



FORECAST-BASED FINANCING

A policy overview

This brief presents to governments, donors and implementing organizations the current state of knowledge and practice in Forecast-based Financing (FbF), its relation with the broader Early Warning Early Action (EWEA) agenda, and its contribution to the global humanitarian policy landscape. It presents key lessons from ongoing pilot projects and a vision of the anticipation agenda based on these lessons learnt.

In the past decade, the Early Warning Early Action agenda has spurred investments in climate services, forecast information, and communication protocols worldwide. As a result, lives and livelihoods have been spared during hazardous events, particularly in cyclone-prone regions. In 2008, the International Federation of Red Cross Red Crescent Societies (IFRC) defined Early Warning Early Action as “routinely taking action before a disaster or health emergency happens, making full use of scientific information on all time scales”. This is notable because it refers to responding systematically to a *forecast*, not to a disaster. The World Disasters Report (2009) was dedicated to EWEA. Despite being in the spotlight, the full potential of early action has not yet been realized; many of the most devastating natural disasters in recent years were forecasted before they caused impact. Hence action could have been taken to reduce this impact. Yet the humanitarian system remains largely focused on response after the disaster and anticipatory actions rarely get funding.

The global community is determined to reverse this fact. Through the Sendai Framework for Disaster Risk Reduction, countries have committed to strengthen Early Warning Systems. In their Nationally Determined Contributions for the Paris Agreement, countries have committed to reduce the risks of extreme events. In addition, they have pledged to address disaster risk reduction as a cross-cutting necessity to achieve the Sustainable Development Goals. Forecast-based Financing is a mechanism that contributes to achieve these commitments by addressing the gaps between disaster risk finance, climate science and early action.

Since 2007, the Red Cross Red Crescent Movement has been developing this concept; pilots of the FbF mechanism have tackled climate hazards in more than 15 countries. The German government has supported several FbF pilot projects under the umbrella of its *Action Plan of the Federal Foreign Office for Humanitarian Adaptation to Climate Change (2015-2019)* to trial this mechanism and foster dialogue on how this innovation could be taken to scale. This process is part of a global focus on anticipation mechanisms, also supported by other governments (United Kingdom, Netherlands, Australia, and United States among others) and tested by organizations such as the World Food Programme (WFP), the Food and Agricultural Organization (FAO) and the Start Network.

What is FbF?

FbF is a mechanism that enables access to funding for early action and preparedness for response based on in-depth forecast and risk analysis. Forecast-based Financing has three components:



Triggers: Based on detailed risk analysis of relevant natural hazards, impact assessments of past events and vulnerability data, “danger levels” for a particular region are identified. Then, a forecast trigger is selected that will give advance notice before the “danger level” is reached.



Selection of actions: the pre-determined package of support that will be provided at the time of a triggering forecast aiming to reduce the humanitarian impact of the event.



Financing mechanism: an ex-ante financing instrument that automatically allocates funding once a forecast reaches a pre-agreed danger level; this will enable the effective implementation of early actions.



These three components are summarized in **Early Action Protocols (EAPs)**. The EAPs serve as action guidelines that delineate roles and responsibilities for quick action when a trigger is reached. The EAPs are agreed by a technical committee that includes scientists, humanitarian actors and local authorities and a clear commitment of implementation established among the involved parties.

What have we learnt from the pilots?

Lessons learned from the German government-pioneered pilots and other FbF pilot projects have been shared at a bi-annual international Dialogue Platform convened by the German Red Cross in cooperation with IFRC in Geneva and Berlin since 2015. Forecasts have successfully triggered early action in Peru, Togo and Uganda and methodological guidelines on FbF have been developed in order to be shared and used by others.

Two primary lessons emerge from pilot experiences, which will guide investments along two tracks for future Forecast-based Financing projects:

1. An FbF mechanism needs to be closely coordinated with the national authorities, especially those responsible for disaster risk management of a country or region to ensure ownership, including responsibility for technical and financial coordination, and sustainability. It should be sensitive to national and local adaptive capacity.
2. An FbF mechanism must be dynamic, so it can be improved based on robust evidence. It requires iterative process to understand risks, forecast skills, evidence of the effectiveness of humanitarian early actions among other elements.

Ongoing learning: Second phase in pilot countries

For an FbF mechanism to effectively reduce disaster impacts, it must be based on strong evidence and analysis:

- Impact research on forecast-based actions.
- Comprehensive risk assessments to select danger levels and actions. For example, identify elevation levels of houses/infrastructure that indicate at which water level a house is at risk to be damaged.
- Cost-benefit analysis of actions. For example, calculate the monetary and non-monetary savings at household level that cash distribution based on forecast could offer compared to traditional cash transfers done after a flood happened.
- Forecast verification analysis: for cold wave in the Andes region, in order to determine whether the forecast is certain enough to allow high-cost actions.
- Test of prototype EAPs and actions: developing EAPs is an iterative and cyclical way of working.

Taking Forecast-based Financing to Scale

In the framework of the Germany's Action Plan of the Federal Foreign Office possible structures and modalities of a special financing mechanism are currently being developed.

This FbF fund will be an important addition to the existing emergency relief funds that release funding after disasters occur. It will automatically allocate funding for approved EAPs submitted by National Red Cross Red Crescent Societies once forecast thresholds are reached. It will contribute to expanding the scale of FbF through the continued acceptance of new EAPs, contingent on their quality and based on transparent eligibility criteria. The National Red Cross Red Crescent Societies in the respective high risk pilot countries will receive technical assistance, equipment and capacity building to independently develop, implement and assess EAPs and access the fund.

