8th Global Dialogue Platform
on Anticipatory Humanitarian Action
Virtual Edition

Forecast based Financing

FEDERAL FOREIGN OFFICE
ACTION PLAN

German Red Cross

REPORT

8th Global Dialogue Platform on Anticipatory Humanitarian Action

Virtual Edition

08 – 10 December 2020

IFRC

Climate Centre

german humanitarian assistance

Food and Agriculture Organization of the United Nations

WFP World Food Programme

START NETWORK

OCHA

Acronyms and abbreviations

ASIS	Agricultural Stress Index System
CBS	community-based surveillance
CERF	Central Emergency Response Fund
COVID-19	corona virus
CREWS	Climate Risk and Early Warning Systems
DRF	disaster risk financing
DREF	Disaster Relief Emergency Fund
DRM	disaster risk management
DRR	Disaster Risk Reduction
EAP	Early Actions Protocol
ECMWF	European Centre for Medium-Range Weather Forecasts
FAO	Food and Agriculture Organization of the United Nations
FbA	Forecast-based Action
FbF	Forecast-based Financing
FFO	Federal German Foreign Ministry
FOREWARN	Forecast-based Warning, Analysis and Response Network
GECARR	Good Enough Context Analysis for Rapid Response
GIS	geographic information system
GRC	German Red Cross
HEA	Household Economy Analysis
IASC	Inter-Agency Standing Committee
IBF	Impact-based Financing
ICCCAD	International Centre for Climate Change and Development
IFRC	International Federation of Red Cross and Red Crescent Societies
IGEPN	Ecuadorian Geophysical Institute / Instituto Geofísico de la Escuela Politécnica Nacional
MENA	Middle East and North Africa
MERIAM	Modelling Early Risk Indicators to Anticipate Malnutrition
MoU	Memorandum of Understanding
NASA	National Aeronautics and Space Administration
NGO	non-governmental organization
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
OECD	Organisation for Economic Co-operation and Development
PC-EWS	people-centred early warning system
PPE	personal protective equipment
RCCC	Red Cross Red Crescent Climate Centre
RCRC	Red Cross Red Crescent
REAP	Risk Informed Early Action Partnership
RDLA	Regional Desert Locust Alliance
UK	United Kingdom
UN	United Nations
UNFPA	United Nations Population Fund
WFP	World Food Programme of the United Nations
WHO	World Health Organization
WMO	World Meteorological Organization

CONTENT

BACKGROUND

→ The 8th Global Dialogue Platform on Anticipatory Humanitarian Action was held from 8–10 December 2020 – and, for the first time, it was a fully virtual event. The event was attended by 893 participants from 103 countries, representing 262 organizations. These participants included 335 participants from the Red Cross Red Crescent Movement, 144 from United Nations (UN) agencies, 179 from non-governmental organizations (NGOs), 85 from governments and 120 who work in science work in science.

Over three days, the event provided participants with an opportunity to learn and exchange ideas, share experiences, develop practical solutions and identify joint ways forward. This took place through 42 diverse activities that included interactive plenaries, parallel sessions and working groups, as well as opportunities to mingle and network at virtual coffee breaks. Many discussions focused on the themes of collaborating for addressing climate change, COVID-19, conflict, and how best to get ahead of crises through anticipatory action.

The event was hosted by the Anticipation Hub and organized by the German Red Cross (GRC), in collaboration with the Food and Agriculture Organization of the United Nations (FAO), the International Federation of the Red Cross and Red Crescent Societies (IFRC), the UN World Food Programme (WFP), the Red Cross Red Crescent Climate Centre (RCCC), the UN Office for the Coordination of Humanitarian Affairs (OCHA) and Start Network. It was funded by Germany's Federal Foreign Office (FFO).

On 8 December, the Anticipation Hub was officially launched as the platform for learning and building partnerships to foster coordination, develop new ideas and scale up anticipatory action. This launch was attended by high-profile representatives from the German FFO, IFRC, RCCC, the Risk-informed Early Action Partnership (REAP), Uganda's Ministry of Water and Environment, Argentina's National Meteorological Service, Start Network, WFP, the Climate Risk and Early Warning Systems (CREWS) Initiative and GRC's International Cooperation Unit.

8th Global Dialogue Platform on Anticipatory Humanitarian Action – Virtual Edition

DAY ONE

Opening Speeches

→ Stefanie Lux, Anticipation Lead at GRC, introduced Pit Köhler and thanked the German FFO for their invaluable and ongoing contributions to Forecast-based Financing (FbF) since 2014, when they supported the first ever Dialogue Platform.

Pit Köhler
German FFO, Head of Division for Humanitarian Assistance – Policy, International Organizations, Multilateral Coordination

Pit explained his disappointment that the German FFO was unable to welcome everyone back to Berlin for the 8th Global Dialogue Platform, yet recognized the opportunity of a virtual platform, at which more than 850 people from 102 countries could come together. He reflected on our significant achievements over the years: "Together we have successfully completed more than 100 anticipation pilots in over 60 countries." He added that the Dialogue Platforms provide a space to exchange and learn from these pilots.

Looking forward, Pit talked about the recent co-launch of the Global Humanitarian Overview 2021 in Berlin. This painted a very bleak picture of humanitarian needs in the years to come, due to drivers such as COVID-19, climate change and conflict.

He underscored the importance of anticipatory humanitarian action for the German FFO in addressing these predicted needs, and noted that the Global Dialogue Platform is a crucial gathering place for this topic as it convenes all the different actors working on anticipation. He hoped that the Global Dialogue Platform would be used to form a collective vision on how to scale-up anticipatory approaches, discuss financing for early action and how to invest in early warning and early action preparedness activities, and make anticipatory action applicable to a wider range of hazards.

Jagan Chapagain
IFRC, Secretary-General

Jagan reminded us that more than 1.5 million people have lost their lives from COVID-19, exacerbating the difficulties facing poor and disaster-affected communities; climate change is not waiting for the pandemic to be brought under control.

He highlighted his recent visits to Sudan and Bangladesh, where he saw the devastating impacts of multiple compounding shocks, including floods, locust infestations and COVID-19. Yet he was encouraged by the level of collaboration among diverse actors, especially local actors such as Red Cross and Red Crescent (RCRC) National Societies, to take early action ahead of impending disasters. The early response in Bangladesh to tropical cyclone Amphan and monsoon flooding was inspiring; the UN, the Bangladesh Red Crescent Society and other partners acted early together to protect lives and livelihoods, while simultaneously adapting their plans to meet COVID-19 requirements.

Jagan also emphasized the value of diverse participation from development, climate and humanitarian communities at this Platform: “The expertise and experience you all bring is crucial to our learning and development: to find more solutions [and] to cover more people, more countries, more hazards.”

Marc Lowcock
OCHA, Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator

Marc recognized that anticipatory action as a standard practice is still widely seen as innovative, although this should not be the case: if we know a disaster is about to strike, no one should wait for suffering before acting. The anticipatory approach is faster, saves more lives, is more dignified and costs less money. He explained how anticipatory action takes many different forms and that there is a growing wealth of experience from UN agencies, NGOs and the RCRC family, showing what works where – and what doesn’t work. OCHA wants to facilitate a scale-up of anticipatory action across the humanitarian system via a planned investment of up to US$140m from the Central Emergency Response Fund (CERF) in 2020 and 2021.

Marc gave the recent example of Somalia, where acting ahead of the triple impact of locusts, floods and COVID-19 reduced disease outbreaks by upgrading boreholes early, improving household finances, boosting people’s mental health, keeping livestock healthier, reducing disputes related to water sources, as well as mitigating displacement. In Bangladesh in 2020 and 2021, acting ahead of the worst monsoon floods in decades meant reaching more people, faster and at half the cost. Lastly, he shared the plans to scale-up pilots in Chad, Ethiopia, Malawi and elsewhere, including experimenting in other applications of anticipatory action, such as for cholera outbreaks.

Marc concluded that “anticipatory action doesn’t require a leap of faith, as it is evidence-driven”. He wants to see anticipatory action scale-up significantly across the world, as the human and financial gains are vast.

Aisha Jamshed
Start Network/Welthungerhilfe, Country Director Pakistan

Aisha explained how important anticipatory action is for managing risk and avoiding climatic events turning into crises. Experience shows that anticipatory action is highly cost-effective compared to simply responding or reacting to disasters; this is crucial, as climate change has intensified, exacerbating humanitarian needs across the world, and because funding is limited globally.

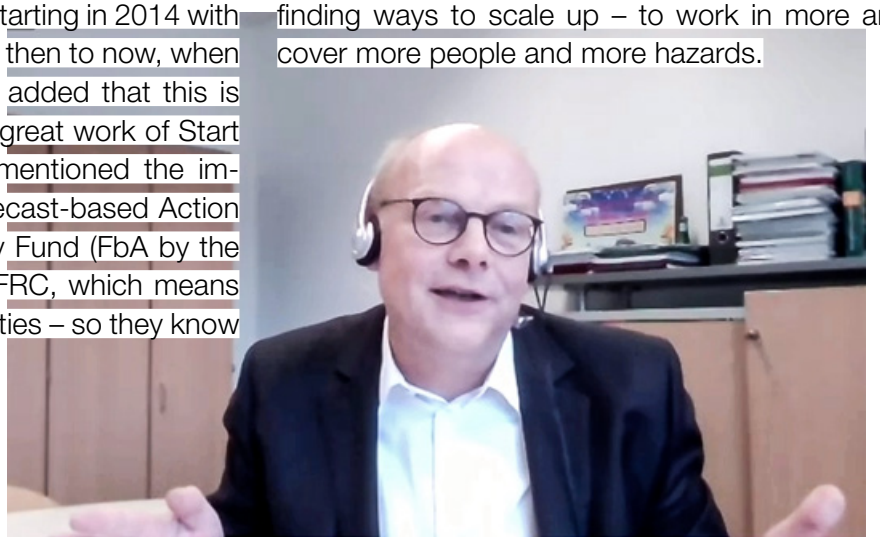
Aisha explained that Start Network has been active in anticipatory action since it launched in 2010: "In Pakistan, we are enabling collective action in a disaster risk-financing project: anticipatory actions, using customized scientific prediction models to quantify disaster risks for pre-positioning and releasing funds before the hazards take place." More recently in Pakistan, Start Network has initiated the Global FOREWARN (Forecast-based Warning, Analysis and Response Network) Initiative following its successful implementation across the world. This interlinks the Start Fund with the response early action and Start FOREWARN for risk financing.

Aisha explained that the key challenges are linked to the traditional architecture of the humanitarian network (and governments): humanitarian systems are not yet ready to accommodate anticipatory humanitarian action systematically. What helps is strategic collaboration between humanitarians, which is what the Global Dialogue Platform supports. She highlighted a good example in Pakistan, where Start Network is collaborating with the UN to make anticipation part of the Humanitarian Response Plan this year.

Christof Johnen
GRC, Head of International Cooperation

In his opening words, Christof emphasized anticipatory action being at the core of the humanitarian mandate of the Red Cross Red Crescent Movement by protecting lives and livelihoods and giving dignity to people potentially affected by humanitarian crises. He expressed his excitement about making good use of data science and technology, and bringing together different spheres of expertise that were traditionally separated. He recalled starting in 2014 with two tiny pilot projects, comparing then to now, when GRC supports 15 countries. He added that this is still a small part, considering the great work of Start Network and the UN. He also mentioned the important establishment of the Forecast-based Action by the Disaster Relief Emergency Fund (FbA by the DREF), with the support of the IFRC, which means reliable funding for National Societies – so they know they can act early.

Christof end by listing the top three key challenges from his perspective: (1) the focus on single hazards rather than compound risks, with the example of Mozambique's cyclone hitting a conflict-affected area; (2) dealing with the increased frequency and intensity of events caused by climate change, such as the floods in Bangladesh, which raise the question of whether triggers need to be adjusted; and (3) finding ways to scale up – to work in more areas, cover more people and more hazards.



Maria Helena Semedo
FAO, Deputy Director-General

Maria described the concern that FAO shares with WFP about the rise in the number of people facing acute hunger and malnutrition and the reality that humanitarian needs far outpace resources. Yet, she saw encouraging signs and evidence that this can be turned around with anticipatory action, as the world increasingly realizes that more can done to protect people ahead of shocks.

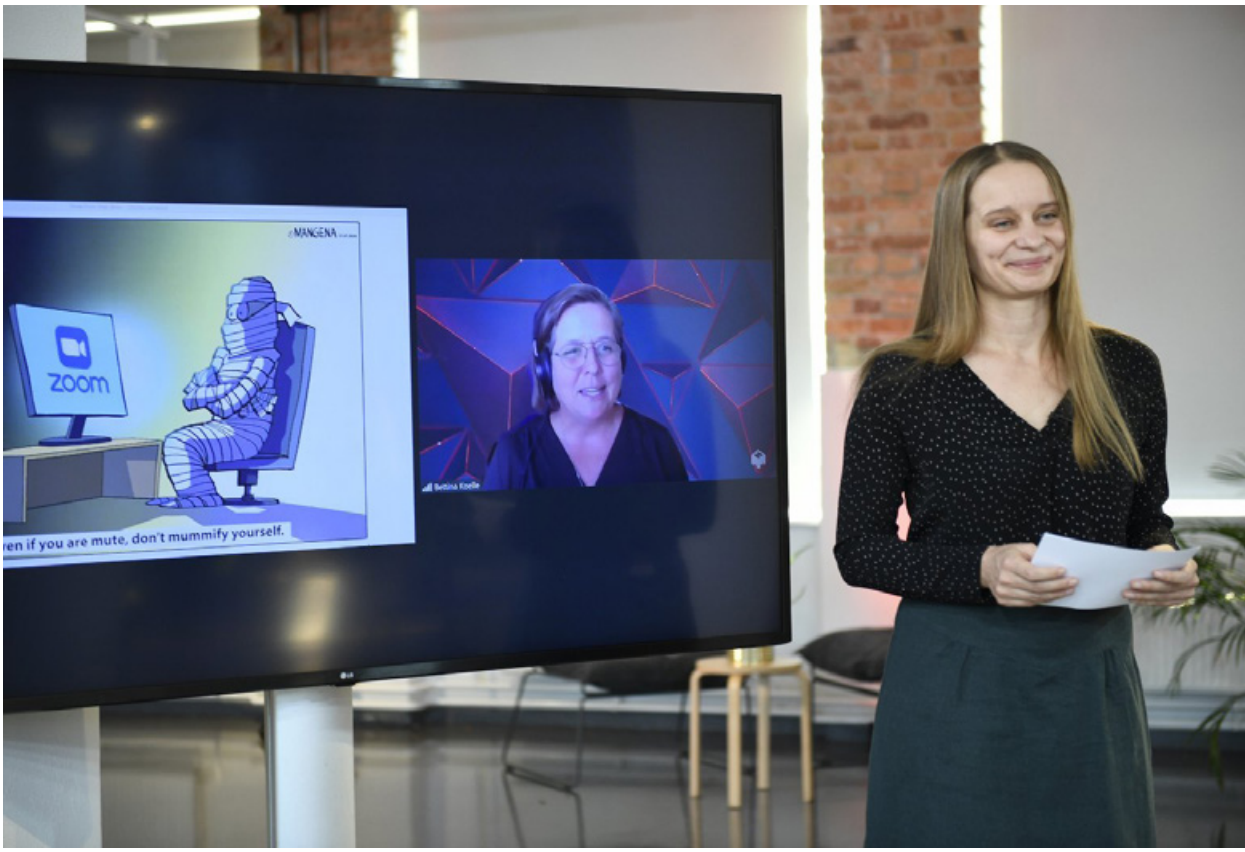
She recognized that this advancement has been made possible thanks to dialogue and collaboration between partners, with a commitment from FAO and WFP, alongside partners and governments, to continue to work together across high-risk countries worldwide to protect lives and livelihoods. She expressed her desire to "accelerate the journey towards timely warnings, predictable finance, and people-centred anticipatory action."

Natalia Kanem
UN Population Fund (UNFPA), Executive Director

Natalia's heartfelt message reminded listeners of the perils that women, young girls and boys faced, emphasizing that transformative change means collectively taking early action with the most at-risk groups. "No woman should fear for her life while nine months pregnant in the midst of a storm, and no young girl should suffer gender-based violence while displaced and facing uncertainly about her future".

Natalia gave the example of UNFPA not waiting to protect the health and well-being of women, young girls and the transgender community in Bangladesh ahead of this year's floods. Instead, they took early actions to boost their resilience: "We save costs, we minimize the impact on affected people, and the community can choose their own destiny and build back faster."

Looking at anticipatory action in 2020 through a new lens



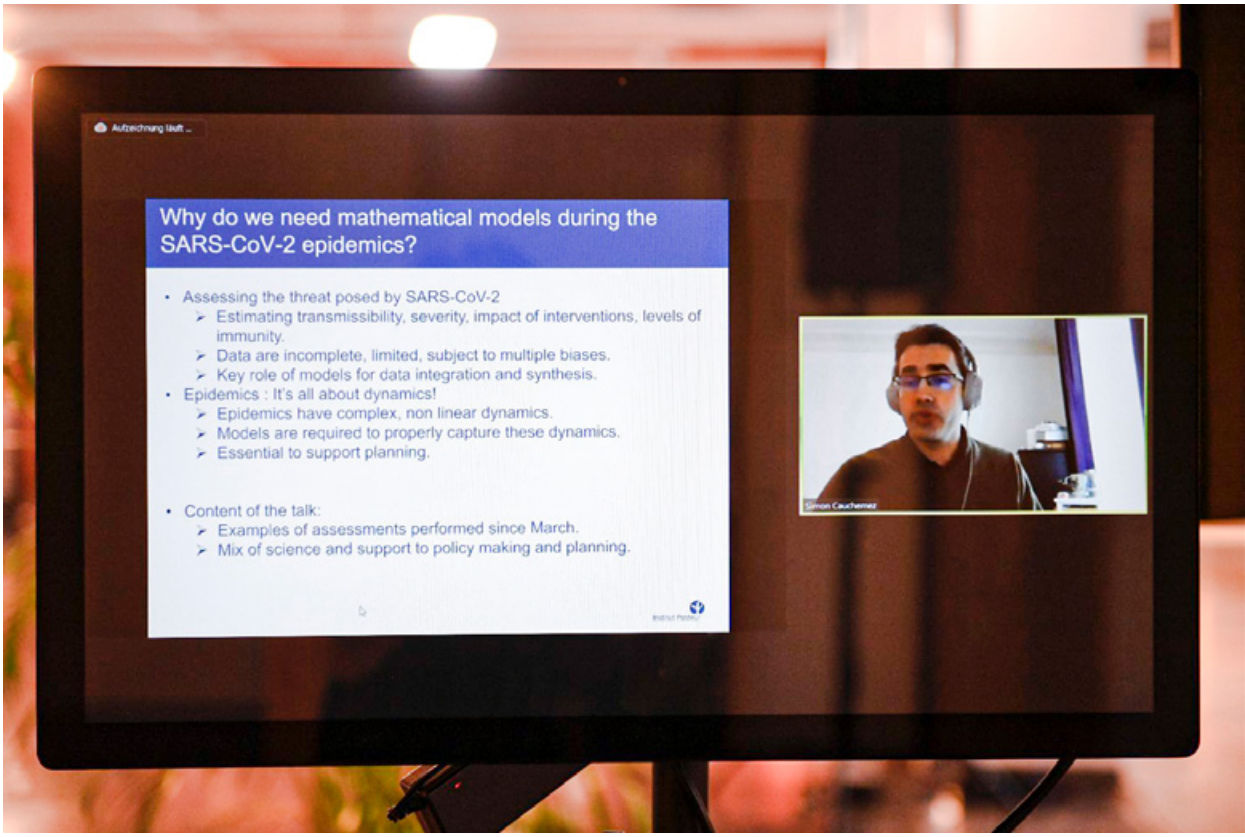
"Do you think these silos are slowing our progress?"

Keynote

Mathematical Modelling of Infectious Diseases Unit

Simon Cauchemez
Directeur de recherche, Institut Pasteur

There is an important question for practitioners of anticipatory action: can we see an epidemic coming next time? Simon Cauchemez presented one important perspective on this question. Mathematical models are important to assess threats and evaluate their impacts quickly and reliably. He showcased how models for COVID-19 can be used to help planners to properly scale up the capacity of intensive care units, and to help policymakers conduct scenario analysis for impacts and immunity levels. Simon explained how a model based on data from France was used to predict infection rates in other countries, and reminded us of the importance of having good quality data to feed into such models for decision-making.



