

1. Commit to FbF and assess feasibility

Summary

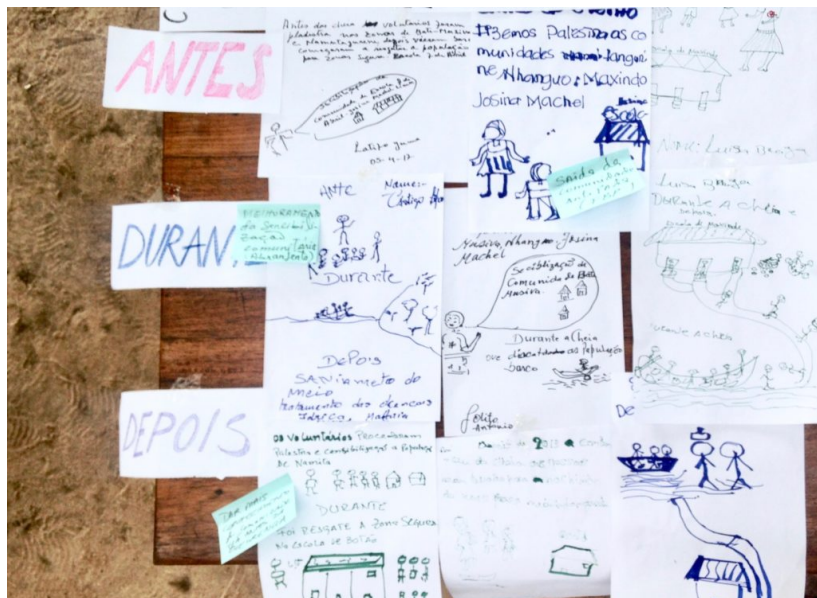
A Feasibility Study (FS) is the first step in the process to establish an FbF system in a country, or when considering addressing additional hazards in a country where there is already an operational FbF system. The FS is a rapid collection and assessment of information to make recommendations as to under what conditions FbF is viable in a specific country, and to begin exploring different design options for the FbF system, including choice of hazard(s) and risks to address, involved institutions, local buy-in, available forecasts and vulnerability and exposure data, possible actions, and so forth.

The results of the feasibility study should assess the potential to reduce the impacts of extreme weather events through the operationalization of an FbF system. The FS report should provide the relevant information about institutions with sufficient information and guidance on what basis and structures already exist that can be used for the establishment of an FbF system, while at the same time indicating the challenges and gaps that need to be tackled to ensure the system can become operational (e.g. no useable forecast for the hazard of interest, or insufficient institutional capacity). The report should also provide early guidance on how that system could be designed to have the highest potential for reducing disaster impacts.

A FS – if carried out thoroughly – can take up time and resources. Thus, before embarking on the process, the National Society should discuss internally, as to whether or not they are committed to FbF in general and whether this is a suitable time to commit to FbF. These discussions can be continued based on the results of the feasibility study.

The chapter will outline how to conduct the very first steps before starting an FbF programme. It will cover the following:

- What questions to consider for the National Society before embarking on the FbF process?
- How to select the person(s) conducting the study and those providing oversight?
- How to design the study?
- How to organize the FS in-country mission?
- Which institutions to meet?
- How to present the FbF concept?
- What information to collect?
- How to assess local buy-in and institutional capacity?
- How to assess the viability of an FbF system based on the information collected?



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Step 0: Confirm commitment to FbF

The process of establishing an FbF mechanism within the National Society requires a high level of commitment. Based on National Society experiences thus far, the entire process, from committing to FbF, to Early Action Protocol validation, trainings and set-up of all systems and procedures for EAP implementation takes around 1.5 to 2 years. Ideally for this process, the National Society can draw on the support of Partner National Societies, Regional FbF focal points and IFRC.

Before you embark on your FbF journey and start the feasibility study process, the list below provides an indication of some questions that should be discussed internally, to see whether or not this is a suitable time for your National Society to commit to FbF.

