

Development of Local Flood Early Warning and Dissemination System

PROVATi3 Project-DDM Component

July - September 2023

Quarterly Report

Regional Integrated Multi-Hazard Early Warning System (RIMES)

Section A

Progress Summary

- Quarterly Progress (April-June) Sharing Meeting of PROVATi3 Project-DDM Component
- DMC training on Flood risk and Early warning system at Kurigram
- Training on DMC portal
- Land gauge installation: Consultation on area selection
- Meeting on receiving server service from BCC
- Vulnerability score calculation and map generation
- Workshop on IEC material update and finalization
- Inundation mapping trial operation
- Flood situation monitoring at field level
- Annual report (July'22-June'23) preparation
- IFAD project support mission
- Meeting with FFWC, BWDB representatives on river gauge installation

Section B

Activity 1. Quarterly (April-June) and Monthly progress Sharing Meetings of PROVATi3 Project-DDM Component

Progress

5th Quarterly progress sharing meeting was held at DDM on 11 July 2023 with DDM, LGED, and RIMES professionals. The meeting took place to identify and discuss project progress and the issues, emerged as challenges in various activities of "Development of Local Flood Early Warning and Dissemination System" during the last 3 months (April, May and June). Md. Mijanur Rahman, Director General of DDM chaired the meeting. Netai Chandra Dey Sarker, Director (MIM) and Project Coordinator of PROVATi3 Project-DDM component, DPC (GIS & RM), Team leader, Program Manager, LGED representative and other RIMES personnel joined the meeting. In the meeting, GIS specialist discussed the activities of previous months, and then different project-related issues such development of voice message portal, training on DMC portal and flood early warning, land gauge installation etc were discussed in detail. Future activities that need to be accomplished by the next quarter were also discussed in the meeting. Different issues such as DMC database update, DMC members training, river gauge installation etc were discussed in the last quarterly meeting.



Activity 2. DMC training on Flood risk and Early warning system at Kurigram

Progress

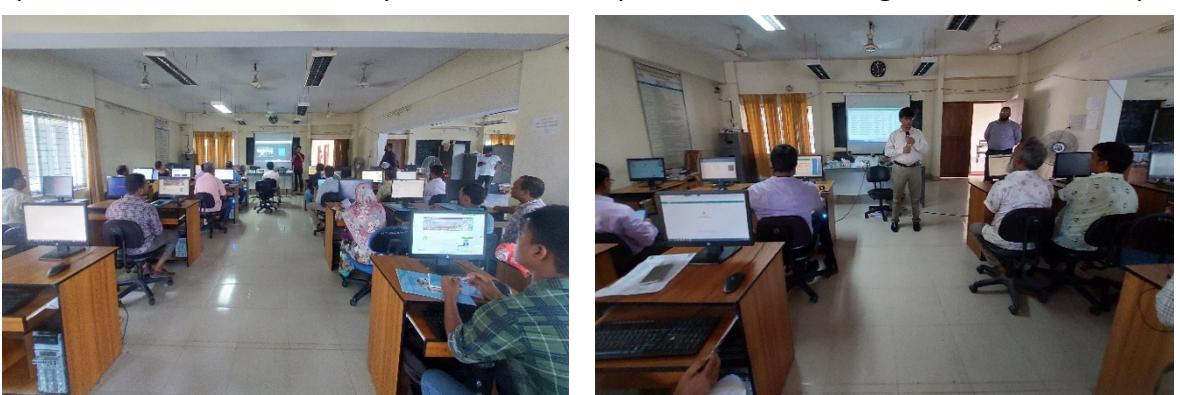
Two training have been held in Kurigram on two consecutive days. One training was arranged for Rajarhat upazila DMC members on 30th July 2023. And another one was held on 31th July 2023 for Upazila and union level DMC members of Kurigram Sadar upazila. Honourable DG MD. Mijanur Rahman was the chief guest of the training and inaugurated the training session via online platform. The program was chaired by Netai Chandra Dey Sarkar, Director (MIM) and Project Coordinator of PROVATI³ project-DDM part. The training sessions were continued with upazila-level DMC members as participants including UNO, DRRO, UP chairman of respective upazilas and other members of union and upazila level DMC. DDM, BWDB and RIMES representatives serve there as trainers in different sessions. DMC members are trained up on basic disaster terminologies, flood early warning and their roles and responsibilities during disasters.



