

Development of Local Flood Early Warning and Dissemination System

PROVATi3 Project-DDM Component

October-December 2024

Quarterly Report

Regional Integrated Multi-Hazard Early Warning System (RIMES)

Section A

Progress Summary

- 11th Quarterly meeting at DDM of PROVATi3 Project-DDM Component
- Training on Flood Early Warning and Risk Management at Kurigram
- Training on DMC portal at Jamalpur
- Prepare location map of installed land gauges
- Field Visit for land gauge Supervision
- Ongoing Topographic Survey
- Flood Shelter Map Development
- Drone Survey Visit at Sadar and Rajarhat Upazila, Kurigram
- Consultation with Stakeholders at Gaibandha
- Volunteer selection and registration for capacity building training
- Preparation of Annual Workshop
- Questionnaire Development for Post-monsoon Assessment

Section B

Activity I. 11th Quarterly meeting (July-September 24) of PROVATi3 Project-DDM Component

Progress

11th quarterly meeting was held at DDM on 16 October 2024 in presence of DDM, LGED, FFWC 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". Razwanur Rahman, Director General of DDM chaired the meeting. Project Coordinator, Deputy Project Coordinator (GIS & RM), Program Manager, and other

RIMES personnel joined the meeting. Field facilitators of Gaibandha, Kurigram and Jamalpur, LGED and FFWC representatives attended the meeting via online. During the meeting, GIS Specialist discussed the activities of previous quarter, and then different project related issues such installation of river and land gauge, development of voice message portal, training on DMC portal, volunteer training materials design, annual workshop preparation etc were discussed in detail. Future activities that need to be accomplished by the next quarter were also discussed in the meeting.

Activity 2. Training on Flood Early Warning and Risk Management at Phulbari, Kurigram

Progress

A training has been held in the Officer's club, Phulbari upazila of Kurigram district on 27 October 2024. Honourable Director General MD. Razwanur 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 DRRO, UP chairman of respective upazilas and other members of union and upazila level DMC. DDM, BWDB and RIMES representatives conducted sessions as trainers and resource persons. DMC members are trained on basic disaster terminologies, flood early warning and their roles and responsibilities during disaster. Total of 18 trainings have been completed, and 1 remain to be done.



Activity 3. Training on DMC Portal at Jamalpur

Progress

A Disaster Management Committee database was developed under this project with the technical support of RIMES containing the information (Name, phone no, designation, affiliation and email) of all level DMC members. Now, it contains all the DMC members' information of the project area which will be updated with the 64 district DMC member information. As this DMC committee reforms every year, it is important to update them from the root level or by respective DMC member. 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. Three (03) training sessions were organized in Jamalpur District (covering Islampur, Melandaha, and Dewanganj Upazilas). One training held on 27 November from 14:00-16:00 for the participants of Islampur Upazila at Technical Training Centre, Melandaha, Jamalpur. Additionally, for Melandaha and Dewanganj Upazilas, the sessions will take place on 28 November at the same venue: from 09:30 to 13:00 for Melandaha, and from 13:30 to 16:00



for Dewanganj. These programs were chaired by Netai Chandra Dey Sarkar, Director (MIM) and Project Coordinator of the PROVATi3 project-DDM component. Participants included PIOs, UP secretaries, UP entrepreneurs, Paurashava secretaries, and Paura Nirbahi Officers (PNOs). The sessions were conducted by ICT Specialist Md. Mobinur Rahman in collaboration with the RIMES team, focusing on practical applications of the portal. The training included demonstrations on how to access data for any level of DMC committees, as well as how to

edit, modify, or delete entries. Each PIO and PNO was provided with a unique ID for portal access. Attendees appreciated the development of this important database, recognizing its potential as a valuable tool for disaster management. Out of 23 trainings conducted in 19 upazilas. Only 4 trainings remain to be completed.

