FORECAST-BASED FINANCING WITHIN THE RED CROSS AND RED CRESCENT MOVEMENT: PERSISTING BARRIERS AND WAYS FORWARD

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Abstract

With the introduction of Forecast-based Financing (FbF) in 2013, the ability and incentive to do early action based on forecasting has increased over the last couple of years. In this study eleven semi-structured interviews were conducted with FbF practitioners of the Red Cross and Red Crescent (RCRC) Movement with the purpose of shedding light on challenges and opportunities associated with the approach. Common understanding and simplified methodology seem to be a precondition for the approach to flourish. While FbF is paving the way towards wider usage of anticipatory action and a more flexible funding system, there are still challenges in terms of: taking early actions based on a probability, forecasting capacity, timely release of funding enabling early actions, and establishing sound collaboration with local authorities. Within the National Societies, the difficulty of grasping FbF and the unequal distribution of capacities at local branches are key challenges to FbF implementation. These challenges could be addressed by mainstreaming FbF into DRR programs, capacity strengthening efforts through trainings and investments in organizational development. The ownership over funding and choice of the early actions and triggers still lies to a large extent within the supporting RCRC partners. One of the upcoming tests for the sustainability of the approach is to ensure that ownership of the process rests within host National Societies and governmental entities, given their contextual knowledge and everlasting mandate to alleviate suffering in their country. Further, evidence over the cost-effectiveness of timelier humanitarian action is needed to increase the limited funding.

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Executive Summary

Forecast-based Financing (FbF) comes from a natural evolution of decades of work and awareness raising around the value of acting based on forecasts, prior to the impact of a natural hazard. Despite such developments, humanitarian practitioners have realised that warnings rarely lead to effectful early action. The Red Cross and Red Crescent (RCRC) Movement, together with the World Food Program (WFP), have pushed for the development of an approach that would facilitate this change. FbF creates a link between a pre-agreed threshold to pre-allocated funds, enabling a set of planned early actions that would reduce impacts. FbF was launched in 2013 in Togo and Uganda and is now being adopted in 16 RCRC host National Societies. Recent studies find FbF to be a cost-effective and promising approach which is however, difficult to take to a larger scale due to a persisting fear of acting in vain.

This research sought to shed light on challenges and opportunities associated to the implementation of FbF projects, by gathering perspectives from practitioners working with FbF within the RCRC Movement. Eleven semi-structured interviews were conducted for the research.

The results showed challenges and opportunities with 1) Conceptualising FbF, 2) Rethinking humanitarian action, 3) Capacity to deliver, 4) Stakeholder engagement, and 5) Monitoring the effectiveness of FbF. This was followed by a discussion chapter where solutions and ways forward were uncovered, in the sections 1) Lack of common understanding, 2) Harmonization for improved collaboration, 3) Ownership to ensure success and knowledge retention, 4) Capacity Strengthening, 5) Cognitive biases and 6) Funding enabling change. Points discussed in the results and discussion have been compiled in a matrix that can be found on p. 62 showing challenges, assumed effects and potential remedies.

Firstly, one of the main challenges for FbF was the establishment of a common understanding among and within humanitarian organizations, with donors and governments. There is inconsistent use of terminology for FbF within and outside of the RCRC Movement, discrepancies about how to categorize FbF within the DRM spectrum and dissents around the magnitude of the events FbF should support. Suggestions on how to deal with these challenges include harmonization of terminology and approaches across organizations and

within the RCRC movement, and the continued use of dialogue platforms and information hubs for FbF.

Secondly, challenges emerged regarding the reluctancy to act on probability and the amount of funding currently attributed to FbF projects. Solutions discussed here evolve around the need for better forecasting capacity at national level, increased use of vulnerability and exposure data, increased evidence on the effectiveness of FbF and the potential of adopting alternative funding mechanisms as a supplement.

Thirdly, challenges to deliver on FbF included defining when FbF is feasible to implement, the inability to scale up FbF projects to cover more beneficiaries, increasing capacities through trainings and an uneven distribution of capacities throughout National Societies. To address the feasibility and scale of FbF, continued learning for FbF was discussed and the potential of increasing coordination and collaboration between humanitarian organizations. In relation to capacity gaps, the benefits and drawbacks of trainings were covered, as well as the implementation of the RCRC movement Preparedness for Effective Response assessment tool. To deal with unequal capacity across National Societies, more focused capacity strengthening activates were suggested, alongside the mainstreaming of FbF into DRM and CCA policies. Fourthly, there is a need to institutionalise FbF and strengthen collaboration among humanitarian organizations and governments. For this to happen, there is a need to further increase ownership of the FbF process within host National Societies and the in-country government at all levels. Attaining ownership within the host National Society can help the prioritisation of FbF projects. This can be nurtured by simplifying the methodology, integrating FbF into existing DRR projects, creating new funding opportunities for smaller scale events and increasing the engagement of local actors. At governmental levels, mainstreaming FbF into DRM policy can create opportunities to institutionalise impact-based-forecasting, increase funding and commitment from ministries and promote the sustainability and reach of FbF projects. This stakeholder participation should also include other humanitarian organizations which can be improved through dialogue platforms and increased coordination of the approaches, as collaboration regarding triggers and funding allows to reach a larger scale.

Last, but not least, while FbF has started a dialogue with funding partners that increasingly buy into the approach, the funding available to activate FbF is still restrained for Host National

Societies to have substantial impact and provide for larger scale implementations. To optimize the approach and increase the buy-in, further evidence on the effectiveness of the approach is needed in the future.

Further research could look into the perspective of local actors and grasp what capacities are needed to implement FbF.

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Acronyms

AHA: Anticipatory Humanitarian Action

BDRCS: Bangladesh Red Crescent Society

CO: Country Office

DREF: Disaster Relief Emergency Fund

DRMCCA: Disaster Risk management and Climate Change Adaptation

DRM: Disaster Risk Management

DRR: Disaster Risk Reduction

EA: Early Action

EAP: Early Action Protocol

EWS: Early Warning Systems

FAO: Food and Agriculture Organization

FbA: Forecast-based Action

FbF: Forecast based Financing

GRC: German Red Cross

HFA: Hyogo Framework for Action

HQ: Headquarter

IFRC: International Federation of Red Cross Red Crescent Societies

PER: Preparedness for Effective Response

PNS: Partner National Society

RCRC Movement: Red Cross Red Crescent Movement

SOP: Standard Operating Procedure

ToT: Trainings of Trainers

WFP: World Food Programme

1. Introduction

Natural hazards result in disasters when affected communities don't have sufficient capacity to cope with the situation (UNISDR, 2009:9), and when actions aimed at reducing risk, exposure and vulnerability are not implemented (Wisner et al., 2013). Given the current trend of climate change, climate extremes are likely to become more frequent (Seneviratne et al., 2012: 111-114) increasing the exposure and risk of communities all over the world. In Disaster Risk Management (DRM) there is a divide between response and anticipatory action. Over 90% of humanitarian funding related to natural hazards is allocated to response while less then 1% goes towards anticipation and 3.8% to preparedness (Weingärtner & Spencer, 2019: 2). Mega-disasters affecting the world in the last two decades have given momentum for improvements in Early Warning Systems (EWS) and a change towards the view on anticipatory action (WDR, 2009: 13). Global advocacy through international fora have recognized the benefits of acting on EWS information to reduce impact (WDR, 2009: 13), emphasized through the 2005 Hyogo Framework for Action (HFA) and the 2015 Sendai Framework for DRR (UNISDR, 2005:17; UNISDR 2015:21). Despite this, forecast information rarely results in tangible activities for risk reduction and governments often only start to take action when the impact is imminent (Clarke & Dercon, 2016: 13; Bajracharya, 2018:1). The window of opportunity between the warning and the disaster is therefore often not taken advantage off, limiting the ability to implement early actions. Additionally, a funding model that is based on reaction to a hazard's impact, means that response is often delayed, under-funded and uncoordinated (Clarke & Dercon, 2016: 15). This is partly due to the absence of a plan and the lack of contingency budgets, leading to a gap in decision-making (Clarke & Dercon, 2016: 15-18).

A window of opportunity to tackle some of these challenges could be Forecast-based Financing. FbF is a new approach to DRM that has the potential of connecting the dots and strengthening the link between EWS and early action[1]. FbF comes from a natural evolution from decades of work on early warning early action and has been developed by the Red Cross Red Crescent Movement (RCRC) and the World Food Program (WFP) (RCRC Climate Centre,

[1]actions taken before an anticipated crisis has occurred with the aim of preventing the disaster or mitigating its impact (GRC, n.d. -a)

2020). FbF links a specific trigger to a pre-disaster plan outlining responsibility of the relevant stakeholders and the early actions which will be implemented through pre-allocated funds.

The motivation for conducting research on FbF stems from an internship done at the International Federation of Red Cross and Red Crescent Societies (IFRC) Country Office (CO) in Bangladesh from July to October 2019. During the internship, both authors attended the 2019 National Dialogue Platform on FbF organized by the Bangladesh Red Crescent Society (BDRCS) and German Red Cross (GRC) in Dhaka. On this occasion, leading organizations operating in emergency preparedness and response shared their impressions on this new approach. Among others, the steps forward to be taken revolved around the necessity of finding a reliable funding mechanism, strengthening information, and ways to engage the private sector.

Research in the area of FbF is still at its beginning, most studies in the FbF field, are scientific studies monitoring improvements in forecasting systems (Tanner et al., 2019; Coughlan de Perez et al., 2014) and research looking at the implications FbF have for humanitarian action and relief agencies is rather limited (Wilkinson et al., 2018; Bajracharya, 2018; Bengtsson, 2018; Raun, 2018). Within the humanitarian field, research has looked at ways through which FbF could be applied to unexplored contexts such as drought-prone areas and informal settlements (Bengtsson, 2018; Raun, 2018). Additional research has evaluated the FbF methodology which varies depending on the implementing organization, particularly in terms of types of forecasting methods informing decision making, the choice of early actions across timescales, the financing tool and the mechanism delivering early actions (Wilkinson et al., 2018:22). Despite the evolution of the FbF approach, the implementation of early actions has been highly influenced by an environment that was resisting this type of change (Coughlan de Perez et al., 2014:3; Bajracharya, 2018:20; Tanner et al., 2019:17). The nature of forecasts, poor communication, institutional barriers, low capacity to act on forecasts, and a lack of trust and credibility in forecasting, are some examples of barriers hindering this development (Bajracharya, 2018:16-22). In fact, this new approach asks humanitarian organizations, governments and donors to rethink the way humanitarian action has worked so far. In particular, it requires the stakeholders to work on the planning process as well as revising the incentives of decision-making and funding based on forecast information. The introduction of

FbF within the humanitarian system stimulates a change in the way of thinking, which does not happen overnight. The fear of “acting in vain”, where a hazard does not materialize, is still common among governments, humanitarian organizations and is deterring donors from investing into FbF (Stephens et al., 2015: 37; Tanner et al., 2019:17).The scope of this research will be limited to natural hazards, as these are the contexts where it is primarily being used. There is however research uncovering the potential of using FbF for a wider scope, such as disease and for armed conflicts (SHEAR, 2019; Hostetter, 2019), but as FbF has not been implemented in such contexts yet, it had to be kept outside the scope of the research.

Five years after the first implementations, the FbF methodology and approach has evolved, and FbF acceptance has grown within the DRM community (SHEAR, 2019). FbF started being implemented in Togo and Uganda, and it is today being implemented in 15 National Societies around the world (GRC, 2019:3). FbF is not limited to the humanitarian community. Some governments such as Bangladesh and the Philippines have shown a real interest in the approach and plan to include it in their DRM national structures (Tanner et al., 2019:14-15). FbF is a “living tool” that is renewing itself and learning from trials and errors which makes it interesting to monitor (De Wit, 2019:19).

Overall purpose & Research question

The purpose of this research is to gather an understanding of the challenges and success factors associated with running and implementing FbF through the experience of RCRC staff working in IFRC International and Regional HQs, as well as in PNS supporting host National Societies. This will be done by collecting perspectives from Red Cross Red Crescent actors working with Forecast-based Financing as implementing partners or in support positions. Lessons learned yet to be uncovered may benefit the wider community of practitioners working with Forecast-based Financing to further reflect on successful practices and potential ways forward for the approach. In line with our purpose, we formulated the following research question:

> *What are the challenges and success factors of Forecast-based Financing projects as perceived by practitioners working within the Red Cross Rec Crescent Movement at International and National Headquarters?*

2. Contextual information

2.1 RCRC actors engaged in FbF

This section will briefly outline the role of the RCRC actors operating within the context of FbF. The RCRC Movement actors relevant to this research are host National Societies, Partner National Societies, the IFRC and the RCRC Climate Centre. A diagram of the RCRC Movement structure can be seen in figure 1.

2.1.1 Host National Societies

National Societies working within their national context will be referred to in this research as host National Societies. They act as auxiliary to the public authorities and are often identified as the largest and most well-established civil society organisation within their country (Austin & Chessex, 2018:11). Host National Societies are volunteer-based and are present throughout the country through their local branches which puts them in the position of being involved in the initial crisis response (Austin & Chessex, 2018:11).

2.1.2 Partner National Societies (PNS)

PNS are National Societies giving their contribution to the RCRC Movement outside of their domestic setting (Austin & Chessex, 2018:14). Depending on their expertise, they provide support in terms of technical expertise and financial support through multi-annual projects to host National Societies (Austin & Chessex, 2018:14).

2.1.3 International Federation of Red Cross and Red Crescent Societies

The 190 National Societies come together under the IFRC humanitarian network (IFRC, 2018:1). The IFRC is composed of the National Societies and the Secretariat. The Secretariat operates from the International office in Geneva and five regional offices throughout the world (IFRC, 2018:1). It works to facilitate and strengthen host National Societies' so that they can prevent and alleviate human suffering (IFRC, 2020:11). The role of the IFRC Secretariat is to stand by host National Societies to scale up efforts to tackle natural hazards as well as to coordinate and mobilize resources to respond to international emergencies (IFRC, 2018:2). Through staff operating at international and regional offices, the IFRC provides support in terms of technical assistance, project management and organisational development (IFRC, 2020:11; Austin & Chessex, 2018:13).

