Design Required
Wall	RAN-27	New	69047301	Rangani Union	New	Proposed by UDMC	Proposed by UDMC	Ward 4 of Rangani Union	700	700	Medium	Low	Detailed Design Required
Wall	RAN-28	New	69047301	Rangani Union	New	Proposed by UDMC	Proposed by UDMC	Ward 4 of Rangani Union	745	745	Medium	Low	Detailed Design Required
Wall	RAN-29	New	69047301	Rangani Union	New	Proposed by UDMC	Proposed by UDMC	Ward 4 of Rangani Union	550	550	Medium	Low	Detailed Design Required
Wall	ASH-30	New	69047301	Ashankandi Union	New	Proposed by UDMC	Proposed by UDMC	Ward 4 of Ashankandi Union	408	408	Medium	Low	Detailed Design Required
Wall	SPD-31	New	69047302	Syedpur Union	New	Proposed by UDMC	Proposed by UDMC	Ward 4 of Syedpur Union	221	221	Medium	Low	Detailed Design Required
Wall	GU-32	New	69047402	Guarha Union	New	Proposed by UDMC	Proposed by UDMC	Ward 3 of Guarha Union	800	800	Medium	Low	Detailed Design Required
Wall	GU-33	New	69047402	Guarha Union	New	Proposed by UDMC	Proposed by UDMC	Ward 3 of Guarha Union	130	130	Medium	Low	Detailed Design Required
Wall	ASH-34	New	69047404	Ashankandi Union	New	Proposed by UDMC	Proposed by UDMC	Ward 1, 4 of Ashankandi Union	780	780	Medium	Low	Detailed Design Required
Wall	PAT-35	New	69047401	Pail Union	New	Proposed by UDMC	Proposed by UDMC	Ward 1, 2 of Pail Union	350	350	Medium	Low	Detailed Design Required

Projects by LGED

Category	ID	Type of Union	Official ID Number	Official Name of Countermeasures (new/continuing/pipeline/undecided)	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	Need to take initiative from TSC & UISC	Remarks
Generators	PIO-GENA-01	New Purchase	-	Proposed new Generators for the PIO office in emergency operation during flood	New	Generators new Purchase (Proposed from PIO office)	All union of Upazila	1	Short Term	High	Need to take initiative from TSC & UISC	
Input distribub				Proposed relief (food, Medicines) during the disaster after disaster to the affected poor people.	New	Proposed by UDMC	Community People of all Unions	72	Short Term	High	Need to take initiative from TSC & UISC	

Category	ID	Type of Union	Official ID Number	Official Name of Countermeasures (new/continuing/pipeline/undecided)	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	Need to take initiative from TSC & UISC	Remarks
Cattle Ferry	PAI-CF-01	New Construction	-	Proposed cattle ferry at Ashmupur Sweets river	New	Proposed from Community People	Ward 4 of Patali Union	10	Short Term	Low	TSC & UISC for listed in ADP or any development Plans	
Transport system (pickup)	PIO-TSP-01	New Purchase	-	New Pickup for emergency relief distribution	New	Rescue Board for emergency operation (Proposed from PIO office)	All union of Upazila	50	Short Term	High	Need to take initiative from TSC & UISC	
Rescue Board	PIO-RB-01	New Purchase	-	Board for emergency operation during flood	New	Life jackets (Proposed from PIO office)	All union of Upazila	10	Short Term	High	Need to take initiative from TSC & UISC	
Life jackets	PIO-LJ-01	New Purchase	-	Proposed new life jackets for PIO office	New	Life jackets (Proposed from PIO office)	All union of Upazila	2	Short Term	High	Need to take initiative from TSC & UISC	

Projects by DDM

5. Other non-structural countermeasures

Category	ID	Type of Union	Official ID Number	Official Name of Countermeasures (new/continuing/pipeline/undecided)	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	Need to take initiative from TSC & UISC	Remarks
Orientation		Most of the schools under the Upazila	-	Disaster preparedness education in school	Undecided	Proposed by UDMC	Community People of all Unions	3	Short Term	Medium	Need to take initiative from TSC & UISC	