Activity 4. Prepare location map of installed land gauges

Progress

With the installation phase complete, the 60 land gauges are ready to measure water levels in flood-inundated areas for the upcoming monsoon season. To collect data, volunteers need to be selected and trained for each location. With the help of Union Disaster Management Committee members and Upazila Project Implementation Officer volunteers will be selected for each gauge location. To identify the locations of these land gauges three individual location maps have been prepared. Also, a GIS map has been prepared to easily identify all of the installed, existing and proposed river gauge locations in the project area. (see annex)

Activity 5. Field Visit for land gauge Supervision

Progress

On October 27, project implementation unit and local officials paid a visit to inspect installed land gauge in Phulbari, Kurigram district. The visit team included the project coordinator, deputy project coordinator, project implementation officer (PIO) and some local representatives. On the spot, the purpose of the gauges was discussed and the build quality was tested.



Activity 6. Topographic Survey

Progress

Through a topographic survey, digital elevation model (DEM) data has been collected in the vulnerable areas along the banks of Brahmaputra-Jamuna river system of the project area. Earlier data collection has been completed in Gaibandha and Jamalpur. Data collection has been completed in Kurigram district. Till December 2024, 1323.8 sqkm area has been surveyed through LiDAR drone. Data processing of these area is going on so that DEM data can be used to generate flood inundation mapping from next monsoon.

District	Upazila	Survey Area (sq km)	Status
Gaibandha	5	525	Completed
Jamalpur	4	392.5	Completed
Kurigram	8	406.3	Completed
Total accumulated survey area (sq km)			1323.8

Activity 7. Drone Survey Visit at Sadar and Rajarhat Upazila, Kurigram

Progress

A field visit was conducted to witness drone survey at Chaina Bazar, Ghoriadanga, Rajarhat Upazilla on 4th November, 2024. Md. Assaduzzaman, Project Implementation Officer, Rajarhat and Md. Liton Mia, Union Prishad Member 7 No Ward, Ghoriadanga Union witnessed the

survey and discuss about the importance of collecting topographic data for developing early warning system. Drone survey team demonstrated and explained the whole process of data collection and how the data will be used to be developed inundation mapping. Visitors appreciate the activity of the project and ready to provide any support in this activity.



Activity 8. Consultation with Stakeholders at Gaibandha

Progress

A Stakeholder consultation on Local Inundation Assessment, data collection and Impact of Voice Messages Dissemination held at Gaibandha on 16-17 November. Provati3 – DDM component is ongoing in 5 upazilas of Gaibandha district to improve flood forecasting and enhance resilience of the community. During the meeting arranged at Gaibandha district relief and rehabilitation officer's office, newly appointed project implementation officers have been orientated with the project activities. The officers were informed of the recent developments of the project. Since there is a provision for volunteer trainings in the project, volunteer data

collection in Gaibandha district is ongoing. The project coordinator, Mr Netai Chandra Dey Sarker described the methodology of data collection and validation of volunteer data in project area and requested the PIOs to extend their support during this activity in their upazilas. GIS specialist Mr. Asif Mahmud Anik facilitated a session where he provided orientation on Disaster Management Portal and KIOSK Dashboard developed for the project. Also suggestions and recommendations were received from the participants about volunteer equipment.



Provati3 – DDM component has a provision of installing 60 inundation gauges in the project area. Among them 11 of the gauges have been installed in Gaibandha. Gaibandha Sadar has 3 gauges installed in 3 different unions. The land gauge at Boali union has been visited by the PIU



team. The modality of data collection from the gauge during the monsoon was discussed during the visit.

Activity 09. Volunteer selection and registration for capacity building training

Progress

The training plan includes the participation of at least three individuals from each ward within the 61 most vulnerable unions in the project area. These unions were identified earlier based on vulnerability assessments and local insights. This selection process is being coordinated with local administrative including PIOs, DRROs, union secretaries, and union chairman. A registration form has been developed for volunteer enrolment and data recording. A total of 1,647 volunteers' data has been collected from the project area so far. After reviewing the design of the volunteer safety equipment (vest and cap), it has been finally approved. Training will commence as soon as the training materials are procured.