Activity 3 (a). Training on DMC portal at Kurigram

Progress

DMC database was developed under this project with the technical support of RIMES. Initially, it contains all the DMC members information of the project area. These information will further be updated by respective DMC by themselves which can be used in time of emergency. For this reason, representatives of each DMC members need to be trained on how to search for DMC members list; update, edit or delete information, upload DMC meeting resolution or additional things of the portal. 2 portal training held in Kurigram. One is for Rajarhat Upazila DMC representatives on 30th July 2023 and other one is for Kurigram Sadar DMC representatives on 31th July 2023. Rajarhat training session was inaugurated by Honorable DG of DDM and Chief guest of the program, MD Mijanur Rahman via online platform. Both programs were chaired by Netai Chandra Dey Sarkar, Director (MIM) and Project Coordinator of the PROVATI³ project-DDM component. Mobinur Rahman, ICT specialist demonstrated the portal use. Participants of the training were UP secretary of



Additional participants for Kurigram Sadar was DRRO and the secretary of the DRROs office, Paura Nirbahi Officer (PNO) and secretary of the PNOs office. respective unions, PIOs of respective upazilas and their secretaries, and UDC entrepreneur.

Activity 3 (b). Training on DMC portal at Gaibandha

Progress

Three training sessions held at Gaibandha Sadar, Sundarganj and Sadullahpur upazila on 12 and 13 July 2023. Sadullahpur and Gaibandha Sadar training session was inaugurated by Honorable DG of DDM and Chief guest of the program, MD Mijanur Rahman via online platform. These programs were chaired by Netai Chandra Dey Sarkar, Director (MIM) and Project Coordinator of the PROVATi³ project-DDM component. Mobinur



Rahman, ICT specialist demonstrated the portal use. Participants of the training were UP secretary of respective unions, their office assistants, PIOs of respective upazilas and their secretaries, and UDC entrepreneurs. Additional participants for Gaibandha Sadar was DRRO and the secretary of the DRROs office, Paura Nirbahi Officer (PNO) and secretary of the PNOs office.

Activity 3 (c). Training on DMC portal at DDM

Progress

As DDM is the core department of Disaster Management and will handle the portal centrally, a training session was also held at DDM on 22 August 2023 to train DDM personnel. Md. Mijanur Rahman, DG, DDM was the key speaker of the session whereas Netai Chandra Dey Sarkar, Director (MIM) and Project Coordinator of PROVATi3 Project-DDM component chaired the training session. DDM officials, office secretary, computer operators were the participants. Probir Kumar Das, Programmer and DPC (ICT) of PROVATi3 project- DDM component gave a brief idea about portal and ICT specialist showed a demonstration of the portal and gave few exercise. Participants commented that the portal is very much user-friendly and will contribute in disaster management.

