Forecast based Financing

The Netherlands Red Cross

German Red Cross

REPORT
1st African Dialogue Platform on Forecast-based Financing

21 – 22 March 2018

Nairobi, Kenya

Kenya Red Cross

INTERNATIONAL FEDERATION

Climate Centre

WFP

ODI

Met Office

german humanitarian assistance DEUTSCHE HUMANITÄRE HILFE

CONTENT

List of Acronyms

CCA   Climate Change Adaptation

DREF   Disaster Relief Emergency Fund

DRM   Disaster Risk Management

DRR   Disaster Risk Reduction

EAP   Early Action Protocol

ENSO   El Niño Southern Oscillation („El Niño" and "La Niña")

EWEA   Early Warning Early Action

EWS   Early Warning System

FAO   Food and Agricultural Organization

FbA   Forecast-based Action

FbF   Forecast-based Financing

IASC   Inter-Agency Standing Committee

IBF   Impact-based forecasting

IFRC   International Federation of Red Cross and Red Crescent Societies

MEAL   Monitoring, Evaluation, Accountability and Learning

NGO   Non-Governmental Organization

NHMS   National Hydro Meteorological Services

OD   Overseas Development Institute

SOP   Standard Operating Procedure

WASH   Water, Sanitation and Hygiene

WFP   World Food Programme

WHH   Welthungerhilfe

FbF in the Red Cross Red Crescent Movement: Implementing FbF from Set-Up to Activation

What is FbF?

FbF enables access to humanitarian funding for early action based on in-depth forecasting information and risk analysis. The goal of FbF is to anticipate disasters, lessen their impact when possible, and reduce human suffering and loss of life. The Forecast-based Action mechanism is integrated into the Disaster Relief Emergency Fund (DREF). A key element of FbF is the allocation of financial resources is in advance, along with a specific forecast threshold that triggers their release for the implementation of early actions. The Early Action Protocol (EAP) defines the roles and responsibilities of each actor involved in implementation of these actions. This ensures full commitment to implementation among all stakeholders.

The three components of FbF

Triggers: Region-specific "impact levels" are identified based on the detailed risk analysis of relevant natural hazards, impact assessments of past disaster events, and vulnerability data. A trigger model is subsequently developed according to an impact-based forecasting method. It determines and prioritises areas where the impact of an extreme weather event is anticipated to be the most severe.

Early actions: In the occurrence of a triggering forecast, a previously agreed upon set of early actions will be implemented with the aim of reducing the predicted event's impact on human life. Early actions provide assistance to people at risk and help them to take action and protect their families and livelihoods. For example, these actions can take the form of providing veterinary kits, securing house roofs, providing food and clean water in anticipation of a catastrophe, or cash transferrals.
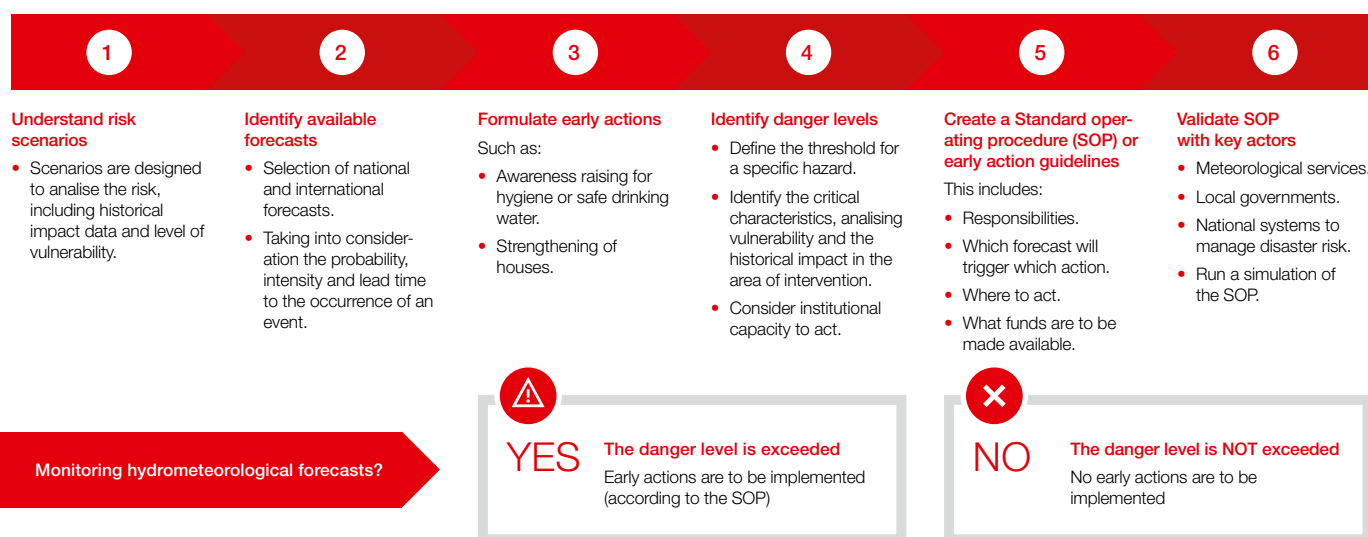
Financing mechanism: An ex-ante financing mechanism automatically allocates funding once a forecast trigger has been reached, enabling the effective implementation of the early actions.

Sidenote: FbF aims at reducing the humanitarian impact. What are the best early actions? The ones that have the highest potential to reduce humanitarian impact and that can be implemented within the forecast lead-time.

Early Action Protocol[1]: These three components are summarised in an EAP. The EAP serves as a guideline that delineates roles and responsibilities for quick action for National Societies and partners.

1 EAPs used to be called SOPs, but in the Red Cross Movement the term "SOP" also has other meanings, which is why Early Action Protocol was chosen.

FbF Step by Step

1	2	3	4	5	6
Understand risk scenarios	**Identify available forecasts**	**Formulate early actions**	**Identify danger levels**	**Create a Standard operating procedure (SOP) or early action guidelines**	**Validate SOP with key actors**
• Scenarios are designed to analise the risk, including historical impact data and level of vulnerability.	• Selection of national and international forecasts. • Taking into consideration the probability, intensity and lead time to the occurrence of an event.	Such as: • Awareness raising for hygiene or safe drinking water. • Strengthening of houses.	• Define the threshold for a specific hazard. • Identify the critical characteristics, analising vulnerability and the historical impact in the area of intervention. • Consider institutional capacity to act.	This includes: • Responsibilities. • Which forecast will trigger which action. • Where to act. • What funds are to be made available.	• Meteorological services. • Local governments. • National systems to manage disaster risk. • Run a simulation of the SOP.

Monitoring hydrometeorological forecasts?

⚠ **YES** **The danger level is exceeded** Early actions are to be implemented (according to the SOP)

✖ **NO** **The danger level is NOT exceeded** No early actions are to be implemented

Financing of FbF –
The FbF Fund in the DREF

→ Given the innovative potential of FbF and the necessary funding for the increasing number of EAPs within the Red Cross Red Crescent Movement, a dedicated, scalable financing mechanism was required. This ensures that donor funds are used efficiently and that vulnerable communities and National Societies have access to immediate, reliable and sustainable funding in the event of an EAP activation.

In December 2017, the IFRC established Forecast-based Action to the DREF as a dedicated and sustainable financial mechanism, providing a vehicle for donors to support the FbF concept by extending the scope of the DREF. The DREF is a well-established response tool with a proven track record of managing multi-donor funds. The Forecast-based Action mechanism serves RC/RC National Societies and focuses on the funding of EAP implementation and maintenance.

The mechanism concentrates on EAPs for hazards that can be scientifically forecast based on hydro-meteorological risk data and observations. The acceptance of EAPs by the Fund depends solely upon their quality, which is based on transparent eligibility criteria.The fund uses a trigger-based, decision-making process. Once an EAP has been accepted, the funding of early action is guaranteed, as is the maintenance of the EAP itself during its lifecycle.

Key features of the fund

- Automatic trigger-based decision making process

- Covers costs that are indispensable for preparing and implementing early action

- Focuses on natural hazards

Who can apply?

- Any of the 190 National Societies with developed EAP

How does IFRC decide on funding?

- Funding is based on data-driven, scientifically developed triggers, early action and implementation capacity.

- EAP is validated by a group of experts (the Validation Committee) in advance of a potential trigger.

Three key questions:

- **What is the development time for an EAP?**
  On average one year.

- **Can one EAP cover multiple hazards?**
  There is only one hazard per EAP, but no limit to the number EAPs.

- **Can preparedness be included?**
  The mechanism does not cover general preparedness cost, but can cover costs necessary for maintenance of the EAP (refresher trainings, warehousing, etc.)

Measuring success

Ideas on measuring the success of an FbF project, more can be found on page 27:

- Does the FbF activation actually reduce disaster impact and suffering? This must be a central question in monitoring and evaluating a project. Surveys of beneficiaries of FbF intervention and comparative control groups are one suitable instrument of measure.

- How has FbF been institutionalized in policies, i.e. in structures, documents and budgets?

- Do EAPs function as expected? Are the forecasts accurate? Were danger levels correctly assessed? Were the best actions chosen and cost effective?

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GDPC Whatnow service

The Global Disaster Preparedness Center demonstrated its new early warning system platform, the WhatNow Message Portal (***whatnow.preparecenter.org***).

WhatNow provides localised key messages on how individuals and households can prepare for disasters. The RC can upload key messages which are then distributed through a variety of channels, such as text messages, social media, radio, media or the website itself. Additionally media and other partners can access WhatNow through an API interface.

The first African FbF Dialogue Platform[2]

→ The first Africa Dialogue Platform for Forecast-based Financing (FbF) took place in Nairobi on March 22nd and 23rd 2018, hosted by the Kenya Red Cross Society (KRCS). In total, the event drew at least 130 government, UN, NGO and academic specialists, members of the humanitarian and development communities, as well as at least 16 Red Cross Red Crescent National Societies.