2.1.4 Red Cross Red Crescent Climate Centre

The RCRC Climate Centre acts as a science and research hub the RCRC Movement can rely on for technical assistance (IFRC, 2020:11). It provides support in terms of scientific analysis and guidance, strengthening partnership with meteorological institutions to host National Societies (IFRC, 2020:11). The RCRC Climate Centre also advices on climate-change related policies (IFRC, 2020:11).

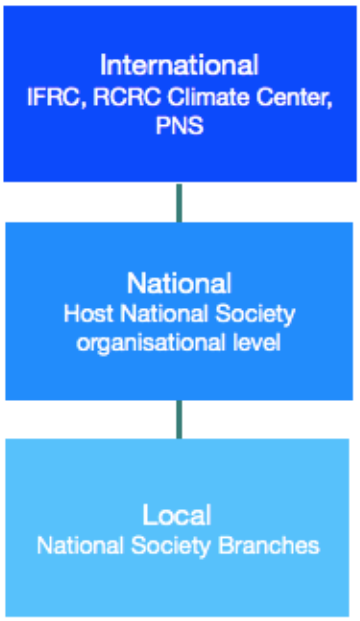

Figure 1: Simplification of the interaction between levels within the RCRC Movement. Adapted from Austin & Chessex, 2018:6.

2.2 Forecast-based-Financing

FbF is a relatively new approach within the humanitarian system that is receiving growing attention for its potential in reducing the impact of natural hazards on vulnerable populations (GRC, 2019:1). It does so by increasing the focus on forecasting and so-called early actions, in combination with a preestablished funding system (GRC, 2019:2). This combination improves the effectiveness of emergency preparedness and response (Tanner et al., 2019:7). FbF further pushes for some kind of paradigm shift (de Wit, 2019:19-23), bridging the gap between the

focus on longer-term preventive measures and on post-disaster response (Tanner et al., 2019:9*).* Additionally, information coming from meteorological stations has not always pushed decision makers to take action following an early warning (Hillbruner and Moloney, 2012:26). Yet, the growing evidence around the potential of doing early actions before the impact of natural hazards is pushing for a shift from *reactive* response to *proactive* anticipation and preparedness for a smoother response (Tanner et al., 2019:9; Stephens et al., 2015:1). FbF aims at taking advantage of the window of opportunity for early action before the hazard materializes and acute impacts are felt (Wilkinson et al., 2018:10; Tanner et al., 2019:9). FbF relies on three key components: forecasting, early actions and associated pre-allocated funds (GRC, 2019:2), these three components will be further discussed in the following section.

2.2.1 Forecasting

The use of forecasts for humanitarian action has been done via EWS for a long time. With FbF, forecasting has been amplified and is being used more extensively. Scientific development and an increased focus on the usefulness of forecasts enable humanitarian actors to make timelier and more well-informed decisions (Wilkinson et al., 2018:29). The ability and method to develop forecasts depend on the type of hazard, as for instance slow-onset hazards are easier to predict then sudden-onset ones (Wilkinson et al., 2018:10). The parameters being measured will depend on the event being monitored (Wilkinson et al., 2018:10). For example, the parameters monitored for tropical cyclones include its *track* (latitude and longitude of the eye of the storm predicting the direction the cyclone is undertaking) and *intensity* (maximum wind speed of the storm and *size* (Sober & Pillai, 2018:7). There are two categories of forecasts: deterministic and probabilistic (Sobel & Pillai, 2018:6). *Deterministic forecasts* give predictions of the event as categories for a specific lead time (Sobel & Pillai, 2018:6). It provides a single predicted outcome over the variable of interest, such as the position and intensity of the storm (Wilkinson et al., 2018: 14; Sobel & Pillai, 2018:6). Deterministic forecasts however, do not explicitly state the level of uncertainty and can never be totally accurate - especially for longer lead-times (Sobel & Pillai, 2018:6). Those forecasts remain easier to understand, but over-estimate certainty over the future (Sobel & Pillai, 2018:7). The accuracy of the data can be verified in real time, by looking at the difference between the forecasted values and actual values (Sober & Pillai, 2018:6). *Probabilistic forecasts* give predictions of the event as probabilities instead (Sobel & Pillai, 2018:6). They produce *cones*

of uncertainty, determining the probable track of the centre of the cyclone (Sobel & Pillai, 2018:7). Since the uncertainty of the data is always stated, probabilistic forecasts can be considered as more faithful (Sobel & Pillai, 2018:6). However, evaluating uncertainty requires some in depth understanding from the end user (Sobel & Pillai, 2018:7) and often deters decision-makers to take action (Coughlan de Perez et al., 2015:3). The RCRC Movement often relies on probabilistic forecasts (Wilkinson et al., 2018:14).

2.2.2 Triggers

Forecast information comes in raw data, qualitative statements, images, and bulletins from national meteorological systems (Wilkinson et al., 2018:10; Sobel & Pillai, 2018:7). To make it easier for decision makers to take timely decisions for early actions, relief agencies settle on a trigger that will indicate when to act. The trigger level is decided upon by crossing data on vulnerability with hazard-specific parameters and information on exposure released by meteorological stations (Wilkinson et al., 2018:12). Triggers are linked to a threshold indicating the probability that a hazard event will occur (Perez et al., 2015:4), and a danger level, indicating the potential impact from a given hazard (GRC, n.d.-b:2). The danger level and probability threshold will decide when a trigger is met and taking action is justified (GRC, 2018:5). FbF adds a human dimension to the meteorological forecast (Wilkinson et al., 2018:12). As mainstream EWS often lack a people-centred approach (Basher, 2006:2174), FbF tries to integrate data on exposure and vulnerability (GRC, 2018:5). This approach enables humanitarian organizations to have an idea of the impact that is more accurate and allows them to anticipate humanitarian needs (GRC, 2018:4-5). Apart from taking into account the exposure of a population, vulnerability informs about the difficulty of access to resources (cash, transportation means, network of support) or information (early warning information) that would enable households to evacuate the hazard affected area (Wisner et al., 2003: 55\89). Depending on the project, the trigger associated with an impact is static (Stephens et al., 2015: 8), there is one single trigger that relates to a set of early actions (GRC, n.d.-c:1-2). More complex representation could integrate different danger levels across time-scales associated with a progressive set of early action (Stephens et al., 2015: 8; Wilkinson et al., 2018:11). In the October 2019 *Dialogue Platform* held in Dhaka, issues around using a single threshold were raised. Risk perception may vary across different actors and fields, impact may also differ depending if one is considering human lives, infrastructure or livelihoods (Stephens

et al., 2015:9). There are different opinions on the magnitude of the parameters triggering early action (Stephens et al., 2015: 9). As triggers for action are often decided upon subjectively, they are based on perception of risk and of a crisis (Tanner et al., 2019: 7).

2.2.3 Lead Time

The lead-time of a forecast is the time difference between the forecast is issued and the confirmation of the event (Sobel & Pillai, 2018:6). Forecast lead-times can range from hours, to days, to seasons depending on the hazard being studied (Wilkinson et al., 2018:11). Monitoring lead times allows humanitarian organizations to implement progressive early actions (Wilkinson et al., 2018:11).

2.3 Early Action

Triggers are selected based on the level at which people or infrastructure are expected to be negatively impacted by the natural hazard (Wilkinson et al., 2018:13). This makes the decision-making process more or less automated enabling the quick activation of early actions (Stephens et al., 2015:8). The choice of the probability threshold is decided during the development of the Early Action Protocol (EAP) so that decision makers do not have to interpret complex probabilities in real time (Stephens et al., 2015:8). The early actions are defined using contextual information from the implementation area (GRC, n.d.-a:1). Therefore, understanding risks and risk drivers is paramount when establishing what actions to take (GRC, n.d.-a:1). Examples of data relevant to consult when establishing early actions include: vulnerability and capacity data, exposure data, hazard data and data related to root causes of risks at communities (GRC, n.d.-a:1). Ideally relevant stakeholders are then consulted and relevant early actions are brainstormed including factors such as timeliness, capacity to implement, available resources and access to targeted communities (GRC, n.d.-a:6-9).

Given the risk of acting in vain due to the difficulties of forecasting for longer lead times, humanitarian organizations tend to identify “low regrets action” (Wilkinson et al., 2018:12). These “low regrets actions” consists of activities that are beneficial even when a disaster does not materialize (Wilkinson et al., 2018:16). The choice of triggers and early actions are collected in the before mentioned EAP (IFRC, n.d.-a:2). The EAP is a document serving as a

guideline, defining roles and responsibilities for FbF implementation, clearly stating the feasibility of early actions, definitions of triggers and budgets for activation (IFRC, n.d.-a:2). An EAP is developed for each specific hazard and should be led by the implementing National Society with the assistance of an FbF technical expert (IFRC, n.d.-a:3). During the development of the EAP multiple stakeholders such as governmental entities, external stakeholders and climate scientists from the RCRC Climate Centre should be consulted (IFRC, n.d.-a:3). When the EAP is finalised, it must first be accepted by the FbF validation committee (IFRC, n.d.-a:5). When this is done, the FbF project is then accepted and authorised centrally to receive funds from the FbF funding mechanism (IFRC, n.d.-a:7).

2.4 Forecast-based Action by the Disaster Relief Emergency Fund

Through the Disaster Relief Emergency Fund (DREF) the IFRC provides financial support to National Societies having to respond to imminent crisis (IFRC, 2012:2). The National Societies have access to this pool of funding by applying through emergency appeals within 72 hours of a sudden-onset disaster (IFRC, 2012:3). The funding mechanism for FbF is referred to as the Forecast-based Action (FbA) by the DREF within the RCRC Movement (IFRC, n.d.-a:1). The FbA by the DREF is a preestablished fund available to national societies with an EAP accepted by the validation committee (IFRC, n.d.-a:1). The FbA by the DREF works in a very simplistic manner guaranteeing the allocation of funds when the triggers found in the EAP are met (IFRC, n.d.-a:1). This enables the early actions to be done in a timely manner opening the scope for humanitarian assistance to be done before hazards emerge (GRC, n.d.:2). Three types of funds are available through the FbA by the DREF: readiness, stock prepositioning and early actions (GRC, 2016). *Readiness costs* which covers costs and services needed for activation of the EAP. *Stock prepositioning costs* which covers costs associated with the prepositioning of stock needed to conduct early actions. *Early Action* costs which *c*overs costs for implementing early actions for FbF (GRC, 2016).

3. Methodology

3.1 Research strategy

To answer the research question qualitative data was collected through eleven interviews done with FbF practitioners working in different positions based in a range of different countries. The interviews were then coded and analysed to collect a holistic picture of the subject (Creswell: 2013:43-48). Additionally, secondary data such as case studies, reports and EAP were used to draw the background of the research and contextualize FbF. Existing research in the area of FbF (Wilkinson et al, 2018; Tanner et al., 2019), was used to gain a better understanding of FbF's modalities, capacities needed, recurring challenges and was key to designing the interview guide. By building on the voices of participants, this report seeks to contribute to the humanitarian community by providing personal experiences and potential calls for change. In the following sections a detailed explanation of the methodological choices informing the interviews will be described.

3.2 Interview design

The interview method used for this research was the semi-structured approach. The semi-structured method was chosen as open-ended questions enabled the interviewer to follow the rhythm of the interview and dig deeper into specific topics of interest (Creswell, 2013:172). Having a semi-structured frame with standardised questions in a given order, enabled comparisons between interviews, while still allowing the authors to pose follow up questions to explore personal experiences and discover emergent themes (Kvale & Brinkmann, 2018:58).

3.3 Facilitation of the interviews

Ten of the eleven interviews were facilitated by both authors through skype audio calls. As one of the authors lived in the same city of one of the respondents, the last interview was conducted by only one of the authors face-to-face. Face-to-face interviews would have been preferred to establish trust between the interviewers and interviewees, but geographical limitations and time constraints made it difficult. They also tend to provide a better flow between respondent and interviewer, while also freeing the interviews from possible technological glitches (Kvale & Brinkmann, 2009:128-130). There are however also positive

aspects of the internet assisted interview format. This format tends to be less time and resource consuming as the interviewer does not have to travel, and it also enables the interviewer to contact respondents who are geographically distant, opening up for a larger and more diverse sample size (Kvale & Brinkmann, 2018:81).

All interviews were recorded using smartphone recording software. This was done to make sure all details were collected and enable the interviewer to solely focus on the interview at hand ensuring a good conversation flow and better follow up questions.

The interviews started with a brief introduction of the scope, the use of the research, and a presentation of the two interviewers (background and rational of the research topic). This was followed by a general question regarding FbF, "How long have you been working with FbF, and in what context?". This was done to enable the respondents to feel confident and start reflecting on FbF, setting the track for more specific questions later in the interview. Before the start of each interview it was decided which of the authors would take the lead, with the other author taking a supporting role, taking notes and asking follow-up questions. The interviewees were informed that the expected time for each interview was between 30-45 minutes. In the end the longest interview lasted 1 hour and 12 minutes and the shortest one 21 minutes. The average interview was about 42 minutes, fitting fairly well with the planned time schedule. Varying reasons influenced the length of the interviews, with the most common factor being time pressure of the respondents. The authors sometimes had to limit probing questions depending on the time availability of the respondents. The interview guide can be found in section 3.5.

3.4 Sample

The practitioners interviewed were associated to the following organizations:

- PNS (American Red Cross, Danish Red Cross, German Red Cross, Swedish Red Cross) practitioners supporting the implementation of FbF projects of host National Societies (BDRCS and Malian Red Crescent)
- IFRC decision-makers at the International Office of Geneva and practitioners at the Regional Offices of Kuala Lumpur and Addis Ababa supporting FbF projects

- RCRC Climate Centre practitioners having an advisory role in support of National Societies' decision-makers

Eighteen respondents were found through a combination of research, relations and indispensable aid from former work colleagues. Since one of the major reasons for the authors' wish to conduct this research stemmed from an internship done with the IFRC in Dhaka, some familiarity with staff working with the PNSs supporting the BDRCS were present. Three respondents working with the BDRCS were identified through previous professional relations. One respondent was identified through the alumni network of the Disaster Risk Management and Climate Change Adaptation Master Program of Lund University. Fourteen respondents were found through a combination of research and snowballing[2] (Creswell, 2013: 158). This was done by reading through secondary data on FbF, and from there identifying authors or other mentions that might be of interest for the research. Emails were then sent to relevant respondents along with a research description, a sample can be found respectively in Annexes 1 and 2. Snowballing was done after each interview but most of the time led to practitioners that had already been identified through research. The initial plan was to conduct between 25-30 interviews, but due to limitations mentioned in section 3.8 the number of respondents had to be reduced to eleven. The seven respondents that did not answer to the research invitation were assumed to be busy due to the current world-wide coronavirus preparedness and response operation.

