



Climate
Centre



German
Red
Cross



Cyclones



Floods

Forecast-based Financing

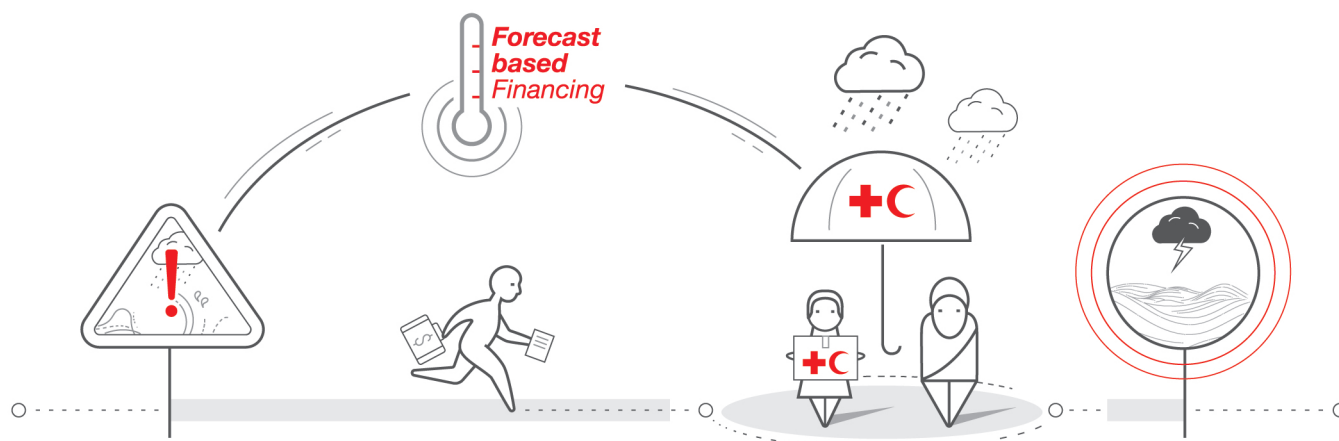
Philippines

The Philippines is located both in the Pacific “Ring of Fire” – an area especially prone to earthquakes – and along the Pacific Typhoon Belt.

As a consequence, the Philippines is among the countries with the highest disaster risk worldwide. Typhoons are the country’s most frequent extreme event, resulting in 80% of the adverse economic impact and 70% of the casualties caused by extreme weather. The Philippines experiences an average of 20 tropical storms each year, of which 4 reach the typhoon category, resulting in the loss of lives, disruptions of livelihoods and the destruction of houses. From June to December, tropical storms lead to heavy rainfall, floods and landslides. Half the flooding in the country is caused by other weather systems, such as monsoon rain or strong cold fronts.

The concept of FbF

Anticipation instead of reaction: with **Forecast-based Financing (FbF)**, the International Red Cross and Red Crescent Movement is reshaping the future of the humanitarian system. Based on forecast information and risk analysis, FbF releases humanitarian funding for pre-agreed activities, referred to as **early actions**. These predefined measures aim to minimise the **impacts of extreme weather events and save human lives**. For early actions to be performed quickly and efficiently before disaster strikes, **funds are allocated automatically** when a **trigger** is reached, based on weather and climate forecasts. This is defined in the **Early Action Protocol (EAP)**. A **dedicated financing mechanism** is key for taking fast and effective action before disaster strikes: **Forecast-based Action by the DREF**.



The FbF project in the Philippines

The **German Red Cross (GRC)** and the **Philippine Red Cross (PRC)** launched FbF in the Philippines in 2017, with support from the **Red Cross Red Crescent Climate Centre (RCCC)** and funded by the **German Federal Foreign Office**. The project increases PRC's capacities in Disaster Risk Management, in particular through the establishment and testing of EAPs for typhoons and floods to reduce the negative impact of these extreme weather events on vulnerable populations in high-risk areas.