Europeans meteorologists attended the meeting alongside colleagues from Ethiopia, Kenya, Madagascar, Malawi, Mali, Mozambique, Niger, Togo, Uganda and Zambia national meteorological departments. More than 60 Red Cross Red Crescent specialists gathered a day before the main event, on March 21st, to introduce new Movement partners to the FbF concept. The Nairobi dialogue platform was supported by the German and Netherlands Red Cross, the UK Met Office and ODI, with technical support from the Climate Centre.

This event was an opportunity to review both ongoing and new FbF projects in Africa in 12 countries, including Ethiopia, Kenya, Madagascar, Malawi, Mali, Mozambique, Niger, Sudan, Togo, Uganda, Zambia, and Zimbabwe. The exchange offered an overview of where we collectively stand in terms of testing the system, along with our main successes and the challenges that other countries and scientists can learn from. Ongoing projects were presented by a variety of actors: Red Cross Red Crescent National Societies, RCRC Crescent Climate Center, FAO, START Network, WFP, WHH.

2 The two offical days of the FbF Dialogue Platform on March 21st and 22nd, 2018 were preceded by an internal Red Cross meeting. The insights and presentations that are relevant to the other attendants of the conference are contained in this document.

Participants discussed key enabling factors such as government involvement and ownership; defining triggers and early actions; community involvement; identification of resources for early action; measuring the impact, quality and availability of weather forecast; risk financing; FbF in urban context; FbF and cash distribution; among other topics. These technical aspects were also discussed in various small group sessions which helped partners to better understand the reach of efforts to make the FbF system more efficient, and what additional work is needed to continue fine tuning the methodology.

In addition, a large variety of initiatives were presented. They consisted of innovative approaches, similar projects, studies, and research findings which could help increase the reliability and efficiency of the system, from risk analysis to the dissemination of warning messages and the activation of the early actions (such as Impact based Forecasting, WhatNow, the Forecast based Action by the DREF, ForPAC, 510 and data preparedness, ALERT online platform, IASC SOP for ENSO related events, the FOODSECuRE tool, START Network).

Recommendations from evidence based studies were also shared (presentations by FATHUM, ODI or CEBaP & the German Red Cross). Scaling up FbF would require measures such as, building upon and strengthening existing delivery mechanisms, developing clear protocols to increase confidence among stakeholders, strengthening technical forecast ability, understanding incentives and competition among stakeholders, as well as monitoring and evaluating outcomes *(ODI Study: Scaling up of Forecast-based Action)*.

List of attendants

Organisation/Institution/University	Country
Frankfurt School-UNEP Centre	Germany
Famine Early Warning System Network (FEWS NET)	Kenya
Overseas Development Institute	London
Universidade Técnica de Moçambique	Mozambique
Deltares	Netherlands
RADAR, Stellenbosch University	South Africa
Makerere University	Uganda
University of Reading	UK
International Research Institute for Climate and Society (IRI	USA
National Disaster Risk Management Comission(NDRMC)	Ethiopia
Dept. of Disaster Management Affairs	Malawi
National Institute for Disaster Management (INGC)	Mozambique
National Meteorological Agency (NMA)	Ethiopia
Kenya Meteorological Department	Kenya
Direction Générale de la Météorologie Madagascar	Madagascar
Department of Climate Change and Meteorological Services	Malawi
Mali-Météo	Mali
Instituto Nacional de Meteorologia	Mozambique
South African Weather Service	South Africa
Agence Nationale de la Protection Civile	Togo
Office of the Prime Minister	Uganda
Met Office	UK
Disaster management and Mitigation Unit	Zambia
Welthungerhilfe	Germany
AFOSC Kenya	Kenya
ActionAid International	Nairobi
Start Network	UK
Tetra Tech	USA
Belgian Red Cross - CEBaP	Belgium
Danish Red Cross	Denmark

Organisation/Institution/University	Country
Canadian Red Cross	Ethiopia
Ethiopian Red Cross Society	Ethiopia
French Red Cross	France
German Red Cross	Germany
German Red Cross	Kenya
British Red Cross	Kenya
Malagasy Red Cross	Madagascar
German Red Cross	Madagascar
Malawi Red Cross Society	Malawi
Mali Red Cross Society	Mali
German Red Cross	Mozambique
Netherland Red Cross / 510 Global	Netherlands
Niger Red Cross Society	Niger
German Red Cross	Peru
British Red cross	Senegal
Sudanese Red Crescent Society	Sudan
IFRC	Switzerland
Tanzania Red Cross Society	Tanzania
German Red Cross	Togo
Uganda Red Cross Society	Uganda
RCRC Climate Centre	Uganda
British Red Cross	UK
RCRC Climate Centre	UK
RCRC Climate Centre / American Red Cross	USA
Netherlands Red Cross	Zambia
Zimbabwe Red Cross Society	Zimbabwe
World Food Programme	Italy
Food Security and Nutrition Analysis Unit	Kenya
World Food Programme	Malawi
World Food Programme	South Africa
World Food Programme	Zimbabwe
UN-ECHO	Kenya

FbF and early action projects in Africa

1 ETHIOPIA

Who? FbF and Partners for Resilience (PfR); RCRC Climate Centre

What? The Ethiopian Red Cross (ERCS) recently initiated seasonal climate conferences (National Climate Outlook Forum) in order to establish a close and integrated relationship between the ERCS and Ethiopia's National Meterology Agency and to optimise the implementation of FbF. The first project is the development of sector-specific forecasts for advisory community plans alongside resilient frameworks for their implementation.

2 KENYA

Who? Kenya Red Cross Society

What? Early action intervention in Kenya aims to take advantage of potentially positive consequences of unusual weather. During increased rains, predominantly in El Niño years, seeds are distributed to prevent food insecurity in dry years. The Kenya Red Cross Society (KRCS) was able to achieve economies of scale when procuring the seeds, providing a better return on investment than a monetary response could have achieved. This intervention was one component of KRCS's wider El Niño Preparedness Programme, which included pre-positioning of response supplies and training response teams at County level. KRCS's vision is to include EAPs in national contingency plans and to improve access to contingency funds. KCRS will start a real FbF approach this year as part of a project called Innovative Approches to Response Preparedness (IARP), financed by NLRC.
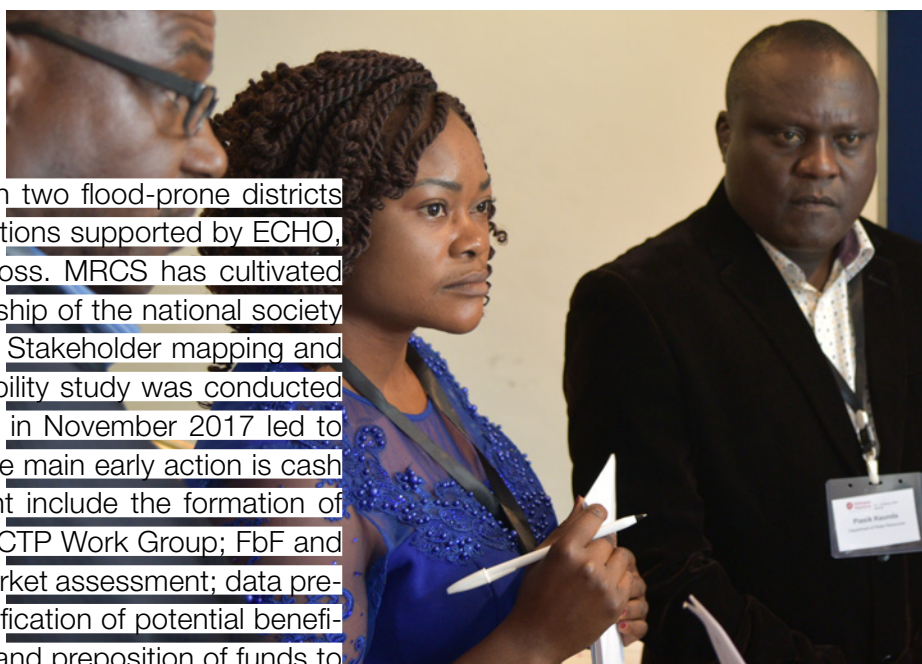
3 MADAGASCAR

Who? START Network and WHH

What? The Start Network is partnered with Welthungerhilfe (WHH) in Madagascar to set up a drought forecasting and financing facility. The project is in the very early stages, specifically with regard to deciding on the geographic test locations. EAPs need to be thought through for each phase of drought built-up, with the more expensive actions only being deployed for stages of high certainty. Predictions of future drought occurrence in Madagascar can be based on historical data combined with projections, but on the ground validation is crucial. The drought action is planned to be integrated into existing EWSs.

4 MALAWI

Who? Malawi Red Cross Society and 510

What? MRCS targets 2,800 households in two flood-prone districts of Chikwawa and Nsanje with FbF early actions supported by ECHO, Danish, Belgium and Netherlands Red Cross. MRCS has cultivated strong leadership, participation and ownership of the national society and government on FbF. It conducted FbF Stakeholder mapping and a series of engagement meetings. A feasibility study was conducted and disseminated, and the FbF workshop in November 2017 led to the drafting of an Early Action Protocol. The main early action is cash transfer. Associated capacity enhancement include the formation of working groups; contact with the National CTP Work Group; FbF and CTP training for volunteers, training and market assessment; data preparedness through mapping and pre-identification of potential beneficiaries; and, the identification, contracting and preposition of funds to Security Company for early action. The project is supported by 510 (NLRC), which performs data analyses for the project set-up. 510 also trains three data specialists within the country, and there is also an open source data portal for Malawi.

Who? World Food Programme

What? In Malawi, conditional and unconditional assistance packages were operationalized due to a poor seasonal outlook. Unconditional and conditional assistance packages targeted 300,000 and 170,000 individuals, respectively. For details see page 23.