Projects by MOE

Category	ID	Type of Union	Official ID Number	Official Name of Countermeasures (new/continuing/pipeline/undecided)	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	Need to take initiative from TSC & UISC	Remarks
Seminar		All Unions & Pouroshava	-	Organize Seminar on Disaster Issues at Union/Upazila level.	New	Proposed by UDMC	Community People of all Unions	2	Short Term	High	Need to take initiative from TSC & UISC	
Training		All Unions & Pouroshava	-	Provide awareness training for community people to safe from Thunderstorm.	New	Proposed by UDMC	Community People of all Unions	2	Short Term	Medium	Need to take initiative from TSC & UISC	
Days Observation		All Unions & Pouroshava	-	Celebrating Days observation on Disaster and Climate Change Issue at Union/Upazila level	New	Proposed by UDMC	Community People of all Unions	3.6	Short Term	Medium	Need to take initiative from TSC & UISC	
Printing and Distribution of Poster/Feetn			-	Printing and Distribution of Disaster related Festoons, Leaflets and Posters etc.	New	Proposed by UDMC	Community People of all Unions	4	Short Term	Medium	Need to take initiative from TSC & UISC	
Awareness session		All Unions & Pouroshava	-	Conduct awareness sessions on Disaster Issues especially on water born Diseases for UDMC & Community people.	New	Proposed by UDMC	Community People of all Unions	3	Short Term	Medium	Need to take initiative from TSC & UISC	
Established Bill Board		All Unions & Pouroshava	-	Establish awareness bill boards in various Pouroshava areas regarding various disasters.	New	Proposed by Pouroshava and Community people	People of Jagannathpur Pouroshava Union	8	Short Term	Medium	Need to take initiative from TSC & UISC	

4. Raising Public Awareness and Disaster Education

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

(1) UzDMC Members			
Sl. No.	Name	Designation	Position in UzDMC
01.	Mr. Nurul Islam	Chairman, Upazila Parishad, Jagannathpur, Sunamganj	Chairperson
02.	Mr. Sajedul Islam	Upazila Nirbahi Officer, Jagannathpur, Sunamganj	Co-chairperson
03.	Mr. Siddique Ahmed	Vice-President, District Awamileague, Jagannathpur, Sunamganj	Member
04.	Mr. Md. Akhter Hossain	Mayor, Jagannathpur Municipality	Member
05.	Mr. Rezaul Karim Riju	General Secretary, Upazila Awamileague, Jagannathpur, Sunamganj	Member
06.	Mr. Abdul Quyum Moshaeed	Sr. President, Upazila Awamileague, Jagannathpur, Sunamganj	Member
07.	Mr. Bijon Kumar Deb	Vice-Chairman (M), Upazila Parishad, Jagannathpur, Sunamganj	Member
08.	Mst. Farzana Akhter	Vice-Chairman (F), Upazila Parishad, Jagannathpur, Sunamganj	Member
09.	Mr. Al Haj Md. Rafiq Mian	Chairman, Kalkalia UP, Jagannathpur, Sunamganj	Member
10.	Mr. Md. Angur Mian	Chairman, Patil UP, Jagannathpur, Sunamganj	Member
11.	Mr. Md. Mahabul Haque	Chairman, Mirpur UP, Jagannathpur, Sunamganj	Member
12.	Mr. Md. Shahidul Islam	Chairman, Chilaura Haldipur UP, Jagannathpur, Sunamganj	Member
13.	Mr. Sheikh Md. Sadrul Islam	Chairman, Raniganj UP, Jagannathpur, Sunamganj	Member
14.	Mr. Md. Abul Hasan	Chairman, Syedpur Saharpara UP, Jagannathpur, Sunamganj	Member
15.	Mr. Md. Ayub Khan	Chairman, Asharkandi UP, Jagannathpur, Sunamganj	Member
16.	Mr. Md. Mokhluch Mian	Chairman, Pailgaon UP, Jagannathpur, Sunamganj	Member
17.	Mr. Riad Bin Ibrahim	Asst. Commissioner (Land), Jagannathpur, Sunamganj	Member
18.	Mr. Shawkath Osman Majumder	Uz. Agriculture Officer, Jagannathpur, Sunamganj	Member
19.	Mr. Madhusudan Dhar	Uz. Health & Family Planning Officer, Jagannathpur, Sunamganj	Member
20.	Dr. Khaled Saifullah	Uz. Livestock Officer, Jagannathpur, Sunamganj	Member
21.	Mr. Md. Akhtaruzzaman	Uz. Fishery Officer, Jagannathpur, Sunamganj	Member