- The **Philippine Atmospheric, Geophysical and Astronomical Services Administration's (PAGASA)** weather division and hydro-meteorological division are playing a major role in providing the forecasts that will support early action triggers.
- If the Typhoon EAP is triggered, the **GRC-PRC team** will work closely with the provincial and municipal **Disaster Risk Reduction and Management Offices**.
- Activations of EAPs are funded through **IFRC's FbA by the DREF**. IFRC will further provide guidance and support linked to procurement, PMER, and finance.

Partners in the Philippines

FbF and the EAPs in the Philippines are jointly developed and implemented by the following stakeholders:

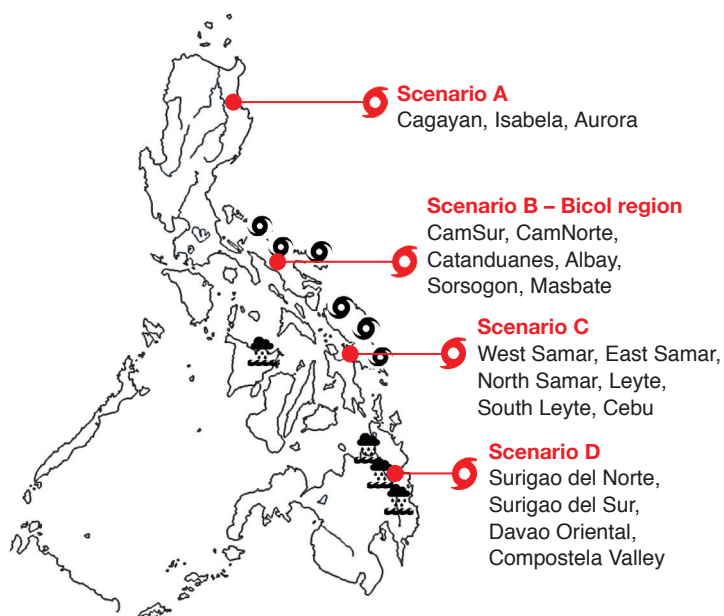
- The **PRC** is the main implementer of FbF, with technical assistance from the **GRC**, the **Finnish Red Cross** and the **510 Initiative of the Netherlands Red Cross**.
- The **RCCC** supports the **International Federation of Red Cross and Red Crescent Societies (IFRC)** in forecasting climate-related risks and is a partner in GRC's FbF pilot projects.