5 MALI

Who? Mali Red Cross and Mali Meteorological Department, RP2 project of Netherlands RC

What? Mali Red Cross is developing an FbF project in conjunction with the Mali government, and a joint meeting on EAP development followed the Dialogue Platform. The main humanitarian risk in Mali, however, is armed conflict, in which the Red Cross plays a key role as mediator. A risk analysis confirmed the high risk of floods and exposure. A Disaster Response Capacity Evaluation (DRCE) was conducted two years prior, which can be used for the FbF project. The reliability of hydrometeorological data needs to be validated, and a stakeholder mapping is taking place. The study was followed by a workshop with the Red Cross National Society at a national platform to achieve stakeholder inclusion. No solution exists for the EAP granularity. Development at community level is challenging in areas where no previous preparedness work has been carried out, calling for a large-scale approach. Ideally, FbF would be embedded in longer term DRR programs that develop community contingency plans. It is additionally planned to tap into the experience of NGOs that work with cash transfers.

6 MOZAMBIQUE

Who? FbF Phase 1 to Phase 2 (Mozambique RC and German RC)

What? The FbF project in Mozambique is entering Phase II, focussing on cyclones and floods. Moving from an FbF pilot towards utilising FbF as a fully operable instrument for disaster damage mitigation, the Mozambique project currently seeks to explain, advocate and integrate FbF into the existing national systems for disaster risk reduction. The principle relevant actors are the INGC, the INAM, and the DNA.

7 NIGER

Who? World Food Programme

What? In Niger, WFP helps with the development of an online risk tool that is based on former disaster reports, meteorological measurements and probabilistic seasonal forecasts. The online tool sets the current forecast in context and comparison with previous forecasts and hindcasts.

Who? Niger RC

What? Niger Red Cross is starting a new FbF programme with support from Belgium Red Cross.

8 SUDAN

Who? FAO

What? The FAO Sudan Forecast-based Action (FbA)[3] project focuses on drought support in Kassalla and North Darfur regions. A report can be found on page 23.

SAHEL REGION

The Sahel region would greatly benefit from improved forecasts, early warnings and early action. An "open space" on the Sahel took place, presented on page 32.

9 TOGO: FBF AND HYDROPOWER

Who? Togo RC and German RC

What? The Togolese Red Cross FbF project is focused on floods related to heavy seasonal rainfall and the country's hydropower dam. The project has set up an improved nation-wide early warning system based on water level gauges, has created and trained crisis prevention teams in all relevant communities, and carried out simulation trainings with the population. This involves close collaboration with dam operators, the national agency for civil protection as well as hydro and meteorological services. The cooperation with stakeholders has been very successful. In 2017 all impacted communities could be warned 48-72 hours before planned dam releases and readiness for early actions were financed by a preparedness fund and based on predefined EAPs. The project uses a machine-learning algorithm for flood prediction (FUNES), which continuously improves with the addition of flood impact data from the previous flood season. Togo RC also assists communities with training on safe shelter and housing, agroforestry and resilient agricultural structures as well as health and hygiene training for the so called "mothers clubs". Seasonal forecasts for 2018 have indicated over-proportional rainfall and a high likelihood of flooding – and the Togo Red Cross is already preparing possible FbF action to prepare for their occurrence.

🔟 UGANDA

Who? Uganda RCS and RCRC Climate Centre

What? Uganda's FbF assisted with water storage and purification assistance, food storage and building of drainage channels. Flood triggers were reached in 2015 and 2016. Activation took two days, 1300 households received assistance. The finance mechanism worked well, activation worked well, and only once was action taken in vein. Challenges: Only a small number can be assisted, some actions did not make sense at the time of implementation, government ownership was lacking. Feedback from communities: Flooding needs to be redefined.

1️⃣1️⃣ ZAMBIA

Who? Zambia RC and Netherlands RC

What? The current, main focus of the Zambia FbF project is on advocacy within the Zambia Red Cross and communication with the government. There is both the political and technical will to establish FbF, and key focal points in Ministries and Institutions (Metereolgical Office, Disaster management and in respective ministries) have been identified. The Zambia RC included FbF in its strategic framework for 2020. A National Dialogue Platform on FbF took place, and it is anticipated that FbF will be included in the National Framework.

1️⃣2️⃣ ZIMBABWE

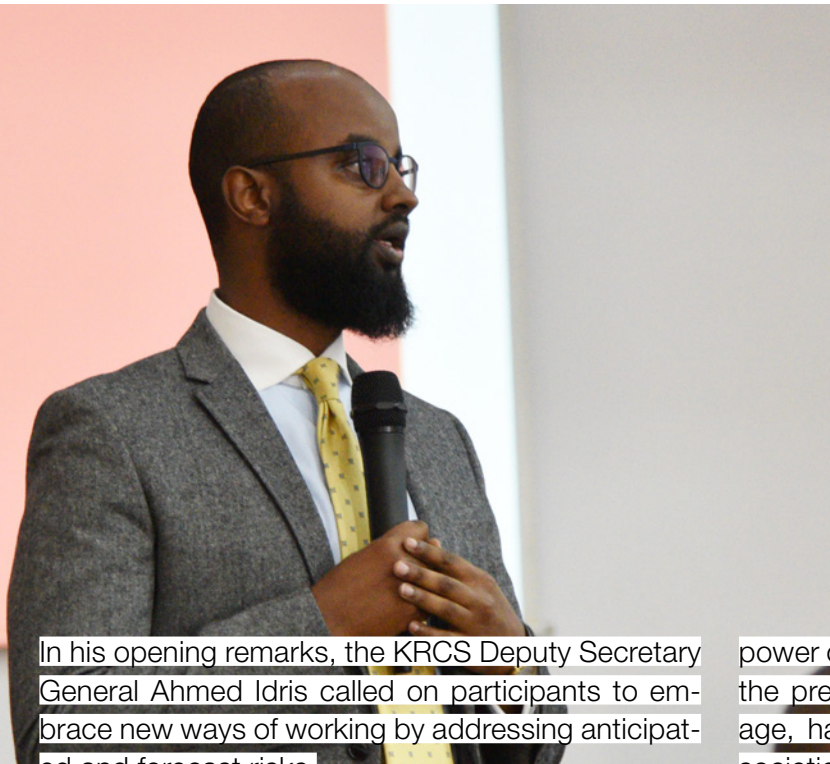**Who?** World Food Programme

What? In Zimbabwe drought resistant crops are distributed and agricultural training opportunities offered. Significant successes have been demonstrated: During the current El Niño event, food insecurity affected 32 % of people in the project areas, but 86 % on a national level.

1st African Dialogue Platform
on Forecast-based Financing

DAY
ONE

Opening Speeches

→ Welcoming speeches were held by Ahmed Idris, Deputy Secretary General of Kenya Red Cross Society and Executive director of ICHA, as well as by Robert Kaufmann, Deputy Regional Director, IFRC Africa.

In his opening remarks, the KRCS Deputy Secretary General Ahmed Idris called on participants to embrace new ways of working by addressing anticipated and forecast risks.

Robert Kaufmann, Deputy Director of IFRC Africa opened the 1st Africa Regional Dialogue Platform on FbF speaking about Nate Silver's best-selling book "The Signal and the Noise", about the predictive power of mathematical statistics. Forecasting allows the prevention of humanitarian disasters: On average, half the requests received by the Red Cross societies worldwide were for food security, another quarter for cholera treatment and prevention – all of these are forecastable and preventable disasters. He paid tribute to the German Red Cross which had "been intellectually and operationally leading FbF and put major efforts into developing the concept".

FbF Essentials:
Triggers, Actions, Financing, Protocols, Evaluation

Triggers

Presenter:

Erin Coughlan
Red Cross Red Crescent Climate Centre

→ This session explained how triggers work, and it elaborated on forecast uncertainty.

FbF Menu of Triggers

Understanding the **confidence of a forecast** is essential for a forecast-based system. "It is not as important that the forecast has uncertainty, but it is essential to understand and communicate the level of uncertainty". This requires a detailed understanding of the forecasts and a close collaboration with hydro-meteorological offices and research institutions, particularly for **verification** of the forecasts (i.e. how close was the hazard forecast to reality). For improving understanding of a forecast the WFP projects present users past forecasts to give an idea of hits and misses. Archiving the entire forecast would be very useful for analysis and the development of corrections to eliminate biases in future forecasts. This is the job of meteorological offices.

Of crucial importance is the **monitoring & evaluation** of disaster impacts. The organisation performing early action needs to ask questions such as: Was the correct number of people addressed? Was the region correct? Are vulnerabilities correctly assessed?

> **It is not as important that the forecast has uncertainty, but it is essential to understand and communicate the level of uncertainty**
>
> Erin Coughlan

Particularly in Africa, the lack of in-situ measurement data is an obstacle to improving models. Therefore, even small and informal event descriptions can sometimes help.

Establishing the "right" **trigger** for launching early action is a key challenge in every early action project. Questions about both regional and temporal need be addressed, as well as agreement on acceptable levels of uncertainty.

Setting triggers is a learning process. For example, **Bangladesh's** phase 1 pilot had precise triggers at community level in four FbF pilot villages, but a cyclone struck a Rohingya refugee camp instead. This resulted in a disaster that could not be avoided with the Phase I pilot project protocols since FbF was not in place there. Ideally, FbF would be able to act wherever the worst disaster is forecasted. This is one of the main goals of Phase II and other future FbF implementations.

In **Peru,** the trigger is engaged by both the 10-year flood return period and a forecast probability of at least 50 %. If that trigger is hit, FbF acts early in the five most vulnerable communities.

In **Mozambique** the impact of cyclones on housing and flooding is of main concern. There, both wind speed and precipitation are trigger variables and three different risk zones exist. One area (close to the coast) is at high risk and prioritised as zone 1. A number of existing infrastructure, particularly schools, hospitals, police stations have been assessed with the help of GIS methods.

Sometimes, FbF triggers action without the hazard occurring. Smart actions need to be chosen, so that the long-term benefit of early action outweighs acting in vain. Furthermore, there can also be a significant "cost of not acting", if a disasters strikes and nothing has been done.