3.5 Interview guide

The interview guide was developed around the research question after having gone through collected secondary data. Due to time constraints, the interview guide was not tested beforehand. As a vital part of the research is to understand perceived opportunities and challenges from FbF practitioners in different positions, the same interview guide was used for all interviews. However, there were slight differences regarding probing and follow up questions, to make sure respondents fully understood the given question and were able to elaborate on points being made. Modifications to the interview guide were done when relevant to ensure it would fit the respondent being interviewed, as respondents in different positions had their own areas of expertise and knowhow.

[2] The process of Identifying cases of interest from people who know people who know what cases are information-rich (Creswell, 2013:158)

Table 1. Interview guide.

1. What is your name, job title and professional background?
2. How long have you been working with FbF?
Probing. How has FbF evolved throughout the years?
3. What is your role? How do the different levels (international, national headquarter and local branch level) interact for FbF? Who does what?
4. What challenges are you facing when implementing FbF projects?
Probing. How can those challenges be overcome?
5. What success factors are there in FbF projects?
6. What capacities do you think are needed to implement FbF?
Probing. What kind of support is needed by the local National Society branches from the different HQs?
7. What changes do you think would be needed to better be able to implement FbF in future events?
8. Is there any practitioner involved in FbF you know of that could be interested in taking part to the research?
Thank you for your time and collaboration!

3.6 Analysis of data

All eleven interviews done were recorded and transcribed within one to three days. This was done for ease of transcription, by having the interviews fresh in mind, and to avoid a massive delayed workload.

When analysing the data, interviews were coded. This was done by doing a content analysis, where themes mentioned in the data, that are relevant for the subject, were identified thus classifying the data (Kvale & Brinkmann, 2018:122). The coding was an iterative process, where the authors first looked at the data individually to grasp different perspectives and to prevent the authors from influencing each other during the initial coding. This was then discussed jointly, and the data was re-coded and grouped into commonly agreed broader themes and then categorized into narrow subthemes (Creswell, 2013:180). The themes identified were constantly checked against the data and were subject to change throughout the process (Creswell, 2013:45). This made it possible to further analyse the findings, and ultimately come up with answers to the research question. Coding was done first manually

and then digitally to make sure nothing was missed (Wieringa, 2014:135-138). An example of the coding process can be found in Annex 3.

3.7 Ethical considerations

All interviews done throughout this research have been done with the informed consent of the respondents. All interviewees were contacted beforehand and asked whether they would give permission to the recording and informed what it would be used for. This was asked again before the interview to ensure clarity (Creswell, 2013:351). All respondents appear anonymously in the research, this was done to ensure the privacy of the respondents while making them feel comfortable about participating (Kvale & Brinkmann, 2009:70-73). These factors were taken into consideration to ensure honest results and reduce potential backlash if uttering negative comments about FbF, the RCRC movement or other aspects.

3.8 Methodological limitations

The initial idea for this research was to interview actors working at different levels to compare and contrast their perspectives, and highlight potential discrepancies between actors working at the international and national level as well as in the local branches. This scope was to be attained via a field trip to Bangladesh with the support of the IFRC and American Red Cross. Unfortunately, the current global situation regarding the Covid-19 pandemic precluded this opportunity, the subsequent travel bans made it impossible to travel and collect data in Bangladesh. This situation forced a slight change of subject. This sudden change of program had an impact on the data collection method, the sample size and the interview guide.

Research had to be done from the respective homes of the researchers in Denmark and Italy and most interviews had to be carried out remotely via audio-call on Skype. Inevitably, this data collection method made it difficult to build trust with the interviewees necessary for them to feel comfortable to share challenges and opportunities they might face with FbF. Further, the sample size had to be reduced and the target group revised. The change of plans severely reduced the possibility to collect data at local level, making the initial aim of 25-30 interviews difficult to attain. Additionally, the Covid-19 pandemic made RCRC staff world-wide extremely busy, limiting their time and openness towards interviews further decreasing the number of respondents. A larger sample size would undoubtedly have benefitted the research. Relying on eleven interviews made it difficult to draw broad conclusions for FbF and

to establish comparisons across the groups. This change of plans also had an influence on the interview guide development. As the ability to target local branch staff got restricted, the scope shifted towards PNS, IFRC and RCRC Climate Centre perspectives. This however happened relatively late in the process and consequently the first five interviews had a focus on local actors too. This might prove as a limitation for the results as these respondents subsequently had an increased focus towards FbF at local level, influencing their reflection on topics such as capacities needed for FbF, and challenges associated with Fbf. Given the difficulty of access to practitioners working at host National Societies HQ and local branches, the research gives a partial picture of the challenges and opportunities with FbF within the RCRC Movement. Additionally, the question regarding capacities needed to implement for FbF asked in the interviews proved to be surrounded by some ambiguity. The literature confirms that the term "capacity" can be considered misleading (Barbelet, 2019: 5), which became evident in the interviews, as respondents took pauses and often asked to rephrase the question. The respondents understood the terms capacity, and whose capacity this was related to in different ways. Therefore, this research is unable to specifically define capacities when these are discussed in the results and discussion chapter, and most commonly uses an overarching term meant to describe capacities for broad areas.

3.9 Acknowledging biases

The researchers have throughout the research been conscious that biases, values and previous experiences might have influenced the interpretation of the results and its analysis (Creswell, 2013: 300). The way data is being interpreted is influenced by the short work experience within the RCRC movement and the values conveyed through the courses of the Disaster Risk Management and Climate Change Adaptation Master Program. This will filter what is being noticed (and what is not) and will inform the way data is being understood (Creswell, 2013:299). The understanding that DRM projects should be based around local ownership for a successful implementation is one such potential bias (Hagelsteen & Becker, 2013:8). The initial intention of contrasting the perspective of international actors with local actors stems from the researcher's internship experience with the RCRC Movement in Bangladesh. One aspect that got the researchers interest were substantial contrasts between the BDRCS HQ and local branches. The researchers observed differences in human resource distribution across the country, working space facilities, and the degree of responsibility of

local branch staff compared to HQ. This experience might have influenced the way questions are phrased, which themes are being coded and the interpretation of the results. In particular, the fact that the researchers wanted to understand whether in FbF projects there were factors contributing to the exclusion of local actors.

4. Result Chapter

This chapter outlines the results of the eleven interviews that have been carried out. Five broad themes emerged from the analysis of the interviews and have been organised in the following way: 1. Conceptualising FbF, 2. Rethinking humanitarian action, 3. Capacity to deliver on Early Action, 4. Stakeholder's engagement, 5. Monitoring and evaluation.

4.1 Conceptualising FbF

Nine respondents elaborated on difficulties in conceptualising FbF and touched upon the following topics: an inconsistent use of terminology, diverging opinions around the magnitude of events, the scope of early actions and challenges in communicating FbF.

4.1.1 Use of terminology

Six of the respondents identified that there was no consensus around how FbF is conceptualised. According to four of these respondents, the use of terminology surrounding FbF can create grounds for misunderstandings. One of the respondents further elaborated that this stems from the fact that each organization refers to FbF differently. The respondent exemplified that within the RCRC Movement, some organizations refer to it as FbA (Forecast-based Action), others as FbF (Forecast-based Financing), while external implementing agencies also call it Anticipatory Funds. Two respondents mentioned that the terminology used can be misleading. One respondent pointed out that as the term "financing" is often associated with cash-based intervention, calling it FbF could bear wrongful assumptions on the scope of early actions. To accommodate the breadth of the evolution of the concept, the same respondent indicated that the RCRC Movement may move to the term Anticipatory Humanitarian Action (AHA). Furthermore, two respondents mentioned that similar terms are used to mean different concepts which easily lead to improper associations. These two respondents reiterated the importance of contrasting "FbF"\"FbA" with the latter referring to the whole mechanism from "FbA by the DREF" which is the pool of funds that the Movement

can draw upon to enable early actions. According to one respondent, this ambiguous use of terminology became an issue when humanitarian organizations do joint advocacy towards governments. The integration of FbF in governmental structure was, according to the same respondent, an opportunity for the concept to come under one name. Two respondents highlighted the benefit that humanitarian organizations could draw from harmonizing terminology. To overcome confusions, the same respondent added that some terms should be unanimously agreed upon. In fact, the same respondent highlighted that there is often a disconnect between the use of words and their meaning across organizations: "we all use the same terminology, but we have a completely different understanding on what we understand by FbF".

4.1.2 Defining the magnitude of the hazards

Two respondents offered two different understandings on the magnitude of the events FbF should support. According to one of the respondents, working at the international level, FbF has been designed to be used for big events that would happen statistically once in five years. Adding that recurrent risks should be addressed with long-term preparedness and climate change adaptation activities. The reason behind this choice rests, according to the same respondent, on agreements on funding guidelines with donors limiting the funding the RCRC Movement relies on. The respondent explained: "It is not something we can just change, if we change it [the trigger level] we really need good reasoning and we have to be sure that we have enough funding for the next years to cover all these EAP's". This stance was challenged by another respondent working within the context of cyclones, highlighting the subjectivity around the understanding of hazard's impact, as the comment below illustrates:

"The EAP is designed keeping in mind mega events, anything less than 125 km\h will not be considered a mega event, so the EAP will not be activated. Our argument is, even a 100 km\h windspeed cyclone can be devastating."

4.1.3 Defining the scope of early actions

Six respondents also denoted a challenge in defining the scope of early actions. One respondent mentioned: "It's kind of interesting, different organizations will give you different opinions about this, it is very contested". While there is consensus among the respondents that FbF has to mitigate the impact of a natural hazard by acting before a disaster has

materialised, there were disagreements when defining the role of FbF within the DRM scope of action i.e. preparedness, early response or risk reduction. According to one respondent the essence of the confusion finds its roots in cognitive challenges:

"Because the human mind would reconduct FbF to one of their known categories, but there might not be such kind of category you know."

While one respondent associated FbF with preparedness, another respondent advocated against it. This respondent noted that some organizations were improperly branding their activities under FbF as shown by the following comment: "some NGO's use the term FbF but basically what they do on country level is general preparedness measures". Another respondent pointed out that preparedness measures could reduce risks too, as explained below:

"It means that you have x pre-positioned items in that area, if the road is blocked, you can have those items there. People would receive them. You can address secondary impacts of disasters."

Opinions also differed on the boundary between early actions and early response. Some felt that early actions could facilitate response, while others considered that this association could carry risks. In one case a respondent mentioned that: "early action can be used as a basic risk reduction strategy or early actions can help you be ready to respond very well". This was agreed upon by another respondent that stated: "one of the objectives I see is to make it a bit easier to do the response as well, so we are trying to alleviate some of the damages and create the foundation for the response to happen more smoothly". On the other hand, one respondent saw a risk when organizations branded themselves as doing early actions, when in fact they were responding earlier but not reducing risks. In this debate, one respondent's answer stood out: to its organization the most important add on of FbF was localising resources and decentralising response.

4.1.4 (Mis)communicating FbF

According to five respondents, FbF is still an approach that is difficult to communicate, making it difficult to ensure a common understanding. According to two respondents it was challenging to communicate FbF to donors. One respondent saw a risk with this, mentioning that if donors misunderstand FbF, they may divert funds from long-term Disaster Risk Reduction (DRR) and development, as highlighted here below:

"They [the donors] believe that they are now investing a lot in DRR and almost in development, and my only fear is if funding partners or any organization believe that this is an investment in addressing the root causes [of vulnerability], they are mistaken. Because this money is not addressing the root causes of why people are vulnerable. That needs to be done in longer term development work instead".

According to three respondents it was difficult to convey FbF within the organization, but more particularly at the local level and to the communities they operate with. One respondent commented that: *"t*o speak of some [challenges], one is definitely, lack of understanding of the concept", while another respondent stated that "it is kind of difficult for now, to make people understand exactly what FbF is*".* According to three respondent's technical language used in the FbF field is a barrier to ensure common understanding. One of them also added that there is confusion when it comes to defining ways in which FbF fits in current ways of operating and how it can be combined to the actions of other actors. Further stating that because of this, much more information and knowledge sharing on FbF is needed for the concept to be understood and used effectively by humanitarian practitioners on the ground. Lastly, two respondents added that it was challenging for communities to grasp the utility of doing early actions when a disaster did not materialise yet.

4.2 Rethinking humanitarian action

Six respondents mentioned that the change towards anticipatory action, presents a shift in the way humanitarian action is done. In particular, the themes that emerged were hinting towards an increased focus on acting on forecasts and the development of a new way of funding.

4.2.1 Rethinking the link between forecasts and action

Five respondents elaborated on the ways FbF helped rethink the link between forecasts and action. According to two respondents FbF is opening the opportunity to fill in a gap between early warning information and decision making by facilitating it. One respondent highlighted that today, the scientific progresses in forecasting has come so far that "we can no longer make any excuse as to why we are not using this kind of information for our decision making". In the view of another respondent, this persisting gap in decision making underpinned a distrust towards forecasts, as the comment below shows:

"Is this forecast strong enough that it's worth doing x actions, or will I get in trouble if I spend a whole bunch of money to prepare people and then the hazard doesn't happen? When is it okay to take that risk of acting in vain?".