District	Number of Volunteer	Remark
Jamalpur	486	Completed
Gaibandha	405	Completed
Kurigram	756	Completed
Total	1647	



Activity 10. Flood Shelter Map Development

Progress

In the previous quarterly progress meeting, the project team was advised to prepare a list of existing (Designated and Temporary) flood shelter maps in the project area and prepare relevant maps. Upon arrival of the shelter data GIS maps have been developed utilizing the geographic coordinate of the existing flood shelters across three districts. (See annex)

Activity 11. Preparation of Annual Workshop

Progress

Preparatory works for project's 2nd annual progress sharing workshop is ongoing. In this workshop, the overall progress of all the activities that have been done till January 2023-December 2024 will be presented. This involved participation of key stakeholders, including government officials, international organizations and project partners.



The project team also worked on preparing comprehensive presentations to present the annual progress and achievements of the Provati3 Project from January 2023-December 2024. In addition, all preparations have been done to ensure the availability of all necessary resources and materials for the participants, creating a conducive environment for meaningful discussions and feedback. The team is committed to make this workshop a successful platform for sharing insights, fostering collaboration, and planning for the future activities.

Activity 12. Questionnaire Development for Post-monsoon Assessment

Progress

Voice message broadcasting is one of the key medium of flood early warning dissemination. Voice Message Broadcasting (VMB) is expected to be effective in overcoming the barrier of information gap. Voice messages have been disseminated across 3 districts, 13 upazilas and 59 unions prior and during the flood in July and September 2024. A total of 52,041 calls were made to disseminate early warning messages. Voice messages were sent out to Ward, Union, and Upazila level Disaster Management Committee (DMC) members, as well as officials from LGED, BWDB, MoDMR, and DDM. For the first time, an AI-generated voice message was used on a trial basis to deliver early warning information about the flood. To evaluate the effectiveness of this voice message broadcasting post monsoon assessment needed.

Post-Monsoon Assessment on Early Warning Dissemination
 Local Flood Warning Information Dissemination under PROVATIS Project
 (DDM Component)

Name of the respondent: _____ M() F() Age: _____

Ward: _____ Village: _____ Union: _____ Upazila: _____

District: _____ No. of household members: _____ No. of Disable members: _____

Mobile Number: _____ Date: _____

Part A: General Information

1. Occupation:

- Farmer
- Fishermen
- Day labour
- Student
- Business
- Salary
- Housewife
- Unemployed
- Others

2. Education Level:

- Class 8
- SSC
- HSC
- Bachelor or Higher

3. Do you think you live in an area which is at

- High flood risk
- Moderate flood risk
- No flood risk

4. How do you characterize this year's flood compared to previous years to the following scale?

- Similarly devastating
- Less devastating/ Caused less damage
- Highly devastating/ Caused severe damage

5. What was the maximum flood water depth (ft) in your homestead during the floods in 2024?

- <1 ft
- 1-2 ft
- 2-3 ft
- >3 ft
- None

6. What kind of damage your community experienced during this flood?

(For example: Household, Crop/Cattle Production, Road/Infrastructure, Education, Tube well, Sanitation, Hospital, Pond, Livestock, Unemployment, Health, Mosque, Others)

Type	Items	Quantity	Remarks
Water Infrastructure	Ponds		
	Tube well		
	Dug well		
Building Infrastructure	Houses		
	Sanitation		
	Roads		
Mosque	Mosque		
	School		
	Hospital		
Socio-economic	Enhancement		
	Mosque		
	Unemployment		
Health	Property		
	Disease		
Outbreak	Outbreak		

7. How much damage loss you suffered during this flood? (In Taka)

		Sectoral Loss (ক্ষেত্রভিত্তিক নিরণ)				
		<5000	5000-15000	15001-30000	30001-50000	>50000
1. Agriculture						
2. Fisheries						
3. Business						
4. Household						
5. Income loss						
6. Livestock						
7. Others						