Does your National Society...	Yes	No
Have a high level of motivation and will to commit to FbF?		
Operate in a country with high exposure and historical impact to extreme weather events?		
Have tested contingency plans in place?		
Have tested emergency response plans in place?		
Have the capacity to mobilize volunteers to take action within 24 hours?		
Have the potential to collaborate with global, regional or/and national hydrometeorological services (NHMS)?		
Have access to country-level data in regard to risk (historical disaster data, and vulnerability etc.)?		

Have the capacity to dedicate at least one member of staff to manage FbF?

Further questions to be considered would be: Is there an ongoing FbF Regional Program your National Society could join? Is a Partner National Society interested and available to support you in this process? Are there countries within your region who have submitted EAPs, or have already begun setting up FbF, that experience similar hazards?

If you've answered yes to most of the questions above, proceed with an FbF Feasibility Study. Of course, it is also possible to already carry out the feasibility study (e.g. because funding is available) and then only start your FbF project at a more suitable time. But as some of the analysis might change (available data and forecasts, staff capacity etc.), it is recommended to be committed to starting FbF before beginning the feasibility study.

Ideally following these discussions, the initial request for a feasibility study comes from the National Society, thereby showing its interest in setting up an FbF system. As the study itself requires committed time of the National Society staff at all levels, even in cases where the FS did not originate with such a request, before beginning a FS, the National Society should:

- Confirm they have an interest in exploring FbF within their country and willingness to host the individual(s) conducting the FS.
- Select a member of staff to be the FS focal point, to attend all in-country interviews completed for the FS, to provide ongoing support to complete the study (technical support but also logistics), and provide feedback on the final report.

Step 1: Select the person or team to conduct the study

The person or team conducting the FS can be someone internal to the Red Cross Red Crescent movement (staff of a NS, PNS, Climate Centre, IFRC), or an externally hired consultant. In successful

studies in the past, the study lead (1) already had an in-depth understanding of FbF; (2) collaborated closely with country experts (e.g. DRM or FbF focal points of the National Society) to provide the local context, assist in the assessment of local capacity, and provide local contacts and (3) could call on the expertise and advice of hydrological or meteorological specialists to assist with the assessment of possible triggering models. It is generally advised to also involve global experts at an early stage (IFRC, Climate Centre, Anticipation Hub) for guidance, direct support or to clarify any questions about the process. Some studies have also included an oversight committee with representation from the NS, PNS, IFRC regional cluster, Climate Centre, and other interested institutions such as government counterparts and UN agencies.



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Step 2: Design the study

FS studies typically involve (A) a period of desk review to prepare for the mission to the potential FbF country, (B) a mission to the country where interviews are conducted, access to data is requested and preliminary design ideas are identified with the NS and presented to get initial feedback, and (C) a report-writing phase whereby the information collected is consolidated, and a clear set of programmatic recommendations are made.

Decisions will need to be made on the scope of the study, the length of work in-country, whether information will be collected only from national-level key informants, whether the study team will visit lower levels of government and/or visit the general population in key disaster exposed areas). Ideally, each feasibility study should encompass all of the above. The following sections provide additional guidance on the length of in- country work, on the merits of conducting research at the sub-national level and on how and when to narrow down the focus of the study.

Guidance on the length of in-country work

In-country, feasibility studies typically involve conducting key stakeholder interviews and the presentation of the FbF concept over the course of 2-5 weeks. Generally, a study that predominantly involves actors within the Red Cross and Red Crescent Movement, and can build on strong availability of historical data, vulnerability and capacity information (such as completed PER tools to assess institutional capacity), a base level understanding of the FbF concept within the National Society, and an established relationship between the government technical services (NHMS, DRR etc) and the National Society, can be completed in 2-3 weeks. In contrast, if many hazards are being considered, if there are limited resources to review remotely, if the concept of FbF is not well understood by the National Society, and if the relationship between government technical services (hydro and met) and the National Society needs to be developed, then more time must be allocated for in-country work (3-5 weeks).