Impact-based Forecasting to enable FbF

Presenters:

Helen Ticehurst,
UK Met Office

Rebecca Hemingway
UK Met Office

Ezekiel Sebego
South African Weather Service

→ This session focussed on impact-based forecasting
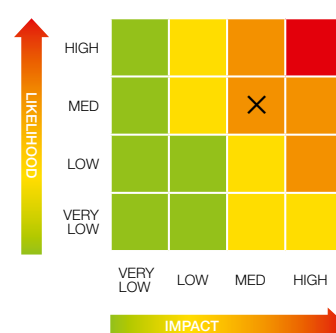
What is impact-based forecasting?

"We know what the weather might be, but we do not know what it might do" may be the best summary of motivations for impact-based forecasting. Impact-based forecasting (IBF) informs forecast recipients – citizens, organisations and the general public – about the possible consequences of upcoming weather hazards in an intuitive way. The thinking behind IBF in the UK began after a devastating storm in 1987 was ineffectively communicated, leading to disaster. The UK Met Office uses impact-based forecasting and warnings since 2011.

In the days before a weather hazard, IBF in the UK uses a risk matrix to inform of the potential impacts and likelihood of those impacts occurring. Depending on these decisions yellow, amber or red warnings are issued. The warning system is flexible and can react in real-time, issuing more severe warnings or deescalating the alarm as needed, as the likelihood of impact develops, increasing or decreasing. Red warnings, which signify a high likelihood of high impact, are issued once a year on average. A risk matrix is employed and early warnings consist of both low-confidence early warnings (lasting days to weeks) to high-confidence alerts (lasting days to hours).

IBF system development in the UK has **six steps:**

1. An analysis of the impacts of severe weather and which weather or hazards are associated with these impacts;
2. An evaluation of what can be done to reduce these impacts;
3. An investigation into how well hazards can be forecast and forecast confidence;
4. Assessment of how IBF can be used to support action on the ground
5. User engagement to understand IBF forecasts and how they are employed;
6. An evaluation of which actions were taken based on the IBF, and what they achieved.

Fig. 1: UKMO Risk Matrix

Impact-based forecasting in South Africa

An extensive report on IbF in South Africa can be found on page 39.

Existing early action funding

Presenters:

Emily Wilkinson
ODI

Kara Devonna Siahaan
IFRC

Leonie Le Borgne
START Network

ODI Study: Scaling up of Forecast-based Financing and Action

How can FbF and similar concepts be scaled up? What counts as 'early' depends on the hazard, generally with regards to climate and weather-related disasters.

- **What is new in the FbF concepts?** Clear decision-making protocol, focus on ex-ante financing, robust science-based mechanism for resource allocation, strong evidence base, promotion of ex-ante investments into DRR, improvement of financial planning and tools to better manage climate risks.

- **Efforts are made to increase and widen geographical scope, depending on the region and/or project.**

- **Challenges for institutionalizing and implementing FbA include:** Capacity constraints on the meteorological side to produce quality forecasts and interpret them, lack of starting funds, fear of loss of political control over allocation of resources, risk aversion (spending money under levels of uncertainty), the political cost of false alarms

- Recommendations for institutionalizing FbA at scale Build on existing delivery mechanisms and strengthen them, develop clear protocols with all stakeholders to increase confidence, strengthen technical forecast capacity, understand incentives and competition priorities of stakeholders, monitor and evaluate and outcomes

Next focal studies in **Kenya** on the investigation into the potential of an FbA hunger safety net and in **Bangladesh** on improving coordination among NGOs and the government on FbF for floods and cyclones. A further project with CERF in the **Horn of Africa** is also envisaged.

Funding: Forecast-based Action by the DREF Red Cross FbF projects

In May 2018, the Forecast-based Action by DREF for RCRC projects was launched. For a description see page 5.

The START fund anticipation window

The Start Network's Start Fund is said to be the fastest, collectively-owned humanitarian funding mechanism in the world. It provides rapid financing to underfunded small to medium scale crises and spikes in chronic humanitarian crises. The Start Fund's Crisis Anticipation Window has been operational since late 2016. This funding window enables NGOs to prepare when they see a crisis coming and respond early to mitigate the predicted impacts. It is the first NGO funding mechanism to be made available for anticipatory interventions. Since November 2016, the Crisis Anticipation Window has been alerted 23 times, activated 12 times, reaching over 6 million people responding in 11 countries.

This session presented the learnings in setting up the Window over the last two years, which is especially relevant given that the DREF was about to open its FbF window. This includes START's low regret approach to anticipation activities, and how they have worked with scientists and government agencies alike to make better decisions based on forecasts. Some examples and case studies can be found on the web page in the related documents section.

Understanding Risk

→ Understanding risk in the context of FbF is essential to determine which disaster impacts can be reduced by early action. This session explored the different approaches used by organisations.

Presenters:

Catalina Jaime
RCRC Climate Centre

Aklilu Teklseidk
Netherlands RC

Firoj Ahmed
FAO
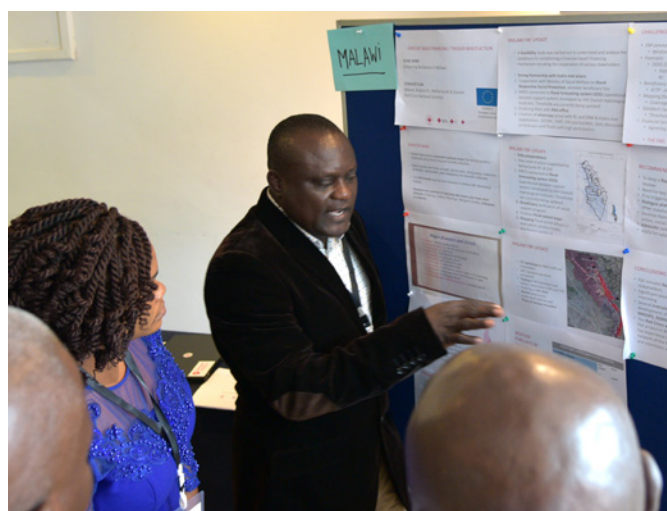
Daniela Cuellar
WFP

510 – Information management for risk analysis

510 is the name of a new initiative of the Netherlands Red Cross, and the number of thousand square kilometres that make up the surface of the Earth. 510 supports the humanitarian community and FbF through data collection and analysis. One product used in FbF is the Community Risk Assessment dashboard for Malawi, PHL, and Peru. Work is ongoing for Nepal, Ecuador, Ethiopia, Kenya, Uganda, Mali, Zambia, Benin, and Sri Lanka. Steps that lead to these dashboards include

data collection from open source databases and national data sources, data integration using IASC's inform methodology and data visualization from national to village level. FbF projects have the opportunity to combine forecasts with the community risk dashboard to create impact based forecasts.

Sudan Early Actions

The EWEA system for Sudan was designed to monitor the risk of drought in Kassala and North Darfur states and to enable timely disbursement of funds for early actions. From August 2017, the EWEA monitoring started to flag worrying signs in Kassala state. The first early action was rolled out in October – a needs assessment survey to understand which resources would be affected and what potential interventions would help pastoralists to mitigate the impact of dry spells. By December 2017, while other early warning outlets had only began to raise alarm about the situation, FAO had already begun its early action activities, pulling resources from the SFERA Early Action Fund to support 5,000 households and an estimated 30,000 livestock. FAO was the first agency to start intervening to protect livelihoods.

FbF in Malawi

WFP Malawi designed and tested an FbF pilot, which was intended to trigger the expansion of conditional and unconditional assistance in anticipation of drought. This is part of an integrated risk management program, including Food Assistance for Assets (FFA), Rural Resilience Initiative (R4), and Climate Services (CS). Making use of the Integrated Phase Classification (and an FbF system consisting of tailored forecast, triggers, as well as contingency plans and finance) the conditional and unconditional assistance packages were operationalized due to the poor seasonal outlook. The unconditional assistance package

targeted those beyond the regular program and consisted of unconditional cash assistance for 300,000 individuals in 6 districts, while the conditional component reached 170,000 beneficiaries in 4 districts through FFA, the duration of which was extended to provide support throughout the peak lean season, with many also benefiting from other resilience interventions, such as climate services and R4. Through the conditional package, drought tolerant crops were promoted, water and land conservation measures were implemented, and household gardens were established conditional of monthly cash transfers. Alongside monthly transfers, one-off additional cash tops up have been provided for households to purchase seeds and farming implements to support winter crops. Altogether the interventions directly contributed to food access, availability, and diversity, in the short, medium, and long run. This approach is in keeping with national commitments on shock sensitive social protection as enshrined in the Malawi National Social Support Programme, the National Resilience Strategy, among other key policies.

Early Action Protocols

Presenters:

Stefanie Lux
German Red Cross

Manuela Reinfeld
WFP

Dunja Dujanovic
FAO

Maurine Ambani
Kenya RC

Daniela Cuellar
WFP

→ The session looked at the different ways in which organisations develop EAPs or SOPs.

WFP Nepal: Flood SOP for six districts

WFP presented process and results of its work with the Government of Nepal to elaborate SOPs for river floods. The SOPs were elaborated with all involved government entities, District Lead Support Agencies (DLSAs) and science partners like the International Centre for Integrated Mountain Development, as well as the Nepalese Red Cross Society and Practical Action. The geographic focus of the SOPs were six flood-prone districts. For an understanding of risk in each area an assessment of existing EWS was carried out and flood risk maps and livelihood zones were considered. Through partnership with GLOFAS, the forecasting timeline was extended from a few hours to 15 days ahead of a potential flooding. Actions to be taken were defined for and with each of the many institutions involved (e.g. DRM authorities, security forces, media, cluster), linked to probabilities (high, medium, low) reaching specific danger levels and time (15 days, 10, 3 and 1 day ahead the forecasted event). While the overview SOP only contain brief bullet points for each involved institution, institutions then also came

up with more detailed internal plans. SOPs were reviewed at pre- and post-monsoon workshops. According to a WFP return of investment study, 22 million USD can be saved for an average size emergency response when investing in preparedness and implementing SOPs.