Ultimately, Forecast-based Financing EAPs can be coordinated and responsibilities shared among humanitarian stakeholders, national government entities for disaster risk reduction and climate risk management and financing. National, regional, and local stakeholders can commit to specific actions; actors can include national and local government entities, the National Red Cross Red Crescent Society, UN Agencies, NGOs, communications and business sector. Through a coordinated dialogue, each of these groups makes the arrangements to ensure that they implement the necessary actions according to their mandates when a trigger is reached.

For example, in the Heatwave Plan for England, the UK government establishes a forecast trigger at a 60% chance of a heatwave in the following 2-3 days. At that trigger, EAPs are mobilised as actions which are coordinated among multiple actors; i.e. local Directors of Public Health are to disseminate public media messages, while public and private hospitals have the responsibility to check room temperatures of their patients and weigh patients to monitor dehydration.

The goal of this process is an evidence-based EAP, backed and funded by a group of national stakeholders who are committed to fulfill specific roles and responsibilities for forecast-based action. Achieving such a result requires a coordinated dialogue process among actors, including continued scientific research on forecast skills, sound understanding of risks and prioritization of early actions. In order to guide these processes, a Forecast-based Financing manual has been developed.

How does investing in FbF support implementation of global commitments?

Commitments made by States in the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, the Sustainable Development Goals and during the World Humanitarian Summit, collectively aim to build resilience and end humanitarian needs. We argue that the FbF concept helps to fulfill the commitments made in these processes. We argue that if the humanitarian system operationalizes FbF, disaster risk reduction and climate change adaptation further, the humanitarian response will be more efficient and will minimize human suffering.

Sustainable Development Goals

In the framework of FbF, effective early actions and timely preparedness for response measures reduce human suffering, but they also protect development gains in the window of opportunity between a forecast and a potential disaster. This requires a coordinated system in which the government and its partners agree beforehand to allocate funding to protect its population, in sectors such as education, health, infrastructure and others.

FbF contributes directly to achieve goal 13 on Climate Action and indirectly, on different scales, to the achievement of goals 1. No Poverty, 2. Zero Hunger, 3. Good Health and Wellbeing, 6. Clean Water and Sanitation, 10. Reduce inequalities, 11. Sustainable cities and communities, 15. Life on Land, 17. Partnerships for the Goals.

Sendai Framework for Disaster Risk Reduction

If Forecast-based Financing is implemented as part of a comprehensive disaster risk reduction and climate change adaptation strategy, it contributes to the achievement of the targets agreed in the Sendai Framework on Disaster Risk Reduction (especially a, b, c, f and g).

FbF also contributes directly to the four Priorities of Action. First, the setup of an FbF mechanism requires a sound analysis of risks to define triggers and actions. Second, it requires the active contribution and coordination of different actors, for example, hydro-meteorological services working with National Red Cross and Red Crescent Societies. Third, investment in FbF represents a shift in the financial landscape to invest in disaster risk reduction for resilience, this requires adoption of new disaster risk finance instruments. Lastly, activating pre-agreed and funded plans based on forecast to manage residual risk is one of the best alternatives that can be promoted to ensure an effective disaster response.

Paris Agreement

One of the largest impacts of a changing climate will be changes to the frequency and magnitude of extreme events. Forecast-based Financing as a humanitarian climate change adaptation strategy aims at promoting preparedness for extreme events, both now and in the future. FbF can be part of adaptation planning, both in Nationally Determined Contributions (NDC) as well as programming of the adaptation funding from the Paris Agreement. The Paris Agreement allows for anticipatory action to be integrated into National Adaptation planning discussions, ensuring that investments are informed by climate information across timescales.

World Humanitarian Summit (WHS) and Agenda for Humanity

In the framework of the WHS the International Federation of the Red Cross and Red Crescent Societies has pledged to rapidly scale up the use of Forecast-based Financing by 1) facilitating the doubling the existing coverage of this mechanism within the Movement by 2018, and 2) exploring its integration in global disaster risk management funding tools.

FbF is focussing on the most vulnerable and communities most at risk and therefore contributes directly to the implementation of the Agenda for Humanity transformation #3 (Leave no one behind). As FbF is also concentrating on anticipating disasters, investing in local capacities and especially investing in humanitarian resources according to risk, it directly contributes to the transformations #4 (Work differently to end needs) and #5 (Invest in Humanity).

Conclusion

FbF is an opportunity to invest in humanitarian innovations, to operationalize a forward-looking and anticipatory humanitarian assistance and to offer a better future for the most vulnerable.

The National Red Cross and Red Crescent Societies pioneering Forecast-based Financing, carrying out their mandate of international humanitarian assistance and in their auxiliary role to their respective governments, are offering a new alternative to manage risks, in way that climate science, risk knowledge, pre-committed funding and years of experience in disaster response are married together to be more effective at reducing risk and responding to disasters. To scale this up, political willing and radical changes in the humanitarian financial landscape are essential.

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Published by: German Red Cross National Headquarters,
International Cooperation Department, Carstennstraße 58, 12205 Berlin, Germany
Text: Alexandra Rüth, Kara Devonna Siahaan, Erin Coughlan, Tessa Kelly, Catalina Jaime, Meghan Bailey und Stefanie Lux
Website: <https://www.drk.de/en/forecast-based-financing/>
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