Step 3: Conduct the initial desk review

During the period of pre-mission desk review, initial analysis should be completed in the following areas:

- Review of completed feasibility studies. The 2019 FS in Nepal focusing on floods is a good example that follows the methodology outlined in this guidance.
- Initial analysis of extreme events for all hazard types, including information on the magnitude of past events, their impacts, whether the events were forecasted, and previous humanitarian responses. Where possible, information on the future expected occurrence (as a result of climate change, land-use change, major infrastructural developments, etc.) should be reviewed.
- Review of existing assessment documents on the institutional capacities of the National Society, such as those completed as part of the PER process, to get a sense of NS's strengths and how FbF could support the NS's strategic plan
- Review of the skill of global forecasting products for the hazards of interest in the country, and any documentation of the skill of forecasts produced nationally (if available)
- Initial identification of existing information management platforms (these are increasingly becoming open source and accessible online in recent years)

Scientific Criteria	High FbF Feasibility	Medium FbF Feasibility	Low FbF Feasibility
10-day probabilistic rainfall and temperature forecasts available by National Meteorological Service	X - E.g. Forecast is validated since 3 years ago		
Probabilistic 3-month seasonal rainfall and temperature forecasts available by national institutions			
20-day probabilistic hydrologic forecasts available by national institutions		X - E.g. there are few data collection stations, however there are approved plans to improve the system	
Historical forecast data or hind casts available for more than 10 years, and forecast verification analyses published		X - E.g. Historical forecast is available since 5 years ago, due to conflict in some areas of the country during 10 years, there was not data collection in place. Since 5 years ago data is being collected.	
Historical forecast data or hind casts available for more than 20 years, and forecast verification analyses published			X - E.g. Historical forecast is available since 5 years ago
Historical forecast data for ENSO			X. E.g. no systematic information has been collected
Climate change models		X. E.g. some progress has been made since the elaboration of NAPAs, still the scenarios are models are low resolution.	

Based on desk review, interviews with hydro-meteorological departments and research institutions and review of technical documentation about forecast skills in the study area it will be possible to determine the level of quality of the available forecasts in a given time, for example:

Type of hydro-meteorological Forecast	Flood	Cyclone	Drought	Cyclonic wind	Heat wave
Seasonal (3 months) – country/region x	poor	unknown	good	unkown	poor
Short term (3 to 5 days) – country/ region x	good	good	good	good	good
Short term (6 to 10 days) – country/ region x	good	poor	good	poor	good

In addition to the analysis, the following steps are recommended pre-departure:

- Request pre-mission informational interviews with relevant persons to shape the focus of the study, including IFRC regional staff, Climate Centre regional coordinators for the region of interest, relevant experts of PNS and IFRC, and the FbF focal point (if already assigned) of the National Society to hear their views on which hazards they'd been keen to address through FbF, possible actions, and possible sources of forecasted information.
- Make a list of all institutions working in the FbF, EWS, hazard forecasting, DRR, preparedness, risk assessment, climate adaptation or early action space within the country, including academic research programs. This can be done in the pre-mission informational interviews by asking others for the institutions they are aware of. It is also recommended to do a quick online search using key terms such as 'early warning system AND country name' and 'hazard forecasting' or 'impact based forecasting AND country name' in English and the local language, to identify additional institutions or early warning products.
- Based on the above, prepare a draft list of interviewees for the FbF focal point to begin making appointments.

Note: this "living" list can be added to throughout the mission. See below for more guidance on the selection of interviewees.