Ignites
Dealing with a crisis within a crisis – anticipatory action in the age of COVID-19

Presenters:

Dirk-Jan Omtzigt, OCHA, Chief Economist, Head of Humanitarian Financing Strategy and Analysis Unit
Nora Guerten, FAO, Early Warning Early Action Specialist
Jomar Rabajante, University of Philippines Resilience Institute, Institute of Mathematical Sciences and Physics
Fernanda Ayala, Ecuador Red Cross, Geographic Information System (GIS) Specialist
James Riak Mathiang, GOAL Sierra Leone, Assistant Country Director for Programmes
Boris Pavlin, World Health Organization (WHO), Health Emergencies Programme Acting Unit Head, Field Epidemiology Services

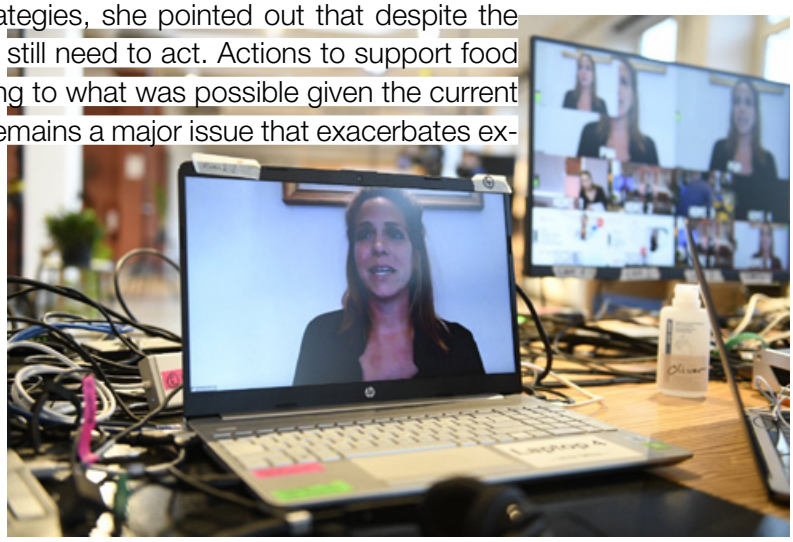
Anticipatory action faced a new and dominant hazard in 2020: COVID-19. Its impact on lives, health and livelihoods were vast and varied, and yet hard to predict. At the same time, other hazards did not stop for the pandemic – posing complex challenges for scientists and practitioners working on anticipatory action. In five-minute 'Ignites', followed by brief interviews, scientists explained how COVID-19 and its impacts can be predicted, while practitioners talked about their experiences in implementing early actions under COVID-19.

Dirk-Jan Omtzigt presented OCHA's lessons on anticipatory action from the COVID-19 crisis. He highlighted that timely but imperfect information of people at risk is preferred to perfect but late information about people in need, because the former allows you to act early. At the very beginning of the crisis, much remained unknown about the properties of the virus. Epidemiological modelling was just starting, and it would take weeks or months before these models would be validated. In the meantime, OCHA developed a simpler index to identify countries at risk by combining a small number of indicators on the basis of epidemiological literature at the time, to support the decisions that had to be taken right then.

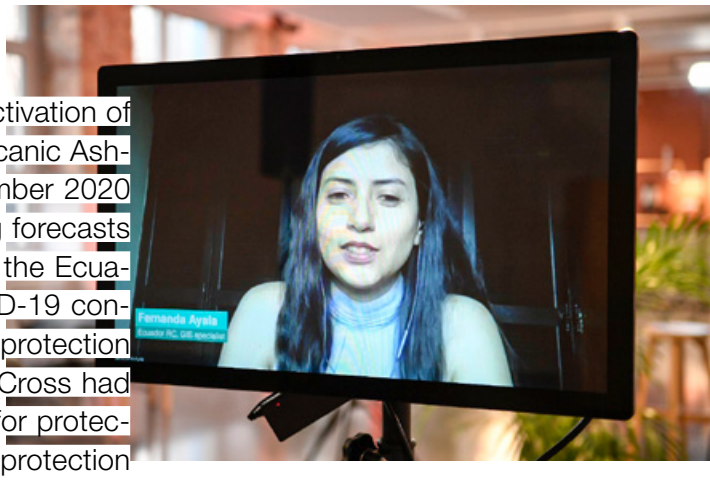
Dirk-Jan emphasized the importance of tailoring and adapting these models, which were mainly developed for Organisation for Economic Co-operation and Development (OECD) countries to specific country contexts. He urged for carefully watching the continuing socio-economic impacts of the COVID-19 crisis, which will remain for years to come. He explained how developing a crisis timeline helps understand how a crisis cascades and helps to identify intervention nodes. For example, when OCHA tried to understand how the crisis would evolve over time, they looked at the impact of Ebola in Sierra Leona in 2014.

The COVID-19 crisis also presents an important opportunity to learn lessons. Dirk-Jan suggested that we should continuously ask ourselves two things: (1) what are the questions that, if we look back in 3 to 6 months' time, would we wanted to have known the answer to; and (2) what can we learn from the COVID-19 response that will allow us to have a better humanitarian system in general, and improve our understanding of anticipatory action in particular.

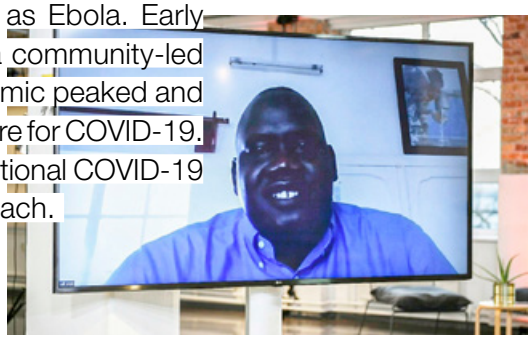
Nora Guerten described FAO's approach to understanding how COVID-19 interplays with various vulnerabilities in different countries to better anticipate impacts. Using a case study from Afghanistan, where a multitude of hazards are having diverse consequences on food security and long-term coping strategies, she pointed out that despite the uncertainty of information, we still need to act. Actions to support food security were defined according to what was possible given the current situation. Indeed, COVID-19 remains a major issue that exacerbates existing challenges.



Jomar Rabajante introduced his forecasting model and presented some interesting thoughts on dealing with uncertainty. Models often have prediction errors and are based on a range of assumptions. Still, they remain useful, especially for anticipatory decision-making. In efforts to advocate open science and data around model use and development, Jomar created a platform to discuss how to deal with model uncertainty, including creating a culture of accountability and transparency.



Fernanda Ayala presented the lessons learned from the activation of the Ecuador Red Cross' Early Action Protocol (EAP) on Volcanic Ashfall, following the eruption of the Sangay volcano in September 2020 in Ecuador – in the midst of the COVID-19 crisis. Following forecasts of ashfall and anticipated impacts on health and livestock, the Ecuador Red Cross had to adapt the early actions to the COVID-19 context. The volcanic eruption increased the need for personal protection equipment (PPE). As part of the EAP, the Ecuadorian Red Cross had prepositioned PPE kits, which included masks to be used for protection from ash. Fortunately, these could be repurposed for protection against COVID-19 too.

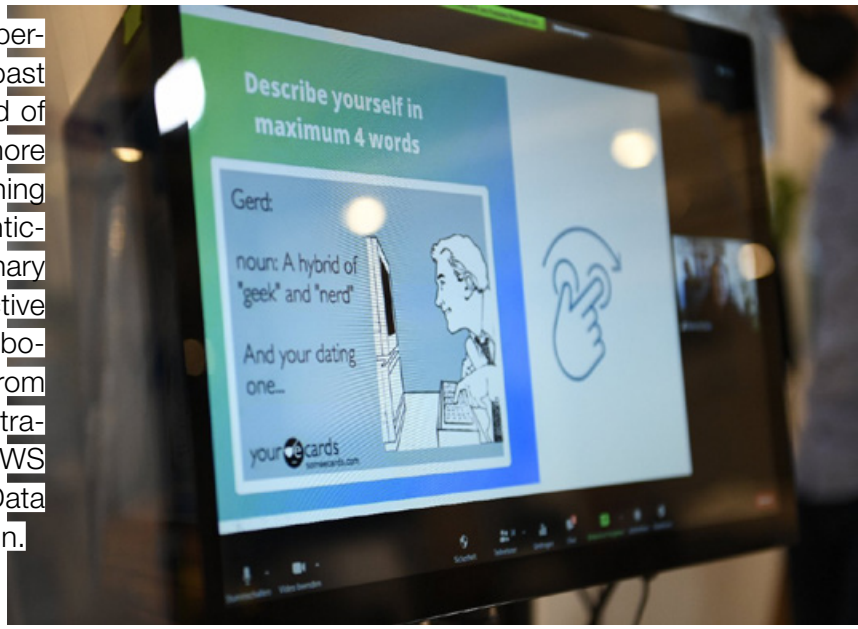


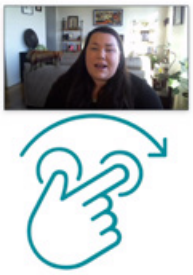
James Riak Mathiang described how GOAL was able to act early in Sierra Leone because anticipatory alerts had been put in place based on previous experiences in disease outbreaks, such as Ebola. Early mobilization in the capital Freetown involved putting a community-led action approach in place. They acted before the pandemic peaked and therefore prevented Freetown from becoming an epicentre for COVID-19. Early actions were so effective that the government's National COVID-19 Emergency Response Centre adopted a similar approach.

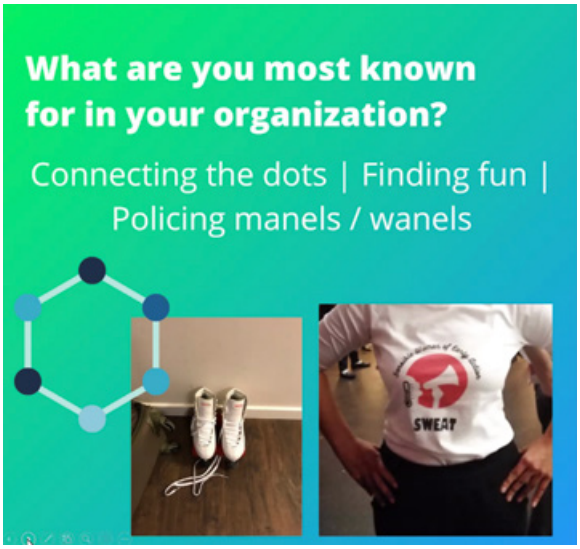
Boris Pavlin highlighted the importance of joining forces and strengthening ties between disaster-management actors and health actors. He explained that often, detailed data for operational decisions is not readily available to decision-makers. To develop effective strategies for targeting the most vulnerable, data must be shared across countries: "We need to strengthen data governance and build back better in a data world to allow a quicker turnaround of data and more open access".

Meet the partnerships of your dreams with the 'Mingle' application

Since the start of the pandemic, most of the in-person professional interactions we enjoyed in the past have turned virtual. At the same time, the world of anticipatory action is growing, with more and more individuals and organizations interested in learning and exchanging on the topic. In response, the Anticipation Hub team developed 'Mingle' – an imaginary app to enable a fun, spontaneous and interactive way to get to know each other and identify collaboration opportunities. Anticipatory action friends from the National Aeronautics and Space Administration (NASA), the Pacific Disaster Centre, the CREWS Initiative and OCHA's Centre for Humanitarian Data shared their wishes and offers during this session.







Official launch of the Anticipation Hub: your one-stop-shop for knowledge exchange on anticipatory action

Interviewees:

Emma Louise Flaherty, REAP, Implementation Lead
Daniel Pfister, OCHA, Humanitarian Affairs Officer
Sebongile Hlubi, Lesotho Red Cross Society, FbF Project Manager
Julio Rainimananjanahary, Welthungerhilfe, Technical Coordinator FbA-Madagascar
Liz Stephens, University of Reading/RCCC, Associate Professor/ FbF Science Lead
Douglas Mulangwa, Uganda Ministry of Water and Environment

Panellists:

Jesse Mason, WFP, Global Coordinator for Anticipatory Action
Elkaye Macasil, World Meteorological Organization (WMO), Programme Officer, CREWS Secretariat
Emily Montier, Start Network, Head of Crisis Anticipation and Risk Financing
Julia Chasco, Argentina Meteorological Service, Head of Meteorology and Society

During its official launch, the Anticipation Hub was celebrated as the one-stop-shop for knowledge exchange, learning and guidance on anticipatory action. This joint initiative between GRC, IFRC and RCCC brings together more than 60 partners (at the time of the launch) across the RCRC network, universities, research institutes, international NGOs, UN agencies, governments and network initiatives, with funding support from the German FFO.

Facilitators:

Maarten van Aalst
RCCC, Director

Kara Siahaan
Anticipation Hub/IFRC, Lead Networks and Policy

Speakers:

Thomas Zahneisen
German FFO, Director Humanitarian Assistance

Christof Johnen
GRC, Head of International Cooperation

Jagan Chapagain
IFRC, Secretary-General

Alexandra Rüth
GRC, Head, Anticipation Hub

The launch involved high-level interventions, as well as interactive interviews with scientists, practitioners and policymakers about the Anticipation Hub's three strategic priorities. A dynamic panel session reflected on how the Hub can strengthen a shared vision for anticipatory action. The session also gave the audience an opportunity to share feedback and ideas through an interactive Miro board.

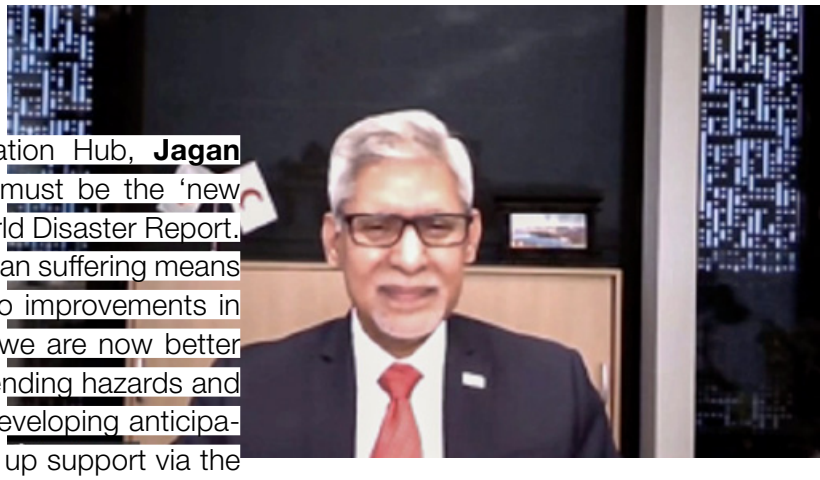
Thomas Zahneisen described how six years ago, anticipatory action started with eight pilot projects. Today, anticipatory approaches have been piloted in more than 60 countries with 100 initiatives. According to Thomas, "we no longer need to prove the relevance and effectiveness of anticipatory approaches; the case has already been made". He mentioned a recent meeting of the European Union's Council Working Party on Humanitarian Aid and Food Aid, where it was agreed that there is still urgent work to be done on anticipatory action regarding: (1) expanding financing for anticipatory action; (2) investing in local early warning and preparedness capacities; (3) making anticipatory action applicable to a wider variety of hazards, such as disease outbreaks or conflicts; and (4) encouraging increased collective learning, coordination and partnerships to support the mainstreaming of anticipatory action into national disaster risk management systems. Ending on a high note, Thomas stated that he is "convinced that the Anticipation Hub will play a major role in tackling these challenges".

"More. Better. Together. It is important to not only focus on the 'more', but as well on the ´better' and 'together'. It is the ambition of the Anticipation Hub to play a key role here," said **Christof Johnen.** He emphasized how the Hub's three strategic priorities aim to do just that by: (1) stimulating learning, innovation and exchange; (2) providing guidance and support; and (3) promoting lasting change through sustained policy and advocacy efforts.

He explained that at the core of the Red Cross Red Crescent Movement is a specific focus on localization and strengthening local structures, and one ambition of the Anticipation Hub is to put local actors at the centre. These actors know best about the vulnerabilities of affected populations and the right actions that can be implemented. The Hub aims to bring together all the different communities: scientists, practitioners, policymakers and local people.

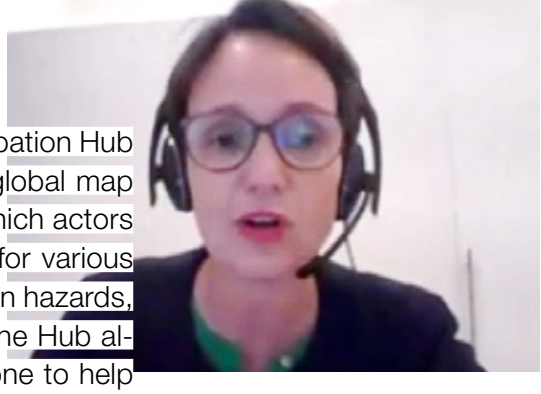
Christof highlighted how the Anticipation Hub can "play a crucial role as the continued space for knowledge exchange in between the dialogue platforms to bring together more people and continue to build momentum across the community". He concluded by supporting Thomas' statement on the need to 'get out of our box' of anticipating extreme weather events and additionally working on anticipating other hazards such as pandemics and conflict.

Maarten van Aalst thanked the Thomas and Christof for their leadership in ensuring the anticipatory action agenda has evolved from an idea to "doing more and doing better". He highlighted the critical role they played in convincing others of anticipation, leading the change with GRC, and getting the coordination right by bringing together many different partners and actors at an early stage – importantly, not just with humanitarians but also with National Societies and their government counterparts, and especially the critical role of national meteorological services.

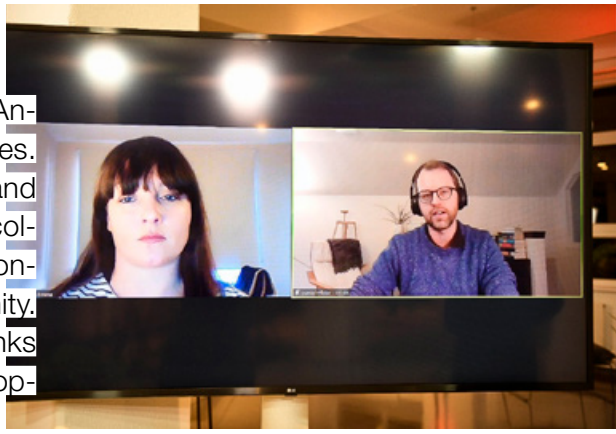


Following the official the launch of the Anticipation Hub, **Jagan Chapagain** emphasized that anticipatory action must be the 'new normal' given the bleak findings in IFRC's 2020 World Disaster Report. A highly likely trajectory of continuing immense human suffering means anticipatory action is a moral obligation. Thanks to improvements in risk analysis and forecasting in the past decade, we are now better able to act on what the science tells us about impending hazards and their impact. Currently, 31 National Societies are developing anticipatory approaches and IFRC is committed to scaling up support via the DREF to reach more people, and cover more places and more types of hazards.

Jagan also discussed how far the anticipatory action movement has already come, "turning this crazy vision six years ago into a reality today". Now hugely successful, this scaling up must be "a shared ambition and part of normal disaster management processes and frameworks". In all of this, partnerships are the key to meet growing challenges, and IFRC, together with the partners of the Anticipation Hub, can support capacity-building, risk analysis and policy, to enable the scale-up of anticipatory action. He showcased the recent collaboration in Bangladesh between IFRC, the Bangladesh Red Crescent Society, the UN, local partners and the government, which implemented early actions during 2020's monsoon season while simultaneously dealing with COVID-19.



Alexandra Rüth navigated the audience through the Anticipation Hub website, explaining its features, sections and pages. The global map of anticipatory action initiatives can help users to identify which actors are implementing anticipatory action in different countries for various hazards. The country profiles provide in-depth information on hazards, proposed solutions, activations and the lessons learned. The Hub already has more than 60 partners and she called on everyone to help to develop the strategy and look forward to the exciting journey ahead as a community.



Following the opening remarks, three interviews took place with Anticipation Hub partners each, focusing on the three strategic priorities. **Emma Louise Flaherty** and **Daniel Pfister** discussed policy and advocacy for anticipatory action. Emma stated that REAP will be collaborating with the Hub to share policy and advocacy tools, and connecting with colleagues from the climate and development community. She explained how the scale-up of anticipatory action encourage links to break down the silos between humanitarian, climate and development sectors – and national leadership is key to achieving this.