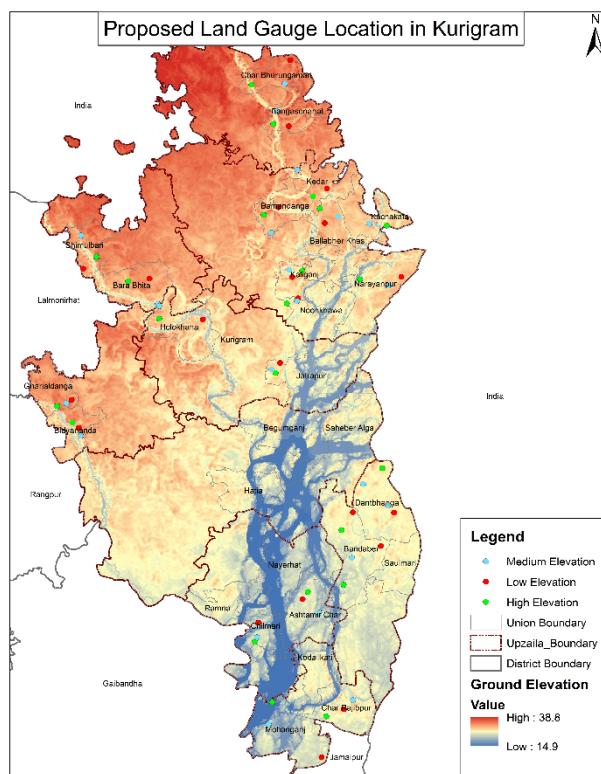


Activity 4. Land Gauge Consultation

Progress

To validate the accuracy of inundation mapping, land gauge reading of the water level is a must. Field facilitators have been visiting each union parishad office for the last few months and discussing potentially suitable spots for installing land gauges. GIS specialist and the Regional Coordinator also visited the two unions to conduct consultation. For every union, at least three locations are being selected upon UDMC suggestion. Overall consultation progress is as follows

District	Consultation covered (No of Unions)	Existing gauge identified (No of Gauges)
Gaibandha	11	7
Kurigram	26	11
Jamalpur	18	15



Activity 5. Meeting on receiving server service from BCC

Progress

To develop a voice message portal, a server system is required through which voice messages will be delivered to field level beneficiaries. A meeting was called with BCC on 25th July 2023 to get ideas if they have dedicated server for rent. Md Mijanur Rahman, Director General,



Department of Disaster Management chaired the meeting. The hydrologic System developer of the project shared the system requirement and server specification with the BCC representative. BCC representative informed that they had cloud platform to provide such services. Still final decision on receiving such services will be taken after another internal discussion of BCC based on project requirements.

Activity 6. Meeting with FFWC, BWDB representatives on river gauge installation

Progress

To forecast flood situation, river gauge is an important instrument. But the number of gauges are insufficient to make local level forecast. There are provisions of new river gauge installation under this project. Three consultations have been held at Gaibandha and Kurigram to find appropriate location to install gauge. To finalize the proposed location a meeting was held on 28 August 2023 with Flood Forecasting and Warning Centre (FFWC) representatives at DDM and, other 2 representatives of BWDB via online. The meeting was chaired by Netai Chandra Dey Sarker, Director (MIM) and Project Coordinator of PROVATi3 Project-DDM component. Program manager displayed the proposed location on maps. Participants agreed that installation of suggested gauges will improve the flood early warning system of the project area. To implement the decision from the consultations, letters were sent to Bangladesh Water Development Board (BWDB).



Activity 7. Workshop on IEC material update and finalization

Progress

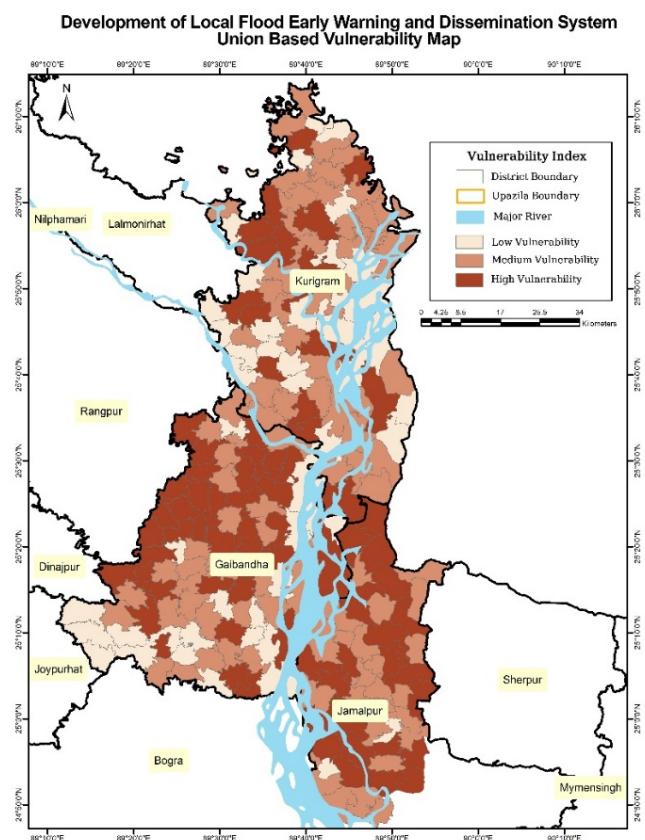
To raise awareness among the community, Information, Education and Communication (IEC) materials were developed as draft versions. To update and finalize those draft materials, a workshop was held on 24 August 2023 at DDM. The workshop was chaired by the Director General of DDM. Project Coordinator, Deputy Project Coordinators, other DDM officials and RIMES representatives are the participants of this workshop. Participants were divided into groups and gave their comments on IEC materials. Based on their review, those material are now finalized.