The same respondent added that a key add-on of FbF is to identify trustworthy forecasts to facilitate the decision-making process in times of emergency. While five respondents stated that FbF was playing a key role in encouraging decision makers to take advantage of information coming from EWS, four respondents elaborated on the way's forecasts are still a barrier for decision-making. Two respondents discussed the issues around data accessibility and data quality. One of them mentioned that the unavailability of historical data becomes a barrier to develop accurate triggers. Another respondent pointed out that the variety of forecasting models could be overwhelming, also posing a problem when developing triggers. The same respondent referred to the resistance of national forecasting agencies to issue warnings under uncertainty. Along the same line of thought, another respondent mentioned that while the RCRC Movement always tries to act on official national forecasts, information issued by different international institutions may be available earlier. "People want to start acting as early as they get the first information, before the official forecast", the same respondent added.

Despite the increasing accuracy of forecasts, the same respondent mentioned that there is still a bias towards acting based on impact rather than based on probability. This was confirmed by two respondents who expressed that convincing the leadership of National Societies to buy into the approach can still be a challenge. National Societies are very independent and introducing new ways of thinking requires a serious commitment from the leadership, one respondent explained. Two respondents referred to the benefits FbF has brought in relation to understanding risks and planning. One of them stated that "FbF has created this worldwide awareness around anticipation and how we need to [do] this as part of the normal DRM cycle". Another respondent stated that FbF has given the opportunity to National Societies to work on organizational preparedness, to better understand risks and the value of forecasts for FbF and other programs. The respondent elaborated:

"Even in some cases [when] we cannot full trigger or activate our EAP, the National Society is much more informed: observing forecasts, taking informed decisions and having an understanding on what kind of early action makes sense. I think that is a huge advantage"

4.2.2 Rethinking funding

New funding incentives

Three respondents observed that FbF is pushing for a change in the humanitarian action funding system. According to one of these respondents, FbF remodels the incentives of the funding system, further stating: “you don’t need to show pictures of sad people on television to get money. Instead we would have pre-agreed that a certain forecast is worth acting on”.

According to two respondents FbF has enabled humanitarian actors to address dysfunctionalities of a siloed funding system. This is, according to one respondent, the biggest achievement of FbF, as it is enabling a transformation of the traditional humanitarian funding structures. Another respondent noted:

"It has allowed us to engage in dialogue with the funding partners, which in this case is SIDA, telling them that there is this issue of a very, very siloed funding mechanisms for recovery, response, development and so on and it shouldn’t be like that”.

The same respondent highlighted the opportunity that FbF enables funding partners to finally allocate 10% of the funds for response towards DRR, as pledged at the 2019 Global Platform on DRR. Three respondents saw that there is now a growing goodwill and support from donors towards the anticipation agenda. One of these respondents mentioned that some partners seem to have accepted the risk of acting in vain and the fact that, when this does happen, the money still goes towards vulnerable families living in poverty. According to one respondent, FbF has also allowed funding partners to better understand the degree of uncertainty humanitarian organizations operate in. Another respondent mentioned that FbF also came from the realization that climate change would have an increasing impact on the humanitarian system in terms of funding and the ability to implement. One respondent stated:

“Climate extremes are just becxoming more, and the impact of them are really a burden globally and there will not be funds enough to respond as we used to do with all these weather related disasters, so we need to do things differently, and this [FbF] is the way forward in my opinion”

In relation to this, two respondents referred to the cost-efficiency of doing action before a hazard has occurred, noting that a shift towards more anticipatory action could help alleviate some of the funding gaps for humanitarian action. Yet, two respondents mentioned that despite anticipatory action, funds like the FbA by the DREF are still relatively small for the system to cover entire countries and this increasing burden of climate change in the future.

Four respondents referred to a call for increased evidence as a way to respond to donors' needs and for further advocacy efforts. One stated that: "donors, especially, are keen on getting more evidence on impact of our FbF early action, and evidence is obviously very important for advocacy work and policy work".

Current challenges and alternatives to the funding method

Four respondents elaborated on challenges for the FbF funding mechanism. These respondents highlighted that despite the funding mechanism, resources are not always available on time, which becomes a barrier for timely early action. Two respondents mentioned that even with FbF, it has happened that the national societies have requested resources, which could not reach in time. According to one respondent, some constraints and delays may be inherent to the international banking system, where transfers of money can take days. That same respondent mentioned "we had this case a few months ago when we thought we were going to activate FbF and the money was transferred, but it was a Friday which is a holiday in Bangladesh". One respondent specified that the magnitude of the issue is exemplified in this case because of the short lead time where volunteers rely on 36 hours to implement the early actions to reduce the impact of cyclones. Another respondent underlined the implications of untimely release of resources on the early action implementation, stating:

"If they don't receive the resources, how can they mobilize people and how can they mobilize the resources? If we don't manage to transfer resources on time, it's all a bit tricky."

Five respondents elaborated on alternative funding methods to overcome these challenges. According to one respondent, alternative ways of funding FbF have to be identified on a case by case basis. The same respondent mentioned that sometimes, timeliness of resources will not be problem as the same National Society or supporting PNSs may be able to advance cash, that will then be replenished by the resources of the FbA by the DREF. On the other hand, another respondent argued that since transferring money from the IFRC HQ in Geneva is time consuming and taking loans from other projects is not "very friendly", there should be a reliable alternative. The same respondent advanced a change to the current funding system as a way to overcome the tedious process of activating the protocol and mobilising resources: the option of introducing a localised DREF mechanism. One respondent built upon this aspect and mentioned that localising resources is an ongoing and unsolved debate within the RCRC

Movement. The respondent could not specify the reasons behind, but advocated that it would be interesting to look into the pros and cons of localising resources. Two other respondents touched upon the hypothesis of using insurance for early actions, which is still in the exploration phase.

4.3 Capacity to deliver

All respondents elaborated upon different types of capacities needed to deliver on the early actions efficiently. The themes that emerged were the definition of the feasibility of the early action, defining the need and scope of the early actions, the benefits of trainings and education on FbF and the importance of strengthening National Societies.

4.3.1 Defining the feasibility of early action

Six respondents mentioned the need to first define the feasibility of delivering on early action within a limited time. One respondent further elaborated that when doing FbF, a thorough understanding of all existing risks and potential impacts is needed to identify the "residual risks" that can be addressed through FbF. One respondent elaborated on the need for awareness on what action is feasible and needed, stating that:

"Early action is not going to solve the problems of the Red Cross, we're not going to reduce all the risks that needs to be reduced. So, we have to be very conscious of what is feasible and what is a logic thing to do with early action."

One respondent mentioned that early actions can attempt to reduce fatalities but can also target livelihoods or assets. Another respondent added that early actions can be targeting the protection of public infrastructure and preventing health hazards through the distribution of water purification tablets, hand sanitizer and mosquito nets. The feasibility of the early actions needs to be recognized together with the capacities needed to implement the early actions decided upon. An example of this was given by another respondent mentioning that they started up wanting to do cash interventions as part of their early action, but quickly had to re-evaluate and accept that distributing cash wasn't possible because of logistical and technical challenges. One respondent mentioned that acting upon a forecast requires a lot of flexibility both in ways of thinking but also for the organization responding to actually be able to go wherever it is needed all within a quite short notice, further explaining that:

"We don't know exactly where we will respond and what that village or city or community might look like. So we need to be able, within our lead time, to adjust our plan to the specific need of that community where we will implement our actions."

The same respondent mentioned the benefits the RCRC Movement could draw from increasing the use of vulnerability and exposure data for decision making. Two respondents mentioned that, as of today, especially in the case of floods, vulnerability data used to identify targeted communities is collected during the lead-time, which can be very challenging. One respondent added: "we don't have the time after the warning to go out and make a study and all that because we only have these four days. So we need something that can quickly help the decision making". The same respondent advocated towards using more in-depth modelling and more systematic data to guide the interventions. This concern is echoed by challenges another respondent had faced in the field, explaining how finding a location for cash distribution takes time, and that it got increasingly difficult when more and more areas became flooded. The respondent added that short lead time is a challenging aspect that requires quick decision making and logistical preparedness. Another aspect brought up by five respondents when defining early actions regarded the ease of access to remote areas. Two respondents mentioned that conflict and security risks made it difficult to implement FbF in certain regions of Mali and Mozambique. They both commented on how this limitation made it impossible to work in some areas, even if triggers were met, and that this is a major constraint for FbF that is very difficult to overcome. In addition to security issues, remoteness and infrastructural limitations were also mentioned by multiple respondents. Two respondents mentioned collaboration with other organizations as a solution to reach out to remote communities. One of them referred to the benefits of working with organizations relying on community-based volunteers for easier access to population at risk. Exemplifying the difficulty of reaching communities in a timely manner, when covering large and inaccessible areas, another respondent provided an example stating: "in the Philippines this [access] is very challenging because it is I think 2.000 islands".

4.3.2 Ability to scale up early actions

Seven respondents mentioned the challenge of scaling early actions to reach out to more households. Two respondents mentioned how there had previously been a focus on single

communities covering smaller preselected areas, but that the approach now aims to cover larger areas. One respondent explained the need for this new approach:

"So a main learning was that if we really want to make this work we need to cover either the whole country or at least some provinces, because we had in Peru for example, the situation that there was a strong El Niño with strong heavy rain falls, but the rain fall wasn't in our predefined community, it was just in the neighbouring district and we were not really prepared"

Another respondent further explained how rolling out FbF projects to cover larger areas is an ethical imperative for humanitarian organizations, as for instance, only covering one side of a river means excluding equally vulnerable people on the other side from access to aid. Six respondents however still mentioned that they see a need for FbF to be done at an even bigger scale. One respondent pointed out:

"Maybe we're not reaching a meaningful amount of people. So we spend all this time thinking of all these protocols, but then in the end we reach 10 people, that's not going to be valuable. So I think there's a lot of momentum in terms of the concept, moving forward, but is there enough momentum in terms of scale?"

According to four respondents, a lack of scale corelates to the limited capacity to implement widely. Two of these mentioned how even if the funding is increased, national and local capacity to deliver on early actions need to increase for high quality scale up to be possible. One respondent understood capacity in terms of numbers of volunteers and highlighted that to scale up the early actions from two thousand to ten thousand households there had to be an investment on capacities. One respondent further explained:

"The main challenge that we have is that there is still the need to test the feasibility of the early actions at a larger scale, so there have been activation in Bangladesh for example, Togo, Mongolia. But still the activation of the EAP's are on a smaller scale, so we need to make sure that its feasible to do it for a bigger target of households"

On another note, one respondent mentioned that anticipation may not be a priority of national societies. Mentioning that this is especially true in complex emergencies or when they are facing managerial and/or financial crisis. One respondent raised the case of complex humanitarian settings, where today's FbF methodology might be too complicated to implement in contexts with ongoing civil war or health crisis. The respondent added that in

such context's anticipation might not be a priority but that it could still be highly beneficial to anticipate potential impacts. According to another respondent, practitioners are still brainstorming to identify how FbF could be applied in complex settings, stating that this might be a scope to create a different methodology. In such cases, the respondent advocated, that instead of FbF, national societies can work on general preparedness measures, further mentioning:

"In some cases the pure FbF approach doesn't really make sense, you have to then maybe work more on general Preparedness for Effective Response (PER)[3] and make national societies aware of potential risks in country and to kind of pre stock but maybe not to really follow an EAP as it is now".

4.3.3 Training and Education on FbF

When talking about capacities, most respondents mentioned that trainings and awareness raising on FbF and early actions were key to increase the capacity of host National Societies to implement the early actions decided upon in larger geographical areas. The benefit of workshops on FbF and trainings on early actions were brought up by five of the respondents. According to two respondents a lack of understanding can become a serious barrier to the sustainability of FbF within the organization. One of the respondents explained:

"If you don't understand FbF how can you implement it or do advocacy on it?"

Three respondents highlighted that National Societies engaging in FbF are doing orientations and trainings to further raise awareness on the concept for the staff and volunteers implementing early actions. One respondent mentioned that in Mali workshops had been held for presidents and secretary generals from the different regional branches but also with local authorities, ensuring their understanding of the concept and their buy-in for the planning and development phase. The respondents interviewed who were familiar with FbF in Bangladesh mentioned similar approaches where a strong focus on conveying information about FbF and how early actions should be implemented was being prioritized. However, despite these trainings, the two respondents mentioned that understanding FbF was still a challenge. One of them expressed concerns with respect to the effectiveness of Trainings of Trainers (ToT) as

[3]Preparedness for Effective Response (PER) is a cyclical approach for a National Society to systematically assess, measure, and analyse the strengths and weaknesses of its response system in order to take remedial actions (IFRC, n.d.-b)

knowledge often got lost. Additionally, despite the intention of the HQs to do knowledge and information sharing sessions, one respondent highlighted that “at unit level there are some people who know what FbF is, but most of the people still don’t know, because its new”. Many local branches do not have access to such trainings due to a lack of resources, mentioned two respondents. One of them highlighted that often the local branches able to organize workshops were the ones that had ongoing financial support from PNS’s. Further, two respondents agreed that as FbF is a new approach, it is natural that to assimilate fully what FbF is and how it can work within the current context will take time.

4.3.4 National Society readiness

Most respondents mentioned that a main factor to ensure the successfulness of FbF projects was having a strong implementing National Society. One respondent elaborated on this saying:

“Everything needs to function like a well-oiled machine and that can sometimes be one of the main challenges, because if one part is not working, it affects the rest of the process”

Another respondent further built on this stating that for FbF to function there needs to be a capable logistics department to procure and transport goods, and a functioning financial department to distribute and access funds, all within a short lead time. Another respondent explained that short lead times between forecasts and impact require the system in place to be very well functioning, in order for it to reach a large number of beneficiaries. All respondents mentioned the importance of volunteers and local staff, and the crucial role these play in implementing the early actions set in the EAPs. But also acknowledged that the organization and system behind them have to be functional, ensuring they have the right gear and training. One respondent explained the importance of this saying:

“We could have the most amazing funding, you could have the most amazing triggers, you can select the most amazing actions, but if the people on the ground doesn't have the capacity [to] implement, it is like having nothing.”

Further mentioning that this might become a problem with the current levels of capacities. This was further exemplified by another respondent mentioning that another challenge is unequal distribution of capacities across the organization. This respondent stated:

"At national level sometimes Standard Operating Procedures (SOP) are there, they have capacity in terms of staffing, but when you go to a branch (…) you find that the capacities immediately go down because at the branch level its much smaller."