IASC SOP for ENSO related events

Following the severe 2015/16 El Niño event that saw a delayed response by many actors, FAO, OCHA and WFP agreed to develop a documented framework that outlines steps and specific timelines to ensure collective monitoring as well as timely early action when there is an elevated risk of a future ENSO-related event. The subsequently developed Inter-Agency SOPs present a framework for actions to mitigate the impact of ENSO extreme weather events. SOPs are divided into sections depicting actions on global, regional and country levels. The actions are further divided into phases to reflect the severity of the warning, triggers reached, and the level of confidence of the forecasts. Actions are assigned to different lead organizations. The annex includes specific examples of early actions for a range of sectors such as food security and agriculture, health, WASH, education, livelihoods and protection.

ALERT Emergency Preparedness Platform for Contingency Planning

The ALERT online platform is designed to help organizations better prepare for and coordinate disaster response by ensuring information is accessible, open and shared amongst users. Agencies can upload information related to their preparedness system and coordinate with other humanitarian actors. There are four main features in ALERT:

1. risk analysis (using data from INFORM Risk Index);
2. Hazard monitoring: agencies determine indicators for each hazard that should be monitored and can see which indicators other agencies in the country monitor.
3. Preparedness actions: Agencies define actions to ensure a minimum level of preparedness at all times and define advanced actions to be implemented when a disaster is imminent. Tasks can be assigned to staff members and ALERT allows monitoring of completion.
4. Scenario based response plans can be updated by any staff with access; the function makes it possible to export a response plan to send directly to donors.

Towards a repository of early actions
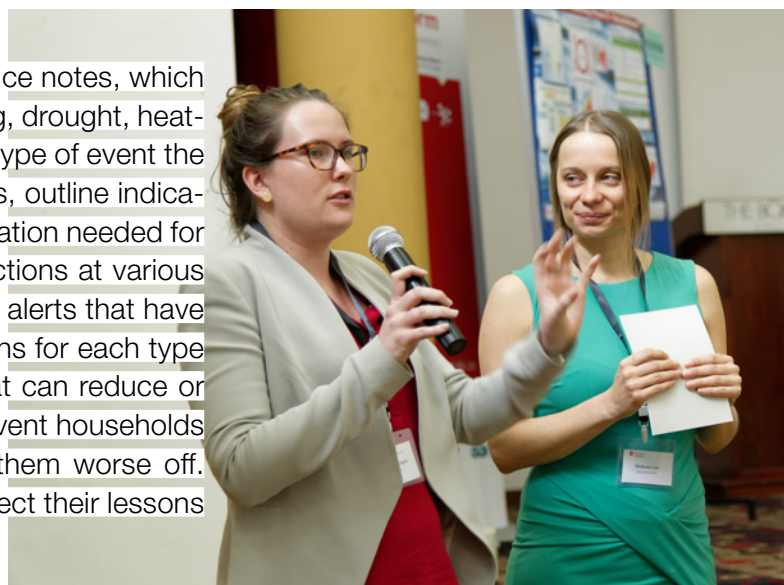
Presenters:

Stefanie Lux
German Red Cross

Leonie Le Borgne
START Network

Catherine Jones
FAO

→ The session presented and discussed different initiatives towards cataloguing early actions to provide ideas for staff or other stakeholders working on the same hazard.

Action Lists in the Guidance Notes

Leonie Le Borgne presented START's pre-alert guidance notes, which have been developed for a number of hazards (flooding, drought, heatwaves, disease, conflict and displacement). For each type of event the guidance notes point to established forecast providers, outline indicators that can complement the forecasts, list the information needed for the decision on an anticipatory alert, suggest early actions at various lead times, and cite examples of previous anticipatory alerts that have been done by START members. The list of early actions for each type of extreme event contains suggestions of actions that can reduce or mitigate the impact of a forecasted event and can prevent households from using negative coping strategies, which leave them worse off. Examples are compiled by the Start members and reflect their lessons learned in response and preparedness.

FAO's work on a repository of early actions

Early actions identified and developed by FAO mostly aim to protect agriculture-based livelihoods and safeguard assets, but they also provide a sense of dignity and empowerment to communities by helping them face risks. When developing early actions, FAO aims to

1. understand the history of the risk and how frequently and with which seasonal timing it impacts the country or region;
2. understand which livelihoods have been the most impacted and where;
3. match the early actions with the technical capabilities of within FAO and
4. ensure adequate support for timely implementation is provided. Combining best practices and learnings at country, regional and global level, FAO has a repository of early actions.

This repository is not intended as an exhaustive list, but highlights some of the common best practices and links technical, livelihood, and disaster-specific programme guidance already existing in FAO and in the sec-

tor. Included early actions are validated by in-house technical experts in FAO and combined with best practices through FAO's EWEA pilots. Actions are generic and can be adapted to the context by experts on the ground.

Measure what Matters

Presenters:

Meghan Bailey
RCRC Climate Centre

Arielle Tozier de la Poterie
German Red Cross Mozambique

Daniela Cuellar
WFP

→ This session focussed on evaluation of FbF – a crucial element to any project.

Evidence-based research of FbF

We provided an overview of the qualitative research methodology which the Mozambique team is using to evaluate the FbF project. They help identify and prioritize the impacts of floods and cyclones as well as actions that might be effective for reducing those impacts. The results will be used to develop theories of change that will support EAP development.

Evaluating the WFP early action in Malawi

WFP Malawi did a baseline study, followed by 2 rounds of outcome monitoring and 2 PDMs for insurance payout and cash top up. The analysis of the data is ongoing, and includes a shock simulation to look at the counterfactual (i.e. how households would have done without the assistance provided). They also investigate returns on investment for shock sensitive social protection with a view on early warning systems.

MEAL for FbF [Meghan Bailey, RCRC Climate Centre]

The presentation covered the basic elements of Monitoring, Evaluation, Accountability and Learning (MEAL) for an FbF program[4]. It discussed what success looks like for an FbF system, how we measure that success, what evidence is needed, and who the audience is for what is measured and evaluated. It covered both quantitative and qualitative approaches. It ended with a discussion of the challenges of collecting and using rigorous evaluation data.

Evidence-based research of FBF

We provided an overview of the qualitative research methodology which the Mozambique team is using to evaluate the FbF project. They help identify and prioritize the impacts of floods and cyclones as well as actions that might be effective for reducing those impacts. The results will be used to develop theories of change that will support EAP development.

In detail, the MEAL research methodology followed these steps:

- Literature and academic expert review of potential early actions

- Secondary data review at national level: contingency plans, local adaptation plans, government & NGO reports

- Primary data collection and review: semi-structured interviews and focus groups with stakeholders and communities focussing on disaster impacts, current responses, communication routines, and discussion of possible responses 3–5 days ahead of a disaster (if resources were sufficient)

- Preliminary findings highlighted impacts on infrastructure (e.g house damages), health (e.g. malaria risk) and agriculture sectors (crop and livestock loss). Based on these and the research, appropriate actions were determined (for example reinforcement of weak roof structures).

- Actions will narrowed down and a theory of change will be developed

- Actions will be validated by stakeholders

- Development of an Early Action Protocol will be developed incorporating research findings and stakeholder feedback

1st African Dialogue Platform
on Forecast-based Financing

DAY TWO

A policy perspective on FbF: Where to go, what to do, and whom to work with?

Key questions and answers from the panel debate

Question *What are the main challenges and opportunities allowing the political space required for an anticipatory perspective, and how can this allowance be institutionalized?*

Answer: The main challenge to FbF is often governments' lack of focus on disaster prevention, when disaster response is understood as reactive policies and missing funding and educational measures for ex-ante preparation. The success metric for FbF is not the number of active projects, but the number of people that have received help.

Question *Has FbF helped to enable a quick response? How has your experience of working with the Red Cross and FbF been so far?*

O. S. Rahim: In 2017, policies have been implemented concerning DRR and early warning systems, and there is a network of key actors who meet regularly, including the Togo RC. Thanks to this cooperation, a community early warning system is now in place nationally. The main risk in Togo is flooding, good examples of cooperation of meteorological institutions with disaster management agencies exist.

Question *There are many new issues in FbF that require experts and science. What is the academic perspective, Chris?*

C. Orach: One of the basic functions of academia is to provide innovation. FbF/A require the support of all stakeholders and academia can play the role of an intermediary and educator. However, the success of FbF depends not only on evidence, but also on negotiation and cooperation of all stakeholders.

Question *The Paris Agreement demands the development of solutions for both climate change and DRR at national levels. How can the international consensus brought in line with national policies and politics?*

M. Kilavi: The FbF plans are a good response to this. The practices shared at the platform can be taken home and used for working towards local implementation of international agreements.