Guidance on assessments at sub-national level

Discussions with stakeholders at sub-national level provide invaluable insights to the context for the study team, especially if the study team comes from outside of the country. FbF FSs should therefore aim to include key informant interviews at lower administrative levels of government (regional and/or district offices) and the Red Cross Red Crescent structure (branch/chapter offices), as well as interviews or focus groups at the community level in disaster exposed areas. Key insights can be gained on hazard exposure, autonomous coping capacities and adaptive strategies of the population which could be supported by FbF interventions, and on the capacity at lower administrative levels to carry out FbF action. There is typically only time and budget to visit one or two areas outside the capital city. As such, the study can (1) lead to recommendations that are uniquely suited to the areas visited and to the authorities encountered, which may make the program less suitable for other areas of the country and give a false sense of confidence that the wider context across the country is understood by the study team. And (2), the selection of communities to visit is typically done by the National Society branch in the region/district visited, which may mean that the communities selected for a visit will be unusual in several important ways. They may have a relatively stronger relationship with the local branch than other communities, may have received an above-average amount of programming and support from the local branch or government, and as such would not be representative of the larger area in terms of their preparedness, knowledge of warning systems, access to humanitarian relief, and disaster-related infrastructure etc.

To counteract these biases, it is important that the study team gather insights as much as

possible about other regions of the country (exposed to the potentially prioritized hazards) through interviews and by continually asking how what they are seeing compares to other areas. Further, it is strongly recommended to visit a wide variety of communities in the area where the field-level visits are taking place, including ones where the local branch does not have a pre-established relationship. If possible and acceptable to the hosts, and there are no elevated security concerns, it can be a valuable exercise to complete impromptu interviews by asking people for interviews in local markets, stopping the car periodically and asking residents of nearby houses for interviews, or doing transect walks within hazard-prone areas.

Guidance on selecting the scope of hazards

It is recommended to begin the study open to all possible hydro-meteorological hazards, and then narrow the study down to one to three hazard types based on an initial light-touch assessment (desk review). In this case, the report includes a base level of information on non-prioritized hazards, and a more in-depth analysis of the prioritized hazard(s). The information on the non-prioritized hazards may be of future interest, for example, if a new forecast becomes available that makes an FbF system for that hazard valuable. Exploring non-traditional FbF hazards, may also prove fruitful, such as country- specific hazards (e.g. Dzud in Mongolia), or weather-related cascading hazards such as epidemics or the wind-driven trajectory of an erupted volcano's ash plume.

Often, the actors involved in commissioning the feasibility study may already have a prioritized hazard in mind. However, it is also possible that the hazard most prioritized initially, may not have the highest potential within an FbF system, due to forecasting challenges and viability of potential FbF early actions within the lead time. Keeping the hazard focus open in the beginning, increases the likelihood of designing an FbF system with high viability. It also provides an opportunity to explore 'hidden' or overlooked hazards, such as heatwaves, which may have high impacts that go unnoticed by humanitarian and government actors.

The following table taken from the Nepal feasibility study outlines the results of the initial hazard analysis, which ultimately prioritized riverine flood, with the possibility of including flashfloods for no- cost rapid actions (due to very short lead time) and a recommendation to explore heat and cold waves in future.

	Can forecast the hazard?	Can currently forecast the impact?	Prioritized in NRCS strategic plan?	Technically feasible to make an IBF?	Meaningful early action to take?
Flood (riverine)	Yes (at certain timescales)	No	Yes	Yes	Yes
Flood (flash)	Yes (at very short lead times)	No	Yes	Yes	Yes
Drought	Yes (unsure of skill)	Unsure	No	Unsure	Unsure (not within Red Cross strategic advantage as primary impacts concern food security)
Landslide	In development	No	Yes	Unsure	Yes
Epidemic	Some factors technically feasible	No	Yes	Some disease types	Yes
Cold Wave	Yes, but national forecasts are qualitative	No	No	Yes	Yes
Heat Wave	Yes, but national forecasts are qualitative only	No	No	Yes	Yes

Example Initial Hazard Analysis. Source: Nepal FbF Feasibility Study.

Step 4: Collect information

The information collected in-country is typically gathered in four different ways: (1) guided feedback after presenting the FbF concept, (2) key informant interviews, (3) focus groups, direct observation and/or transect walks at community-level, and (4) requests for data sets, and written reports.