Six of the respondents echoed the need for capacities at the local branch levels. One respondent explained: "You need to have a branch that is able to deliver whatever the response activity". One respondent highlighted the discrepancies in capacities across the districts which affected local branches' readiness for response. According to the same respondent, equally vulnerable and exposed districts had less access to resources when the area was not targeted to implement DRR projects, as stated below:

"Without the PNSs, without the donor's [support], nobody can implement projects in these districts. It's not that they are bad, it's not that they are not vulnerable, they're vulnerable, they're good, but it's just that the donor interest is driven in a different way."

Nine of the respondents agreed that for FbF to be sustainable, efforts must be invested towards strengthening the capacities of the host National Societies. One respondent said: "I think what the main evolution that I have seen is that [the focus] has been changed into understanding that FbF it's more about the capacity strengthening of the National Societies". One respondent mentioned that investing in FbF systems, should go with a more general investment in organizational development for all programmatic areas of a National Society, as this would ultimately benefit the FbF project. Two respondents mentioned that a part of the funds available to National Societies to implement FbF is allocated to the "readiness" of the local branches and is often spent on trainings for volunteers.

Three respondents thought that to strengthen the performance of FbF, National Societies could benefit from assessing capacity and gaps that would affect the readiness for response. In particular, they referred to the potential link between FbF and the PER tool. Mentioning that using FbF and PER complementarily could help identifying in which way capacity gaps may affect FbF performance. One respondent explained:

"The idea [is] that we can use that [PER] more systematically, so we can see what the existing capacities of the National Society at all the different levels are and what the needs of investment are, which are then the areas that need to be strengthened to really be able to do early action".

On another note, according to three respondents, to strengthen the capacity to implement FbF, ideally, FbF, DRR and CCA projects should be complementary and working towards the same goals. Because DRR programs have a wider budget compared to that of FbF, there is the opportunity of using resources efficiently to complement FbF initiatives, one of the respondents explained. Another respondent added that FbF needs to be integrated in long-term development where DRM projects cover capacity building for early actions. For instance, the BDRCS complements FbF with the DRR Coastal Projects. The activities chosen for DRR aim at facilitating the implementation of the FbF early actions such as the evacuation to cyclone shelters by building an access road. Another respondent said:

"Now we have seen that this FbF project needs to be part of the bigger picture, so it needs to connect with all the initiatives in the National Society and it also needs to be connected with the whole bigger preparedness framework of a National Society"

4.4 Stakeholder engagement

A key aspect to the successful design and implementation of FbF is, according to nine respondents, the collaboration between different actors with the RCRC movement and outside of it. All of these respondents elaborated on the challenges and success factors stemming from the collaboration between National Societies, local actors, external humanitarian organizations and governmental entities.

4.4.1 National Society in the driver seat

Three respondents recognized the key role of the local National Societies to run FbF. These respondents highlighted the invaluable knowledge National Societies have about their context. One emphasized the need for work towards making sure that the National Societies will ultimately have the ownership of the FbF systems being implemented in a way that they can manage it by themselves in the future for the sustainability of the system. Another respondent explained that the host National Society has to ultimately have the lead of the FbF projects. The respondent further mentioned that National Society ownership helped ensure better collaboration with governmental partners.

However, according to three respondents, as of today setting up FbF with the current methodology still is a challenge to local ownership. The three respondents elaborated on the difficulties National Societies face in setting up the system and called for a more simplified approach. One of the respondents mentioned that simplifying the methodology is needed since, as of today, there is a need for external support from PNS's. According to the same respondent, simplifying the methodology would enable National Societies to set up FbF in greater autonomy. Another respondent further elaborated:

"I think it would be good to have at the [RCRC] Movement level some more user-friendly guidance. At the moment, it is a bit overwhelming with many different tools and if I were a Disaster Management Officer in a National Society, and should start trying to find my way through all this, I think I would be overwhelmed, so [there's the need for] a more systematic approach"

In relation to this, the same respondent mentioned that when implementing FbF it is important not to overload existing National Society staff with new tasks. The respondent explained that it is important to be aware of the added workload an FbF project might bring. With regards to simplifying the methodology one respondent argued that the current methodology is said to be "quite attractive to donors, as it is quite scientific" mentioning a potential drawback of simplifying the methodology. To respond to the practitioners' need, the same respondent mentioned that the RCRC Movement has been working on an online initiative called the "Anticipation Hub", where practitioners will be able to find methodological guidance, trainings and lessons learned.

4.4.2. Engagement of local actors

Four respondents acknowledged the importance of engaging with actors at the local level and the value of their knowledge of the context. One of the respondents stated:

"They [the local actors] know the communities so of course when you are developing an FbF system you need to know what is appropriate."

One respondent took this further and explained that their understanding of the context is key when it comes to deciding on the feasibility of early actions, the commodities/actions needed, and when setting the triggers. Arguing that if the aim really is to localize the actions, local branches and communities increasingly need to be included in the decision-making process. When asked about the distribution of roles and responsibilities, most respondents working in

international and regional offices mentioned that interacting with local branches was outside of the scope of their role. At the same time, staff at the HQ seem to rarely interact with the branches until there's a response, as one respondent said:
"I have to be very bold, when there's not projects in many districts, the HQ and the district they don't really have any connection until there's a response."

Two respondents expressed their concerns on the extent to which local actors are engaged in the decision-making process. One respondent mentioned that they should be consulted at an early stage, yet recognized that: "The risk will always also be that you are not engaging them thoroughly, we need to really listen to people and we sometimes fail to do that". The same respondent saw exclusion from decision-making processes as the root cause of vulnerability and reiterated the importance of genuinely taking into account inputs of local actors. Another respondent showed the limits of the engagement of local actors, mentioning that their feedback is collected solely when HQ goes to the branches to "teach" and is not often considered. In particular, the respondent referred to the motion brought up by local staff to lower the trigger for early action for cyclone events, which has been disregarded so far. The respondent underlined the discrepancy between talks around the willingness to include local actors in the decision making and reality, further explaining that the local branches are not included when developing the EAP that will dictate the early actions they will be in charge of implementing and added:
"So when you are localizing, you localize entirely, not just for the beauty of the reports".

4.4.3 Collaboration with external humanitarian actors

Four respondents touched upon collaboration with external humanitarian organizations in terms of development of the concept, of advocacy and as a way to scale up. Three respondents celebrated the joint effort of the RCRC National Societies, the RCRC Climate Centre and the partnering humanitarian organization (FAO, START Network, WFP) in developing the approach and enabling FbF to flourish. One key success factor is, according to them, the set-up of an Early Action Task Force where representatives of the humanitarian organizations meet regularly to discuss common challenges and ways forward. One of them mentioned that FbF was one of the rare cases where there was no competition among stakeholders stating that: "because we understand that in order to really have a system-wide shift, towards anticipatory

action, we have to work together, we can only do more and better if we work together". This collaboration has been fostered by the Early Action Task Force but also through the organization of dialogue platforms, according to two respondents. They mentioned that the awareness of FbF has been raised through the advocacy done at dialogue platforms where the RCRC actors, government representatives, national meteorological agencies and humanitarian organizations have met to further develop the concept. One respondent recognized the role of "champion governments" that have been advocating for states to act upon information, ensuring that early warning leads to early action in different international forums. The respondent further stated that this successful campaign has led to the endorsement of FbF in two United Nations Resolutions.

However, three respondents underlined that a challenge still is that each organization follows its own methodology, works on different triggers and carries different early actions which can be an issue to coordinate. Two of them mentioned that different understanding of where FbF stands in the DRM spectrum created friction and was a barrier to friendly collaboration. "Although we all recognize that we need to coordinate, that it's a good idea to have a joint decision-making process in some cases, it is very difficult in reality" one respondent added. According to two respondents, divergences were natural and stemmed from the fact humanitarian organizations must fulfil different mandates. One respondent stated:

"Everybody is somehow working on a slightly different methodology which is somehow okay because then it fits perfectly to the mandate of the organizations, but that can be challenging too"

According to another respondent, challenges arise on the ground as each organization sets its methodology on different threshold levels. The respondent further explained how these divergences can create difficulties when coordinating decision-making and action and referred to the need to define a common understanding on the reasons behind the choice of parameters for action. However, three respondents advocated that the diversity of the methodology could bring an added-value to FbF. For this to happen, they agreed that the different organizations must work towards harmonizing the methodologies and trigger systems in a way that the activities complement each other. One respondent noted "there can

be complementarity in diversity, at the end of the day all the organizations have the same goal". The same respondent highlighted that there was an opportunity both for the organizations to respect their mandate, and to make sure that the methodologies are complementary. Three respondents highlighted the benefits that could be drawn when different organizations came together to work under one methodology. One respondent added that the harmonization of methodologies should not be done universally but must be evaluated within the context of each country and hazard.

Harmonization of the methodology would facilitate mutual understanding with governments, one respondent explained. According to another respondent, this could enable improved coordination and a successful scaling-up of the early actions. The respondent referred to a case in the Philippines, where the RCRC Movement shared information with WFP and the government, which allowed responding actors to coordinate and cover additional islands and districts. Another respondent pointed out how that was already working in Mongolia: "A good example is Mongolia where basically our methodology, our EAPs, were used then by the Food and Agriculture Organization (FAO) to help us to scale up". Another respondent mentioned a similar success from Bangladesh where a common flood trigger was used by the RCRC and the WFP, ensuring larger coverage. Two respondents also mentioned that for this type of collaboration to be even more successful and extend the coverage to beneficiaries, the coordination between humanitarian and governmental actors needs to be further strengthened in the future.

4.4.4 Governmental buy-in

The collaboration with governmental partners was recognized by seven respondents as a key enabler for the sustainability of FbF programs both for the advocacy efforts and the integration of FbF into governmental structures. According to one respondent, governmental buy-in is "the best-case scenario". Two respondents mentioned how having the government on board can help ensure that FbF projects attain a much wider geographical reach. "The Red Cross is a smaller institution when you compare it to the reach that a government could have", explained one of them. One way this came to show was through a call for the inclusion of FbF into existing national DRM and CCA policies. One respondent working with FbF in Bangladesh mentioned how having the government acknowledge FbF helped ensure the mainstreaming

of the concept, making it easier to achieve buy-in at all governmental levels. Furthermore, the respondent explained how having governmental buy-in makes it easier when approaching donors, as they then know the projects will have governmental backing. Another respondent further explained it saying:

"In the future I hope that we have an even more simplified mechanism and SOPs and that we have governments who have been able to take on the funding responsibility, this is still to a high degree a project-oriented mechanism. Thereby there are a lot of risks and it is not sustainable"

The same respondent continued to explain how ideally FbF should always be initiated and set up by governmental entities, as there will otherwise be a risk that partners arrive, implement and then leave when the funding runs out. The respondent further exemplified the scope of the issue by highlighting the consequences this might imply when populations get used to receiving support in the wake of a disaster.

One respondent added that the integration of FbF into the governmental structure was also one of the big challenges. Three respondents also mentioned the need for governmental collaboration when defining and setting triggers. The role of the RCRC Climate Centre is to facilitate this process, added one respondent, and to open a dialogue and create connections between the national societies, and all the agencies that are involved in hydrometeorology (including the academic institutions). One of the successful examples mentioned by two respondents is the Mongolia case where the national meteorological agency is the one developing triggers for FbF. The respondent mentioned how that is the preferred way and what they are striving for in multiple other countries, as institutionalising impact-based forecasting is a necessary condition to the sustainability of the decision-making process. Another respondent mentioned how the current trigger system in Bangladesh is currently managed directly by the RCRC Climate Centre, with buy-in from the BDRCS and the GRC which ideally should be in the hands of the meteorological institution to ensure government buy-in. Three respondents emphasized that integrating FbF into the governmental structure requires an active effort from different organizations. Firstly, to institutionalise FbF, one respondent explained that there is a need to embrace a new approach to forecasting, "impact-based forecasting", into the governmental structure. To achieve this, the respondent highlighted the

commitment of governmental and humanitarian organizations to co-produce this service and merge risk, forecasting and vulnerability data. Another respondent stated that achieving governmental collaboration is not always as easy. In fact, in the design phase of the program the respondent experienced an unwillingness from the meteorological Institute to collaborate. The respondent explained:

"They have not really been interested in sharing all their data, all their rainfall data, without receiving payment, which we have not been able to provide and are not interested to provide as well".

The respondent added that the organizations need to ensure that partners see FbF as a joint project where every organization contributes with their expertise. "We need to be all of us together to do this because we cannot do it without the forecast but if you only have the forecast and no capacity to implement the early action then you cannot do anything either", the respondent highlighted. Another respondent felt that issuing forecasts and warnings under uncertainty still was deterring authorities to extend lead-times. Referring to the national meteorological Institution in the country where the respondent operates, the respondent stated that:

"They will never give you the right data until it's too late, or until they think it's done".

This respondent further explained that the national meteorological institution is reluctant to issue forecasts under uncertainty, as the cry-wolf syndrome has affected community risk perception in the past. Yet, the same respondent thought that bypassing national sovereignty and disregarding national authorities by using data issued by foreign institutions was not tolerated.

4.5 Monitoring the evidence of FbF effectiveness

Four respondents stated that there is a need for more evidence around the benefits of FbF to increase its acceptance. Two respondents also stated that evidence is needed to support the development of the approach. One further specified that:

"It's a very new approach as I said so... it's still in the early stages and this is the time when FbF is being tested all over the world and where the shortcomings are coming up of course"

The same respondent said that, as of today, the RCRC Movement has been monitoring the system as a whole, but less attention has been drawn to the quality and impact of early actions. According to another respondent, there is a need for additional robust evidence, but further expressed confidence in the ability of the RCRC Movement to develop it. The respondent mentioned that, in fact, the RCRC Climate Centre works at the intersection between policy, research and practice, and is currently engaging in different research programs to establish such evidence. One respondent mentioned that the monitoring and evaluation of FbF is often done by external consultants, further mentioning the importance of finding a way of monitoring and evaluation that can easily be done by the national societies themselves. Three respondents mentioned that a barrier for evidence lies in a limited number of activations as disasters do not materialise every three months, making it difficult to learn from and provide further evidence on the effectiveness of FbF.