Moderation:

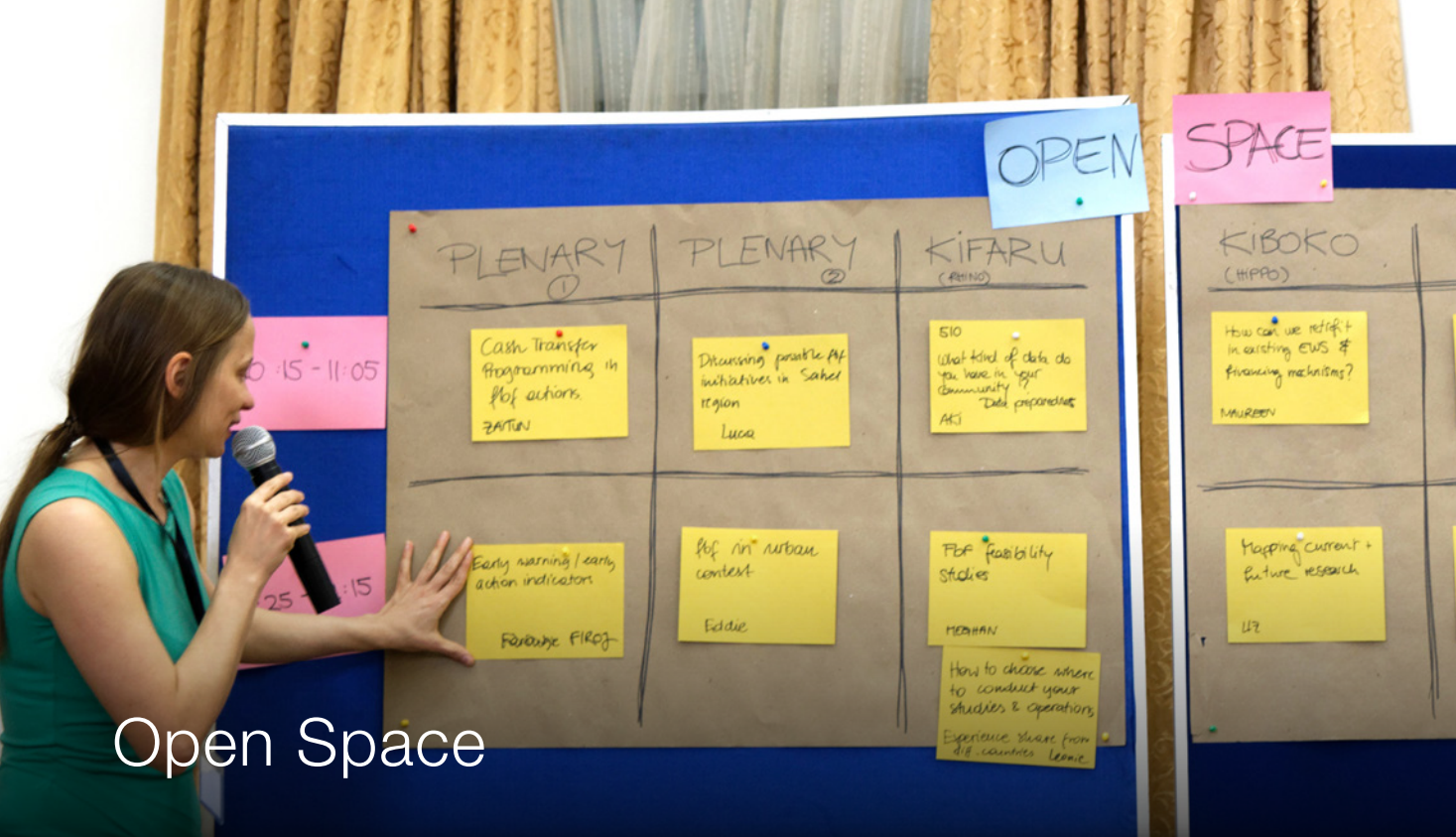**Youcef Ait Chellouche**
HoD Ethiopia and IFRC

Panellists:

Prof. Christopher Garimori Orach
Dpt. Dean, School of Public Health, Kampala, Uganda

Mary M. Kilavi
County Director of Meteorological Services, Nairobi County, Kenya

Samuel Gama
Dept of Disaster Management Affairs, Malawi

Ouro Salim Rahim
Dpt. General Director of the Civil Protection Agency, Togo

Open Space

FbF in urban environments

FbF is scaling up. When the concept extends to national levels, it also means that it needs to cover urban areas and especially informal settlements where the most vulnerable population groups can be found. In 2017, an FbF urban task force was formed with the aim of learning and sharing experiences from projects in urban areas. The task force connects with an urban collaboration platform within the RCRC Movement in which urban experts meet annually.

From a forecast point of view, urban areas are very different from rural ones. A localised forecasting perspective is necessary. In the urban realms, people are more vulnerable and infrastructure is the key issue. For example, the Nairobi floods prevented parts of Nairobi's population from accessing food, because shops were closed or flooded and could not be accessed. This requires different responses than rural floods. Supply chains are a key to urban disaster resilience, and FbF could look into supply chain vulnerability to identify vulnerabilities and design appropriate early actions. This includes the suggestion to place a greater emphasis on forecasting possible disruptions to crucial supply chains.

Chaired by:

Eddie Jjemba
RCRC Climate Centre

FbF and cash distributions

Cash Distribution was chosen and tested as an EAP in the FbF pilot in Bangladesh. The main challenge for forecast-based cash is the very short timeframe (5-7 days for floods), during which targeting, registration and encashment need to take place.

In 2016, the German Red Cross, in cooperation with the Bangladesh Red Crescent (BDRCS), successfully triggered and implemented its first forecast-based financing project using cash transfers in response to floods. Much was learned in piloting and simulating cash distributions for cyclones and floods. In the second phase of the pilot project cycle (2017-2019), GRC supports BDRCS in furthering the concept, and with the support of American Red Cross tests flexible targeting, different Financial Service Providers and modalities of encashment. The results of this research have not yet been shared.

Chaired by:

Mareike Tobiassen
German RC

Aslan Khatti
IFRC

FbF in the Sahel region

The Sahel region would highly benefit from improved forecasts, early warnings and early action. One distinct season dominates the year (monsoon), which is paired with high vulnerability. Climate forecasts for the Sahel are readily available, also during El Niño events, which are most challenging during northern hemispheric spring, when ENSO predictions become unreliable (the "spring barrier"). The Sahel countries are large and generally have good vulnerability data, making them a potential testing ground for impact-based forecasting in the FbF context. Within the Sahel region, partnerships among meteorological institutions are vital. FbF feasibility studies have been completed in Mali and Niger.

Guinea has two rainy seasons. The bi-module areas can show reliable rainfall forecasts as early as February. The Sahel forecasts are reliable from late March. Rainfall forecast is an important indicator for flood risk and season onset. The forecast information is used to harmonise decision-making at regional level "PREGEC Cadre Harmonise". Cadre Harmonise provides agrological forecasts, season monitoring and production, and yield forecasts to project food insecurity. It also monitors occurrences of pests and diseases.

Moderation:

Luca Parodi
IFRC

Lessons and recommendations from FbF scooping studies

This session dealt with the challenge of choosing the right regional granularity for EAP development. EAPs and triggers always have a certain resolution or granularity, country-wide on one end, and community level on the other.

Presenters:

Meghan Bailey
RCRC Climate Centre and

Leonie Le Borgne
START Network

IbF initiatives and FbF

This session discussed the use of indigenous knowledge and forecasts. On a community level there is often more trust given to subjective judgement than to scientific forecasts. The question is, can indigenous knowledge be "triangulated" with modern forecasting? For example during the AMMAN campaign (a large scientific research campaign on Sahel dust storms), the onset of monsoon rain was better predicted by traditional knowledge than by numerical weather models. Indigenous knowledge is very important in many areas, and, as a senior weather researcher encouraged, physical science researchers should be attentive to it. A formalisation of the "triangulation" of traditional and modern scientific knowledge could be a first step. Achieving confidence in model forecasts is key but remains a challenge. More education, knowledge-sharing and transparency from scientists is important for bridging the gap between science and local communities.

Moderation:

UKMO
Reading University

Research on FbF

The session focussed on mapping research gaps for FbF and FbA. A diverse range of participants attended. The main topics covered:

1. research gaps to better understand FbF/FbA, the approach's potential and constraints; and,
2. how to support collaboration and interdisciplinarity in the emerging academic community working on FbF/FbA.
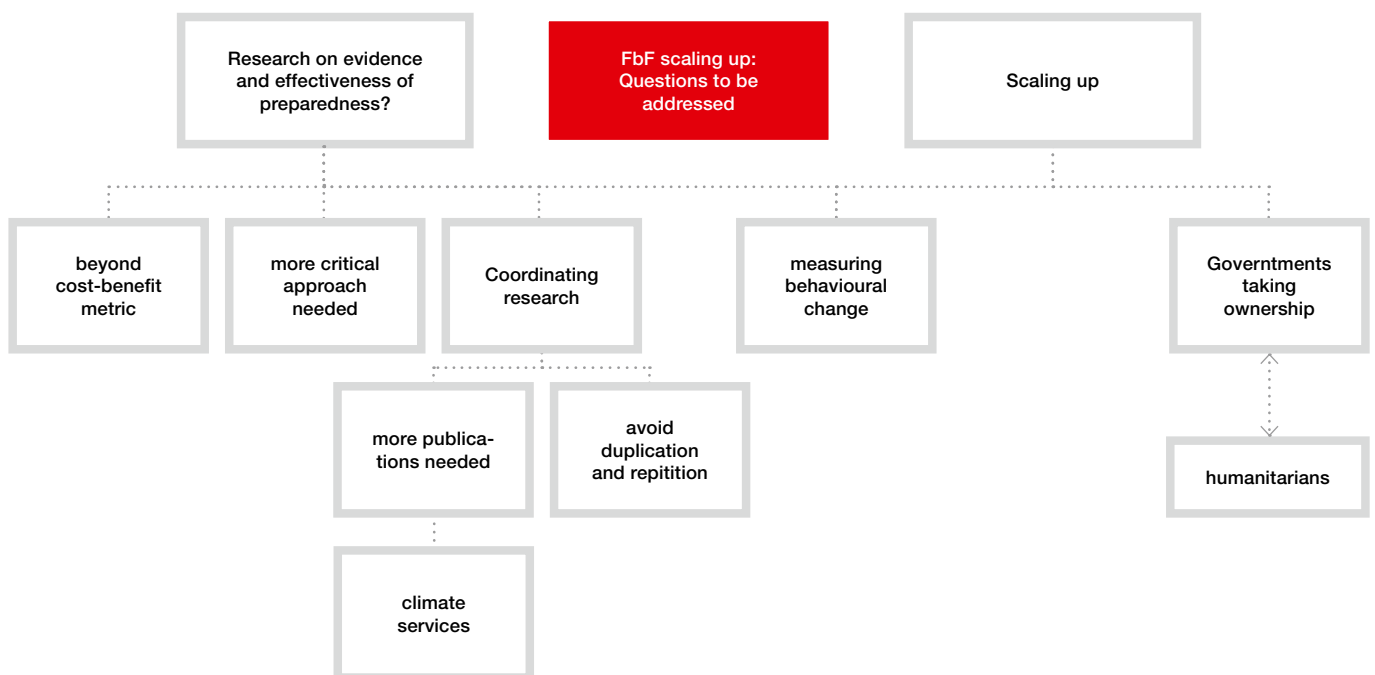
The mapping exercise brought up research needs ranging from the social to natural sciences. For example, it was asked if FbF/A has the potential to bridge the humanitarian-development gap. The session also underlined the need for interdisciplinary research & collaboration, and the need for researchers to keep up with the rapid pace of innovation from donors and policymakers in the field of anticipatory action. As an immediate action, a community collaboration channel using "Slack" was set up.