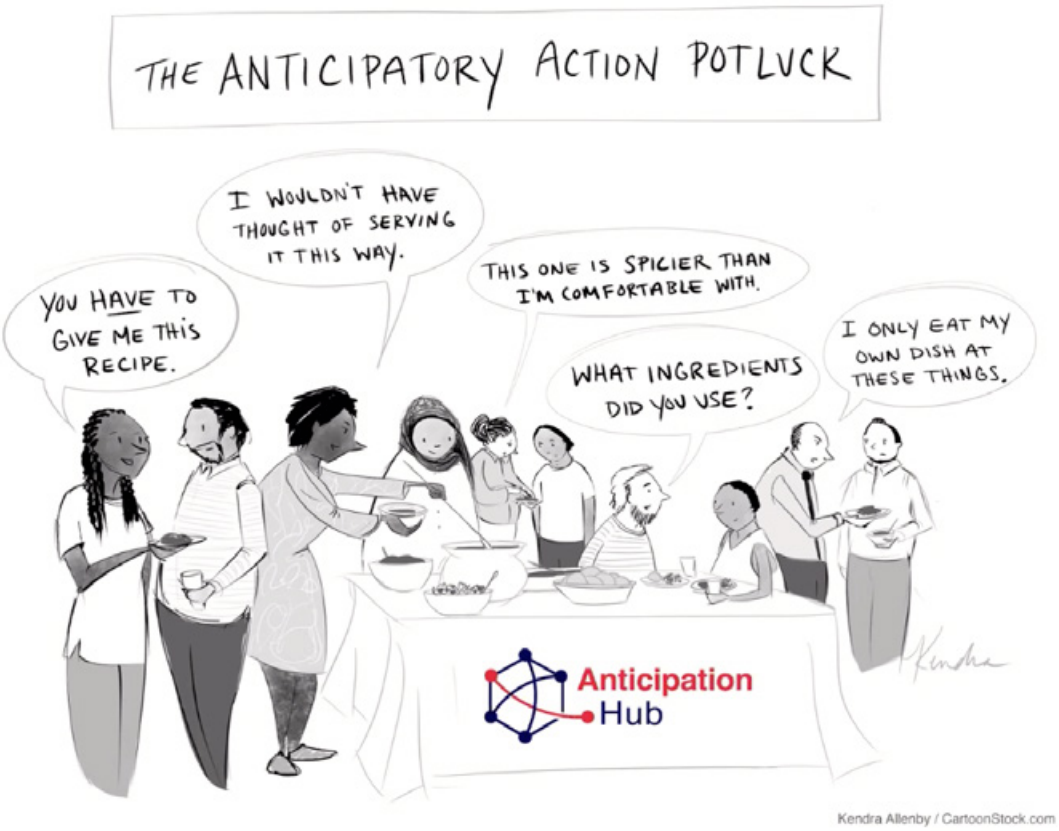
Daniel Pfister explained OCHA's strategic anticipation priorities, which include supporting scale-up. This requires efficiency, being more transparent about the challenges we face, and generating more learning and evidence. He highlighted that the "humanitarian system should total more than the sum of its parts and all efforts should be integrated into national disaster management systems, if they are to be sustainable."

The second interview focused on the Anticipation Hub's strategic priority to provide guidance and support. **Sebongile Hlubi** highlighted the Hub's value as a one-stop-shop for all the knowledge and learning resources on anticipatory action. Many practitioners implementing anticipatory action projects across NGOs, UN agencies and National Societies are on similar journeys and have lots of challenges and solutions to exchange. She was excited to use the Hub to learn and collaborate with other practitioners, in particular for her work on anticipating drought in Lesotho.

Julio Rainimananjanahary highlighted how the Anticipation Hub will help develop a common understanding of anticipatory action and facilitate the exchange of data, knowledge and tools. He pointed out how exciting it is to see how we can learn from each other as the Hub continues to grow.

The third interview focused on the Anticipation Hub's power to enable learning, innovation and exchange. **Douglas Mulangwa** spoke of his work with the FATHUM (Forecasts for AnTicipatory HUManitarian action) project to co-develop triggers for anticipatory action. He shared with **Liz Stephens** ideas for how the Hub can further facilitate such collaboration and continued knowledge exchange between government actors and scientists.

Next, a dynamic and interactive panel session was moderated by Maarten van Aalst, with representatives from the UN, governments and NGOs. The panel discussed their vision for anticipatory action framed around a 'potluck' cartoon, guiding panellists to think about what 'recipes' and 'guests at the table' would be different in the future and how the Anticipation Hub can help us to get there.



Using an analogy of how components of FbA match the order of dishes in Italy, **Jesse Mason** nicely summed up how we, as a community, grow and work together: "I am often faced with challenging decisions on my restaurant orders, on the timing and seasonality of my dishes, and I am more than often wrong. Like everyone else, to make better decisions I look to my friends, I look to their experiences, and I look for their local knowledge."

Elkaye Macasil highlighted the need for humanitarian actors to work towards capturing more synergies with the development actors investing in the development of early warning systems. **Emily Montier** explained that Start Networks' working groups complement the Anticipation Hub's working groups, and emphasized the Hub's importance for their members to use it as a tool for exchange and collaboration on different thematic areas. **Julia Chasco** highlighted the importance of the Hub to facilitate sharing of experiences and learning "new ways of doing things better". She explained the Hub's role is to bring together knowledge from the meteorological community and demonstrate its relevance, in combination with other sources of information for anticipatory action.

Maarten van Aalst wrapped up the panel by reminding participants that "the Hub is about connecting the experiences on the ground. There is an appetite for anticipation and working together on it". The session closed with a reemphasis of the power of collaboration, the traction gained over the past years and the exciting journey ahead for the Anticipation Hub to continue this.

8th Global Dialogue Platform
on Anticipatory Humanitarian Action –
Virtual Edition

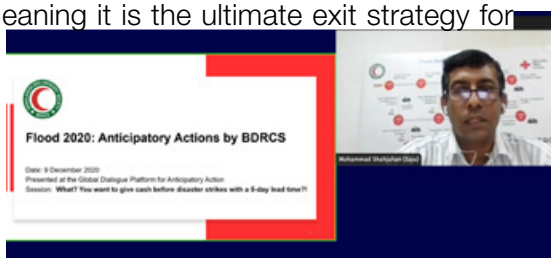
DAY TWO

Parallel sessions

Session 1. What? You want to give cash before disaster strikes with a 5-day lead time?!

Many RCRC National Societies are exploring cash-based early action. The Cash Hub and the newly launched Anticipation Hub hosted a joint session to showcase the latest cash-based early action activations. Cash and voucher assistance within the anticipatory humanitarian action context is unique because cash is given before a forecasted shock, according to pre-defined triggers (protocols), with the time and location of the distribution unknown when plans and protocols are made and a short timeframe for registration and encashment/distribution.

Mohammad Shahjahan pointed out that cash-based early actions need time and coordination effort. It is important to identify the most impacted and vulnerable people, and to find a service provider flexible enough to act fast. However, as put forward by **Anita Auerbach**, technical components for setting up cash-based activities do not differ much from regular post-disaster cash-based assistance. What differs is the time frame of activities, and that it is unknown where and when it will happen. Linking forecast-based action with social protection programming means making better use of existing government systems to protect people before disasters. Linking them can mean nationally owned systems that are large scale, long term and reach significant sectors of the population – meaning it is the ultimate exit strategy for humanitarians.



Facilitator:

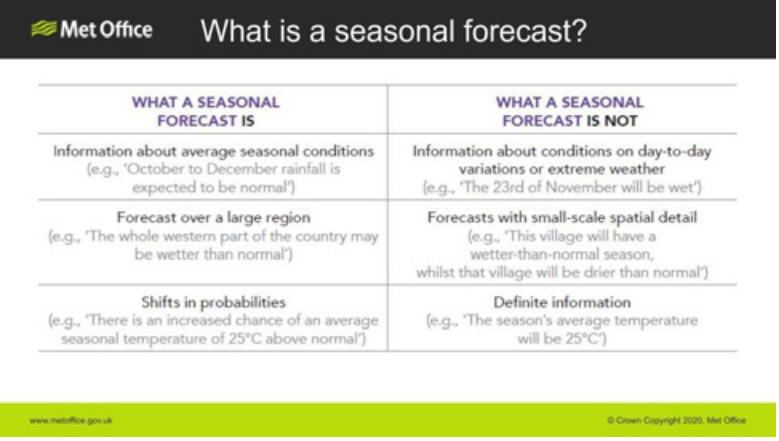
David Dalgado
British Red Cross,
Cash Hub – Technical Specialist

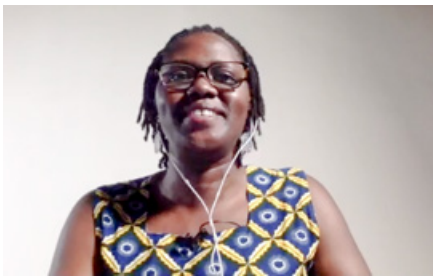
Speakers:

Mohammad Shahjahan (Saju)
Bangladesh Red Crescent Society,
Assistant Director & FbF Project Coordinator

Anita Auerbach
GRC, Cash-based Early Action and Social Protection Specialist

Fredrick Orimba
Kenya Red Cross,
Cash Programme Officer





Session 2. What's the deal with seasonal forecasting?

Seasonal forecasts can support early action planning with longer lead times. This session explained what a seasonal forecast is and identified opportunities for their use in forecast-based early action contexts. The UK's Meteorological Office and RCCC work together to improve engagement between national meteorological services and FbF advisors on trigger development. Although still in progress, this work is now turning to the co-development of FbF triggers for drought and heavy seasonal rainfall. Participants talked about seasonal forecasts, how they informed complex decision-making, how to manage uncertainty and culpability, and how to improve seasonal forecasts at the regional and national level.

Facilitators:

Nyree Pinder
United Kingdom (UK) Meteorological Office, Global Partnerships Manager

Irene Amuron
RCCC, FbF Technical Advisor

Speakers:

Tamara Janes
UK Meteorological Office, Scientific Manager, International Applied Science

Meghan Bailey
RCCC, Senior Technical Advisor

Session 3. Reaching more through synergies: linking risk financing to anticipatory action by InsuResilience x Dialogue Platform

Acting in anticipation can save lives and livelihoods, reduce human suffering and safeguard development gains. For early warning systems to inform governments and humanitarian actors about oncoming impacts, and trigger effective anticipatory action and rapid response measures, they need to be underpinned by funding through pre-arranged risk finance, such as FbF and insurance. This session provided opportunities to hear about key lessons and innovative examples on how linking risk financing and anticipatory action could help climate, development and humanitarian actors tackle the issues arising from climate change and COVID-19.

Facilitator:

Kara Siahaan
Anticipation Hub/IFRC, Lead, Network and Policy

Speakers:

Katharina Nett
InsuResilience Global Partnership Secretariat, Advisor

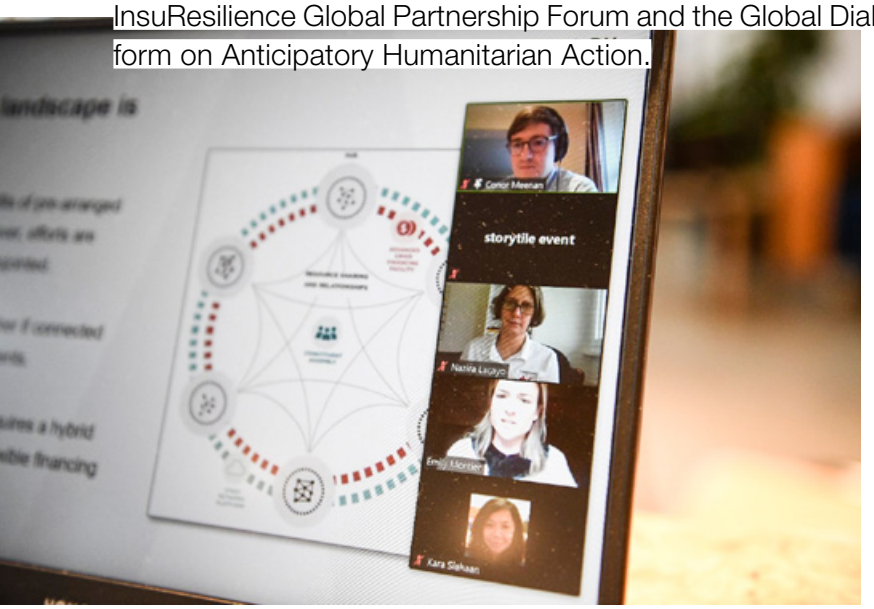
Nazira Lacayo
IFRC, Senior Officer, FbA by the DREF

Georgina Bedenham
UK Government Actuary's Department, Actuary

Conor Meenan
Centre for Disaster Protection, Risk Finance Specialist

Emily Montier
Start Network, Head of Crisis Anticipation and Risk Finance

Partners and participants shared their insights, vision and concrete next steps on how to strengthen exchange and collective learning across sectors through an interactive dialogue. This session captured the collaboration between two global events happening in parallel: the InsuResilience Global Partnership Forum and the Global Dialogue Platform on Anticipatory Humanitarian Action.



> Not all EAPs will activate at the same time. This is what led IFRC to explore the optimal financial model for ensuring resources for early actions while increasing coverage by approving more EAPs.
>
> Nazira Lacayo, IFRC

Session 4. Anticipatory action for transboundary pests and diseases: desert locust and Rift Valley fever case studies

Facilitator:

Brenda Lazarus
FAO

Speakers:

Cyril Ferrand
FAO

Paul Opio
FAO

Francesca Sangiorgi
Agency for Technical Cooperation and Development

Though much of the focus of anticipatory action to date has been centred around slow- and sudden-onset climate- and weather-related hazards, such as drought, floods and cyclones, the same approach can be relevant to other types of disaster. This includes transboundary pests and diseases, which impact rural livelihoods. This session explored this topic in more depth by bringing together technical experts involved in the implementation of anticipatory action for two types of transboundary pest and disease: desert locusts and Rift Valley fever.

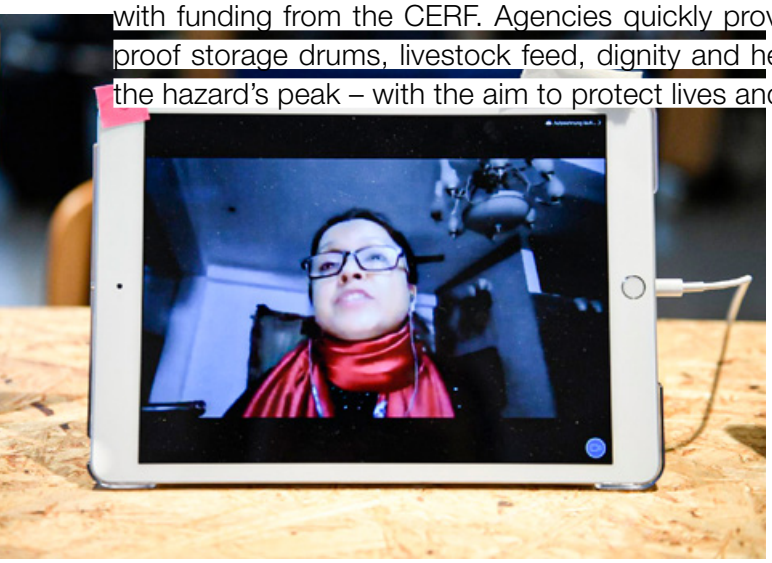
Cyril Ferrand spoke about desert locust infestations in Eastern Africa. This is an irregular and infrequent phenomenon in this region, making it difficult to prepare for. The solution is therefore an early warning system linked with anticipatory action. FAO was able to show the effectiveness of this combination through the 2020 response timeline. Cyril explained that through anticipatory action, FAO prevented a significant deterioration in food security in the entire region. Trajectories of the possible spread of desert locusts throughout the region are now being predicted through modelling. This is helping to demonstrate where the next action needs to take place and enables neighbouring countries to prepare with a few weeks' warning.

Paul Opio presented on preparedness and response for Rift Valley fever, a zoonotic viral disease transmitted by mosquitoes that affects animals and humans alike. FAO developed a web-based decision-support tool that provides science-based recommended response actions to Rift Valley fever. The tool was built in close collaboration with regional and global organizations (including NASA, WMO and the Intergovernmental Authority on Development) and has led to the development of detailed risk maps and response actions, especially over the last three years.

Francesca Sangiorgi presented on the Regional Desert Locust Alliance (RDLA), which was created in early 2020 to collaborate during the desert locust response. While the initiative's initial focus was on community-awareness activities, this is now shifting. Food security and livelihood activities are coming to the fore, with the RDLA having assisted over 2 million beneficiaries in October 2020. Given the detrimental effect of desert locusts on the livelihoods and resilience of concerned communities, early action is of utmost importance.

Session 5. Levelling up: reaching new heights for flood anticipatory action in Bangladesh – CERF coordination and activation

This session discussed the experience of setting up the UN CERF anticipatory action plan in Bangladesh, from creating the plan to implementation and post-activation learnings. Anticipatory action in Bangladesh was scaled up through an interagency collaboration led by OCHA in early 2020. Building on the FbF expertise and experience of the RCRC partners and WFP in Bangladesh, an OCHA-facilitated Anticipatory Action Framework was developed. In early July 2020, the system was activated with a forecast of a 1-in-10-year flood, and WFP, UNFPA and FAO supported more than 220,000 people in Bangladesh with funding from the CERF. Agencies quickly provided cash, waterproof storage drums, livestock feed, dignity and health kits ahead of the hazard's peak – with the aim to protect lives and livelihoods.



Facilitator:

Raymond Zingg
IFRC, Regional Forecast-based Financing Coordinator

Speakers:

Niger Dil Nahar
WFP, Program Policy Officer, Resilience Innovation

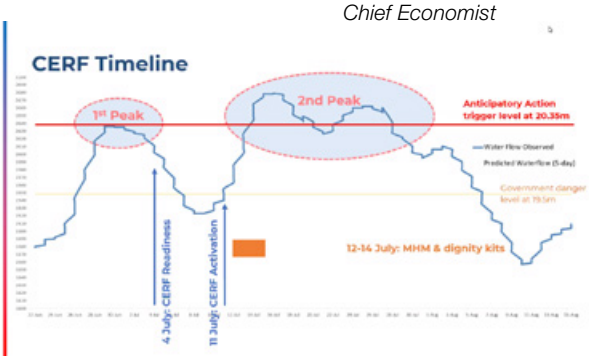
Peter Agnew
FAO Bangladesh, Senior Resilience Programme Specialist

Murshida Akhter
UNFPA Bangladesh, Humanitarian Specialist

Afroza Haque
GRC Bangladesh, Project Officer

Daniel Gilman
OCHA Region of Asia and the Pacific, Humanitarian Affairs Officer

Ruth Hill
Centre for Disaster Protection, Chief Economist



Session 6. Get stuck in! Let's develop the Anticipation Hub strategy

Facilitators:

Alexandra Rüth
GRC, Head of the Anticipation Hub

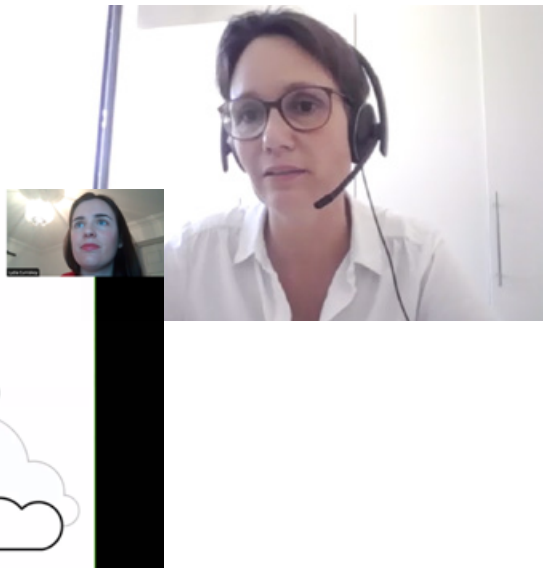
Lydia Cumiskey
Anticipation Hub, Partnerships Consultant

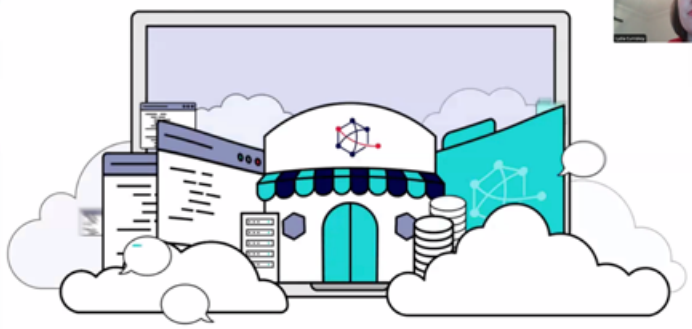
Nazira Lacayo
IFRC, FbA by the DREF Senior Officer

Irene Amuron
RCCC, Technical Advisor

The Anticipation Hub was launched at the Global Dialogue Platform and this session provided an opportunity for partner organizations and others to 'get stuck in' and help develop the Hub's strategy. The strategy aimed to build on the priorities developed during the scoping study consultation with future users of the Hub (see results here). The Hub aims to stimulate learning, innovation and exchange, to provide guidance and support, and to promote policy and advocacy.

This interactive session gave the audience the opportunity to share their inputs on the vision, aims, values and indicators of success for the Anticipation Hub. Participants raised important points on measuring not just the quantity, but also the quality of the Hub's content. They recommended having a user survey to capture the benefits of the Hub for connecting people, and increasing their access to knowledge that is applied in their work.





Session 7. How to better manage risk: the 7 habits of highly effective disaster risk financing

Facilitator:

Centre for Disaster Protection

Speakers:

Joanne Meusz
Centre for Disaster Protection, Lead Risk Finance Specialist

Deirdre O'Sullivan-Winks
Centre for Disaster Protection, Senior Consultant

The Centre for Disaster Protection introduced the 7 habits of highly effective disaster risk financing (DRF), some of which are often overlooked. For example, habit number 5, 'Providing a trusted guarantee', gives households confidence in a social contract, and confidence that it will be there to support people. In addition, **Deirdre O'Sullivan-Winks** highlighted the importance of strategic DRF, which includes prioritizing risks, ensuring alignment, complementarity, and integration in long-term planning and policies. She emphasized that the best DRF puts power in the hands of at-risk people and communities, giving them a choice over how they manage their risks. She additionally pointed out that good DRF means promoting and targeting prevention, preparedness and response in crises.