Guidance on presenting the FbF concept

It is often necessary to present the FbF concept to the wider staff of the National Society,

government technical services (e.g. hydrological and meteorological), and any other institutions which may be involved in the set-up of the FbF system. To gather constructive feedback on how the FbF system could work in-country, those giving the feedback will need to have a level of understanding of the concept. The study team should present the concept to the National Society staff at the beginning of the mission using available FbF resources (games, pre-made PowerPoints, printed resources). Inviting representatives of government technical services (hydro and met, DRR etc) and other institutions, or holding separate presentations at those institutions. provides a valuable opportunity to around what FbF can and cannot do, and helps gather missing data as part of the Q&A period.

Resources on how to facilitate FbF games can be found [here](#). For further guidance on FbF capacity building see the following chapters, Making your National Society FbF Ready and Engaging Stakeholders as well as the Climate Centre [guide on Collaborating with national climate and weather agencies](#).

Guidance on selecting key informants for interviews in-country

The bulk of the information that will inform the FS recommendations is likely to come from key informant interviews with authorities at the national and sub-national level. The following persons should be interviewed to get a broad perspective on how the FbF program could be designed:

- National Society senior management (President, Secretary General, head of Disaster Management, Organizational Development Manager)
- National Society mid-level staff covering potential FbF sectors (e.g. health, WASH, cash, social care, livelihood, shelter, disaster risk management,) and general project management/ admin process finance, logistics, MEAL, communications, and (if relevant) security.
- National government authorities responsible for technical services (hydrology and meteorology), disaster risk management, ministry of housing/development, agriculture, public works, health, civil protection, social protection, and the department responsible for issuing disaster warnings and assisting in evacuations (sometimes defense/police).
- If possible, also approach relevant authorities at lower levels of government (district, municipality) in disaster-prone areas.
- Any institutions already involved in FbF or anticipatory action at country level
- Relevant UN agencies, such as WFP, FAO, UNDP, UNICEF, OCHA, with programming in the early warning space
- Relevant INGOs, such as Start Network, Oxfam, CARE, Practical Action, World Vision, etc with programming in the early warning early action space

Guidance on carrying out community-level research

Community-level focus groups, direct observation and guided transect walks are common methods to gain insights into the lives of potential program beneficiaries that can inform program design (see VCA Toolbox). The research team must accept some level of bias in the responses they receive, and try their best to create the inclusive conditions whereby participants feel at ease to express themselves, share ideas, and so forth.

Many of the questions outlined for the key informant interviews, especially pertaining to potential FbF actions, are also suitable at community level, if adapted to suit the context. In addition to these questions, the following subjects should be explored in the focus group /VCA format:

- Impacts of recent disaster events and their individual experiences of the different disaster events prioritized for deeper analysis
- Any autonomous actions that are already happening at individual, household, group or community level to prepare for, cope with, or respond to disasters
- Whether the participants receive early warnings / forecasts for disasters, the source of those warnings (including tradition warnings), perceived accuracy of the warnings, and any suggestions for improving upon early warning systems
- Any suggestions the participants have about support that would be helpful pre-disaster
- Get feedback on how cash could be used, if provided pre-disaster at specific lead-times
- Any community groups (loans and savings, disaster preparedness groups etc. which could be mobilized for pre-disaster activity)

To triangulate the information presented in the focus group discussions, and to gain further insights of the reality of exposed populations, it is recommended to do direct observations and transect walks. If analyzing floods or cyclones, is often helpful in the context of FbF for one of the locations to be the coastline or riverside. These methods are meant to be free-flowing and allow subjects to be introduced spontaneously. However, asking probing questions regarding impacts (water levels, points of damage), and locations of interest (evacuation areas, grazing areas, markets, potable water sources), may be helpful in soliciting information of interest.