Presenters:

Liz Stephens
FATHUM U. Reading

Olivia Taylor
ForPAC; U. Sussex

Enlightening Talks

Liz Stephens (University of Reading)

The role of FATHUM in FbF Science and Practice

The FATHUM (2017-2021) scientific research project aims to support FbF and flood forecasting capability in conjunction with GLoFAS (an EU Commission service providing free river flow forecasts). FATHUM is currently undertaking fieldwork in Uganda, Mozambique and South Africa. One key question is how regional or long-term forecasts can inform about immediate, impactful weather. Research on flooding in Africa tries to understand which factors can help to extend or constrain the forecasting of floods. For example, Indian Ocean conditions could inform El Niño flood forecasts. Significant progress has been made on decision-relevant forecasts. It has been found that even perfect seasonal forecasts of total rainfall would provide little information on the likelihood of river flooding, owing the non-linear link between precipitation and river floods.

Rémi Cousin (IRI and WFP)

<mark>Probabilitistic Forecasts Systems and Observational Data</mark>

A powerful resource for FbF is the development and use of a probabilistic forecast system calibrated against observational data. A probabilistic forecast allows a level certainty for predicting events (e.g. 53% chance to be below the historical 25th percentile -- for rainfall forecasting drought); the calibration also makes the given probabilities reliable and allows generating hindcasts over the, hopefully, long period for which the observations are available. The hindcast information can then be compared with observations to help design trigger thresholds. For instance if using a 50% chance of being below the 25th percentile as trigger, then we can check when the hindcast would have triggered and check whether the observations were or were not below the 25th percentile. This way can evaluate the number of hits, misses and false-alarms that the choice of those triggers and thresholds entails.

Brian Golding (UKMO)

<mark>Human behaviour in the face of early action</mark>

Prof. Brian Golding from the UK Met Office reported on the experiences with the impact-based forecasting of a European winter storm in March 2018 dubbed the "Beast from the East".

A month ahead of the event, medium-range forecasts contained a likelihood of a sudden stratospheric warming (SSW), an event that takes place high up in the atmosphere and can lead to severe winter weather. No general public announcement followed, but transport and energy were informed to assist their contingency planning.
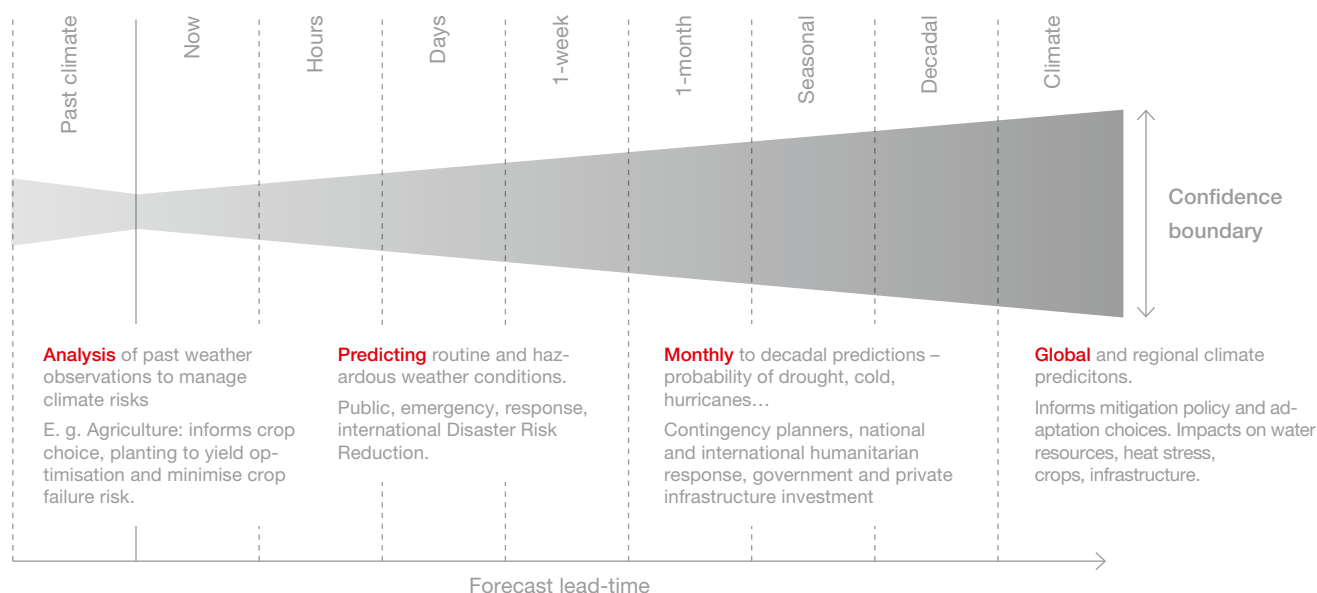
Two weeks ahead of the winter storm, the SSW occurred, predicating a high likelihood of a resulting winter storm. Health services and the general public were informed, and the volunteer society was asked to identify vulnerable neighbours to make sure they take necessary precautions for cold weather.

The **FooDSECuRE demo tools** are available online. Only for demonstration purposes, unfit for operational application:

http://remic.maproomdev.iri.columbia.edu/maproom/Food_Security/FooDSECuRE2/index.html

user: iri
password: 61route9w

Three days ahead of the storm, general travel advice was given out, which then turned into a "red warning", meaning no unnecessary travel should be undertaken.

However, the public did not always heed the red warning despite its clarity. Many did not change their plans, causing shutdowns of motorways and road chaos throughout the UK: Even though there was an excellent forecast and widely disseminated warnings, the public's response was inadequate. One reason may be psychologically, another may be that people assumed high infrastructural resilience. One central factor identified is the necessity of traveling to school or work. Experience has shown that employers and schools play a crucial role in helping to avoid travel in the face of extreme weather: Workplaces need to allow their employees to stay home, and only the closure of schools eliminates road travel by parents driving their children to school.

Seamless Prediction
Essential support to decision making on all timescales

| Past climate | Now | Hours | Days | 1-week | 1-month | Seasonal | Decadal | Climate |

Confidence boundary

Analysis of past weather observations to manage climate risks

E. g. Agriculture: informs crop choice, planting to yield optimisation and minimise crop failure risk.

Predicting routine and hazardous weather conditions.

Public, emergency, response, international Disaster Risk Reduction.

Monthly to decadal predictions – probability of drought, cold, hurricanes…

Contingency planners, national and international humanitarian response, government and private infrastructure investment

Global and regional climate predicitons.

Informs mitigation policy and adaptation choices. Impacts on water resources, heat stress, crops, infrastructure.

Forecast lead-time

Source: *www.metoffice.gov.uk*

Martin Todd (University of Sussex)
FbF in urban areas: How ForPac is contributing to improve Forecast-based Action in Kenya – Nairobi case study

Forecasts for Preparedness Action (*www.forpac.org*) is a 4-year project funded under the UK SHEAR programme (*www.shear.org.uk*) and aims to enhance existing flood and drought early warning systems in Kenya. The ForPAc consortium involves researchers in the UK and researchers and relevant mandated agencies in Kenya, including KMD, NDMA, ICPAC and Kenya Red Cross. The project will seek to (1) Improve forecast information on flood (in urban and rural contexts) and drought risk over a range of forecast lead times, from seasonal to sub-seasonal (2) Explore with stakeholders systematic approaches

to the use of forecasts in preparedness planning (i.e. Forecast-based Action). In aiming towards more anticipatory flood and drought early warning systems, ForPAc confronts the challenges of transitioning FbA to scale in a national context.

Mozambique Red Cross and German Red Cross
Mozambique - FbF integration into Government processes

Janio Camillo Dambo, GRC project manager shared with the audience the process adopted by the FbF project in Mozambique to build on the work developed by Governmental agencies.