> "Pay for disasters with money and not with lives."
>
> Joanne Meusz,
> Centre for Disaster Protection

Session 8. Anticipatory action in situations of conflict: barriers and breakthroughs

Facilitator:

Ralf Südhoff
Centre for Humanitarian Action, Director

Speakers:

Marie Wagner
Global Public Policy Institute, Research Associate

Bart Vermeiren
International Committee of the Red Cross Red Crescent Philippines

Luca Parodi
FAO, Early Warning Early Action Specialist

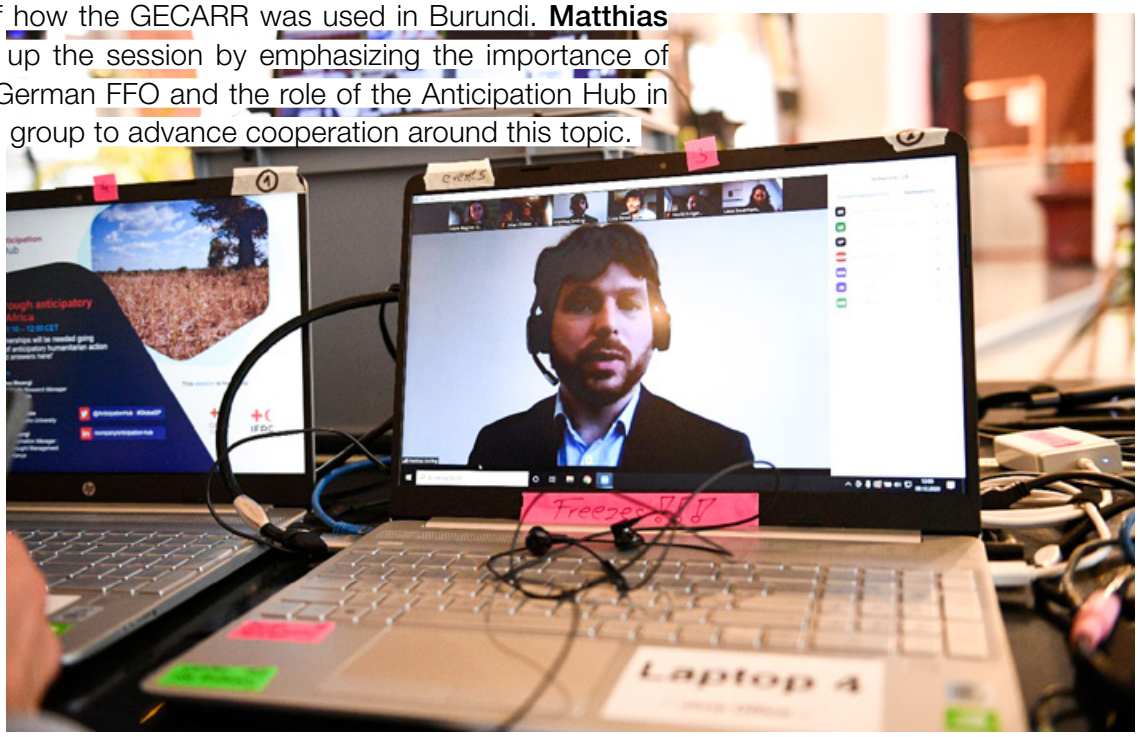
Johan Eldebo
Start Network, World Vision, Regional Security Director Southern Africa

Matthias Amling
German FFO, Senior Desk Officer – Humanitarian Assistance

Ralf Südhoff opened the session noting that we still face big knowledge gaps on how to expand anticipatory action to situations of conflict. **Marie Wagner** then elaborated on the building blocks for anticipatory action related to conflict. Firstly, action based on forecasts of hydrometeorological hazards occurring in conflict situations, and secondly, anticipatory actions based on forecasts of conflict. The building blocks are more complex in such cases, especially for the second type.

Bart Vermeiren remarked that anticipatory action acts as an accelerator of humanitarian action. However, a variety of barriers exist, such as the unpredictability of impacts on fighting parties, access to the field, and the collection of reliable data. **Luca Parodi** highlighted that the main information gap exists for the immediate consequences of conflicts and displacement, recommending that we follow a pragmatic approach that builds upon pre-existing structures and processes.

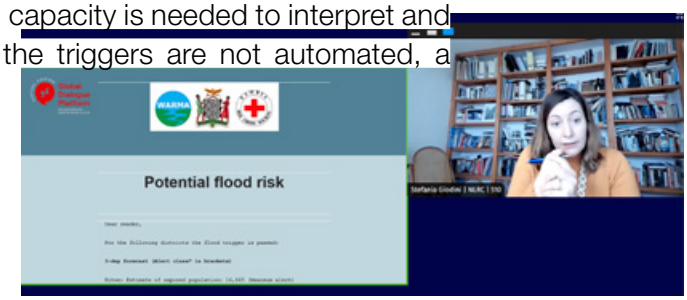
Next, **Johan Eldebo** presented the 'Good Enough Context Analysis for Rapid Response' (GECARR), a rapid context analysis in volatile contexts to fill information gaps when decisions need to be taken. He addressed the challenge of data availability in fragile contexts, drawing on an example of how the GECARR was used in Burundi. **Matthias Amling** wrapped up the session by emphasizing the importance of the topic for the German FFO and the role of the Anticipation Hub in hosting a working group to advance cooperation around this topic.



Session 9. Models and triggers for sudden-onset disasters

This session showcased lessons learned and best practices on developing triggers from the perspective of both the modellers and the users. Triggers have been developed for a variety of hazards, such as floods, drought and typhoons. Speakers presented novel methods to translate forecasts of various meteorological and hydrological models into an impact-based forecast. The session addressed the role of humanitarian agencies, scientists and at-risk communities in creating these triggers, and reflected on the modelling choices to be made depending on the data availability and hazard at hand.

Amjad Ahmad pointed out that models based on numerical data still require feedback from communities, which is crucial. It is similarly important to have a common platform, such as PRISM in Cambodia to share impact information over time to support decision-making, said **Nicolas Bidault.** According to **Raihanul Haque Khan**, scenario-based triggers work well in the case of multiple peaks/frequent floods in a single season. However, capacity is needed to interpret and communicate the triggers. When the triggers are not automated, a human layer is needed.



Facilitators:

Marc van den Homberg
510 Data Team, Science Lead

Dorothy Heinrich
RCCC, Climate Scientist

Speakers:

Amjad Ahmad
Welthungerhilfe Pakistan, Disaster Risk Finance Coordinator

Nicolas Bidault
WFP, Senior Regional Adviser

Raihanul Haque Khan
Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES), Bangladesh Country Programme Lead

Stefania Giodini
510 Data Team, Operations Lead

Session 10. Addressing drought through anticipatory action: experiences in Africa

This session showcased the ongoing collaboration and partnerships for drought anticipatory humanitarian action at the country and regional levels. The session included an in-depth discussion on the kind of collaborations and partnerships that will be needed going forward to support the development of anticipatory humanitarian action in response to drought in Africa.

Anticipatory actions focusing on drought have become more important in Africa over recent years. Therefore, collaboration on this topic between stakeholders such as governments, RCRC National Societies, local meteorological offices, UN organizations and universities has also grown. The experiences shared on collaboration were from Kenya and from the Red Cross Southern African project in Namibia, Lesotho and Mozambique. In Kenya, collaboration is ongoing between the government, universities, local meteorology offices and the Red Cross National Society, and they have successfully integrated anticipatory action into national drought-management systems.

Facilitators:

Irene Amuron
RCCC, Technical Advisor

Phoebe Wafubwa Shikuku
IFRC, Regional Advisor Disaster Risk Reduction (DRR) and FbF

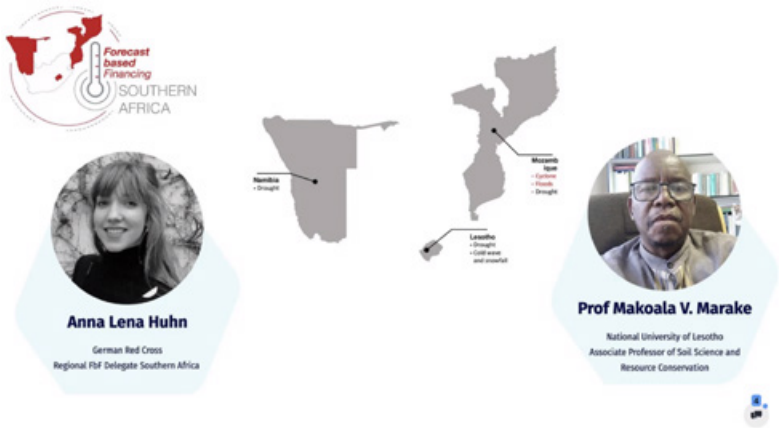
Speakers:

Emma Mwangi
Kenya Red Cross Society, Acting Climate Research Manager

Prof. Makaola Marake
Lesotho University

John Mwangi
National Drought Management Authority Kenya, Drought Information Manager

This collaboration is also strengthening the ownership of the actors who are involved, which includes the communities receiving information and targeted by the anticipatory actions. In the Southern Africa region, collaboration between universities and practitioners on drought can bridge the information gap between researchers and communities for technical and strategic advice on drought anticipatory action.



> The added value of collaboration in Kenya on anticipatory action for drought is the ownership of the process created amongst stakeholders, and the common ground established.
>
> Emma Mwangi, Kenya Red Cross

Session 11. Are we really listening? Accountability to affected people in anticipatory financing

Accountability in anticipatory action means being answerable to risk-affected populations through project design and implementation. Improving accountability to affected populations is often identified as a major opportunity of anticipatory action. In theory, with more time to prepare and analyse risk, communities can take on a more significant role in designing the type and timing of support they receive. In practice, there is a long way to go. This session presented emerging research by Start Network and Centre for Disaster Protection which looks at how accountability to affected populations is currently being implemented in different types of risk-financing systems. Opportunities for better accountability in risk modelling were discussed, as well as in contingency planning, triggering and implementation.

> Accountability is using power and resources responsibly and being answerable for this.
>
> Emily Rogers, independent consultant presenting on behalf of Start Network

Facilitator:

Sarah Barr
Start Network, Learning and Research Advisor

Speakers:

Emily Rogers
Independent Consultant presenting on behalf of Start Network

Sophia Swithern
Independent Consultant presenting on behalf of Centre for Disaster Protection

Keynote

Reimagining futures

Aarathi Khrisnan
United Nations Development Programme, Strategy and Foresight Advisor; Tech. and Human Rights Fellow at Harvard Kennedy Carr Centre; Fellow at Berkman Klein Center, Harvard University

Aarathi gave a thought-provoking presentation about reimagining humanitarian futures for human flourishing. She talked about making futures more equitable and just, building anti-fragility and uncertainty into all layers of policy, and taking an interconnected systems approach. She asked how we can design digital policy for humanitarian purposes so that it does not lock affected populations into future indebtedness or future inequity – thus challenging us to think about how future humanitarian digital policy can avoid being a colonized vector. She also cautioned us to think about what must gracefully exit, so that the right idea can live and flourish in the future.

> It wasn't a failure to predict the global pandemic. The issue is our lack of ability to pay attention to it and to make the right decisions to prepare for it as it emerges.
>
> Aarathi Khrisnan

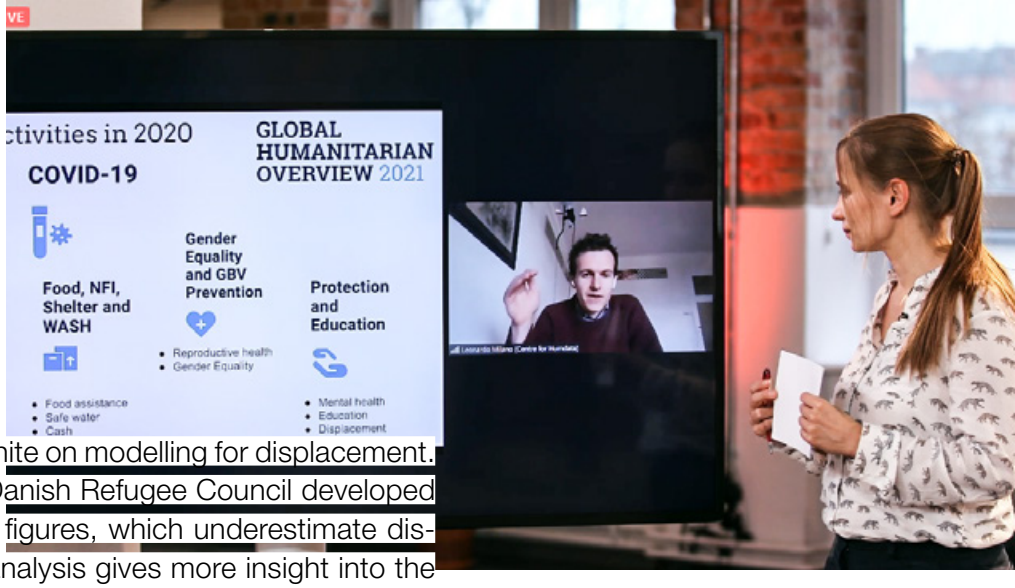
Ignites
"Let's not talk about the weather": emerging themes in anticipatory action

Ignite presenters:

Luca Parodi, FAO, Early Warning Early Action Specialist
Alexander Kjaerum, Danish Refugee Council, Global Adviser
Prof. David Backer, Modelling Early Risk Indicators to Anticipate Malnutrition (MERIAM) Project, Lead Econometric Modelling Team
Leonardo Milano, OCHA/Centre for Humanitarian Data, Predictive Analytics Team Lead
Robi Wambura, Tanzania Red Cross, Director Disaster Management

Most of the existing anticipatory action initiatives focus on extreme weather events. This Ignite session focused on what is next for anticipatory action, looking at what is already implemented for non-hydrometeorological hazards such as volcanoes, pests, conflicts, lahars, conflict and health. In Ignites of less than five minutes, followed by brief interviews, experts and practitioners elaborated on their experiences, challenges and visions – and their goal to anticipate it all.

Luca Parodi pointed out that more needs to be done on anticipating conflict and displacement. There is a major information gap on early warning in this field and in predicting the humanitarian consequences of displacement, specifically on where the displaced will go, what risks they will face, and what they will need.

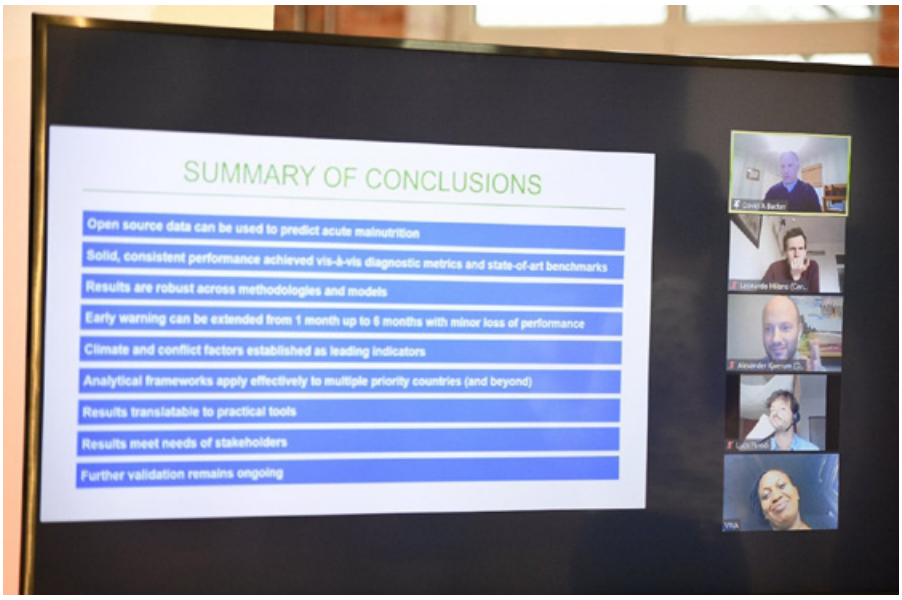


Alexander Kjaerum focused his Ignite on modelling for displacement. In most cases, the model that the Danish Refugee Council developed is more accurate than the planning figures, which underestimate displacement numbers. The network analysis gives more insight into the different drivers of displacement, for example how conflict influences governance and economy.

David Backer highlighted that the MERIAM project has been able to predict acute malnutrition using open-source data with a high degree of accuracy and to translate prevalence rates into IPC terms. Results are robust across methodologies and models.

Leonardo Milano pointed out that COVID-19 was the main shock of the year. When anticipating new types of shock in 2020, they needed to be related to this pandemic. 2021 is a new opportunity for anticipating secondary impacts, as many vaccination campaigns for other infectious diseases have been delayed, for instance measles, malaria, cholera and polio.

Lastly, **Robi Wambura** gave a fascinating account of the Tanzanian Red Cross Society's experience in developing a contingency plan by predicting the impacts of national election violence based on historical experiences, particularly regarding the actions of the youth. Early actions were planned for each of the three phases of the election: (1) the election campaign; (2) voting; and (3) the announcement of results.



Panel Discussion
What do we ask from the world? Progress in policies on anticipatory action

Panellists:

Zoe Scott, Centre for Disaster Protection, Head of Multilateral Programmes
Ben Webster, REAP, Head of Secretariat
Fredrick Lee-Ohlsson, Ministry of Foreign Affairs Sweden, Head of Humanitarian Affairs
Donna Lagdameo, RCCC, Senior Policy Advisor and Asia Pacific Lead

Moderator:

Jesse Mason
WFP, Global Coordinator FbF Programmes

Keynote address:

Dominique Burgeon
FAO, Director Office of Emergencies and Resilience

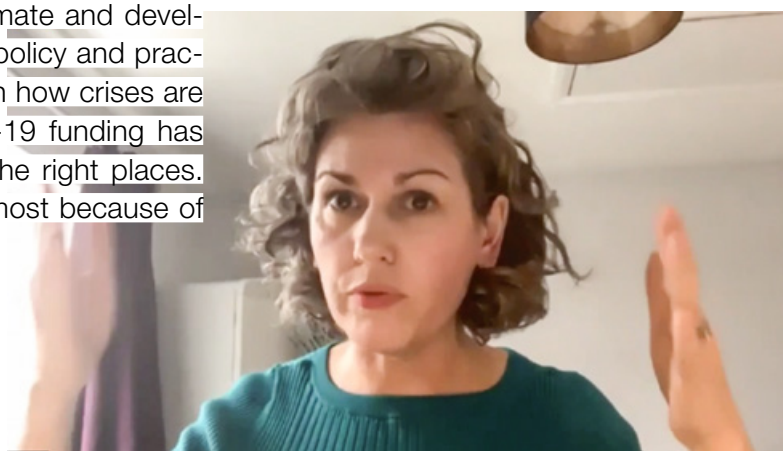
Dominique Burgeon perceptively expressed what we all feel: there is a special energy for anticipatory action. This platform is a crucial venue; the place where exchange happens with a great spirit of collaboration. Anticipatory action has been established as a priority for FAO since 2015 and now an integral part of our work.

It is unacceptable that at the end of 2020, 15 million people in seven countries face acute food insecurity. We must adapt to a new reality where multiple shocks overlap, creating new needs which we must quickly understand, especially conflict – the main driver of food insecurity. For instance, this year FAO started work on desert locusts to prevent further food insecurity, contributing US$10 million and together with other partners, FAO managed to protect over 16 million people with anticipatory action; this was the first time they had brought anticipatory actions to scale.

Dominique stressed the need for a paradigm shift, to focus on preventing the irreversible depletion of livelihoods assets: people must keep their assets to recover from shocks faster and not get to the stage where they have nothing left. This is a more dignified approach to a crisis. Adequate, long-term and coordinated resources are needed to bring anticipatory approaches to scale, mostly to assure that early warnings also lead to early actions. We must think about how we can do more with less (i.e. budgets). This requires strengthening impact-based forecasting, including predictive analytics and forecasting capacities. But the best science is of limited help if it does not reach the communities most at risk. The feasibility of implementing anticipatory actions in the short time window between a trigger and the impact of the event depends highly on the capacity of local actors, and true sustainability can only happen with institutionalization.

Panellists were asked to share progress on policies in anticipatory action, particularly with regards to the investment required to go to scale and reach those communities most at risk. The consensus was striking. All agreed that we need to urgently scale up, collaborate and break the silos, as well as mainstream anticipatory action into national systems across policies and plans. In asking 'Can you join us?', **Zoe Scott**, alongside fellow panellists, called for collaboration in the face of multi-hazard risks, noting two critical points for improvement: (1) be more inclusive and flexible in pre-arranged financing; and (2) expand pre-arranged financing. The solution lies in an interconnected system that is based on predicting needs. Moderator **Jesse Mason** pointed out that the passion and spirit to bring anticipatory action to scale is there: "It takes the collective push to make the big changes that we hope for."