Sl. No.	Name	Designation	Position in UzDMC
22.	Mr. Manik Ch. Das	Uz. Education Officer, Jagannathpur, Sunamganj	Member
23.	Mr. Sohrab Hossain	Uz. Engineer, LGED, Jagannathpur, Sunamganj	Member
24.	Mr. Bilal Hossain	Uz. Social Welfare Officer, Jagannathpur, Sunamganj	Member
25.	Mr. Md. Abdur Rahman	Uz. Family Planning Officer, Jagannathpur, Sunamganj	Member
26.	Mr. Kamrul Islam	Uz. Food Control Officer, Jagannathpur, Sunamganj	Member
27.	Mr. Mijanur Rahman	Officer In-charge, Jagannathpur, Sunamganj	Member
28.	Mr. Ashraf Ali	Uz. Youth Development Officer, Jagannathpur, Sunamganj	Member
29.	Mr. Md. Delwar Hossain	Uz. Cooperative Officer, Jagannathpur, Sunamganj	Member
30.	Mr. AKM Mukhlechur Rahman	Uz. Secondary Education Officer, Jagannathpur, Sunamganj	Member
31.	Mr. AIM Rezaul A	Uz. Women Affairs Officer, Jagannathpur, Sunamganj	Member
32.	Mr. Md. Zillur Rahman	Uz. Ansar VDP Officer, Jagannathpur, Sunamganj	Member
33.	Mr. Pronab Lal Das	Uz. Rural Development Officer, Mr. Abdul Kadir, Jagannathpur, Sunamganj	Member
34.	Mr. Md. Abdur Rob Sarker	Sub-Assistant Engineer, DPHE, Jagannathpur, Sunamganj	Member
35.	Mr. Al Masud	Station Master, Fire Service Civil Defense, Jagannathpur, Sunamganj	Member
36.	Mr. Md. Azizul Islam Azad	Residential Engineer, PDB, Jagannathpur, Sunamganj	Member
37.	Mr. Md. Hasan Gazi	Branch Officer, BWDB, Jagannathpur, Sunamganj	Member
38.	Mst. Ferdowsi Begum Tania	Member of reserved ward # 1, 2 & 3	Member
39.	Mst. Santona Islam	Member of reserved ward # 4, 5 & 6	Member
40.	Mst. Saleha Begum	Member of reserved ward # 7, 8 & 9	Member
41.	Mr. Mizan Sarder	Manager, Brac NGO, Jagannathpur, Sunamganj	Member
42.	Mr. Shankar Roy	President, Press Club, Jagannathpur, Sunamganj	Member
43.	Mr. Md. Zahidul Islam	Principal, Govt. Degree College, Jagannathpur, Sunamganj	Member
44.	Mr. Md. Abdul Quyum	Ex. Commander (Freedom Fighting), Jagannathpur, Sunamganj	Member
45.	Mr. Md. Sahadat Hossain Bhuiyan	Project Implementation Officer, Chhatak, Sunamganj	Member Secretary

Attachment 3: Workshop and other planning activity photos in Jagannathpur



1st Workshop with UzDMC



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 Chairmans