Piers Simpkin (Kenya Country Director, FAO)
Early Action Impact Analysis

Piers shared the results of an impact evaluation analysis conducted by FAO to gather evidence on the effectiveness of Early Action for drought in Kenya[5]. By acting early and safeguarding livestock, FAO enabled drought affected livestock-owners to protect their key breeding animals throughout the peak of the drought. This was a crucial form of emergency assistance. Livestock is pastoralists' main source of food security and income, a critical source of nutrition for children, and an important savings asset. FAO has created an Early Action fund to enable the implementation of timely interventions in the food and agriculture sectors all over the world in close cooperation with relevant government institutions.
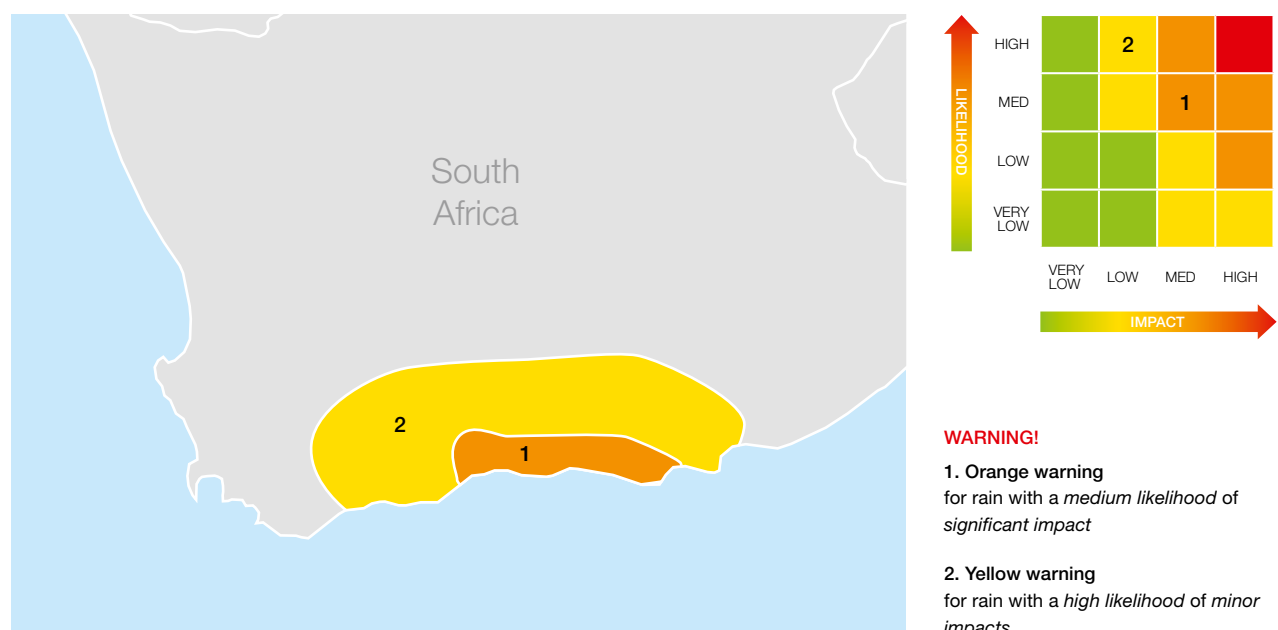
5 *http://www.fao.org/emergencies/ fao-in-action/stories/stories-detail/ en/c/1047550/.*

Ezekiel Sebego

The South African Weather Service uses a risk matrix for assessing weather-related hazards, comparable to risk matrices used by the UKMO and other weather services. South Africa's Impact-based Forecasting system combines hazard levels with the expected social impact. This reflects the fact that vulnerable areas do not necessarily coincide with high-hazard rates. IBF takes into accout the impact level in an area, the likelihood of an impact occurring and the area's vulnerability. The Weather Service envisages improved cooperation with civil protection agencies to get better information of vulnerable population locations.

WARNING!

1. Orange warning
for rain with a *medium likelihood* of *significant impact*

2. Yellow warning
for rain with a *high likelihood* of *minor impacts*

FBF IN 2040 "BACK TO THE FUTURE"

→ In this workshop, participants explored what FbF could look like in the year 2040, and, based on that projection, offered these recommendations for today's FbF projects.

Presenters:

Kara Devonna Siahaan
IFRC

Tobias Panofen
Frankfurt School

What we envision

- There will be no more need for FbF as a special project, as it will be streamlined into national development plans with

  → **Strong institutions**

  → **Better forecasts**

  → **More resilient communities**

- Urban components will be a major component of any FbF approach

- Artificial intelligence, drones and other "new technologies" will be used in humanitarian interventions

- Big data will be used for improving forecast skill

- Embrace the fundamental transformation of disaster risk management financing to

  1. Create new regional insurance pools for major climate disasters targeting forecast-based risk reduction operations by Red Cross National Societies.

  2. Identify sectoral risks and establish a funded role for Red Cross National Societies within sectoral budgets to strengthen the use of prosperity-seeking triggers.

  3. In Organization of the Islamic Conference (OIC) members countries, Islamic social financing is institutionalized for FbF, DRR and prosperity seeking financing

  4. Innovation in creating new dedicated revenue streams for rapid-flexible FbA

  5. Institutionalize MEAL processes to evaluate & improve EAPS and optimize spending efficiency and humanitarian results

UNPACKING THE 2040 SUITCASE IN 2018

Question 1

Actions that we need to consider in the role of FbF pioneers and partners

Extend the collaboration between RCS and hydrometorological offices to other sectors and end users with dedicated forecast actions

Keep the momentum between FbF and stakeholders going and create government ownership

Promoting the use of scientific forecasts together with indigenous knowledge, increase community engagement, including on data and forecasts for informed decisions

FbF helps to put trust into forecasts and responsiveness to warnings

Learning step by step

Linking FbF to DRR and CCA actions and make FbF part of national frameworks

Achieve a very close collaboration with government partners, the success of FbF will depend on strong partnerships

Use IBF worldwide

Belief and enthusiasm that acting early will lead to better assistance

Continue the sharing of FbF knowledge and practices and foster the willingness of everyone to engage and collaborate

Question 2

Actions we should ask of others and that we should pursue or advocate

Engage communities and locals as they are the primary beneficiaries of the projects

More scientists, governments and other NGOs at these meetings

More policy-makers and government involvement at Dialogue Platforms

Integrate FbF holistically across humanitarian assistance, development and economic advances – do not allow it to remain in silos.
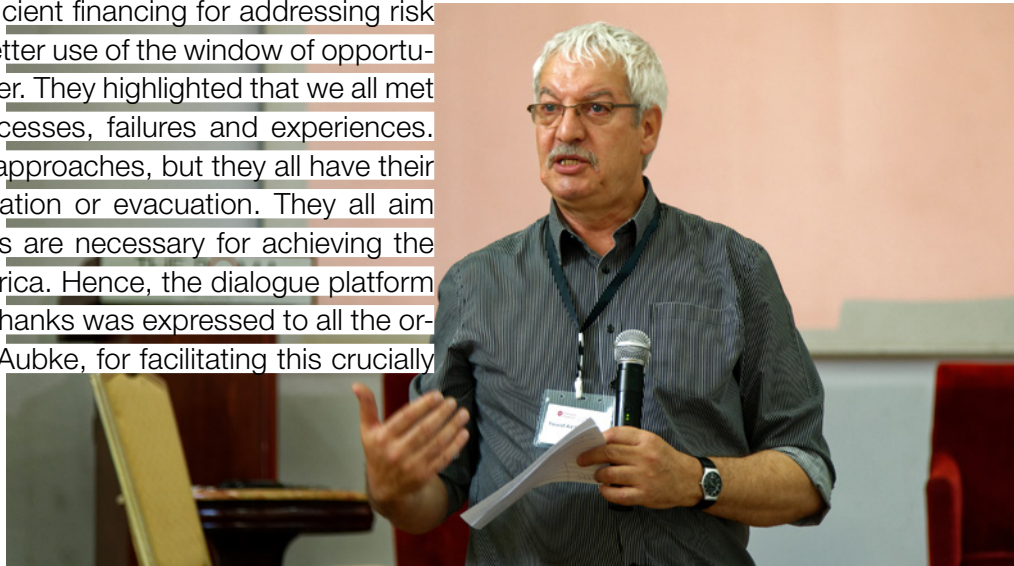
MEAL to secure support and two-way communication between FbF producers and recipients

Keep funding flexible for early actions

Remain open-minded towards changes and challenges

Promote research and provide a basis of evidence for FbF benefits and publish these together with learning experiences

Reinforce community resilience to catastrophes beyond FbF

Closing notes by Irene Amuron and Youcef Ait Chellouche (IFRC)
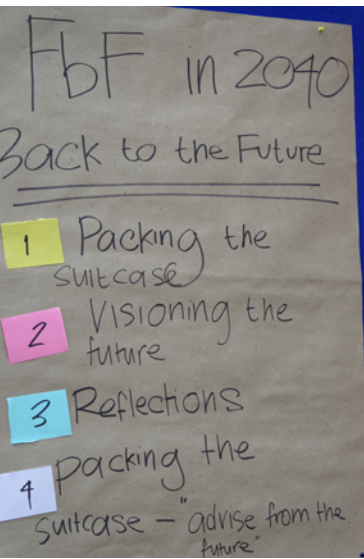
In their closing remarks, Youcef Ait Chellouche, IFRC representative at the African Union, and Irene Amuron, RCRC Climate Centre in Uganda, invited participants to continue the dialogue at their national levels. This could be focussed on more efficient financing for addressing risk in vulnerable places, and to make better use of the window of opportunity between a forecast and a disaster. They highlighted that we all met to communicate, to share our successes, failures and experiences. Different participants have different approaches, but they all have their legitimation: be it adaptation, mitigation or evacuation. They all aim at the same goal. New partnerships are necessary for achieving the common objective, particularly in Africa. Hence, the dialogue platform was a great start. A special note of thanks was expressed to all the organizers, and in particular to Greta Aubke, for facilitating this crucially important dialogue.

Main takeaway points

- The most valuable experience was sharing common challenges and learning from each other. The importance of bridging the gap between scientists and practitioners was seen.

- The participating countries are launching FbF projects from a wide variety of starting points.

- A successful FbF set up requires the involvement of a diverse group of stakeholders. From one side an impact-based forecasting approach to enable FbF requires NHMS, DRR agencies and humanitarian actors to work together. The design of Early Action Protocols needs to be within the capacities and leadership of governmental agencies and non-governmental organisations. FbF cannot stand on its own; it needs integration into existing, local and regional structures. It is important, with so many partners coming from different sectors, that the importance of integrating all levels of DRM and disaster relief is recognised.

- The implementation of FbF requires strong national meteorological office capabilities, leadership, and enhanced capacities to move towards impact-based forecasting. This is an approach that has been encouraged by WMO and supported widely by the UKMO. Users otherwise may turn to commercial solutions.

- Understanding the drivers of FbF and incentives is essential to scale up FbF. Further research and building of evidence is needed to advocate for a radical change in disaster risk financing at national and global levels.
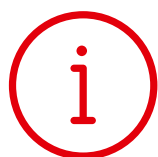
IMPRESSIONS

LINKS TO DOCUMENTS

Presentations and photos from the 1st African Dialogue Platform on FbF

Click the icons to visit the websites.

Photos

For more information about the FbF projects of GRC and the setting up of an FbF project, please visit our website and the FbF online manual:

Information

FbF Manual

#AfricaFbF18