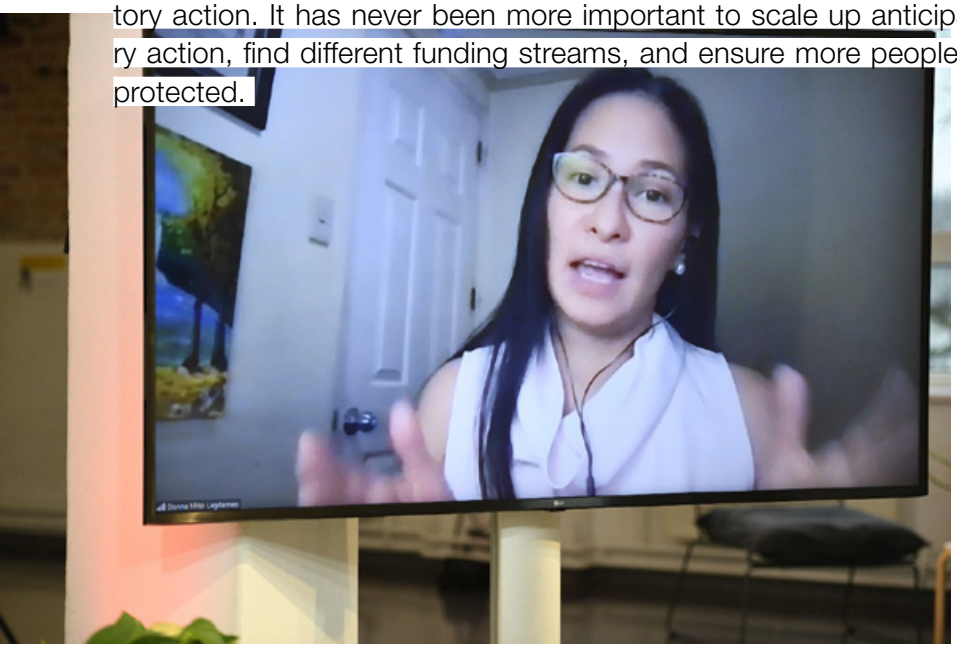
Ben Webster introduced REAP's goal to ensure that 1 billion people will be safer from disasters by 2025. To do so, REAP wants to move beyond the humanitarian community towards the climate and development communities, and enable a systemic shift in policy and practice. Zoe Scott pointed out that there is a mismatch in how crises are currently financed. Only 2% of humanitarian COVID-19 funding has been pre-arranged so far. Also, it has not gone to the right places. The 20 countries where poverty was increasing the most because of COVID-19 only received 4% of international funding.



Frederick Lee-Ohlsson emphasized that the food security–climate–conflict nexus is not a question of choice; it is a question of necessity. Eight of the worst food crises are linked to climate change. Linking food security, climate and conflict is crucial. He further emphasized the Swedish Ministry for Foreign Affairs' continued support for flexible funding that tackles the interconnections between climate, conflict and food security. He also highlighted the growing gap between humanitarian needs and funding.

Donna Lagdameo distinguished between three types of urgency that we need to address. First, we need to embrace the very essence of anticipatory action. This is an urgent plea because our new normal is becoming more intense and complex. Second, we need to expand the anticipatory action horizon. Most projects focus on the short term, but we need to focus on the adaptive and transformative capacities of communities. We need to expand activities into the medium and long term, across sectors, and mainstream it into sub-national systems, policies, as well as DRR and disaster risk management (DRM) climate change policies and plans. They are all interconnected. Third, we need to scale up anticipatory action at all levels, with a wider spectrum of stakeholders, and at the same time.

To conclude, **Dominique Burgeon** talked about funding for anticipatory action. It has never been more important to scale up anticipatory action, find different funding streams, and ensure more people are protected.



Parallel Sessions

Session 12. What can we learn about our forecast trigger from just a single activation?

Following an activation of an EAP, a necessary part of the FbA by the DREF process is for RCRC National Societies to undertake a 'trigger review'. There may also be stakeholders who call for a review when a trigger level is not met, but an event occurs. This session explored what can be learnt about a forecast trigger from a single event or activation. Through a mock debate, the session highlighted different perspectives on four key questions that stakeholders often discuss after an activation: (1) Should we change the forecast model if a different model forecasted the event better? (2) Should we change the probability threshold if we acted in vain or did not trigger? (3) Should we change the impact level if the impacts were different to those forecasted? (4) Should we change things if we are triggering too frequently?

The views presented during the debate, as well as the ensuing discussion, made clear that there are no easy answers. As summarized by one audience member: "How do we determine what level of trade-off is acceptable, given the expectations of members, stakeholders and affected communities?" What looks like success from the perspective of a modeller may be viewed very differently by a humanitarian or someone affected by a crisis.

Facilitators:

Liz Stephens
University of Reading/RCCC, Associate Professor/FbF Science Lead

Linda Speight
University of Reading, Researcher in Applied Flood Forecasting

Sara de Wit
University of Oxford, Postdoc

Speakers:

Nazira Lacayo
IFRC, Senior Officer FbA by the DREF

Andrew Kruckiewicz
Columbia University/RCCC, Senior Researcher/Faculty Lecturer

Irene Amuron
RCCC, Technical Advisor

Aki Teklesadik
Netherlands Red Cross 510 Data Team, Technical Project Coordinator

Stefania Giodini
Netherlands Red Cross 510 Data Team, Operations Lead

Faith Mitheu
University of Reading, PhD Research Student

While it is impossible to reach a single conclusion on such complicated topics, the dialogue underscored the importance of ongoing conversations about models and balancing the potential for acting in vain with humanitarian impacts in each situation. **Liz Stephens** explained that models change over time and forecasters do not necessarily evaluate if the model is meeting the needs of humanitarians. For this reason, humanitarians need to keep having those conversations with the forecasting experts about which model is the best.

Session 13. Early warning for early action: towards more behaviourally informed early warning systems

Facilitator:

Food for the Hungry

Speakers:

Claire Boswell
Food for the Hungry,
Technical Advisor for Social and Behavioral Change

Mary DeCoster
Food for the Hungry,
Director of Social and Behavioral Change Programs

Lauren Woodside
Food for the Hungry,
Risk & Resilience Manager

Josh Ayers
Food for the Hungry,
Senior Risk & Resilience Advisor

Progress toward more people-centred early warning systems (PC-EWSs) has improved the overall quality of warning information gathered and analysed, along with the timeliness and quality of warning messages. However, early warning systems have primarily been designed from a technocratic perspective, aimed at informing governments and officials of when, where and how to initiate humanitarian relief efforts. Less progress has been made in understanding how to best elicit early preparation, prevention and mitigation actions from the exposed and vulnerable populations themselves.

To further improve PC-EWSs, research focuses on the role of social-cognitive perspectives, culture, perceptions of risk, and other aspects of individual and social worldviews that influence how we sense, think and act in relation to early warning information, messages and preparedness efforts.

Claire Boswell started out by saying that behaviour matters just as much as risk perception. We need to figure out what encourages and hinders certain actions. She pointed out that it is important to understand how early warning systems were set up to facilitate humanitarian relief efforts, but more importantly how they fit with the needs of vulnerable populations. To set up early warning systems that reach affected populations and enable action, we need to understand what is understood by risk and how people typically respond to it. We need to build our actions around these questions to enable more people to understand risk and act accordingly.

Session 14. AntiCITYpation: transforming urban humanitarian action, a dialogue with city officials and authorities

Facilitator:

Eddie Jjemba
RCCC, Urban Resilience Advisor

Speakers:

Mark Pluke
City of Cape Town,
Head of Disaster Risk Management

Mark Harvey
Consultants Championing Actionable Information to Reduce Climate Risk In Cities, Chief Executive Officer

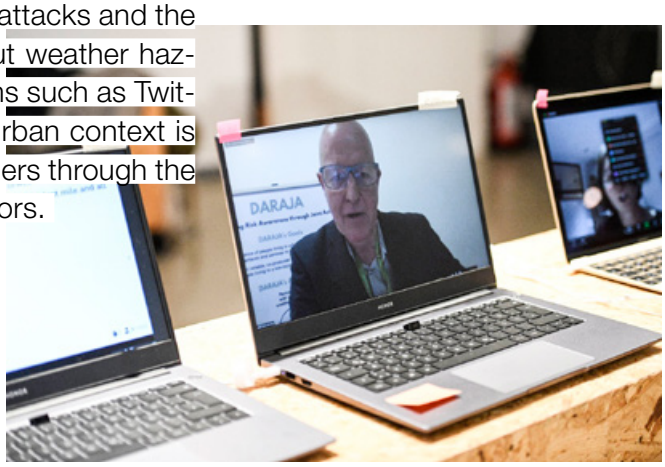
Amy Davison
City of Cape Town Environmental Management Department, Head: Climate Change – Spatial Planning and Environment Directorate

Emmanuel Ntale
Uganda Red Cross,
Early Warning Officer

Anticipatory action is gaining traction in urban areas, where humanitarians and urban decision-makers alike are looking for innovative responses to mitigate the impacts of extreme weather events. As there are often gaps between responses from different actors, this panel brought together urban practitioners from various backgrounds to share experiences from Asia and Africa. The aim of the panel discussion was to unpack key challenges and opportunities for transformative cooperation and coordination by sharing urban practitioner experiences and enabling dynamic audience participation.

Mark Pluke highlighted the need for Memorandums of Understanding (MoUs) between governments and humanitarian agencies. Mark Harvey stressed the importance of linking new arrivals to the city, the meteorological office and policymakers.

Amy Davison described the process of drafting a new Climate Change Strategy and Action Plan, which addresses weather hazards, cyber-attacks, the private sector, power outages, land attacks and the festive season. She said that to raise awareness about weather hazards, the City of Cape Town uses social media platforms such as Twitter. **Emmanuel Ntale** underlined how working in an urban context is often fragmented. To overcome this, they engage partners through the Urban Working Group and develop MoUs with key actors.



Session 15. Leveraging earth observation for anticipatory action

Speakers:

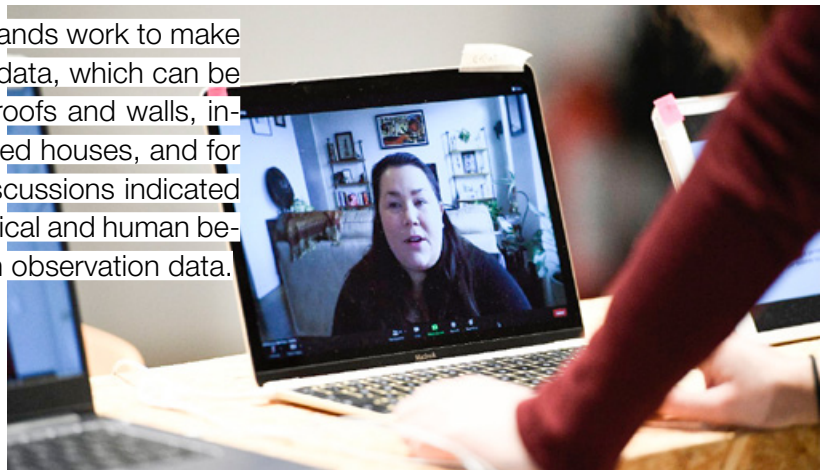
Shanna McClain
NASA, Earth Science Divisions Global Partnerships Manager

Katharina Lorenz
GRC, Geoinformatics Officer

Aklilu Teklesadik
Netherlands Red Cross 510 Data Team, Technical Project Manager

Initiatives that explicitly link forecasts to predetermined actions and financing are increasing in number and in interest. However, there is also growing demand for expanding the scientific approaches and methodological rigour for testing the appropriateness of these actions. A critical first step in doing so includes bringing agencies and organizations together to share the data and methods they are using, to identify gaps and assumptions in evaluative models, and work towards building a common analytical framework that incorporates accountability and learning.

This session brought together diverse practitioners engaged in anticipatory action to share their work and approaches. It also invited participants to engage in the inauguration of the Earth Observations & Anticipatory Action Working Group as part of the newly launched Anticipation Hub. The discussion identified which topics the Working Group should focus on and which partnerships to build. Further information and contact details for the Earth Observation Working Group can be found on the Anticipation Hub website.



The 510 Data Team of the Red Cross of the Netherlands work to make humanitarian work more effective by using satellite data, which can be used for detecting placing and materials used for roofs and walls, indicating where to focus assistance to repair damaged houses, and for accurate flood and impact assessments. Group discussions indicated several key findings, one of which is that meteorological and human behavioural data need to be complemented with earth observation data.

Session 16. Research collaboration between the Red Cross and the University of Costa Rica: tropical cyclone preparedness

Facilitator:

Elieth Moraga Blanco
Costa Rica Red Cross, Focal point FbF

Speakers:

Henry Chaves Kiel
Costa Rica Red Cross, Deputy Operations Manager

Juan Bazo
RCCC, Climate Science Adviser

Hugo G. Hidalgo
University of Costa Rica, Researcher at the Center for Geophysical Research

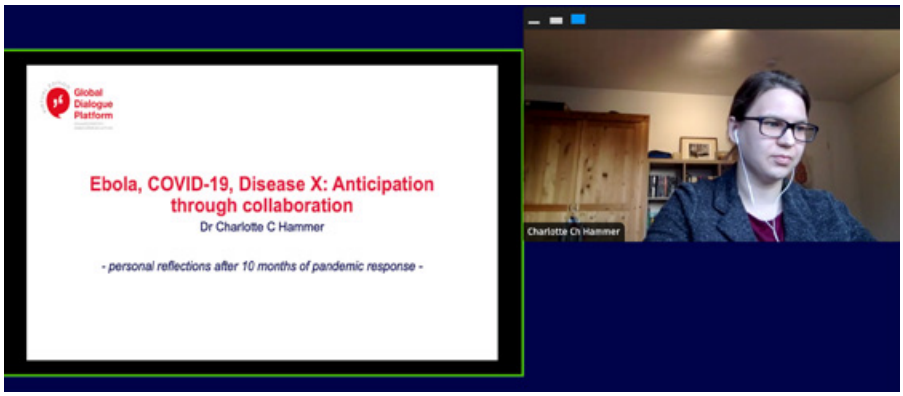
Tropical cyclones are one of the most important causes of disasters in Central America. Previous research has demonstrated that their indirect effects are increasing and can be equally severe as direct ones. In this session, the Costa Rican Red Cross, the University of Costa Rica and RCCC explained how they developed a joint initiative to support the identification of critical positions of tropical cyclones associated with extreme precipitation events in Central America.

Henry Chaves Kiel explained that their objective is to strengthen community resilience by making use of historical impact data and risk analysis.

The identification of hotspots can be used by RCRC National Societies and emergency agencies to issue early warnings and activate EAPs or emergency plans. The result of this initiative benefits not only the Costa Rican Red Cross, but also the Guatemalan Red Cross and the Honduran Red Cross, by increasing their institutional capacity to plan and mitigate the effects of hydrometeorological events on communities.

Session 17. "The next outbreak?!... we're not ready!" Anticipatory action for epidemics: collaboration across context

This session discussed the development and challenges of national epidemic-preparedness systems, and the achievements in monitoring and capacity that are taking place. **Elena Villalobos Prats** elaborated on how climate needs to be mainstreamed into the core health business without distracting from it. She introduced a framework which builds on six core building blocks of health systems and identified how to build climate resilience into each of them. **Charlotte Hammer** then asked if the traditional field of epidemiology has been lost. Collaboration and implementation of novel technology can make a huge difference but not without 'traditional boots on the ground'. **Richard Garfield** emphasized that global collaboration is needed for global recovery, warning that health threats can either unite or divide the world with vaccine nationalism backfiring.



Facilitators:

Elena Villalobos Prats
WHO, Technical Officer Climate Change and Health

Megan Lilley
Start Network, Crisis Anticipation and Risk Financing Partnerships Adviser

Speakers:

Charlotte Hammer
Centre for the Study of Existential Risk, Research Affiliate and Fellow/ Field Epidemiologist, European Programme for Intervention Epidemiology Training

Richard Garfield
US Centers for Disease Control and Prevention, Team Leader Analysis Unit, Emergency Response and Recovery Branch

Jomar Rabajante
University of Philippines Resilience Institute, Bioinformatics and Modeling Group – COVID-19 Pandemic Response Team

Rudradeb Mitra
Omdena inc. AI solutions, Founder and Chief Executive Officer

Session 18. What's all this fuss about data? Let's talk about it!

This session sparked a dialogue on data for anticipatory action. It gathered a group of experts with a range of views, who shared diverse perspectives on data. **Stefania Giodini** introduced the session by stating that data is becoming like wizardry: it is being taken away from the people. She took participants on a journey of 'healthy scepticism' about data. **Peter Jin Hong** then summarized his talk on such scepticism with an exercise. He encouraged everyone to say, 'I get to', rather than 'I have to'. Do we need more and better data? We don't necessarily need better data, but we need to better understand the data that we have and the conditions under which the data is collected.

Leonardo Milano challenged participants to think about clearly defining the purpose of 'more data', identifying who is benefitting from it and what humanitarian outcome is improved as a result. **Meghan Bailey** discussed how we must not forget about the embedded bias in our information collected: what are you collecting and how is this then categorized?

Trudy Hope was asked: are grassroots and indigenous contributions to data unreliable and not replicable on a national scale? Her reply was that we easily forget about the owners of the data we collect, and we really need to be asking ourselves: who are we collecting this data for? If we want to be sustainable, we need to include communities; they can collect data and if we do not include them, then data sets will not be collected quickly and accurately, such as is needed in a cholera outbreak. We can come in to analyse what they have collected. To summarize, there is a fuss about data and many questions regarding 'more' and 'better' data, but we need to keep on being critical together with our community.

Facilitator:

Stefania Giodini
510 Netherlands Red Cross, Operations Lead

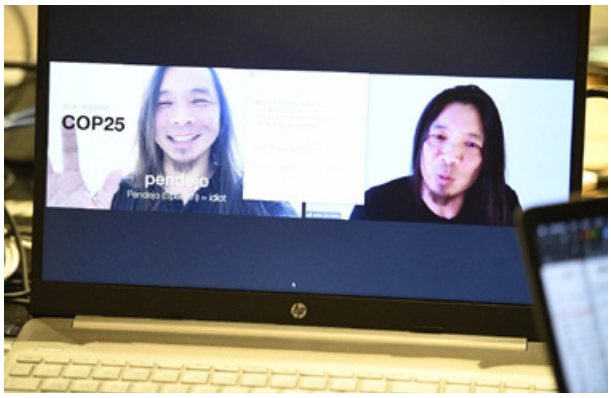
Speakers:

Peter Jin Hong
Google, Advisor

Leonardo Milano
OCHA/Centre for Humanitarian Data, Predictive Analytics Team Lead

Meghan Bailey
RCCC, Senior Technical Advisor

Gertrude (Trudy) Hope
Namitala OpenStreetMap Zambia, Founder



Session 19. Anticipatory action in the Americas and the Caribbean: an overview of the trends and emerging issues in the region

Facilitator:

Mauricio Santos
GRC, Regional Programs Officer FbF

Speakers:

Marion Khamis
FAO Regional Office for Latin America and the Caribbean

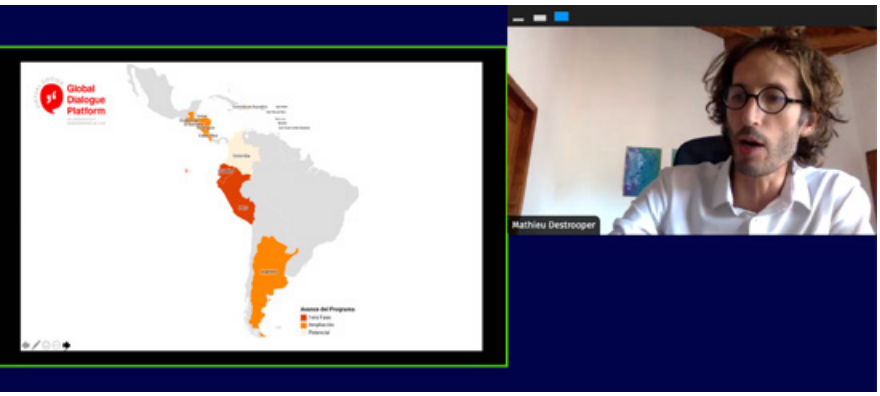
Mathieu Destrooper
GRC, Regional FbF Coordinator

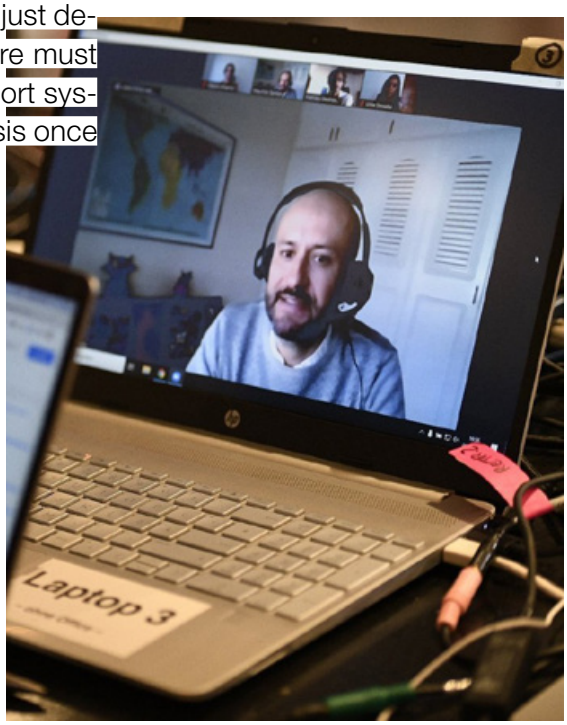
Urbe Secades
WFP Dominican Republic, Programme Manager for DRM and Climate Change

2020 has been a challenging year everywhere. The COVID-19 pandemic, compounded by disasters such as hurricanes Eta and Iota in the Americas and the Caribbean, has challenged the ways in which humanitarian action is approached, and has forced the adaptive and response capacities of all institutions.