Guidance on requesting data and written resources

Vulnerability, exposure and historical impact data will be central to impact-based forecasting (see Trigger Methodology section) but also to the selection of actions. These outputs are beyond the scope of the feasibility study, however, an initial light assessment of existing vulnerability and exposure data, can be achieved during the feasibility study. This involves asking questions about what mapping products and data sources exist, and where. The indicators of interest will vary per hazard type, (based on the hazard and availability of data). The INFORM index may be used

as a useful repository of available data sets and vulnerability mapping products.

Guidance on interview questions

Interview questions need to be adjusted to each participant based on their area of expertise. The guiding questions below are broken up into six sections: hazard, exposure and vulnerability, hazard forecasting, possible early actions, institutional capacities and processes, financing and social protection. The questions serve to guide your light initial assessment of the country context, enabling environment, existing level of data, gaps, to scope how an FbF project should be designed, and from which sources future EAP information may be gathered.

These questions can often not be answered conclusively within the limited timeframe of a Feasibility Study, but the preliminary information gathered through them serves as an important basis for the analysis and data collection in the framework of future EAP development.

Hazard exposure and vulnerability

- Which hazards have historically caused negative impacts in the following categories?
 - Mortality and morbidity
 - Loss of livelihoods
 - Loss of assets Market disruption
 - Damage to infrastructure
 - Health and sanitation Food insecurity
 - Displacement and migration Insecurity
- How have these impacts varied between different geographic areas?
 - Rural, urban, informal settlements, coastal, proximity to markets, placement in relation to large protective infrastructure such as embankments, and other context-specific characteristics?
- How have these impacts varied between demographics of people? Who has been more impacted?
 - Gender, age, disability, ethnicity, caste, marital status, farmers, pastoralists, workers in formal and informal labour markets, poverty status, migrants, refugees, and other context-specific characteristics?
- What sources of data for hazard vulnerability and exposure are available? And how can they be accessed? Which institutions hold the data? And what are the opportunities and limitations to access it?

- Are any institutions (government, UN, private sector or NGO) involved in exposure and vulnerability mapping? If yes, what is the scale of the mapping (national, for specific regions/districts only, or specific localized areas only?) What indicators are used in the mapping? What is the geographical coverage of OpenStreetMap? Is it active in the country and is the NS involved?
- Which hazards are identified within the strategic plan of the National Society as a priority to be addressed? How do the hazards which are a strategic priority overlap with the hazards with high FbF viability?

Hazard forecasting

(For these questions it is often advisable to have a hydro-met expert involved in the interviews, to ensure that clarification and follow-up questions can be asked and to assess the quality of the info provided.)

- Which hazards are currently forecastable? (Ask about drought, flood, cyclone, heat wave, cold wave, and any context-specific hazards)
- What forecasts are currently being produced nationally? At what timescales are forecasts being produced and disseminated to the public? (hourly, daily, weekly, 10 day, seasonal?)
- Do the national technical services (met, hydro) produce extreme weather warnings? If yes, what is the lead time of those warnings and what is the chain of command for disseminating those warnings?
- If weather warnings use danger levels, what danger levels are used, and how were those danger levels chosen?
- Does the government technical service produce a heat index to account for both night and day time temperature (which would be used for heat wave and cold wave)?
- Are there any impact-based forecasts operational, or in development? If yes, how do they work? What impact indicators are used?
- Have the forecasts been verified or skill assessed to understand the certainty with which an institution could use them to make decisions? If yes, what were the results of the assessment for each forecast type?
- If not verified, are they willing to share data and forecasts to allow the study team or others to make an assessment as to whether they would be suitable to inform the FbF trigger?
- Are there operational early warning systems? How do they work? What pre-disaster lead time does the early warning provide? Which institutions are involved?

- What is the nature of the relationship between the government technical services (hydro, met) and others, including Red Cross/Red Crescent, social protection actors, national and international academic institutions, international forecasting institutions like WMO, and ECMWF? Are any of these relationships formalized through MoUs or other means?
- What ongoing hydro-met projects exist?