Activity 8. Union level vulnerability map generation

Progress

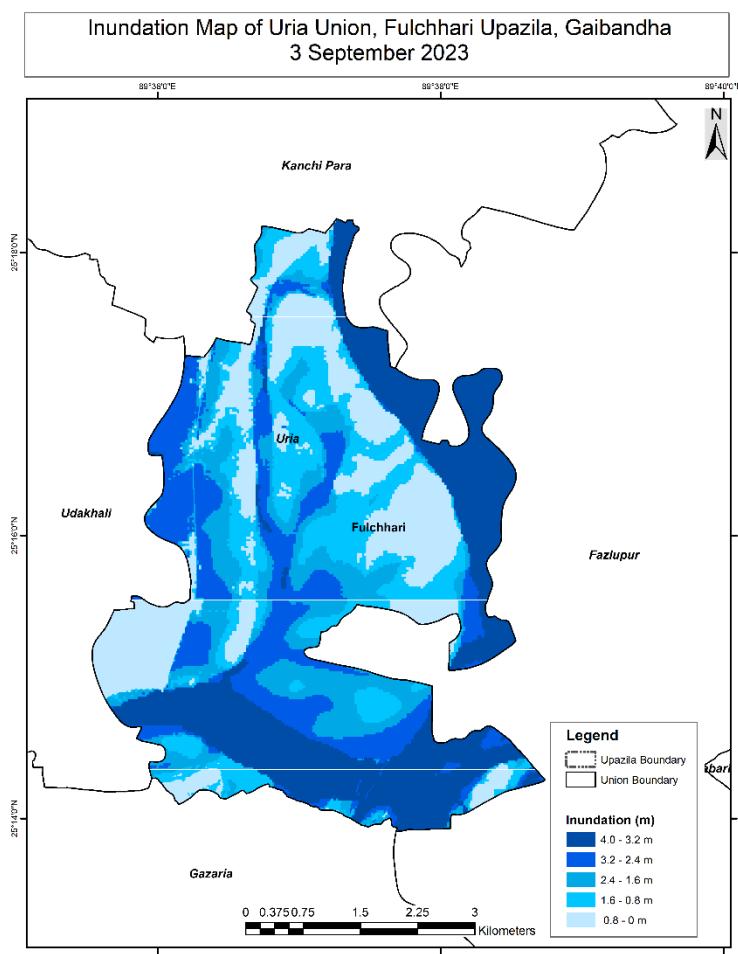
Though the project area located near the major rivers, the vulnerability of each upazilas and unions are not the same. They depend on various physical, social, environmental and economic indicators. To understand the localized risk level vulnerability score has been calculated for all upazilas of three districts considering the sensitivity and adaptive capacity of each upazila. And based on those scores, upazila level vulnerability map have been produced.



Activity 9. Inundation mapping trial

Progress

Topographic data collection of Gaibandha district's vulnerable area and one upazila (Madarganj) of Jamalpur district have been completed. Based on those processed data, few trials are done to develop inundation map. After completion of topographic survey and after one or two trial , it will be possible to generate localized inundation map for the project area. Small trial version of inundation map shown in the following



Activity 10. Flood situation monitoring and field level data collection

Progress

Due to heavy rainfall in India and continuous rainfall in Bangladesh , water level of many station in the project area have crossed the danger level and flooded many areas in the last monsoon. Field facilitator have visited each area with gauge and collected everyday water level data of river gauge and land gauge. These data are documented in common google sheet.

This continuous monitoring and data archiving will help to validate inundation mapping data which will result in higher accuracy inundation map. At the same time, they monitor and stored the water level data of respective char areas to identify the danger level for those areas.