In this difficult context, the GRC's FbF programme for Latin America and the Caribbean initiated new programmes to set up anticipation mechanisms in four RCRC National Societies. At the same time, FAO is exploring how anticipatory action can link to social protection, strengthening the resilience of poor rural populations. **Marion Khamis** pointed out that it is known that disasters intensify poverty, while poverty intensifies the vulnerability to disasters. Rural areas concentrate 75% of the population living in poverty in Latin America and the Caribbean. Most people in rural areas depend on agriculture, which is a livelihood extremely sensitive to climate change impacts; agriculture absorbs 23% of the total losses caused by disasters at the global level, and 83% when it is a drought. So, more disasters imply more rural poverty and therefore more vulnerability to disasters.

Mathieu Destrooper shared his experience that it is not about just developing EAPs and putting coordination systems in place; there must also be a lot of capacity strengthening in procedures and support systems, so that early actions can be implemented on a timely basis once triggers are reached.





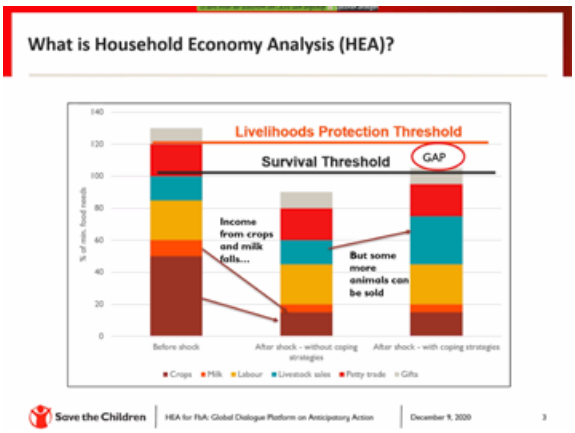
Session 20. Household economy analysis for Forecast-based Action

Speakers:

Laura Swift
Save the Children UK, Senior Food Security & Livelihoods Technical Advisor

Nick Anderson
Save the Children US, Director of the Humanitarian Cash and Markets Technical Unit

Household Economy Analysis (HEA) is a unique livelihoods framework that quantifies households' food, income and expenditure sources, and how each of these factors contributes to people's ability to meet survival and livelihood protection needs. The HEA translates hazard into the economic consequences at the household level, said **Laura Swift.** HEA has been used by Save the Children for early warnings to trigger forecast-based action in several contexts, such as responding to climate crises, the COVID-19 pandemic and in conflict settings.



Session 21. 10 lessons from the first three years of crisis anticipation at Start Network

Facilitator:

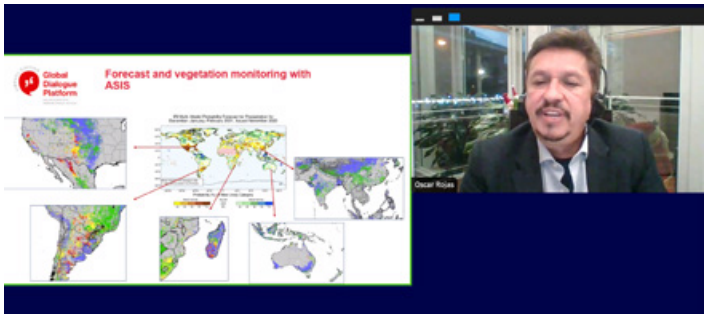
Sarah Barr

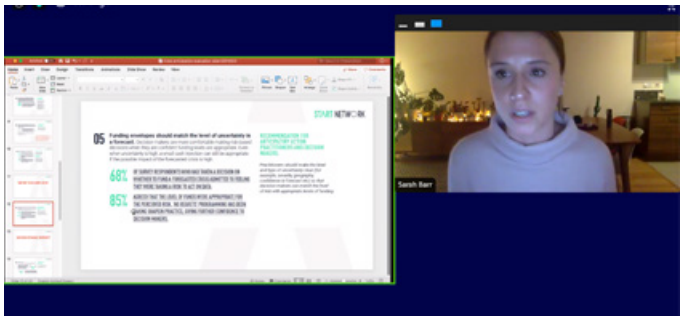
Start Network,
Learning and Research Advisor

In 2016, Start Network launched 'Crisis Anticipation' for the Start Fund. The Start Fund is a pooled fund which provides rapid and early funding to NGOs on the frontline of crises globally. Anticipatory action within the Start Fund enables funds to be disbursed using forecasts, to mitigate anticipated humanitarian impacts. Start Network has provided a mixture of technical support, access to forecasts, risk analysis and 'no regrets' early funding to their members. In doing so, they hoped to catalyse a shift across Start Network from reactive to proactive humanitarian interventions. In 2019, their efforts so far were evaluated. **Sarah Barr** presented the findings and main lessons of the evaluation done for anticipatory actions of the Start Fund.

The findings cover a wide range of aspects. A shift in culture took place between 2016 and 2020 towards more anticipatory action awareness in the humanitarian system. Networks are important to connect forecasters with humanitarians implementing activities, to share technical inputs and advice. They also provide members with the opportunity to learn and make anticipation as a topic become more present in humanitarian organizations. This made it clear that to fully understand anticipatory action, the concept needs to be explained continuously and precisely.

Learning about forecasting crises is an ongoing process with some hazards being easier to forecast (such as droughts and floods) and some being more challenging (such as disease outbreaks). Funding should, at best, match the level of uncertainty to be able to take risk-based decisions. Gender is another critical element and needs to be taken into consideration for anticipation, because based on their gender, people make different decisions and have different information available to them to anticipate a crisis. It is also vital to reach communities in time before the crisis hits, to invest in forecasting abilities for the window of opportunity, and to focus on capacity building at the country level. Start Network has trained FOREWARN officers to strengthen engagement in country contexts.





Session 22. Practical guidelines for early warning early action plans on agricultural drought

Facilitator:

Oscar Rojas
FAO, Natural Resources Officer

Speaker:

Marco Minelli
FAO, Expert in Disaster Risk Management and Emergency

Drought is a devastating and complex natural hazard that represents a constant risk for smallholder farmers around the world. Continuous innovation and refinement of the tools and methodologies to systematically analyse hazards and vulnerabilities is at the core of efforts to prevent and/or mitigate these impacts. **Oscar Rojas** and **Marco Minelli** from FAO presented a methodology to bake an 'anticipatory action cake' by using ingredients from seasonal vegetation monitoring to the El Niño forecast. This enables countries to anticipate upcoming rainfall reduction and associated impacts on crop yields, and to define the most suitable crop season.

Oscar elaborated on the Agricultural Stress Index System (ASIS), a geoinformation system to detect agricultural areas that have a high probability of suffering water stress (agricultural drought). Marco introduced FAO's new *Practical Guidelines for Early Warning Early Action Plans on Agricultural Drought*. The guidelines can be applied in countries with an agricultural drought monitoring system (such as ASIS) and an analysis and monitoring system to classify food insecurity. Both monitoring systems are needed to define the triggers for action.

8th Global Dialogue Platform
on Anticipatory Humanitarian Action –
Virtual Edition

DAY THREE

Parallel Sessions

Session 23. How can research contribute towards the development of protocols for early action?

In this session, eight case studies were presented by different researchers showcasing how research contributes towards protocols for early action. Cases included tropical cyclones, floods, droughts, food insecurity and flash floods in Southeast Africa, the Southwest Indian Ocean, Bangladesh, Kenya and Senegal. The case studies showed the collaboration between researchers, early action practitioners, meteorological agencies and communities in different contexts. Participants learnt how hazards can be better forecast using satellite images.

The session also highlighted the importance of impact-based forecasting and including communities in the modelling process to understand how they receive and understand information, as well as to ensure that their coping mechanisms are considered. In summary, collaboration between researchers and local stakeholders, and the co-production of data products, is crucial for accountability and ownership of forecasting models.

Facilitator:

Liz Stephens
University of Reading/RCCC

Speakers:

Sazzad Hossain
University of Reading/Bangladesh Flood Forecasting and Warning Centre

Andrea Ficchi
University of Reading

Faith Mitheu
University of Reading

Emmah Mwangi
Kenya Red Cross Society

Steve Cole
Centre for Ecology and Hydrology

Rebecca Emerton
European Centre for Medium Range Weather Forecasts

Marc van den Homberg
Netherlands Red Cross 510 Data Team

Gabriela Nobre
VU, Netherlands

Session 24. Climate change and variability to carve anticipation actions in Bangladesh

Facilitator:

Ashraful Haque
FOREWARN Bangladesh, Coordinator

Speakers:

Prof. Saleemul Huq
International Centre for Climate Change and Development (ICCCAD), Director

Dr Ruksana H. Rimi
Mawlana Bhashani Science Technology University, Associate Professor

Atik Ahsan
Medical Anthropologist

Hassan Ahmadul
RCCC, Technical Advisor

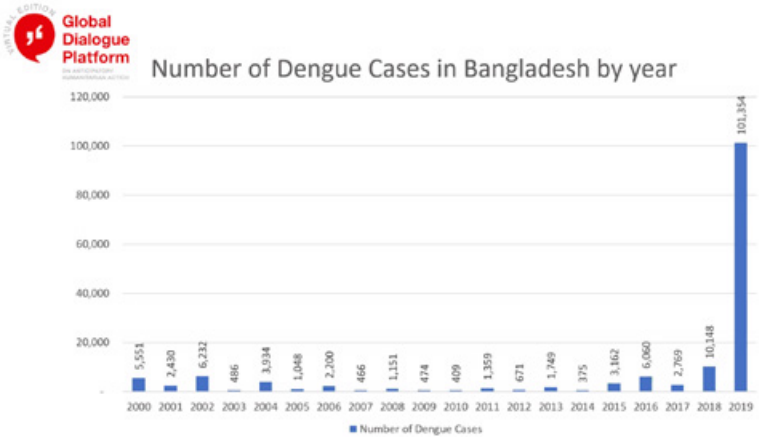
This session brought together Start Network's Bangladesh FOREWARN experts alongside representatives of ICCCAD, who shared the key lessons from their work on climate change, risk analysis and designing anticipatory action – and how this combined approach must be integrated as we go forward in FbA.

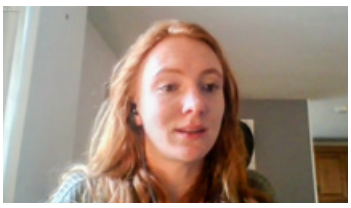
FOREWARN was introduced as a Start Network project bringing together scientists and humanitarians to collectively analyse risk, alongside community consultation to plan anticipatory action. **Ruksana H. Rimi** walked the audience through how the climate impacts Bangladesh, now and in the future, and the probability of experiencing extreme weather events, such as high magnitude rainfall causing flash floods. One example of climate change effects was if the sea surface temperature in the Bay of Bengal increases by 1.5 degrees by 2050, then the maximum sustainable wind speed will increase by 69%.

Atik Ahsan explored the relationships between climate change and variability on future diseases, focusing on dengue fever, which is spreading as temperatures rise. Atik looked at the concentration of dengue hospital cases by area and noticed that increased rainfall could be one variable of influence.

Hassan Ahmadul pointed out how difficult it is to predict flood frequency. A 1-in-10-year event has reached that threshold four times in the last five years. According to Hassan, people only evacuate when water levels reach their beds, which makes it even more urgent to monitor flows and react to impacts. He described the Bangladesh Red Crescent Society's two-stage triggers for extreme flood: (1) the readiness trigger (10 days lead time); and (2) the activation trigger (5 days lead time).

Saleemul Huq really inspired the audience in his presentation looking into which policy instruments are needed to anticipate better, and how collectively learning via pilot tests can help us all learn and plan better. He highlighted two ways of doing this: the Bangladesh National Adaptation Plan (from the Department of Environment) and how to cope with loss and damage in a realistic way using a national mechanism, hopefully through a two-year pilot project with the Ministry of Disaster Management.





Session 25. Floods, droughts, fire and beyond… Are existing forecasts enough?

Forecasts of high-impact environmental events, such as floods, droughts and fires, are increasingly available on a range of platforms. This session, hosted by the ECMWF, discussed what the most useful information is for anticipatory action, looking at forecast quality, lead time or spatial granularity. The three key themes of 'What?', 'How?', and 'When?' guided the session to discern what users regard as critical components of the environmental forecasts they currently use, and what they consider to be 'ideal' forecasting systems and services.

The information gathered from participants revealed that there was interest in different forecast ranges, with medium range (5–14 days) scoring highest and sub-daily forecasts scoring lowest, as early actions require more lead time for decisions to be made. Participants highlighted the value of Global Flood Awareness System (GloFAS) for its global coverage and providing information provision in areas where no other data is available.

A key barrier identified for the use of forecasts was the disconnect between forecast providers/ hazard-warning generators, and on-the-ground users or response actors who have limited understanding of the forecasts. Limitations of existing forecast systems identified were the coarse spatial resolution/scale, errors in forecast timing, the need to balance lead times and forecast probability, and low forecast skills for seasonal forecasts. The session highlighted the importance of contextualizing forecasts with information on historic events, gauged data and real-time impact reports from in-situ and earth observations.

Furthermore, the most effective way to disseminate information was discussed. Participants preferred forecast products as maps, graphs and plots, and dissemination through data portals, notifications/alerts and web services. In addition, reports and briefs should be in an easy and accessible language and include infographics and analysis of potential on-the-ground impacts. The importance of communicating uncertainty to decision-makers was also noted.

Facilitator:

Ervin Zsoter
ECMWF, Scientist

Speakers:

Christel Prudhomme
European Centre for Medium-Range Weather Forecasts (ECMWF), Leader of Environmental Forecasts Team

Francesca Di Giuseppe
ECMWF, Principal Scientist

Fredrik Wetterhall
ECMWF, Senior Scientist

Calum Baugh
ECMWF, Scientist

Karen O'Regan
ECMWF, Hydrological Forecast Analyst

Eleanor Hansford
ECMWF, Hydrological Forecast Analyst

Session 26. Impact-based forecasting for anticipatory action

Weather and climate forecasts traditionally describe what the weather will be like. Unfortunately, this is not sufficient to warrant acting before disasters. For this, it is critical to understand what the impact of weather hazards might be on lives and livelihoods. A new approach to forecasting called Impact-based Forecasting (IBF) is emerging, which produces information on what the weather will do.

An example of IBF is a forecast that tells us how many houses are expected to get damaged if there is a certain amount of rain. This approach is revolutionizing the way we anticipate disasters and respond to them. It represents an evolution in early warning systems, ensuring every early warning is translated to early action. It is also the fundamental element of the FbF mechanism.

In this session, participants learned that, following the WMO symposium in December last year, the WMO Guidelines on Multi-hazard Impact-based Forecast and Warning Services (No.1150, initially developed in 2015) are being revised and updated and will be available next spring.

Emma Louise Flaherty explained that REAP's third target is particularly focused on IBF: "There is so much evidence and good practice, the question should be: why not?" She added that IBF used to be a niche but now it needs to be at the centre of anticipatory action. **Irene Amuron** highlighted the need to bring IBF to scale. Experiences were shared about IBF in South Africa, Kenya and Nepal in delivering forecasts and their impacts to vulnerable communities at risk from hazards. **Will Lang** emphasized that IBF would continue to evolve and that we have only just touched the surface on what it can do.

Facilitators:

Madhab Uprety
RCCC, Technical Adviser

Stefania Giodini
510 Global/RCCC, Operations Lead

Speakers:

Emma Louise Flaherty
REAP, Implementation Lead

Will Lang
WMO, Chair of Expert Team on General Service Delivery

Nyree Pinder
UK Meteorological Office, Global Partnerships Manager

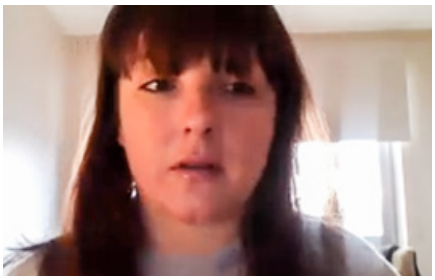
Catrina Johnson
UK Meteorological Office, Science Manager

Elizabeth Viljoen
South African Weather Service, Forecaster

Osunga Michael Otieno
International Centre for Humanitarian Affairs/Kenya Red Cross Society, Geoinformation Officer

Shanti Kandel
Nepal Department of Hydrology and Meteorology, Senior Meteorologist

Irene Amuron
Red Cross Red Crescent Climate Centre, Technical Advisor



Session 27. Evidence-driven anticipatory approaches: lessons from Zambia

Facilitator:

Stefania Giodini
510 Global/RCCC, Operations Lead

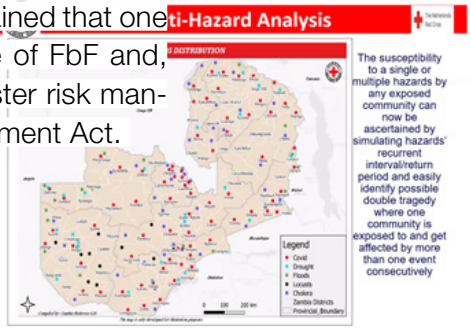
Speakers:

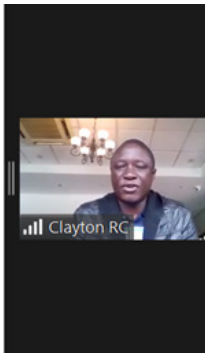
Mulambwa Mwanangóno
Zambia Red Cross, Disaster Management Manager

Likezo Musobani
Zambia Government Disaster Management and Mitigation Unit, Principal Early Warning and Preparedness Officer

In recent years, the Zambian Red Cross has been implementing anticipatory action together with the Zambian Government. EAPs have been developed to facilitate anticipatory action on multiple types of hazard, such as drought, cholera, COVID-19 and floods. For example, through the Impact-based Forecasting Portal, flood forecast data is automatically analysed daily to support triggering the early actions defined in the flood EAPs. This system runs 24 hours a day and, alongside email-based warnings of an imminent flood, it gives detailed contextual information through a set of map layers.

Collaboration with different Zambian (technical) stakeholders was crucial in the implementation of FbF. **Likezo Musobani** explained that one key success is the complementary and practical nature of FbF and, as such, it is being integrated into existing national disaster risk management systems, namely the National Disaster Management Act.





Session 28. La Niña is officially declared: what are we doing to anticipate its likely impacts?

Facilitator:

Dunja Dujanovic
FAO, Team Leader, Early Warning Early Action

Speakers:

Andrew Kruczkiewicz
University of Colombia – International Research Institute for Climate and Society, Senior Researcher and Faculty Lecturer

John Long
OCHA, Head – Emergency Response Preparedness Unit

Bob Stefanski
WMO, Head of Applied Climate Services Division

Stéphanie Julmy
IFRC, Resilience Coordinator, Africa and Middle East & North Africa (MENA)

Ahmat Younous Abdel-Lathif
WFP, Meteorologist and Climate Risk Analyst

This session looked at the different expected effects of la Niña, as well as the actions the different organizational members of the Inter-Agency Standing Committee (IASC) El Niño–Southern Oscillation cell are taking to anticipate its impacts, as the La Niña event is expected to be moderate or strong for 2020 and 2021. La Niña can lead to shifts in rainfall and temperature for extended periods of time. These shifts can align with ongoing humanitarian operations, and/or act as a 'trigger' for humanitarian situations. The phenomenon leads to increased skills in seasonal forecasts.

Andrew Kruczkiewicz said that no La Niña is like any other, however we should still learn from the past. **John Long** added that it has been encouraging to see a wide array of humanitarian actors linking up with the technical experts in terms of forecasting. What is also encouraging is that this issue has been taken up at the IASC principal level, gaining a lot of attention, which is quite remarkable with everything else that is going on with COVID-19.