Possible early actions

- If an advance warning of a disaster (floods, drought etc.) was available and credible, what would be actions that households, and the institutions supporting them, could take to reduce suffering and loss?
- What autonomous actions are individuals and communities already taking to prepare for, cope with, and recover from disasters? Are there any supports which could be provided externally that would enable individuals and communities to take autonomous action more effectively?
- In which sectors do the National Society and other related institutions have expertise (cash, WASH, shelter, livelihoods, evacuations, animal-care, communication, first aid, etc.)?
- If you were given the option to minimize two risks with an FbF system, which ones would you select out of this list? Why? What actions would you do to minimize those risks?
- What evidence exists for the possible early actions and their effectiveness for reducing risk of specific disaster-related stressors? Has the National Society completed any impact evaluations for the actions being considered as FbF actions?

Institutional capacities and processes

- Has the National Society completed any tools under the PER (preparedness for effective response) or another assessment process? If yes, how do the strengths and weaknesses outlined in those reports align with the needs of implementing an FbF program?
- Does the National Society senior management see the FbF concept to have value above and beyond an additional stream for financing?
- Is there buy-in for the FbF concept and a champion with the National Society to spearhead the process?

- Does the National Society have a strong relationship with other disaster management actors, which could assist in the implementation of FbF actions?
- What government authorisations would the NS need in order to carry out early actions? Can they be obtained at short notice or in advance?
- Does the National Society have experience implementing programs over large areas and not only working in a small number of focus communities per program? Similarly, what is the experience in working in communities where there were no previous activities or where there is no presence by the NS?
- What are the areas of strength and weakness of the National Society that would most enable or strain their ability to take rapid action in the lead time of a forecast?
- What is the capacity of National Society local branches? How many active staff and volunteers are there in different branches? Are any of the branches income-generating? What is the level of training of branch volunteers?
- In recent responses, have there been significant delays between when items or finances became available and the receipt of those items, cash or other supports at household level? If yes, why?
- Which partner National Societies are involved with the National Society? Are any of their programs working on specific skills such as cash readiness or MEAL?
- What is the National Society's experience with the DREF? Have they been successful at receiving support from the DREF? If not, why? If yes, have there been any delays in recent DREF disbursements?

Financing

- What is the National Society's experience of managing funds which are similarly sized to FbA by DREF disbursements?
- Has the National Society successfully received and managed funds via imminent DREF and DREF, or Emergency Appeal? If yes, for which hazard and how were the funds managed?
- Have there been recent or current financial management concerns that would make it difficult for FbA by DREF funds to be disbursed directly to the National Society? If yes, does the National Society have the support of a partner National Society that could help manage the funds?
- Are there other sources of financing that could be released based on an FbF trigger to

support FbF action apart from the DREF?

Social protection

- Which established social protection programs are operational or in development in the country? This would include cash transfer programs, public works, and school feeding.
- Does the country have a unified beneficiary registry that could assist in the targeting of FbF beneficiaries?
- Do any of these social protection programs aim to scale up in anticipation of, or in response to, a shock? If yes, how do they scale up and which conditions initiate (trigger) a scalability mechanism?
- Do any of these programs aim to support particularly disaster-affected populations?
- Are the populations supported by any of these programs a similar population to the population that would be supported by an FbF program? If yes, which hazards?
- Is there potential to integrate social protection with the proposed FbF system to expand the reach of the FbF system, especially in the domain of targeting or modality of support?

Step 5: Assess viability and make design recommendations

The viability of FbF in a country will be assessed for each prioritized hazard: institutional commitment, available components for trigger modelling, ideas for meaningful early actions that can be taken after a trigger, and the capacity to implement the actions in the lead time afforded by the trigger model. Based on this, the study team can classify the system for the specific hazard as having high, medium or low viability.