5. Discussion

Throughout the results chapter a range of different topic and themes emerged pointing towards the benefits and challenges associated with FbF, and the potential ways forward for improving the approach. These themes will be further discussed in this chapter linking results and pre-existing literature. From the authors point of view there are however two overarching themes that in themselves relate to all of the results gathered: sustainability for FbF and the ability to scale up FbF. The themes of common understanding, capacity to deliver, local ownership, stakeholder engagement are necessary conditions to bring FbF to a larger scale and to ensure the sustainability of the approach. Sustainability and scale will therefore be recurring topics throughout this discussion chapter, rather than having them stand alone as points being made towards these topics are embedded in all subchapters. The division in subchapters is as follows: 5.1 Lack of common understanding of FbF, 5.2 Harmonization for improved collaboration, 5.3 Ownership to ensure success and knowledge retention, 5.4 Capacity strengthening, 5.5 Cognitive biases, 5.6 Funding enabling change.

5.1 Lack of common understanding

Lack of a common understanding of FbF has a great influence on how the approach is designed, operationalised and communicated to the relevant stakeholders (host National Societies, donors and governments).

5.1.1 Terminology & Meanings

Diverging use of terminology and methodologies is a challenge to FbF's operationalisation and expansion. With respect to the use of terminology, two challenges emerged from the results. Firstly, the terms used to define FbF differ from organization to organization. The results even showed that within the RCRC Movement, there is a lack of consensus on what to call this approach. Literature justifies such differences as each organization has its own language which is shaped by its history, mandate and expertise (De Wit, 2019:34). However, while the implication of inconsistent use of terminologies is often under-stated (Hagelsteen & Becker, 2014:299), "words are important: how they are chosen and the meanings they convey help to define assumptions and objectives, policies, programmes and interventions in relation to crises" (De Wit, 2019:5). In fact, the choice of putting the accent on the terms "financing", "anticipation" or "forecast-based action" reveals what aspect of the approach the organization puts emphasis on (De Wit, 2019:20). Lack of coherence in the use of terminology may lead to misunderstanding of concepts (Hagelsteen & Becker, 2014:298), which is confirmed by the results of this research.

Secondly, the results show that FbF takes on different understandings: it may be related to preparedness, early response, or risk reduction strategy. To another respondent, FbF was about localisation. Different interpretations of FbF can be rooted in different organizational understandings or mandates. De Wit's thesaurus on anticipatory action shows that each institution has its own understanding of broad "umbrella terms" such as preparedness or anticipatory action, but also more specific terms such as early action (De Wit, 2009:9-31). According to Gestalt psychology, individuals do not perceive reality as a whole but the human mind unconsciously selects certain elements to create a representation of reality that fits the preferred narrative (Clarke, 2017:42-44). Each organization may then understand FbF in a way that links back to their organizational priorities and expertise. FbF could also be all of the above as early actions can be a way to reduce risk, while at the same time facilitate response by strengthening the preparedness of local actors. In fact, the reality might not be so clear-cut, as preparedness, early response and DRR are closely interconnected. Preparedness is a pre-condition for early action (De Wit, 2019:15). DRR can be defined as an umbrella term covering early action, early response and preparedness (De Wit, 2019:28). What might be new

is mainstreaming DRR into early response. While the results advocate that “early actions can make you respond very well”, narrowing the focus on response means that FbF could miss the window of opportunity to mitigate the impact before needs arise. While this can be considered as an academic exercise, those differences gain importance when defining the methodology because triggers and early actions are intrinsically linked to the understanding of FbF (De Wit, 2019:27). This disconnect between terminology and meanings may hinder a smooth communication of FbF. This can become problematic when doing advocacy to donors and governments to achieve larger scale implementation. It is also risky as funding partners may think that investing in FbF addresses the “root causes” of vulnerability, which diverts funds and attention from long-term DRR.

5.1.2 Use of FbF and hazard magnitude

Another interesting contrast that emerged from the findings is which hazard magnitude FbF should support: high probability\lower impact versus low probability\high impact events. Two views emerged. On one hand recurrent risks are to be addressed with longer-term DRR activities, as limited funding justifies the focus of FbF on more extreme events. On the other hand, one respondent mentioned that smaller scale events can also have devastating impacts on the populations at risk.

It is difficult from the sample size to grasp whether this view can be generalized and is representative of a difference between levels. It does however appear that this divergence shows a difference in risk perception of actors working in international HQ with respect to the local branches. Priorities of the local staff may be different from the ones of managers at higher levels as they see things from a different perspective (Twigg, 2003:20). This dissonance raises a question around the definition of extreme events and who gets to set the parameters. As of today, rigid agreements with donors define the scale of the current parameters. The literature confirms that the definition of a disaster is “inherently a political act” as it is based on the assessment of the effect of an event on the local capacity and such assessment (Harvey, 2009:2). This is problematic as who gets to decide when and how to intervene are then donor governments (Harvey, 2009:2). This could partly relate to whether humanitarian organizations should be accountable to populations at risk or donors (Hagelsteen & Becker, 2019:6). Within the same organization there seems to be different goals that at the moment are incompatible:

accountability to donors does not give room to be accountable to communities. If current parameters cannot be revised, there is an opportunity to adapt the FbF methodology to smaller-scale events and develop EAPs with lower thresholds and alternative ways of funding the early action. If carrying early actions has value in reducing impact on fatalities and livelihoods, there is also an opportunity to mitigate the consequences of small-scale events. This comes as an opportunity for host National Societies to take ownership towards FbF and create a sustainable solution for funding small-scale events.

5.2 Harmonization for improved collaboration

Humanitarian and governmental actors are starting to recognize the potential of FbF. The research suggests that further harmonization of FbF could help this approach in terms of terminology and common triggers for action. Different understandings of FbF leads to different approaches, which is why many respondents advocated for a harmonization of FbF methodologies. While previous literature recognized that humanitarian organizations' mandates did not cover the conduction of early action based on forecasts (Coughlan de Perez et al., 2015; Bajracharya, 2018), this seems to be less the case now. Instead, according to the results, the issue is that humanitarian organizations have included early action in their mandate without harmonizing their approaches and understanding of FbF. Even though leading humanitarian organizations came together to develop the FbF approach, the ambiguity around FbF is in part rooted in the fact that it is referred to with different terms, i.e. FbF, FbA, Anticipatory Fund, depending on the organization. This can be attributed to the fact that each organization may have its own language.

Harmonization of the approaches has been recognized by the respondents as a benefit to scale up FbF to achieve greater political and financial commitment and to increase coverage of targeted populations. Two examples from the results became apparent. In Mongolia and Bangladesh, the FAO and WFP respectively adopted the trigger and methodology developed by the RCRC Movement and acted in collaboration on the same forecast. Yet, according to the results harmonizing does not necessarily have to mean acting on the same trigger. Organizations may coordinate or collaborate and achieve scale by working on different triggers and design early actions in a way that they can complement each other's activity. These success stories show the potential that harmonization of methodology and triggers can

have, as it enables a wider reach by pooling resources and funding from different organisations engaged in FbF. It appears that collaborative efforts between humanitarian organizations like the ones discussed is slowly on the rise. This can be attributed to yearly international and regional dialogue platforms on FbF where practitioners from a range of humanitarian organizations and government officials meet and discuss the future for FbF. From the results it seems that there is an overall growing interest in these platforms, and that more and more interested governments and meteorological institutes take part. Similarly, the establishment of an "anticipation hub" and the ongoing harmonization efforts of the Early Action Task Force, might prove to further improve the ability to harmonize in the near future. This is promising for the future of FbF, however the dialogue between stakeholders need to result in common decisions and tangible actions at all levels. Such efforts can prove to be beneficial for coherent and solid advocacy, making FbF more attractive to both governmental partners and donors.

5.3 Ownership to ensure success and knowledge retention

The results suggest that nurturing ownership of host National Societies and Governments over the FbF process can help increase the prioritisation and the sustainable impact of projects.

5.3.1 National Society ownership

While the word "ownership" was rarely pronounced by the respondents, some factors indicate that enabling ownership of the FbF process within the host National Societies could be important for the success and development of FbF. The results show that the willingness of the host National Societies to engage in FbF and the capacity of the host National Societies to run FbF are important to attain sustainability for FbF. As host National Societies are poised to be the main drivers for FbF, having a National Society that is genuinely interested in FbF is a crucial factor for the long-term commitment. Yet, one of the respondents mentioned that due to the complicated methodology, National Societies however rarely set up FbF in autonomy. A more simplified methodology, easier to implement, could therefore prove beneficial, and a way to ensure more ownership in the process early on. Additionally, the results show that a planning process for FbF that includes local actors when designing the early actions could help better integrate FbF within the local DRM landscape. This could also help decrease misunderstandings around FbF as the stakeholders that implement the early actions

are then part of the decision-making processes. Charlouton (2005:31) finds that the contingency planning processes often focus on "horizontal participation", and not so much on "vertical participation". This seems to be confirmed by the results where it is mentioned that the drafting of the EAP is reviewed by practitioners working at the international level, at national HQs and by RCRC Climate Center, with local branches rarely being consulted. A more systematic involvement of local branches in the drafting of the EAP, turning their role from spectator to active actor, could be an effective way of ensuring that local branches have the capacity to deliver on the early actions. A more inclusive planning and re-assessment of the EAPs could encourage reflection and inquiry and strengthen the understanding of the *raison d'être* of FbF.

5.3.2 Governmental ownership

The role of the government appears to be influential when trying to understand what enables the sustainability and success of FbF. As of today, according to one respondent, FbF is still to a great extent "project-oriented". As with all humanitarian action, having governmental buy-in helps take programs to scale, increase funding opportunities and decrease the amount of bureaucratic limitations (Harvey, 2009:1-2). Prior studies have highlighted the benefits of integrating FbF into social protection mechanisms to bring it to scale (Wilkinson et a., 2018:21; Eriksen et al., 2017:34). Social protection mechanisms generally support response to shocks, but could also integrate anticipatory action (Eriksen et al., 2017:32). As social protection mechanisms are often large-scale, they allow to reach out to a wide range of beneficiaries (Eriksen et al., 2017:34). Attaining this governmental buy-in is highly contextual and depends on factors such as the level of corruption within the government, the fragmentation of relevant ministries and existing DRM priorities at government level. According to one respondent, unwillingness to collaborate might depend on the fact that the meteorological institutions do not feel involved as partners taking part in a "joint effort". On one hand this could mean that there needs to be a particular attention to creating incentives to convince institutional partners that the FbF approach may add to the wellbeing of its citizens. On the other hand, host National Societies together with the supporting PNSs should create the conditions to make it so that FbF is developed as a shared project with shared ownership.

From the results, it is clear that close coordination between the host National Societies, the government and external RCRC actors, greatly helps ensure the priority of FbF programs and the resources put into them. A key example of this is the Bangladesh case mentioned throughout the results where FbF is now integrated into the national DRM legal strategy, enabling FbF to be prioritized by governmental entities at all levels, decreasing bureaucracy and thus making implementation easier. Another benefit of having the government on board is, according to one respondent, increased access to funding, as donors then see FbF as a working collaboration between the RCRC Movement and the government, making them more likely to fund it. A key step towards sustainability for FbF is, according to one respondent, to strengthen the role of governmental backing to have access to governmental funding. The respondent underlined the inherent responsibility of the government to provide for its citizens. The risk is that international relief substitutes the state and "undermine the social contract between a state and its citizens by allowing governments to evade their responsibilities for responding to disasters" (Harvey, 2009:3). This is particularly relevant since the support and funding for FbF is currently provided by PNSs, and therefore isn't supposed to be everlasting. This risk can be alleviated through governmental accountability and funding provided through official governmental channels, again helping to ensure that FbF programs are brought to scale and are sustained when funding and supporting partners leave.

5.4 Capacity strengthening

Capacity to implement FbF was mentioned throughout the results. This relates both to what capacities are needed to run and implement FbF, specific capacities to forecast, the unequal distribution of capacities within a National Society and how to improve capacities via trainings and tools such as the PER.

5.4.1 Defining capacities for FbF

According to the results, one of the challenges to scale up FbF and ensure its sustainability is the lack of capacity on the ground. What is interesting to underline here is that when asked about capacities, respondents generally understood it in terms of the capacity of the "other", in this case it was mostly understood as "local capacity" and not of capacities of international actors to support FbF implementation. This understanding of capacity could be influenced by the way the researchers introduced the research topic or phrased the question. In fact, the

researchers started some of the interviews mentioning that the initial purpose of the research was to focus on local branches perspective on FbF. Further, capacity was often understood in terms of which capacities are lacking. This understanding of capacity could stem from a bias that humanitarian workers might have, as capacity assessments are often evaluating local partners capacity in terms of gaps to be filled by international partners and not vice-versa (Barbelet, 2019:18). The inability to interview host National Societies (both HQ and local branches) put a bias to the capacity discussed in the results, which reflects what practitioners working within PNSs and IFRC understand as the capacities needed to implement FbF. As staff working at the National Societies and local branches could not be interviewed, it is not possible to grasp through this research what capacities could be needed from international actors for a smoother implementation of FbF. However, the literature has often discussed that the perceived capacities that international actors need to strengthen are weak adherence to humanitarian principles (Collinson, 2016: 1), lack of understanding of context (Delaney & Ocharan, 2012: 10), poor quality and use of assessments leading to inefficient and inappropriate aid (Telford & Cosgrave, 2007: 10). Ambiguity around the term capacity (Barbelet, 2018:7), makes it difficult to understand what types of capacities are needed to implement FbF. In the literature, it may be understood in conceptual terms with "generic definitions" and relate to organizational (management, governance and decision making), operational (delivery of programs and projects) or individual (experience, knowledge, technical skills, energy, motivation) abilities (Barbelet, 2018:7). In this case, capacity was understood by the respondents both in terms of organizational and individual skills.