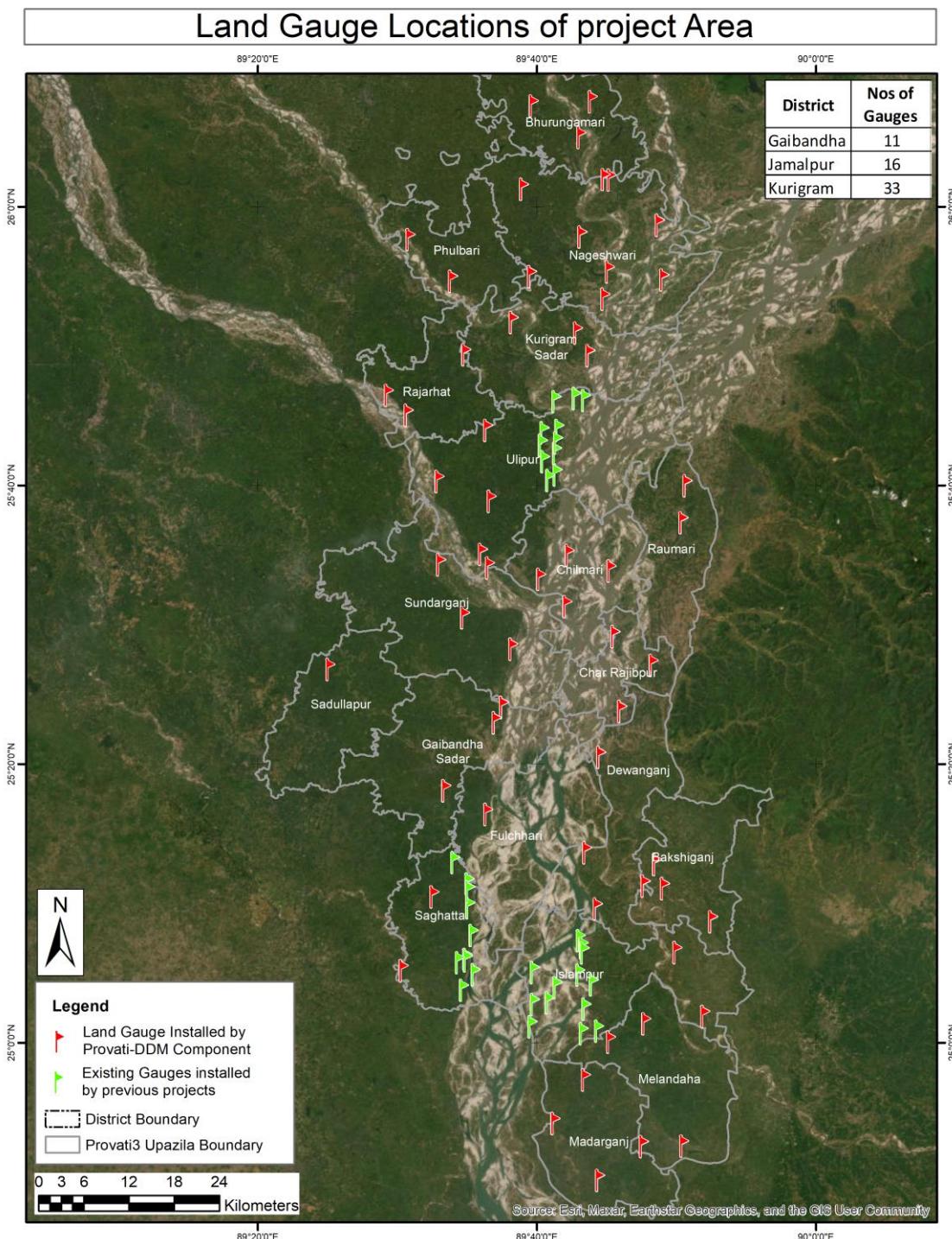
Section C

Work plan for Next Quarter (Jan-Mar) 2025

- Data Processing of Topographic Survey
- Conducting of training on flood early warning and risk management for DMC members
- Conducting of training on flood early warning and risk management for National-level stakeholders
- Conducting DMC portal training
- Commencement of Volunteer Training
- Field Visit for River Gauge installation
- 3rd Annual report distribution

Annex

Existing and Installed land gauge location map for project area



Flood Shelter Map