Session 29. Catching outbreaks where they start through community-based surveillance

Speakers:

Rachel Goodermote
IFRC, Senior Emergency Health Officer, Risk & Surveillance

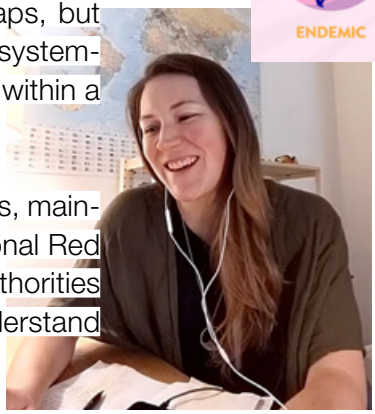
Abbey Byrne
IFRC Africa Region, Community-based Surveillance Delegate

Amrish Baidjoe
Norwegian Red Cross, Team Lead, Public Health and Surveillance

Julia Jung
Norwegian Red Cross, Regional Technical Delegate

Epidemics begin and end within communities. RCRC volunteers are ideally placed within their communities to promote preparedness that enables and empowers people to stop outbreaks from becoming epidemics. Building on a strong foundation of epidemic control, first aid, risk communication and community engagement, volunteers can be trained on signs and symptoms tailored to their community's health risks. Once volunteers identify these risks, health authorities can be alerted to their presence – forming the final community-level link in the health surveillance system.

This session introduced the Red Cross Red Crescent approach to community-based surveillance (CBS) as a potential tool for early warning and early action. **Rachel Goodermote** provided a theoretical public health background on outbreaks and why time is an important element in proactively engaging in outbreak response. It takes time to bring information from the locations where outbreaks start (communities) to the technical centres and decision-makers, which delays response times. CBS is therefore important not only to reduce time gaps, but equally to reduce reporting gaps. She described CBS as the systematic detection and reporting of significant public health events within a community, by the community (e.g. a disease outbreak).



Abbey Byrne then provided an overview of CBS from countries, mainly in Africa, where it is already being implemented by the National Red Cross or Red Crescent Society. All these programmes help authorities to identify and react early to various outbreaks. A video to understand CBS can be found here.

Session 30. Collaboration on anticipatory actions: state of play in the Arab region

Facilitators:

Hosam Faysal
IFRC MENA

Omar Farook
WFP Regional Bureau in Cairo

The Arab region has become increasingly vulnerable to climate change impacts, demanding state and non-state actors to be innovative and efficient with humanitarian, as well as development, activities. In light of this, a number of UN agencies, civil society organization and governments are becoming more interested and familiar with how FbF and anticipatory action work. **Hosam Faysal** and **Omar Farook** explained the initiation of FbF and anticipatory action in the Arab region. Hosam presented a set of FbF manuals, tools and guidance material available in Arabic (available here) that are available to support National Societies, governments and other organizations. Both presenters emphasized the importance of collaboration and multi-stakeholder regional projects, where anticipatory action can contribute to the regional climate security agenda. Their regional perspective aims to help government actors in decision-making to deal with climate crises.

Session 31. Forecast-based Financing and disaster displacement: acting early to reduce the humanitarian impacts of displacement

Facilitator:

Ezekiel Simperingham
IFRC Global Lead Migration and Displacement

Speakers:

Atle Solberg
IFRC Global Lead Migration and Displacement

Nyamkhuu Chuluunkhuu
Mongolia Red Cross

Dunja Dujanovic
FAO, Early Warning Early Action Lead

There is increasing interest in anticipatory humanitarian action in the context of disaster displacement. Recently, for example, the United Nations Framework Convention on Climate Change Task Force on Displacement called on states to "develop innovative approaches, such as forecast-based financing, to avert, minimize and address displacement related to the adverse impacts of climate change".

The session brought together experts to discuss how the existing FbF approach can be used to address climate displacement, as well as to explore practical recommendations on how FbF can be adapted to address the needs of communities affected by climate displacement. A new policy brief on this topic was shared during the session, 'IFRC and Red Cross Red Crescent Climate Centre Issue Brief on Forecast Based Financing and Disaster Displacement'. **Atle Solberg** set the scene, stating that disasters are not natural and risks are socially constructed. Prevention, preparedness and forecasting are effective tools for reducing risks and protecting human rights. The session also highlighted the social issues induced by population movement, both for affected communities as well as host communities. **Nyamkhuu Chuluunkhuu** explained how the Mongolia Red Cross provides cash and animal supplements to herder families, to protect animals and livelihoods from Dzud (extreme winter conditions). In Colombia, **Dunja Dujanovic** shared how the FAO teamed up with the International Organization for Migration and the UN Refugee Agency to share data to anticipate needs and population movement flows, focused on La Guajira region.

Session 32. The key to long-term sustainability of anticipatory action: mainstreaming into national systems

Facilitators:

Olivia Taylor
University of Sussex, Project Manager

Martin Todd
University of Sussex, Professor

Speakers:

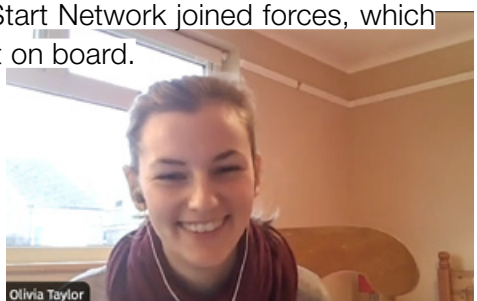
Mary Kilavi
Kenya Met, Forecast-based Preparedness Action Researcher/ Meteorologist

Tobias Pforr
University of Reading, Postdoctoral Research Assistant

Mirianna Budimir
Practical Action, Senior Disaster Risk Reduction Advisor

Anticipatory action is currently a priority approach in the humanitarian and development sectors. However, to set it up sustainably, it needs to be mainstreamed and integrated into national risk management systems. While this sounds logical, it is not easy to achieve.

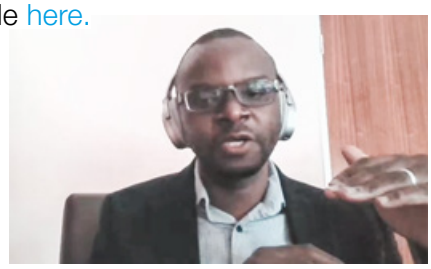
Examples from Kenya, India and the Philippines demonstrated the challenges of creating coherence and technical alignment among different actors to reach sustainable anticipatory action. It takes time to show the added value of anticipatory action to local, regional and national authorities. Nevertheless, the example from the Philippines showed that it can work when you engage the relevant actors over a longer period of time (which also requires funding). In this context, the Red Cross, UN organizations and Start Network joined forces, which was key to bringing the government on board.



Session 33. Jumping into the pool – making a bigger splash with risk pools and predictable funding

The session explored the concept of funding early actions predictably using risk pooling across countries. It highlighted the advantages that risk pooling can bring, how it works to increase the number of people who can be protected or reached with funds, and the added benefit that predictability of funds brings to anticipatory action, which is characteristically uncertain. The session also outlined the new Start Network financing facility, which will use risk pooling.

The session started off with **Clare Harris** introducing the new Start READY fund, which will be launched by the Start Financing Facility in 2021. The Start Financing Facility provides a range of innovative crisis financing mechanisms for faster, more efficient and effective global humanitarian action. The structure of Start READY is based on the Start Financing Facility's recent study on quantitative analysis of risk pooling. During the panel discussion, **Nicola Ranger, Malvern Chirume** and **Emily Montier** highlighted key opportunities such as efficiency gains due to risk pooling, incentivizing preparedness planning because you know which amount will be available in advance, and allowing for more participatory and transparent decision-making instead of taking funding decisions in the heat of the crisis. Challenges involve building the technical models, including ethical considerations, and partnering with others to fill the risk protection gap. However, an even bigger challenge is to explain and communicate the complexities of the financing model to a wider audience and bring humanitarian stakeholders on board. The risk pooling study is available here.



Facilitator:

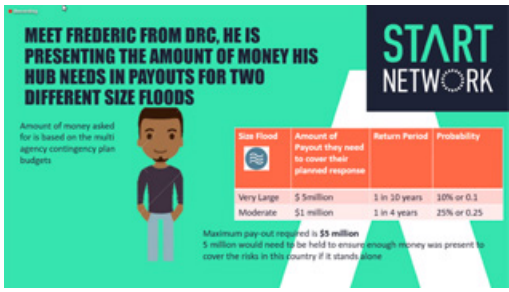
Clare Harris
Start Network, Technical Lead for Crisis Anticipation and Risk Financing

Speakers:

Nicola Ranger
World Bank, Senior Consultant on Crisis and Disaster Risk Finance

Malvern Chirume
African Risk Capacity, Chief Underwriting Officer

Emily Montier
Start Network, Head of Crisis Anticipation and Risk Financing



Session 34. Drought FbF: dealing with complexity

The Red Cross Red Crescent Movement has made considerable progress in developing and approving EAPs for sudden onset disasters. However, to date, very few EAPs have been approved for slow onset disasters, with only a first drought EAP for Niger. Developing EAPs for slow onset disasters comes with specific challenges and differs from sudden onset ones in terms of type of impact, as well as spatial and temporal characteristics. Droughts are often 'silent emergencies' where impacts are insidious and build over time, and having wider spatial and temporal scope. This requires a different kind of modelling, using seasonal up to sub-seasonal lead times with higher uncertainties. Working in this area also requires aligning scientific knowledge with local knowledge, as what drought means for one actor can differ for the other.

Anne Van Loon presented the outcome of different case studies, showing that drought resilience techniques, such as conservation agriculture, not only improve soil moisture on site but also positively impact on locations downstream. Videos of interviews discussing the causes of, and solutions for, drought can be viewed online; these also share some creative solutions. **Rogerio Bonifacio** talked about plans to publish verification tables which aim to capture the balance between detecting droughts and avoiding false alarms. **Marijke Panis** told participants that they are testing various drought indicators, such as drought management plans, vegetation condition indexes, standard precipitation indexes and standardized precipitation-evapotranspiration indexes. Indicators vary from country to country; for example, crop yield may be an indicator in one country but not another.

Facilitators:

Marc van den Homberg
Netherlands Red Cross 510 Data Team, Scientific Lead

Anna Lena Huhn
GRC, Delegate FbF Southern Africa Project

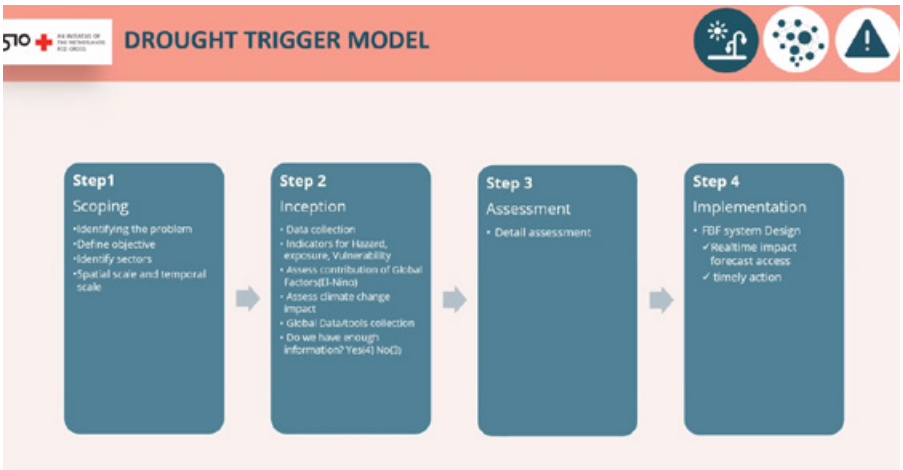
Meghan Bailey
RCCC, Senior Technical Advisor

Speakers:

Anne Van Loon
Institute for Environmental Studies VU, Associate Professor

Rogerio Bonifacio
WFP, Vulnerability Analysis and Mapping Advisor

Marijke Panis
Netherlands Red Cross 510 Data Team, Hazard and Impact Analyst



Anticipatory collage

Bettina Kölle and **Margot Curl** from RCCC livened up the platform with an interactive break focused on the future of anticipatory action. This was full of inspiration for delicious recipes for the future, enlightening background stories, moving hats, and cartoons that illustrate the importance of community engagement, advocacy, cash programs and artificial intelligence. The Miro board can be found here.

But now, let's talk about the weather: recent advances in forecasting

→ IFRC recently issued its World Disasters Report 2020, 'Come Heat or High Water', which showed that in 2019, 77% of disasters caused by natural hazards were triggered by climate- or weather-related hazards (storms, floods, drought, wildfires, extreme temperature or landslides). In Ignites of less than five minutes followed by brief interviews, experts and scientists shared the latest developments in the science and forecasting of extreme weather.

Speakers:

Kirsten Hagon
IFRC, Senior Humanitarian Policy Analyst

Sebastian Grey
WMO Office for Eastern and Southern Africa, Project Officer

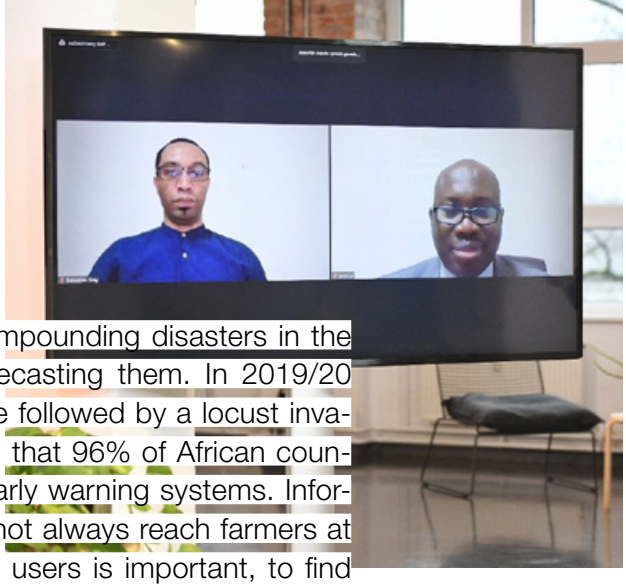
Josée Poirier
OCHA/Centre for Humanitarian Data

Elizabeth Viljoen
South African Weather Services

Ángel G. Muñoz
International Research Institute for Climate and Society, Columbia University

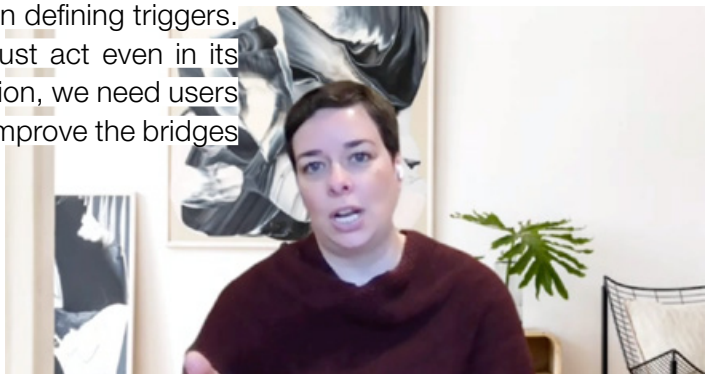
Joseph Intsiful
Green Climate Fund, Senior Climate Information and Early Warning Specialist

Kirsten Hagon highlighted that early warning systems are crucial, and number one in terms of cost/benefit of investments in adaptation. Forecasts need to cover the 'last mile' and effectively reach communities, and come in a language they understand and trust, so that they are connected to early action. She presented highlights from the World Disaster Report 2020 and explained that in 2019, 97.6 million people were affected by natural hazards.

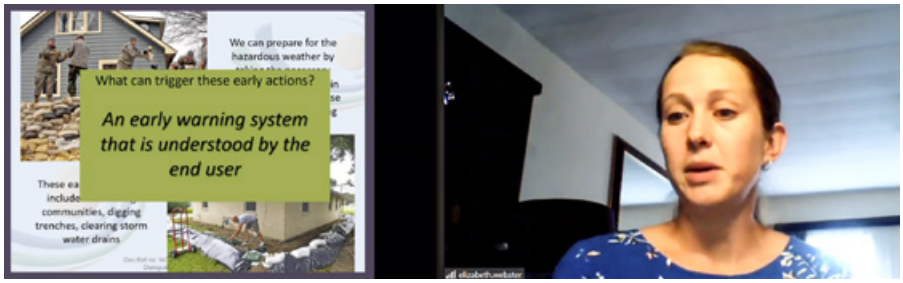


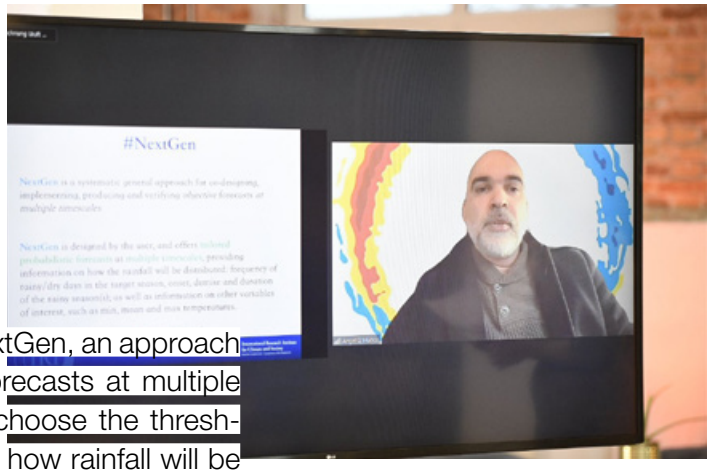
Sebastian Grey gave an overview on compounding disasters in the Horn of Africa and the challenges in forecasting them. In 2019/20 droughts turned to floods, and these were followed by a locust invasion and COVID-19. Sebastian underlined that 96% of African countries expressed a need for multi-hazard early warning systems. Information from early warning systems does not always reach farmers at the 'last mile'. Therefore, speaking to the users is important, to find out what they need and how information can best reach them. To improve these products, it is crucial to bring together the producers of forecasts and early warning systems, farmers and extension agents to support a continual process of monitoring and learning.

Josée Poirier underlined how forecasts are, by nature, uncertain – but certainty is not required to take anticipatory action. It is key to discuss the costs of false positives and false negatives when defining triggers. There are ways to mitigate uncertainty, but we must act even in its presence. To improve the impact of anticipatory action, we need users to become more comfortable with uncertainty and improve the bridges between users and producers of forecasts.



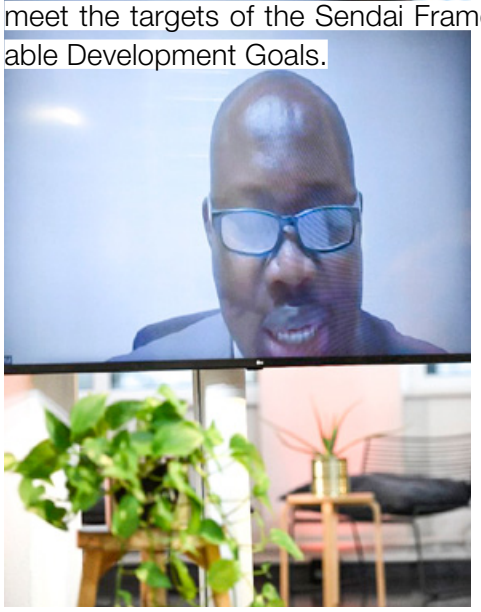
Elizabeth Vilijoen pointed out that early warning systems need to be understood by the end user, otherwise no early actions can be taken. But how can communities best be reached? To receive feedback from the communities to improve their warning systems, South African Weather Services organized outreach workshops to reach the 'final mile'. Elizabeth explained how their early warning systems have shifted toward community-based warnings, using the language of impacts rather than technical forecasts to reach that last mile.





Ángel G. Muñoz emphasized the importance of NextGen, an approach for co-designing and co-implementing objective forecasts at multiple timescales. Being demand-centred, the user can choose the threshold. For instance, NextGen provides information on how rainfall will be distributed, gives both spatial maps with deterministic (millimetre) values and probabilities of exceedance of thresholds. NextGen is already being co-developed with national meteorological services in Central America (e.g. Guatemala), and also being extended across all Central American countries, as well as Colombia and Chile, Africa and Asia.

Joseph Intsiful connected the dots between the Ignites and wrapped up the presenters' key messages. He highlighted the crucial points and common thread throughout them: the end users should be in the driving seat to shape forecasts. Joseph introduced the Green Climate Fund's projects to strengthen forecast and climate information services and enable anticipatory action. He sees cooperation and collaboration as key. There is a great opportunity for all of us to work together to meet the targets of the Sendai Framework for DRR and the Sustainable Development Goals.



Harnessing humour for anticipatory action

Facilitator:

Pablo Suarez
RCCC

Pablo Suarez invited everyone to create news headlines for cartoons under four themes: anticipatory mindset; building solutions; communicating complexity; and financial instruments.

Can we outsmart domino effects? COVID-19 lessons on compound risk

→ Discussions on compound risk – a situation when multiple risks occur simultaneously, or one after another – have increased since the start of the COVID-19 pandemic. While governments, organizations and communities are being tested on their ability to respond to outbreaks around the world, many are also suffering from the impacts of tropical storms, floods and droughts. If COVID-19 has shown us anything, it is that the economic and health systems upon which we depend are often fragile and vulnerable to disruption.

