

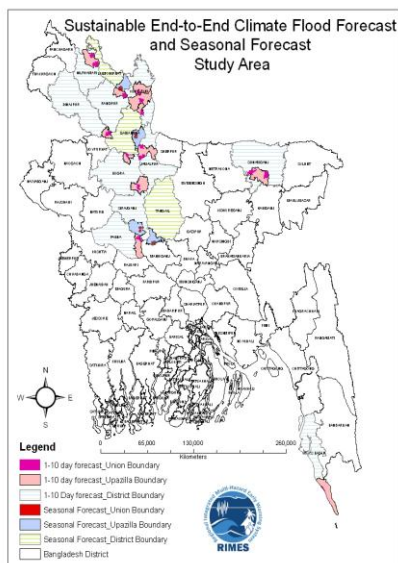


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FACTSHEET

Enhancing Early warning System for community based response in Bangladesh under SHOUHARDO-II



Pilot Unions for riverine, flash and seasonal flood forecasts application

In Bangladesh, flood forecasting and warning system has been recognized as a very vital information system to reduce potential losses (human and economic) due to flood. Recent advance in weather forecasting enables to enhance flood forecasting lead time in different time scales. The USAID through CARE SHOUHARDO-II program is supporting Flood Forecasting and Warning Center (FFWC) of BWDB to enhance early warning system in Bangladesh to strengthen household level response to flood warning. The Regional Integrated Multi-Hazard Early Warning System (RIMES) for Asia and Africa is providing technical support to FFWC to enhance flood forecasting system in the following areas:

- Expand the medium range forecasts system for other river basin (i.e. Megna) and wider locations.
- Operationalize flash flood forecasting system for N-E of Bangladesh
- Capacity building of FFWC professionals on state of the art technology to enhance flood forecasting system.
- Development of innovative risk communication (including management) tools;
- Operationalize and piloting monthly and seasonal forecast to meet agricultural planning and management needs;
- Incorporate the early warning dissemination to Government disaster management system.

APPROACH

With recent advances in the weather forecasting, it is now possible to generate high accuracy long lead flood forecasts. RIMES has collaboration with European Center for Medium Range Weather Forecast (ECMWF) to access high resolution weather forecasts products at global scale for different level applications (i.e. hydrology, water resources, agriculture, etc). The global products are customized to regional and local scale to generate highly accurate probabilistic hydrological forecasts. These long lead forecast information together with advanced models are used to generate different ranges of discharge forecasts for flood risk management. With the community outreach program these information are disseminated and applied for community level decision making. After pioneer and value addition for the society, the technology would be transferred to the FFWC.

GOAL AND OBJECTIVES

The project shall enhance the lead time for flood early warning and preparedness in Bangladesh by:

- Expanding the 1-10 days flood forecasting to larger pilot areas (under CARE SHOUHARDO II program areas
- Operationalizing monthly and seasonal forecasts
- Piloting flash flood early warning system at Sunamgang & Cox'Bazaar area
- Complimenting existing cyclone prediction program of Bangladesh Meteorological Department

AREAS OF INTERVENTION

The project supports:

Technology development

- Operational medium range (1-10 days) flood forecasting at three major rivers (Brahmaputra, Ganges and Megna) basin with 38 water level stations
- Operational long range (20-25 days) flood outlook
- Operational flash flood forecast
- Development of web based DSS for flood risk management for FFWC

Demonstration of technology application

- Capacity building of FFWC on newly evolved forecasts system
- Community outreach program to 10-15 communities to receive warning, interpret and response on medium range forecasts
- Community outreach program to 5 communities to receive warning, interpret and response on long range (20-25 days) range forecasts
- Community outreach program to 2 communities to receive warning, interpret and response on flash flood forecast

Technology transfer and capacity building

- Capacity building of FFWC on the use of models developed under the project
- Transfer of models to FFWC
- Capacity building of national and local level institutions, including DMB, DAE, CARE Bangladesh and local NGOs to translate forecast information into impact outlooks and selection of response options
- Capacity building of BWDB staff and partner NGO, farmers, and Upazila Disaster Management Committee members on probabilistic flood forecast, DSS tool, and their application in planning and decision-making, including data archiving and GIS-based risk mapping.
- Enhancement of observation system to increase data availability for forecasting and warning.

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The **Regional Integrated Multi-Hazard Early Warning System (RIMES)** is an international and intergovernmental organization that is owned and managed by its Member States for the generation and application of early warning information. RIMES interfaces with global centers of excellence to bring the best of science to the doorsteps of at-risk communities in 31 Member States and collaborating countries in Africa and Asia. RIMES helps to build capacity of Member States in the observation and monitoring of seismic, tsunami, oceanic, meteorological, hydrological, and climate phenomena, and in the communication of associated risks, for appropriate and timely responses to warnings.