Supporting Flood Forecast-based Action and Learning in Bangladesh (SUFAL)

Bangladesh is one of the most flood-prone countries in the world. Around 25 to 30 percent of the land area is inundated during a normal monsoon period incurring losses equivalent to 1.5% of GDP or $2.2 billion onaverage per year (ADB 2016). In such a situation, acting early can save lives and valuable resources. In Bangladesh, acting before a crisis is not a new idea, whereas, relief efforts are more evident than acting early, especially for floods. Using forecasts to act early can help limit losses and negative coping mechanisms taken by communities during floods. However, this practice is not yet integrated into humanitarian framework or government programming.

'Supporting Flood Forecast-based Action and Learning in Bangladesh' (SUFAL) project focuses on reducing the vulnerability of flood-prone populations in the Brahmaputra-Jamuna basin by strengthening impact-based forecasting and early warning to trigger early actions and funding prior to flood events. The aim is to reduce the impact of floods on communities, improve effectiveness of emergency preparedness, response and recovery efforts, and reduce the humanitarian burden.

Project Snapshot

Funded by: European Union Civil Protection and Humanitarian Aid

Managaged by: CARE Deutschland e.V.

Implemented by: CARE Bangladesh, Concern Worldwide and Islamic Relief Bangladesh

Technical Support by: Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES)

Implementation Period: August 2019 – January 2021

Components of Forecast Based Early Action

Forecast → **Early Action** ← **Financing**

Forecast

- Actionable forecasts that are localized, timely and accurate
- Forecasts can trigger early warning and early action
- Impact-based forecasting will project the magnitude of likely impacts

Early Action

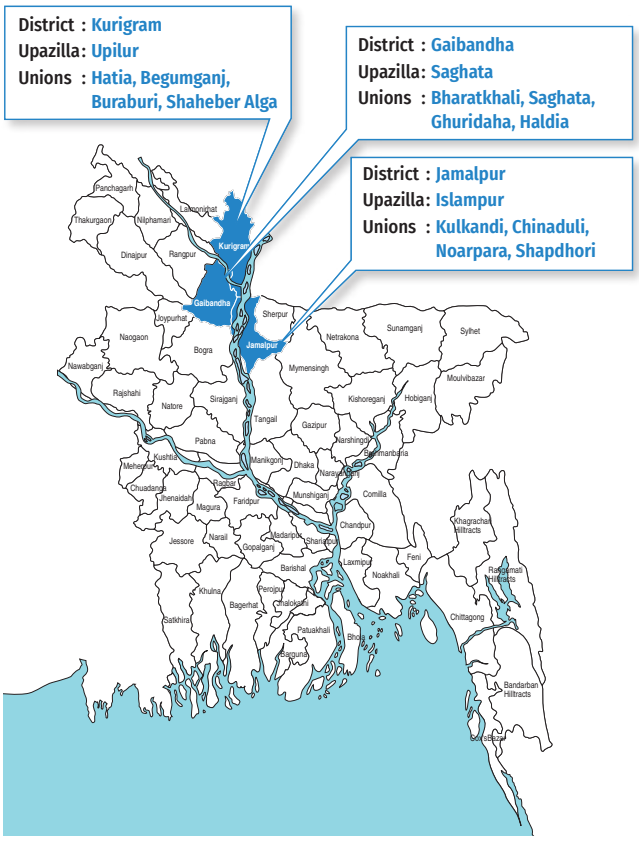
- Triggers will set off protocols for taking early actions on floods
- Roles and responsibilities of DM-related institutions clearly defined
- Pre-defined early actions for communities will enable speedy implementation

Financing

- Financing triggered by forecasts
- Sourced from national, international and private mechanisms
- Supports pre-defined early actions for community

What is FbA?

Forecast based early action (FbA) entails prioritizing pre-determined actions based on forecasts and triggers and taking action in advance of an anticipated event. Roles and responsibilities of disaster management institutions and community are also clearly defined considering the nature and scale of the predicted flood. To date, early actions based on forecasts have ranged from bolstering organizational capacities and programme activity to delivering food and non-food relief, stockpiling medicines, providing cash transfers and scaling up social protection mechanisms.



SUFAL Result-wise Output

- Enhance impact-based flood forecasting and early warning to trigger early actions
- Strengthen institutional capacity to respond to floods through forecast based early actions
- Create demand and evidence for FbA financing mechanism established at national and local level

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31 out of 64 districts in the northern region have been severly affected by the 2020 monsoon. An estimated 4 million people were impacted and among them, close to 1 million households inundated. The project 'Supporting "Flood" Forecast-based Action and Learning' (SUFAL) piloted the Forecast-based Action (FbA) approach in 3 districts in the severely affected northwestern region. SUFAL reached an estimated total of 300,000 people over the monsoon period with various kinds of support to enable them to take timely action to save their lives and valuable assets.

Key Achievements

- Vulnerability mapping as base for impact based forecasts
- Triggers for action based on information generated by local forecasting agencies allowing sufficient lead time for disaster management committees and community to take action
- Early actions to reduce potential losses and damages in the communities as a result of floods
  - Dissemination of early warning and risk information to **52,000 people**
  - Flood shelter and evacuation point for **3,096 people**. Distributed temporary shelters to **450 households**.
  - Provision of evacuation support for **8,550 people** willing to evacuate
  - Repair of latrines for **1,500 people**
  - Repair of tube wells for **150 people**
  - Hygiene kits for facilitating COVID-19 prevention (e.g. masks, gloves, soaps, hand sanitizers) were distributed to **3,200 people**

Further efforts are needed:

- Developing Standard Operating Procedures for FbA for various disasters (cyclones, landslides, river erosion etc)
- More investment in Flood Early Warning Systems (EWS) in Bangladesh, which are not as developed as cyclone EWS.
- Scaling up of early actions to cover entire districts, with focus on coordination and decision making in implementing and financing early actions
- Capacity building with key decision makers at all levels (local, sub-national, national) in interpreting forecasts
- Improving understanding of and testing triggers for early actions
- Long term and secure financing for FbA to provide confidence to take early actions.

Evacuation support through the provision of boats were available to support households to move family members, valuable assets, as well as livestock a few days before the floods hit in Kurigram district.

SUFAL Project supported the building of temporary walkways a week to a few days ahead of the floods to ensure uninterrupted mobility of people living in low-lying areas around Kulkandi union of Jamalpur district. Without this, people would need to travel a distance of 2 kilometres to reach the other side of the canal.

Cattle shades were set up around flood shelters in Gaibandha ahead of the floods, which allowed families to move their animals ahead of floods to reduce risk of illness in animals from being exposed to rain and reduce risk of robbery during the emergency period.

After receiving flood forecast and early warning information over voice messages, farmers in Saghata, Gaibandha district harvested jutes crops from the field to reduce potential damages and losses from the flood.

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