The study can also make recommendations regarding which FbF system design components should be further explored, as well as whether more detailed stakeholder analysis is needed. The study team can also flag potential risks that might render the system ineffective unless addressed, such as a technical service being unwilling to have their forecasts verified for accuracy.

The classification of 'high', 'medium', or 'low' viability for introducing FbF in a given context for each hazard, is less important than the specific recommendations of how the system could operate. It does not need to be a prominent feature of the final report. It should be used to guide the thinking of the study team, rather than to produce a grade or ranking for a country. Use the following indicators to help assess the level of viability.

Ideal viability for a specific hazard

- An impact-based forecast exists for the prioritized hazard, or
- There is a well-established early warning system or extreme event forecast that has been assessed to have high accuracy.
- There is a strong evidence-base for the short-listed early actions, based on rigorous evaluations.
- There is potential to integrate the FbF trigger model or FbF actions into established social protection systems.

- The National Society is a thought leader and able to work closely with technical services, government authorities and other stakeholders to establish the FbF system.
- The prioritized hazard has been prioritized within the National Society's strategic plan.
- There is a high level of buy-in within the technical services (hydro, met) for co-producing an FbF trigger model.
- There is a functional FbF working group in the country.
- There is an established system for collecting data on vulnerability and exposure nationally.

Medium to high viability for a specific hazard

- There are available forecasts for the prioritized hazards which can be skill-assessed and combined with global sources can provide a sufficiently rigorous basis for the hazard forecast.
- There are meaningful actions that could be taken within the lead time of the forecast for the prioritized hazard.
- The prioritized hazard has high negative impacts on the affected populations, meaning there is a humanitarian imperative to act.
- There is buy-in within the National Society and the technical services to establish the system.
- There is commitment to develop an Early Action Protocol.
- There is commitment to evaluating the impact of the FbF system rigorously.

Low viability for a specific hazard

Significant changes necessary prior to the set up of an FbF system:

- There are financial management concerns such that it would be impossible for the National Society to access FbA by the DREF funds.
- There are no forecasts for the prioritized hazard, or no forecasts that have sufficient accuracy at lead times that would allow for meaningful action (e.g. only forecasts with 1-3 hours lead time have sufficient skill).
- The National Society does not have the capacity to implement meaningful actions in the lead time of available forecasts.
- The National Society is uninterested in pursuing the development of an FbF system.

Step 6: Report results

At the close of the field mission, it is advised to present preliminary findings back to the National Society and other relevant stakeholders to gain initial feedback and make plans for next steps. The following outline for the final report can be used for guidance.

Suggested Reporting Outline

1. Introduction

1. About this report (authors, parties involved)
2. Background (FbF concept, country context)
3. Enabling environment for FbF activities in [country] to date

2. Risk analysis per hazard

1. Institutions interviewed
2. Past impact per hazard
3. Vulnerability factors and exposed elements
4. Available data and sources

3. Analysis of available forecasts in country

1. Institutions interviewed
2. Suitability of available forecasts for FbF per hazard

4. Capacity assessments

1. National Society capacity
 - General
 - Financial
 - Ability to implement actions in FbF lead times
 - MEAL
2. Technical services (hydro, met)
 - Forecasting capacities
 - Institutional buy-in
3. Institutional services, DRM and social protection actors
 - Enabling environment of policies, strategies and plans
 - Complementarity to FbF
 - Institutional buy-in
4. FbF community of practice/Technical Working Groups
 - Recommendations on relevant stakeholders to lead/ engage in FbF working groups
 - Recommendations on areas for capacity building for stakeholders

5. Actions analysis

1. Existing evidence for actions
2. Institutional capacity for actions of specific sectors
3. Possible early actions per hazard(s)

Toolbox

 The INFORM index

 Collaborating with national climate and weather agencies: a guide to getting started (RCCC, 2018)

 How to facilitate FbF games (RCCC)



Do you have feedback or a question?
Please reach out!

Karen Dall

Capacity strengthening manager for FbF at German Red Cross

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