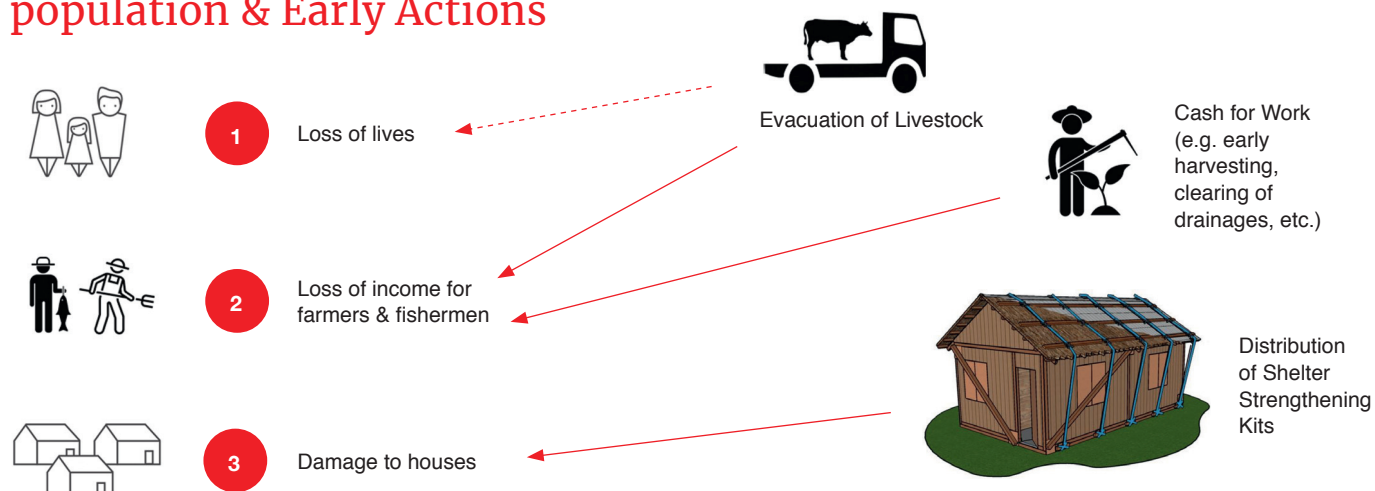
Early Action Protocol: Typhoons

The Typhoon EAP guides the Philippine Red Cross in implementing anticipatory actions when tropical cyclone forecasts show a high likelihood of severe impact. Specifically, early actions will be triggered if the predicted impact exceeds complete destruction of 10% of houses in at least three municipalities. PRC Chapters in 19 provinces are ready to implement the EAP. The provinces with highest predicted impact will be prioritized for action. The EAP provides step-by-step instructions to implement the selected actions that vary by different regions (see scenarios in figure), within a 3-day lead time. It has been put to a first test during Typhoon Kammuri in December 2019.



FbF early actions vary across coastal regions according to Typhoon scenarios.

Typhoon impacts on the population & Early Actions



The identified early actions aim to reduce the most severe typhoon impacts and have been tested in simulation exercises to ensure their feasibility within a 3-day lead time.



Typhoon Early Actions

The following early actions have been identified, which shall benefit up to 2,150 people and their families.

- Early harvesting of matured crops
- Evacuation of livestock
- Installation of Shelter Strengthening Kits



Situation room of the Philippine Red Cross.

Shelter Strengthening Kit for Typhoon: Materials and Instructions



10mm THK Nylon Rope



2" x 4" x 10' Good Lumber



2" x 4" x 12' Coco Lumber



Heavy Object



3/4" THK Marine Plywood



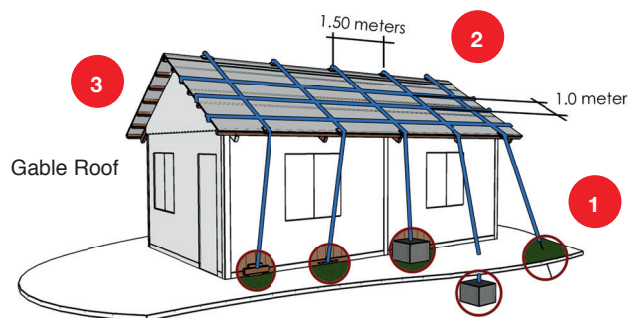
3" Common Wire Nails



GI Tie Wire #16



12mm Reinforced Steel Bar



- 1 **Make strong anchors** to support the roof and prevent it from getting blown away by strong winds.
- 2 **Hold down the roof** to prevent the roof from getting blown away by strong winds.
- 3 **Tie down the roof frame** to make sure roof frame members are well connected.



Floods

Early Action Protocol: Floods

The FbF EAP for floods is currently being developed and aims to cover three major river basins: the Panay River Basin, the Agusan River Basin and the Bicol River Basin. The pre-identified early actions shall reach up to 1,000 families in each targeted river basin. The trigger is hit if more than 30% of crops is forecast to be lost in more than one municipality.

How do floods affect the population?

Destruction of crops and farmland is a major consequence of flooding in the Philippines, disrupting the lives of subsistence farmers particularly. Floods also force families to evacuate, and they cause severe damage to houses, infrastructure and transportation. Floods often restrict access to safe drinking water and lead to outbreaks of diseases.



Flood Early Actions

The following early actions are being considered:

- **Multipurpose cash grant or**
- **Support for evacuation**



A PRC staff member during an emergency exercise.

For more information:

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Saving lives, changing minds.

Find out more at
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