S	Date	Saghatta				Haldia				Unions				Bharatkali				Ghuridaha			
		Gauge Locations		Gauge Locations		Gauge Locations		Gauge Locations		Gauge Locations		Gauge Locations		Gauge Locations		Gauge Locations		Gauge Locations			
		Char Gobind Ashrayon Kendero (Ward-1) 25.161684, 89.58721	Munshir Hat Govt. Primary School (Ward-3) 25.136657, 89.593275	Dokkhin Sarthia Govt. Primary School (Ward-4) (Unavailable)	Haldia Union Paribatra Govt. Primary School (Ward-2) (Unavailable)	Char Kanaipara Govt. Primary School (Ward-9) (Unavailable)	CP Garamara Hichol Quran Madrasa (Ward-8) (Unavailable)	Dakshin dighalkandi Hichol Quran Madrasa (Ward-5) (Unavailable)	Nikuthi Govt. Primary School (Ward-1) 25.195321, 89.586367	Dakkhin Ulla Govt. Primary School (Ward-2) 25.180534, 89.587153	Bhangamore Govt. Primary School (Ward-4) 25.215887, 89.569329	Bhadrak Community Clinic (Ward-6) 25.095185, 89.563679	Chirin Potol Community Clinic (Ward-8) 25.095831, 89.564326	Purba Chirin Community Clinic (Ward-9) 25.096185, 89.564326	Khamar Pobontai Govt. Primary School (Ward-5) 25.096185, 89.574763						
6	7/15/2023	23 cm	Below the gauge	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	12 cm		
7	7/16/2023	23 cm	Below the gauge	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	29 cm		
8	7/17/2023	Below the gauge	N/A (Damaged)	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
9	7/18/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
10	7/19/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
11	7/20/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
12	7/21/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
13	7/22/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
14	7/23/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
15	7/24/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
16	7/25/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
17	7/26/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
18	7/27/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
19	7/28/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
20	7/29/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
21	7/30/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		
22	7/31/2023	Below the gauge	N/A	N/A	Below the gauge	N/A	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	N/A	Below the gauge	Below the gauge		

Activity 11. Preparation of 2nd Annual report

Progress

As PROVATi3 project-DDM component has been successfully completed 2nd fiscal year after its commencement, 2nd annual report is generated based on the activities took place throughout the last fiscal year 2022-23. This report basically contains the major activities from July 2022 to June 2023. Major activities of this year is baseline report preparation, DMC database development, vulnerable union selection, commencement of topographic survey, field level awareness raising training, IEC material development, vulnerability map generation and land gauge consultation. Final report will be submitted to DDM and LGED.



Activity 12 (a). IFAD mission kick-off meeting at LGED

Progress

Being a development partner of the PROVATi3 project, IFAD continuously monitor the activities of the project. IFAD representatives arrange a meeting at LGED with Project director and personnel engaged with the all components of the project were presented and Additional Chief Engineer chaired the meeting. Respective representatives of each component displayed and explained their progress. Progress of this component has been presented in brief and mission team informed that they will visit to DDM office for detail discussion on project activity.

Activity 12 (b). IFAD mission at DDM

Progress

To monitor the overall progress of this component especially to have a clear understanding on inundation mapping tools and its working process, IFAD arranged a meeting at DDM. Project director of PROVATi3, Project Coordinator and deputy Project Coordinator (ICT/GIS-RM), IFAD representative, LGED's focal person, Consultant of IFAD from IWFM, and RIMES personnel were presented in the meeting. Program manager and GIS specialist gave a overview of the activities. Then hydraulic system developer made a theoretical explanation of inundation mapping action. Meeting attendees gave their suggestions to make the workplan smoother and effective.



Section C

Challenges & Overcome Strategy

- Due to monsoon season, topographic survey remains postponed for last 4 months
- Since topography survey completed Gaibandha and partial areas of Jamalpur, inundation mapping has been generated for those areas only

Section D

Work plan for next quarter (Oct-Dec 2023)

- Conducting training on flood early warning and risk management for DMCs member
- Continuation training on DMC portal at field level
- Preparation of training calendar for planning further training sessions
- Resume topographic survey
- Installation of land gauge will be started after finalization of 60 locations

Section E

Budgetary Reflection

N/A