5.4.2 Access to forecasting data as an input to FbF

Forecasting capacity is an integral part of being able to do FbF, in particular the accessibility to data. Two points relating to this have been raised by the respondents, the political implications of meteorological institutions' collaboration and the technical availability of data. Stakeholder buy-in from national meteorological agencies is key, as having an in-country partners publishing forecasts limits the dependency on external stakeholders and nurtures the ownership and sustainability of the FbF process. The results however showed that attaining collaboration with meteorological agencies might depend heavily on the context of the country as capacities to forecast might be limited, or corruption/ministerial fragmentation might cause agencies to be unwilling to share results. An example from Mali highlighted the

difficulties surrounding forecasting, as historical data were not available and national forecasting agencies hid forecasts behind paywalls. Another example raised shows that meteorological institutions are sometimes reluctant to share information and issue warnings under uncertainty, which is confirmed by the literature (Suarez & Pratt, 2003:2). inhibiting the possibility of doing early actions. This is a difficult issue to tackle since, depending on the context, it requires a change in the enabling environment, something that is very hard and time-consuming to alter (Bolger, 2000:2). An obvious short-term solution to the issue is relying more on the forecasts done by the RCRC Climate Centre; however, this approach limits ownership for FbF, and therefore is far from a preferred option.

Another issue that came up regarding forecasting is the ability to collect vulnerability data for impact-based forecasting. In the results it was mentioned that lead time between forecast and impact was most often way too short, 36 hours for cyclones, for conducting analysis on vulnerability. This, combined with lacking historical data and tricky access to communities at risk, make it problematic to gain an understanding on what areas might be hit in what way and, consequently, where early actions might bring the most benefit. However, three respondents mentioned that improvements were being done in this regard, as external organizations working with mapping vulnerability data are increasingly opening up the potential for increased partnerships with specialists. This debate on how to increase forecasting capacity is amplified in connection to the call for increased ownership over FbF methodology, in particularly, the development and establishment of triggers for early action. One respondent mentioned how, ideally, this process of developing triggers should be influenced by governmental and National Society partners as their knowledge on the context is paramount.

5.4.3 Unequal distribution of capacities and funding

At the same time, some respondents also underlined the need to focus on strengthening the capacities given that it is clearer now that, to be able to implement FbF, there is a need to rely on a strong National Society, since the EAP is just a by-product of FbF. The findings suggest that an unequal distribution of capacities and funding within National Societies can be a barrier for the implementation of FbF. Respondents highlighted that capacities for FbF need to be present throughout the National Societies, across all the departments and at the

different administrative levels for it “to work like a well-oiled machine”. One respondent highlighted that capacity was unequally distributed across the country with some districts having far more resources and easier access to funds than others. This inequality seems to be associated to the presence of PNS in the area. Districts where external partners were supporting the investment of longer term DRR projects were better off than the rest. According to some respondents this difference is partly driven by the interests of donors, as they influence which district will be the target of DRR projects. This discrepancy is enhanced by time-limited and project-based capacity strengthening support as mentioned by one respondent and confirmed by the literature (Austin & Chessex, 2018:4).

The results also show that homogenous capacity at the different organizational levels often is not yet a reality. The need for capacity at the local level, has been recognized as one of the key pillars for a successful implementation but a gap between the capacity at headquarters and the branches has been highlighted. This divide is also found in the literature where most capacity building programmes address either the national governmental structures or community level (Few et al., 2015:10). “Inter-scalar working” is considered key to enhance the integration of DRM processes and increasing the sustainability of demand-led DRM (Few et al., 2015:10). However, there is a “missing middle”, where the sub-national level is often overlooked and capacity strengthening efforts are under-funded (Few et al., 2015:10). While Few et al’s (2015) research focused on governmental structures, this trend seems to apply also within National Societies. Unfortunately, the inability to interview practitioners working within host National Societies means that there is an incomplete picture of the challenges around the strengthening of local branches.

5.4.4 Trainings as a solution to capacity gaps

Trainings were often referred to as a solution to a lack of capacity for FbF. The respondents mentioned that some funds from the FbA by the DREF are dedicated to the “readiness” of the organization. According to some respondents, those funds are often invested into trainings. This might be due to limited funding but also because trainings seem to be the preferred solution in capacity strengthening programs due to the easiness of implementation (Hagelsteen & Becker, 2013:10). The literature recognizes the necessity of carrying out trainings for effective preparedness but highlights some recurring challenges (Coppola,

2011:263; Ford & Schmidt, 2000:196). One of the challenges is that too often trainings focus on individual knowledge, while they should foster behaviours that enhance leadership, coordination and collaboration (Ford & Schmidt, 2000:212). Ford & Schmidt (2000:197) mention that one of the pitfalls of trainings is that they tend to narrowly focus on "technical capacity", understood as enhancing expertise on one particular emergency response job. This finding is confirmed in the results, where many respondents referred to the need for trained staff in search and rescue, first aid, and market assessments. While technical skills are undoubtedly necessary, the work required by staff to enable FbF seems to go beyond the performance of response tasks. FbF stimulates a different way of thinking, from re-activeness to pro-activeness. Skills that are necessary for response and that are often outside of the scope of trainings are the ability to anticipate and see the interconnectedness of actions (Ford & Schmidt, 2000:211). In other words, this is related to the ability to foresee how one action may impact the environment and the work of team-mates (Ford & Schmidt, 2000:197). In line with this, one respondent saw the need to enhance the leadership competencies of the local staff, as they were too often relying on directions coming from HQ. Furthermore, interpersonal skills that allow response actors to resolve conflicts, communicate and evaluate alternative perspectives, are essential for effective emergency response (Ford & Schmidt, 2000:197), and could also apply to early action. Additionally, research also questions the effectiveness of trainings as they might not lead to knowledge retention (Schultz et al., 2005:53; Christopolos, 2005:43; Ford & Schmidt, 2000:196). The effectiveness of training also depends on the way the organization understands learning processes (Schultz et al., 2005:53). Lastly, one of the challenges of trainings is that humanitarian organizations rarely evaluate the impact of trainings on the performance (Christopolos, 2005:32).

5.4.5 Assessing capacities for FbF

Ensuring that capacity for FbF is present and sufficient is a difficult task, as FbF requires a multitude of different skills and capabilities, spanning from planning and writing EAPs, establishing triggers for activation and monitoring forecasts, to issuing early warnings and implementing different early actions during short lead time (Wilkenson et al., 2018:27). A potential solution on how to assess if these capacities are present and to what extent was suggested by three respondents. They mentioned the potential of using a self-assessment tool from within the RCRC Movement called PER. The respondents suggested modifying the tool,

narrowing its scope towards assessing capacity for FbF. This could potentially enable the PER approach to be used prior to implementation of FbF, providing national societies and supporting PNSs with valuable knowledge on what capacities might need strengthening before a FbF program is set up. To further improve the added value of the approach, this PER self-assessment for FbF should also be extended to include local branches of a national societies, ensuring that an understanding of needed and existing capacities is holistic. However, implementing an approach like the PER, customized for FbF assessment, can only be done with the backing and willingness of host National Societies. While having a clearer idea of the capacity needed to implement FbF would be beneficial, an assessment through a standardized tool such as PER could miss on local perspective on what is considered necessary to run FbF. Aside from adding additional burden to practitioners at host National Societies, assessment tools tend to overlook or "deprioritise skills" considered relevant by the local context (Barbelet, 2019:18). The decision on which and whose capacity lies in the words of international actors, and rarely involves local actors (understood as host National Societies at all levels) that may have better insights in their context (Barbelet, 2019:18). To extensively grasp the current capacities and evaluate external contributions, assessments could be two-way and include the capacities of PNSs and IFRC to support the implementation of FbF.

5.5 Cognitive biases

According to the respondents, humanitarian and governmental organizations increasingly acknowledge the benefits of anticipatory actions and buy into the FbF approach. It is indicated that it could be a new paradigm that changes the way response to natural hazards is being done. However, despite increasing acceptance of the approach, there is still resistance to change. This was shown in the results in several groups of individuals. Within National Societies, the leadership is reluctant on lowering the thresholds triggering early action and decision-makers are still more comfortable on triggering action based on tangible impact rather than on a probability. Some meteorological institutions may be hesitant in releasing timely warnings. Donors want more evidence to buy into the approach. The aversion towards acting under uncertainty is confirmed in the literature. Here lack of trust in forecasts is recognized as a barrier to action (Coughlan de Perez et al., 2015: 3, Bajracharya, 2018:21). When individuals are asked to make a decision over a set of options whose outcomes are uncertain, they will often have a preference for the "status quo" (Meyer, 2006: 163).

Individuals working with donor agencies, governmental institutions and humanitarian organization may prefer “routine behaviour at the expense of innovation” (Samuelson and Zeckhauser, 1988:38).

When having to invest in low-probability events, decision-makers are also likely to procrastinate. The procrastination bias may be reinforced by the tendency individuals have in focusing on the downsides of immediate actions and on the upsides of delayed actions (Meyer, 2006:163). Those traits seem to gain importance within the context of decision-making positions (Kahneman & Lovallo, 1993:22; Clarke & Dercon, 2016:54). Accountability, personal responsibility and aversion to blame make decision-makers susceptible to keep the status-quo (Kahneman & Lovallo, 1993:22; Tetlock & Boettger, 1993:18-21). In fact, this is confirmed in the findings where meteorological agencies are cautious when issuing early warnings so as to avoid false alarm. This aversion is amplified when decision-makers actions will be judged by others (Tetlock & Boettger, 1993:18-21). In fact, respondents underlined that false alarms do negatively impact populations’ risk perception and erode trust towards official warnings. Similarly, although maybe under-rated, false negatives where the early warning system fails to reach population at risk equally erodes trust (Hamza & Månsson, 2019: 268) and could be an incentive to act. Those biases are inherent to individuals’ “psychological make-up” and there is little to do about this (Meyer, 2006:169). However, awareness of risk-averse behaviours in ambiguous situations may help decision makers in overcoming them and taking action (Meyer, 2006:169). Somehow, FbF is a way to overcome such biases as linking decision-making to scientific parameters reduces the decision makers’ footprint.

5.6 Funding enabling change

The results suggest that the anticipatory way funding is used for FbF programs is one of the aspects making the approach special, enabling it to reduce suffering at a lower financial cost relative to more mainstreamed response activities. However, it appears that further mainstreaming of the FbF approach will require more emphasis on increased funding, especially if FbF is to be brought to scale covering entire regions and potentially countries.

When asked about the future for FbF, increasing the pool the FbF funding mechanism relies on repeatedly came up. It was mentioned that the current amount of funding supplied for FbF would not be sufficient if the use of the approach was to be drastically increased. This relates to the reluctancy of donors for acting on uncertainty and consequently the fear of financing

“acting in vain” (Wilkinson et al., 2018:23-24). One respondent mentioned that the debate around “acting in vain” appears to be heading in the right direction as donors increasingly accept that the risk of “acting in vain” is inherent to the context of uncertainty surrounding natural hazard. Further mentioning that when humanitarian organizations take early actions and a hazard does not materialize, the funds applied still go towards assisting highly vulnerable people. As confirmed in the literature even in those cases, the interventions will be beneficial in strengthening resilience of populations at risk, since they receive goods and become familiar with coping mechanisms (Wilkinson et al., 2018:23). Additionally, from “acting in vain” host National Societies could draw lessons to fine tune FbF and capitalize on FbF knowledge. Despite this potential shift in donor acceptance, there however still seems to be some way to go, if the shift from response towards anticipation is to continue to grow. One way of pushing this shift seems to be an increased focus on evidence. While the mantra that one dollar used on preparedness corresponds to seven dollars used on response is somewhat accepted (UNDP, 2012), evidence pointing towards the matter is paramount. According to the respondents, not enough monitoring and evaluation is being done to prove the effectiveness of the FbF approach. One reason for this is the relatively short period of time that FbF programs have been utilized, limiting the amount of FbF implementations to evaluate upon.

From the results, it is clear that a wish for increased monitoring and evaluation is present within the RCRC Movement, and that actors such as the RCRC Climate Centre are actively participating with external actors to produce and communicate such evidence. However, there is still a call for more evidence to be gathered, to further sway donors towards the anticipation agenda and to improve the effectiveness and quality of FbF programs. It was mentioned in one interview that a more simplified approach to use FbF might increase the ability of National Societies to conduct monitoring and evaluation for FbF, instead of having it primarily done by external specialists. This relates back to the increased call for ownership of the FbF process, where ideally the host National Societies should be the champion of all aspects of FbF. Generating this evidence will further strengthen the stance that anticipatory action is both more cost efficient and more helpful than response, potentially further motivating donors to fund FbF programs in the future. On the other hand, humanitarian programme design may have a narrow understanding of change measured in terms of outputs and outcomes defined by traditional results-based management approach (Knox Clarke, 2017:64-66). Change processes may go beyond tangible evidence (Knox Clarke, 2017:64-66).

As three respondents mentioned that even in cases where there had not been activations of the protocols, they witnessed an increase in preparedness and capacity to understand risks and the utility of forecast information. A narrow understanding of monitoring change may "divert attention from the important, but unintended, changes that are almost certainly taking place" (Knox Clarke, 2017:65). A suggestion could be then to broadly communicate different evidence to the effectiveness of FbF.

As mentioned earlier, there is also potential in having an increased amount of the funding come from governmental entities, of course depending heavily on the context of the country. Such a shift is needed to decrease the dependency on foreign funds, again ensuring sustainability and ownership of FbF. Another interesting way forward for FbF is the potential for alternative ways of funding. An example of this is the use of insurance as a risk financing measure, going in line with the anticipatory approach spear headed by FbF. The use of risk insurance is still in its very early stages, but it was mentioned that the World Bank, among others, are looking into how it can be utilized, providing further backing for the anticipation agenda and a change from the more traditional funding system.