Facilitator:

Kara Siahaan
Anticipation Hub/IFRC, Lead Policy and Networks

Speakers:

Dirk-Jan Omtzigt
OCHA, Chief Economist and Head of Humanitarian Financing Strategy and Analysis Unit

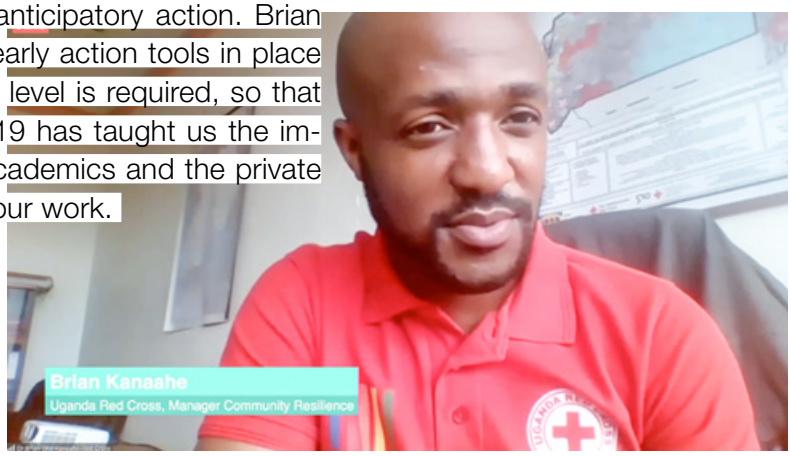
Brian Kanaahe
Uganda Red Cross, Manager, Community Resilience

Bianca Adam
World Bank/Global Crisis Risk Platform, Team Lead

Dirk-Jan Omtzigt explained that a compound impact is when two or more threats happen simultaneously; it can be far greater than the sum of its parts. He explained that there is a need to measure existing and future risks with innovative data sets from sources that humanitarians do not traditionally use, such as oil prices. For 2021, he foresees problems with vaccine availability due to wealthier countries monopolizing the market, as well as problems caused by the fallout from tourism, oil prices and school dropout (particularly for girls). He also discussed

how conflict tends to follow the likely food insecurity caused by depressed social economic conditions, not to mention the devastating impacts of likely environmental factors. Dirk-Jan concluded by presenting a more hopeful outlook for the coming years in terms of data, which is getting better and more timely, as is our ability to collect data. This will allow us to better protect people before crises.

Brian Kanaahe explained that the first challenge the Uganda Red Cross had was the lack of institutional preparedness to respond to non-natural hazards, because their protocols are focused on hydrological hazards. Furthermore, they needed to update their EAPs to consider compounding issues, such as COVID-19 and flooding. This was an opportunity for them to get more visibility to advance DRR and climate change adaptation policies, and ensure that more funding is allocated by the central government for anticipatory action. Brian highlighted the need to have early warning early action tools in place in communities. Reliable data from the local level is required, so that it can be shared with other actors. COVID-19 has taught us the importance of sharing with others, including academics and the private sector, to reinforce a resilience approach to our work.



Bianca Adam elaborated on how complicated it is to manage one risk, never mind multiple risks, and that there are not many existing tools that can help us understand how risks interact or how to monitor them. Thanks to COVID-19, there is a decisive push to get a better understanding of compound risks. Though not precise, the Compound Risk Monitor can guide us, as can the World Bank´s current use of rapid monitoring tools, such a phone surveys across countries for individuals and businesses. Bianca is hopeful that with more and more organizations across the development and humanitarian sectors working on compound risk, the availability of improved technologies, and the continued investment in the understanding of compound risk and use, our collective expertise will increase.

Parallel Sessions

Session 35. Localizing anticipatory action to climate disasters – new triggers needed?

Facilitator:

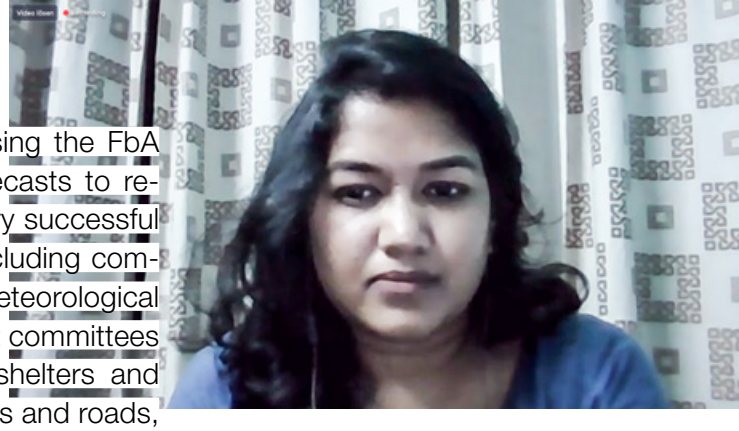
Christian Johansen
Care Denmark, Humanitarian Advisor and Global Focal Point for Care's work on Anticipatory Action

Speakers:

Richard Ewbanks
Christian Aid, Climate Advisor

Sumaiya Kabir
CARE Bangladesh, Consortium Coordinator

This session underlined the importance of community-managed climate monitoring. **Richard Ewbanks** explained how it can substantially increase local actors' motivation for, and ability to, integrate climate services into risk management and resilience-building, and improve the communication and credibility of early warnings. The community-managed approach added value to existing monitoring systems managed by national meteorological and hydrological services by increasing monitoring points in previously unmonitored areas, enhancing users' understanding of uncertainty, and demonstrating how to integrate local knowledge with scientific forecasting methods. The project highlighted the importance of cooperation between hydro-meteorological stakeholders and local-level actors in managing climate/weather data. Such cooperation is crucial to be able to localize anticipatory action and to identify early actions at the local level, for example in the context of localized drought preparedness and management. The approach also enhanced the sustainability, productivity and profitability of rural livelihoods.



Sumaiya Kabir explained how the SUFAL project is using the FbA mechanism to take early actions based on climate forecasts to respond to monsoon floods in Bangladesh. It has been very successful for enabling cooperation between local stakeholders, including communities, disaster managers, data providers and hydro-meteorological offices. The project supported local disaster management committees to implement early actions, including preparing flood shelters and evacuation points, repairing weak points on embankments and roads, and distributing shelter kits. Sumaiya highlighted the way forward for localizing anticipatory action in Bangladesh, emphasizing the need for common standard operating procedures, further advocacy and financing for early actions, and capacity-building to strengthen understanding of forecasts and tools for decision-making.

Session 36. FbF in action: insights and lessons learned from the activation of Sangay volcano in Ecuador

Facilitator:

Natalie Acosta
GRC, Regional Communication Officer, FbF Latin America and the Caribbean

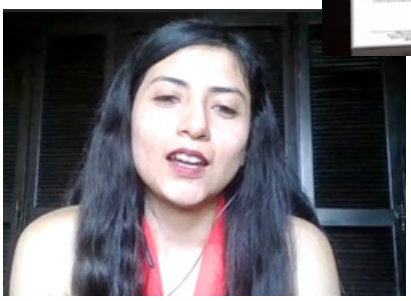
Speakers:

Fernanda Ayala
Ecuador Red Cross, GIS Specialist, National Risk Management Programme

Sabina Ortíz
Ecuador Red Cross, National Risk Reduction Specialist

At 04:20 on 20 September 2020, the Ecuadorian Geophysical Institute (IGEPN) registered a significant increase in the activity of the Sangay volcano. The Ecuadorian Red Cross, in coordination with IGEPN, analysed the possible scenarios, including the level of impact, based on the information generated. Dispersion models showed the high probability of ashfall in nearby provinces, where ash-accumulation estimates ranged from 1-3 millimetres. Based on this forecast, the Ecuadorian Red Cross activated their EAP for Volcanic Ash, funded by the FbA by the DREF. This triggered early actions in seven communities, where humanitarian assistance (including cash transfers) were made in advance of the peak of the hazard.

This session looked at lessons learned and good practices of this EAP activation. **Fernanda Ayala** noted that the affected communities lack access to cell phones; the only way to communicate between themselves is through radio. They normally receive information about wearing masks to protect themselves from ash only after the event occurs. For example, they did not know that the Sangay volcano represented a threat to them with increased activity. This made them appreciate the support even more. It is crucial to know that adaptation and learning from activations is the link between planning and implementation.



Session 37. Anticipatory action for epidemics: modelling across scientific disciplines

This session presented progress made by researchers and practitioners in the development of the tools and models necessary for anticipatory action for epidemics, drawing from different case studies in the Americas and Asia-Pacific. In her introduction, **Elena Villalobos Prats** pointed out that the most important aspect of these tools is to provide the necessary information on changes (e.g. due to climate change) to decision-makers. It is known that a warming climate is linked to a spread in disease, especially due to unplanned urbanization and a lack of adequate infrastructure.

A new finding shared by **Rachel Lowe** is that dengue peaks can occur when drought events are followed by rain, in addition to its occurrence during rainy seasons. **Simon Chauchemez** observed the reappearance of dengue on a French island in 2018 after 30 years. He is working to strengthen the use of modelling for such outbreaks beyond short-term prediction.

The Philippines faced a major dengue outbreak in 2019 and developed several tools, such as 'lab-in-a-mug', as dengue test kits, as well as more complex models afterwards. **Jacopo Margutti** introduced work on the dengue risk index and highlighted key success factors. Challenges include an underreporting of dengue cases, the identification of hotspots, and the level of data granularity.

Facilitators:

Elena Villalobos Prats
WHO, Technical Officer Climate Change and Health

Marc van den Homberg
510 Data Team, Scientific Lead

Thuy Binh-Nguyen
French Red Cross, DRR and Climate Change Adaptation Technical Advisor

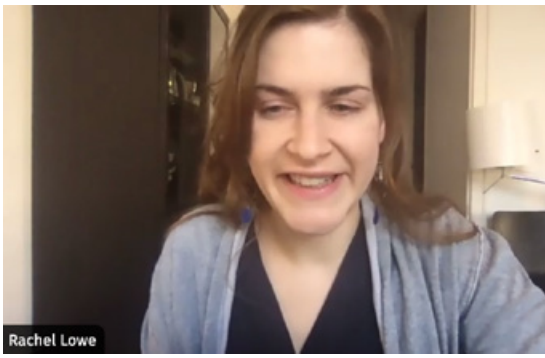
Speakers:

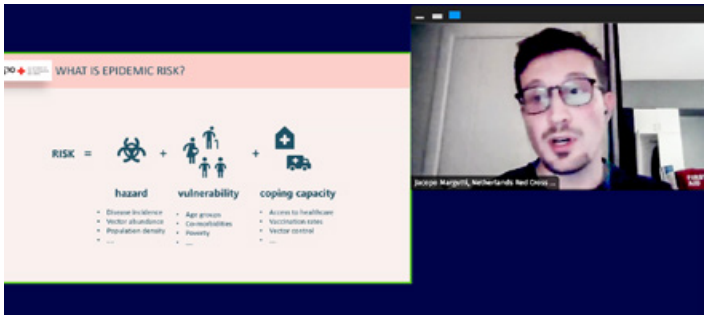
Rachel Lowe
London School of Hygiene & Tropical Medicine, Faculty of Epidemiology and Population Health, Associate Professor

Simon Cauchemez
Institut Pasteur, Directeur de Recherche, Mathematical Modelling of Infectious Diseases Unit

Jacopo Margutti
510 Data Team, Data Scientist

Jomar Rabajante
University of Philippines Resilience Institute, Institute of Mathematical Sciences and Physics





Session 38. Gender matters for anticipatory action: zooming in on protection, health and data

Facilitator:

Maryline Py
UNFPA, Humanitarian Specialist

Speakers:

Sayda Yesmin
Association for Alternative Development, Chief Director

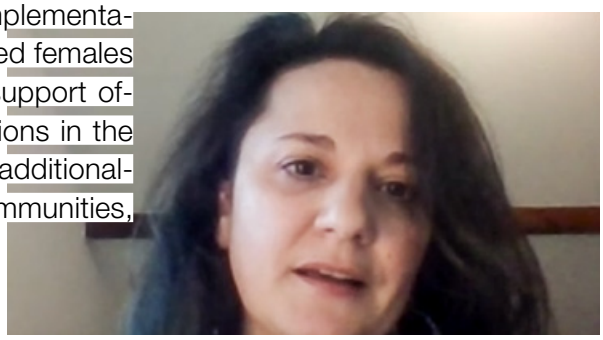
Jannatul Ferdous
IFRC Bangladesh, Protection, Gender and Inclusion Officer

Farah Kabir
Action Aid Bangladesh, Executive Director

Daniel Schensul
UNFPA, Data Specialist

This session focused on how to advance the gender aspect when planning and implementing early actions. Climate change is a multiplier of existing health vulnerabilities and gender inequalities, which crucially underlines the importance of looking closer at gender aspects when planning anticipatory actions. Especially in times of extreme stresses, women are experiencing physical and psychosocial violence, for example when using evacuation shelters.

Furthermore, women can also experience increasing domestic violence as they are supposed to take care of the food supply for their families. In times of disaster, there is usually food scarcity, which often women are blamed for because they are not able to provide food. UNFPA is monitoring deliveries data for early warning of maternal health service interruption to be able to look more closely at underlying reasons and act based on this. Furthermore, planning with and more implementation of early actions by women is crucial to empower affected females in managing to overcome the shocks and accepting the support offered. It is also important to support women-led organizations in the project regions as they are closest to the communities and additionally have the trust and the knowledge of the needs of the communities, especially in times of disaster.



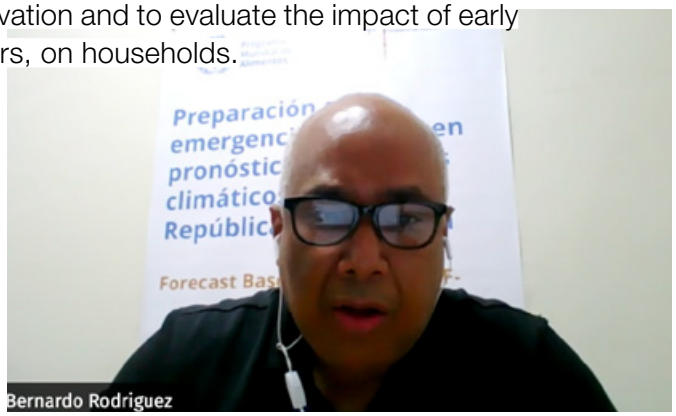
Session 39. From theory to practice: FbF in the time of COVID19 – a case study from the Dominican Republic

Facilitators:

Bernardo Rodriguez Vidal
WFP Dominican Republic, FbF Programme Coordinator

Urbe Secades
WFP Dominican Republic, Programme Manager DRM and Climate Change

This session explained how FbF was implemented in the Dominican Republic during the COVID-19 pandemic. **Bernardo Rodriguez Vidal** highlighted the challenges of connecting the hydrometeorological models to develop precise forecasts, design tailored standard operating procedures, and define anticipatory actions. He outlined how the Climate Shock Vulnerability Index and the Life Quality Index of the SIUBEN (Sistema Único de Beneficiarios) was used to target the most vulnerable households with anticipatory actions. The operating procedures addressed how to effectively reach rural communities in times of COVID-19. He emphasized the importance of monitoring and evaluation to learn from the FbF activation and to evaluate the impact of early actions, such as cash transfers, on households.



Urbe Secades explained how FbF has strengthened all four components of the early warning system (risk knowledge, forecasting, communication, response), but stressed the need for an iterative process that continuously improves based on feedback from the community. She highlighted how FbF has contributed to creating a space for sharing knowledge and identifying synergies between key actors working in the humanitarian space in the Dominican Republic. However, more coordination is needed between technical agencies, decision-makers, practitioners and communities to further advance FbF. In addition, she emphasized the importance of incorporating FbF into the Dominican Republic's social protection mechanism.

Session 40. Extreme heat and COVID-19: managing complex and cascading hazards

Facilitator:

Roop Singh
RCCC, Climate Risk Advisor

Speakers:

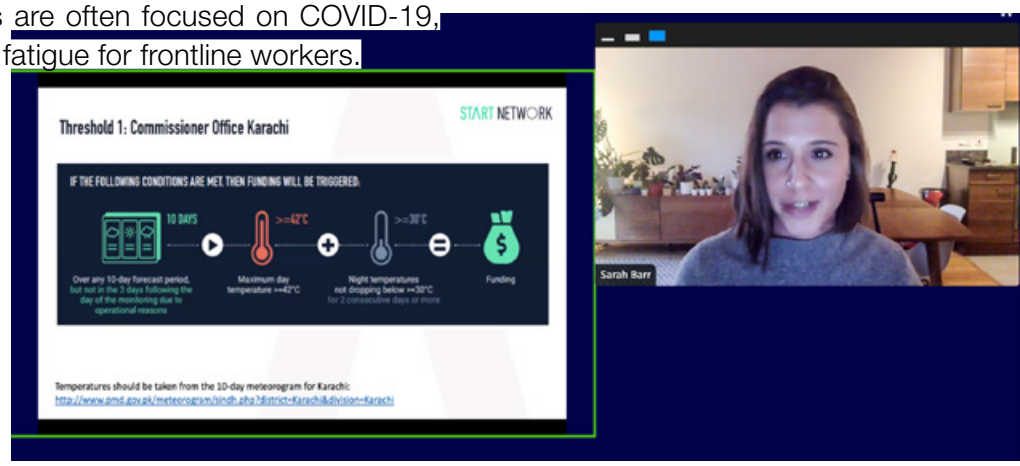
Sarah Barr
Start Network, Learning and Research Advisor (Crisis Anticipation and Risk Financing)

Elspeth Oppermann
Ludwig-Maximilians-Universität München (Rachel Carson Centre), Senior Researcher

Joy Shumake-Guillemot
WHO-WMO Climate Health Office and Global Health

The session focused on the complexity of managing cascading hazards such as extreme heat and COVID-19. Drawing on global case studies and resources, speakers discussed the challenges of working on heat preparedness during the global pandemic, including what worked and reflections from the community level. Considerations were given on how to link with broader, all-hazard efforts, long-term resilience-building, as well as tools and approaches that can help guide local and national authorities to coordinate and adapt heat action plans and interventions with COVID-19 prevention (e.g., Global Heat Health Information Network's COVID-19 and Heat Checklist).

Sarah Barr pointed out that in an evaluation of early actions for a heatwave in Karachi, Pakistan, which was triggered earlier in 2020, 90% of respondents reported that they will follow all or some heatwave instructions if they receive them. Yet, due to COVID-19, the usual use of outdoor spaces to cool down became difficult. **Roop Singh** added that heat is a silent killer and often, the number of people who die is much bigger than for hazards where impacts are more visible, like floods or hurricanes. Finally, **Joy Shumake-Guillemot** highlighted the impact of heat for frontline health workers combined with COVID-19. Health systems' resilience has been pushed to the limit in many places. Financial and human resources are often focused on COVID-19, and PPE increases heat stress and fatigue for frontline workers.



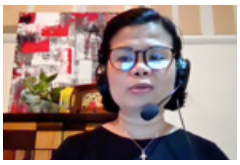
Closing statements

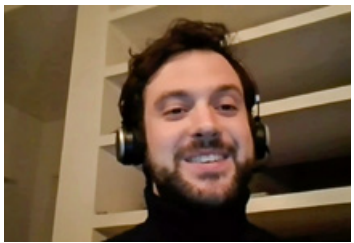
> We need to be ready for these combined shocks. Constricted resources will push the governments to rethink the humanitarian system from reaction to anticipation. This group has managed to make that message strong and clear over the past years. There is no going back – I really look forward to working together on this in the future.
>
> Dunja Dujanovic, Early Warning Early Action, FAO

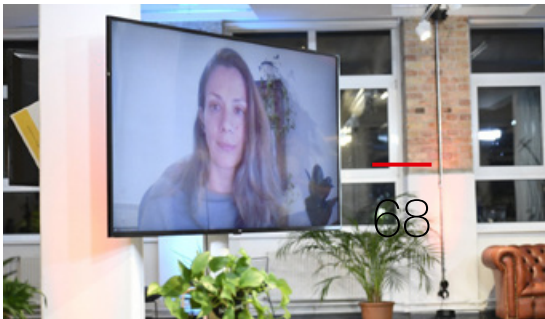
> Anticipatory action is something that gives all of us some hope, but we should not lose sight of the challenges and risks ahead while we are busy dealing with current challenges.
>
> Julia Wittig, OCHA

> Let us not try to guess what is next, but to anticipate. For instance, with the onset of La Niña this year, we need to anticipate the impacts on crops and livestock. The trend on COVID-19 that started this year forced us to ask questions about who is in the best place to deliver.
>
> Ana Dizon, Philippines, FOREWARN coordinator, Start Network

> Managing compounding risks is a big challenge for us going forward and we are trying to strengthen our capacity to deal with this – we are very motivated!
>
> Jânio Dambo, Project Manager, German Red Cross Mozambique







LINKS TO DOCUMENTS

Presentations, photos and information from the 8th Global Dialogue Platform On Anticipatory Humanitarian Action – Virtual Edition

Click the icons to visit the websites.

Photos

https://www.flickr.com/photos/forecast-based-financing/sets/72157719143161746/

Presentations

https://live.anticipation-hub.org/global-dialogue-platform

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

Anticipation Hub

https://www.anticipation-hub.org/

FbF Manual

https://manual.forecast-based-financing.org/en/

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