5.7. Matrix summing up challenges & their assumed effects and potential remedial measures

Theme	CHALLENGES	Assumed effects	Potential remedial measures
Conceptualising FbF	**Disparate use of terminology** (p.26) e.g. Forecast-based Action; Forecast-based Financing or Anticipatory funds.	Misleading terminology (p.27, p.29) e.g. Forecast-based financing vs. Cash based interventions; Forecast-based Action vs. Forecast-based Action by the DREF.	Harmonization of the terminology (p.26)
		Misunderstandings between humanitarian organizations & within the same organization (p.46, p.50)	Fostering mutual learning for FbF through Dialogue Platforms and the anticipation hub, to ensure common understanding (p.49)
		Barrier to joint advocacy with governments and donors (p.29, p.47)	
	Different understandings on the magnitude of the events FbF should support (p.27)	Missing out on the opportunity to reduce impact on lives, livelihoods & more of populations at risk for smaller scale events (p.48)	Designing EAPs for smaller scale events through local funds (p.50)
	Disagreements regarding which DRM phase FbF belongs to (p.28)	Risk of diverting focus on DRR if donors/organizations misunderstand FbF (p.29)	Harmonization of the approaches (p.49)
Rethinking humanitarian action	**Reluctancy/ability to act based on forecasts** (p.29-30)	Untimely action (p.29)	Improvement of forecasting capacity at governmental level (p.53)
		Forecasting information not being used to its full potential (p.53)	Wider usage of vulnerability and historical data (p.53)
		Cry-wolf syndrome (p.45) Barrier to learn from the activation and fine-tune the triggers chosen (p.58)	Accepting the risk of acting in vain (p.29, p.32, p.58)
			Wider collaboration between RCRC Climate Centre and national forecasting agencies (p.54)
	Limited funding (p.58)	Inability to scale up FbF & smaller impact (p.58)	Increased evidence on the benefits of FbF to sway donors and humanitarian organizations (p.59)
			Use of alternative funding mechanisms, e.g. risk insurance (p.32, p.59)
			Integrate FbF into DRR and CCA projects (p.38)
	Untimely financial resources (p.38)	Inability to mobilize resources and kickstart early action (p. 32)	Localized DREF mechanism (p.32, p.61)
		Untimely action (p.32)	National Society or supporting PNSs may be able to advance cash (p.34)
Capacity to deliver	**Defining the feasibility of early action considering limited time** (p.33-34)	Misunderstanding of the concept as a "fix all" solution (p.34)	Continued learning for FbF, such as Dialogue Platforms and the anticipation hub, to ensure common understanding (p.49)
		Limited number of volunteers to implement early actions (p.36)	Accepting that FbF isn't applicable towards all contexts (p.33-34)
		Implementing of FbF in contexts where it isn't possible to implement due to security issues of difficult access (p.34) e.g. inability to reach communities in time, and security concerns	Collaborating with other organizations (p.34)
	Inability to scale up early action (p.34-35)	Inability to reach a meaningful number of beneficiaries (p.34-35)	Increased funding for FbF (p.58, p.61)
			Collaborating with other humanitarian organizations (p.43)
			Increased collaboration with local government (p.43, p.61)
	Doing impactful training and education on FbF (p.36)	Lack of understanding of FbF at local branches (p.36)	Do trainings focused on behaviors that enhance leadership, coordination and collaboration (p.56)
			Increase access to trainings at all levels (p.36)
	Uneven level of capacities across National Societies, between HQ and districts and across districts (p.37-38)	FbF projects that are poorly implemented and unsustainable (p.37-38, p.55)	Application of capacity self-assessment tools to uncover capacities needed (p.40) e.g. preparedness for effective response (PER) (p.38, p.57)
		Need for external support and thus lack of local ownership over FbF (p.39)	Mainstreaming of FbF into existing DRM and CCA activities (p.38)
			Investment in organizational development in all programmatic area and at all levels (p.40)

Stakeholder Engagement	**Lack of National Society ownership** (p.39-40)	Missing contextual knowledge (p.39)	Simplification of FbF Methodology (p.39-40, p.51)
		Decreased sustainability of FbF (p.39, p.51)	
	Missing engagement of local actors (p.40-41)	Missing contextual knowledge on vulnerability\local DRM landscape (p.39-40)	Consultation of local actors at an early stage of the FbF process (p.40, p.51)
		Exclusion in decision-making as a prerequisite for vulnerability (p.40)	Consideration of feedback\ strengthening community engagement (p.51)
	Lack of collaboration with external humanitarian actors (p.41-43)	Difficulty in collaboration on triggers and actions (p.42) Decreases the ability to scale up FbF (p.42-43)	Agree on a common understanding on the methodological choices (triggers and early actions) (p.44)
			Continued learning for FbF, such as Dialogue Platforms and the anticipation hub, to ensure common understanding (p.43, p.49)
			Governmental ownership pushes humanitarian organizations to collaborate (p.27)
	Ensuring Governmental Buy-in (p.43-45)	Decreased sustainability and scale of FbF (p.44-45, p.52)	Mainstreaming FbF into national DRM policy (p.44)
		Difficult collaboration with meteorological institution	Ensure developing FbF methodology comes from a joint effort with the government (p.51-52)

Monitoring the evidence of FbF effectiveness	**Insufficient evidence regarding FbF effectiveness** (p.45)	Inability to do advocacy on FbF and further develop the approach (p.45)	Increased evidence gathering at all levels, internally driven (p.45, p.59)

6. Conclusion

The research question set for this study sought to understand challenges and opportunities associated with FbF, as perceived by RCRC Movement practitioners engaged with FbF. Semi-structured interviews were conducted with eleven respondents operating with FbF in different parts of the world as part of PNS, International IFRC HQ and RCRC Climate Centre, supporting host National Societies to gather a variety of perspectives.

The understanding of the concept of FbF is not unanimous within and across humanitarian organizations. Terminological ambiguity, diverging opinions on the position of FbF within the DRM spectrum and different methodologies that could be due to organizational mandates are some of the barriers. This inconsistency can be harmful as it creates confusions and risks drawing resources and focus away from longer term DRR. Harmonizing the approach appears to be a pre-requisite for FbF to further develop, since it enables common understanding and successful coordination to implement at a larger scale. Yearly dialogue platforms, the Early Action Task Force and the Anticipation hub knowledge-sharing online platform, are initiatives strengthening this collaboration that should result into common decisions and actions on the field.

From the research, it is clear that FbF is a promising approach that is slowly but steadily gaining traction and attention, as it could be one of the solutions to address the growing economic burden of climate change on the humanitarian system. Despite cognitive biases that could discourage acting under uncertainty, FbF facilitates a shift from reaction to pro-action and strengthens host National Society understanding of risks and benefits of planning and acting early. It helps rethink humanitarian action by encouraging a more systematic use of forecasting for decision making, something already proposed during the 2005 HFA and further emphasized in the 2015 Sendai Framework for DRR. The cost effectiveness of the approach compared to traditional disaster response allows to open a dialogue with funding partners and revise the incentives behind the funding system. However, funding available for FbF is still too limited for it to have substantial impact.

One of the main challenges for actors on the ground is the implementation of early actions within limited timeframes. Unfavorable conditions such as the delayed access to financial

resources, the need to carry vulnerability assessments within lead-times, and the difficult access to remote or conflict affected areas are some of the barriers. To overcome these conditions, results suggest localizing financial resources to local branches, upgrading the use of data and strengthening collaboration with local institutions. Additionally, a limited timeframe to implement early action before a hazards impact requires all programmatic areas at the different administrative levels to be functional, which is sometimes hindered by institutional capacity gaps at local branches. Trainings and workshops is the common answer to these capacity gaps which might not be optimal since knowledge may get lost and therefore does not contribute to institutional capacities.

There are challenges that hinder the development of a locally-driven FbF methodology. The decision-making process seems to be quite centralized at HQs (national and international) and local branches ownership is seldom outlived. This is also true at the governmental level, where due to difficult access to historical data and accurate forecasts the production of triggers often lies within the RCRC Movement. Yet, governmental buy-in for FbF is key to institutionalized impact-based financing and mainstreaming FbF in all ministries at all administrative levels. Governmental backing also helps ensure wider coverage of early actions, sustainability through long-term and increased funding resources, and contributes to further advocacy for anticipatory action. Humanitarian organizations will have to work on creating stronger incentives that nurture local ownership and inclusive decision-making.

FbF success stories from implementing countries slowly emerge which show FbF has a great potential for the future. Promoting the approach is however not an easy fix, and it will require substantial and continuous efforts to communicate evidence building to perfect. In a changing humanitarian landscape, it does however appear that an approach such as FbF is needed. Gathering lessons learned from practitioners is a pre-condition to further develop the FbF approach, and can help uncover ways forward. This research largely lies on the perspective of supporting partners and thus gives a partial picture of the complexity of factors influencing FbF implementations. Further research could benefit from building on the voices of host National Societies practitioners operating at all levels. Particular attention to local branches' staff and Red Cross/Crescent Youth volunteers' viewpoint, implementors of the early actions, would undoubtedly give substance to the evolution of the FbF approach.

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Annexes

Annex 1: Email sample

Dear X,

We hope this email finds you well.

We are Camille Chatenier and Daniel Ramskov Erichsen, students of the Master Program in Disaster Risk Reduction and Climate Change Adaptation of Lund University, in Sweden. We are currently working on a research project on the implementation of Forecast-based-Financing\Forecast-based-Action (FbF\FbA). In the attempt of grasping a systemic perspective on the implementation of FbF\FbA, we would like to interview RCRC practitioners engaged with FbF\FbA projects.

We would be very happy to have your input and perspective on opportunities and constraints with regards to the implementation and running of FbF\FbA. If you're keen on taking part in this research, we would like to have an interview with you sometimes next week. It is about 9 questions and could take around 30\40 minutes.

Let us know if this would work for you and if so, what are your preferred times.

Thank you again for your time!

Looking forward to hearing from you,

Best regards,

Daniel and Camille

Annex 2: Research description

Lund University
Division of Risk Management & Social Safety

Camille Chatenier and Daniel Ramskov Erichsen

Research description: Forecast-based-Financing implementation in the local branches of the Bangladesh Red Crescent Society

The motivation for this research stems from internship we did at the International Federation of Red Cross and Red Crescent Societies (IFRC) Country Office (CO) in Bangladesh from July till October 2019. During the internship, we had the chance to attend the 2019 National Dialogue Platform on FbF organized by the German Red Cross in Dhaka. In that occasion, leading organizations operating in emergency preparedness and response shared challenges, learnings and ways forward. Additionally, we had the chance to visit multiple local branches of the Bangladesh Red Crescent Society (BDRCS) which gave us a glimpse of the contrasts between the capacity for Disaster Risk Management (DRM) at BDRCS branch level and at the Head Quarter (HQ) in Dhaka.

FbF/FbA is a new framework for action that is receiving increased attention since it can help reduce the impact of natural hazards by improving the effectiveness of emergency preparedness and response (Tanner et al., 2019). By loosening the access to funds before a disaster occurs and recognizing the importance of local actors mobilization for early action and response, the FbF/FbA framework for action seems to slowly decentralize power to BDRCS local branches (Tanner et al., 2019). Yet, lessons learned from 2019 Cyclone Fani and Bulbul outline that FbF/FbA in its current form has room for improvement, findings from these events showed that centralization of decision making at the HQ and Geneva level still is one of the constraints local branches face for action.

Research in the area of FbF/FbA mainly looks for technical implications of forecasts and challenges in scaling up FbF\FbA at a wider systemic level (Wilkinson et al., 2018; Tanner et al., 2019).Further research in FbF/FbA looking at the challenges local actors may experience is needed since it is a relatively new tool with great potential. Looking into FbF/FbA at BDRCS branch level, this research aims at uncovering how the branches view their capacity for FbF/FbA and at understanding how BDRCS branch capacity for FbF/FbA and preparedness for response in general could be enhanced. Given the central role of BDRCS branches in preparedness for response, the purpose is to learn more from their experiences which could provide interesting insights for decision makers at BDRCS and IFRC HQ in Dhaka and Geneva.

We would like to interview RCRC practitioners engaged with Response and FbF projects at BDRCS branches, BDRCS HQ in Dhaka and IFRC HQ in Geneva. The intention of the study is to assemble and highlight ideas in order to advocate for the changes they see necessary.

You can reach us via email, Skype (camille.chatenier95 and dellen232) or WhatsApp +591 79671993 (Camille) and +45 25 67 43 59 (Daniel)

Camille Chatenier and Daniel Ramskov Erichsen

All the best, Camille and Daniel

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Annex 3: Coding process example

Broad theme	Theme	Subtheme	Quote

Conceptualising FbF	Terminology	Different terminologies	"The WFP they're calling it anticipatory action funds, we are calling it FbA, GRC is calling it FbF! " "So that can be very challenging when it comes to the donor funding. You know if we all use the same terminology but we have a completely different understanding on what we understand by FbF that can cause quite some problems" " so the idea is that the whole subject has kind of developed and it is more focusing on the anticipation. So, it is the anticipation that is the key word and that shapes the whole activity. And the word financing has also been misleading, what we purposed was that money would be given to someone based on established triggers and on this protocol, while we have later on realized that there are different types of action that can be taken not only finances. So maybe its kind of captured better, Anticipatory Humanitarian Action, it can be actions of different sorts, but so far its more of an academical discussion "
		Harmonizing terminology	"at least some terms should be accepted by everybody" "So with this thing coming into a government structure, people are now thinking of having a same name!" "till we are fighting really to get everybody on a kind of, to acknowledge certain quality criteria, or like the bases should

			be at least accepted by everyone.”
		Meanings	“Because it has to be clear that with Early action we won’t be able to reduce all the risks, I mean that’s why long term DRR is so important, no? That’s the most important thing that has to be done” “I see it also a bit as the FbA, one of the objectives of the FbA is to facilitate a bit the response as well to make it a bit easier to do the response as well so we are trying to alleviate some of the damages and create the foundation for the response to also happen more smoothly for instance” “what they did it was mainly early response, so it had not a lot to do from my point of view with real EA”
	Methodologies		“everybody is somehow working on a slightly different methodology which is somehow okay because it then fits perfectly to the mandate of the organization but it can be challenging as well because what we face is that some NGO’s use the term FbF but basically what they do on country level is general preparedness measures you”
	Communicating FbF	With Donors	“They believe that they are now investing a lot in DRR and almost in development, and my only fear is if funding partners of or any organization believe that this is an invest in addressing the root causes then they are mistaken. Because this money is not addressing the root causes why people are vulnerable and that needs to be done in longer

			term development work instead, so there I see a risk possibly. ”
		Within the organization	“To speak of some, one is definitely, lack of understanding of the concept”
			“It is kind of difficult for now, from what i can see, to make people understand exactly what FbF is.”