POLICY BRIEF

Resilience solutions: exploring social protection linkages to forecast-based financing*

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KEY MESSAGES

KEY MESSAGE Social protection systems that focus on disaster response are important, but they are only one part of the picture in managing climate risks. To reduce the burden of shocks on vulnerable populations and increase the cost effectiveness of support, acting earlier, even before the shock has happened, is essential.

KEY MESSAGE Social protection can integrate early action and preparedness to support more effective resilience-building at scale. This brief explores one option: linking forecast-based action with social protection programming. This integration aims to make better use of existing systems to protect people before disasters, enabling social protection systems to improve scalability, timeliness, predictability and adequacy of benefits in case of shocks.

BRACED aims to build the resilience of more than 5 million vulnerable people against climate extremes and disasters. It does so through 15 NGO-consortia working across 13 countries in East Africa, the Sahel and Asia.

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INTRODUCTION

Climate shocks contribute significantly to the humanitarian burden and lead to poverty and food insecurity; by 2030, climate change could force tens of millions people into extreme poverty (Hallegatte et al., 2016). Social protection policies and programmes that aim to reduce poverty, deprivation and vulnerability are increasingly seen as an instrument to help households and communities manage climate risks (Davies et al., 2008; Kuriakose et al., 2012; Bastagli and Holmes, 2014; OPM, 2016).

This brief explores one aspect of how social protection can support better climate risk management and increase climate resilience by anticipating and dealing with shocks before they happen – that is, contributing to *anticipatory capacity* as proposed in BRACED's resilience framework (see Box 1).

WHY FOCUS ON MAKING SOCIAL PROTECTION ANTICIPATORY?

There are documented advantages to acting early to respond to climate shocks and disasters, including avoiding disaster losses and increasing cost effectiveness (Ebi et al., 2004; Braman et al., 2013; Coughlan de Perez et al., 2014; Pappenberger et al., 2015). Additionally, the capacity to forecast extreme weather events is increasing, expanding the ability of early warning systems to predict hazards and impacts. For instance, innovations in the humanitarian system, such as forecast-based financing (FbF) or forecast-based action (FbA),[1] now enable the use of climate and weather forecasts as a trigger for early action, supported by guaranteed financing mechanisms, thus allowing early action before an event strikes.

While social protection has the potential to contribute to the management of climate risks, until now experiences have focused on the ability of these programmes to support shock response – that is, helping households *absorb* some of the impacts of a shock by providing direct support after it. Social protection programmes' large-scale platforms have been used as a response mechanism during

BOX 1: RESILIENCE CAPACITIES

Absorptive capacity is the ability to cope with climate variability and extremes during and after a disturbance to reduce the immediate impact on people's livelihoods and basic needs.

Anticipatory capacity is the ability of social systems to actively anticipate and reduce the impact of climate variability and extremes through preparedness and planning.

Adaptive capacity is the ability of social systems to adapt to multiple, long-term and future climate change risks, and also to learn and adjust after a disaster.

Source: Bahadur et al. (2015).

1 The terms 'forecast-based financing' and 'forecast-based action' are used interchangeably

emergencies, for instance providing additional benefits to programme beneficiaries affected by a disaster, or to new beneficiaries who have been made eligible because of the shock (Slater et al., 2015; OPM, 2016). For example, in Lesotho, after three successive humanitarian disasters in 2012, the Child Grant Programme, an unconditional cash transfer, increased benefits for its beneficiaries while expanding to additional disaster-affected households (OPM, 2016).

However, few systematic experiences have focused on designing and implementing programmes to help households and governments *anticipate* such shocks (Ulrichs and Slater, 2016), for instance by linking to or setting up early warning early action systems (triggers and contingency planning) to respond as soon as a shock happens or even before it does. Building resilience to increasing climate risks will require a stronger focus on anticipatory and preventative actions that can mitigate the impacts of shocks in advance. Social protection is an important part of a country's long-term system for risk management and, as such, it can help support early action to prevent the worst impacts of disasters.

In many countries, social protection already reaches significant segments of the population, underpinned by increasingly sophisticated systems for targeting and registration of beneficiaries, delivery of benefits and management of information. By focusing on anticipatory action, these scalable social protection systems may also be able to more effectively prevent the impacts of climate shocks. While a number of climate risk management tools can support this goal, in this brief we explore how a forecast-based system can enable more timely action when a climate shock is imminent.

WHAT IS FORECAST-BASED FINANCING?

Many of the climate-related hazards (extreme rainfall, winds and temperature) that lead to shocks can be predicted, often including estimates of their location, intensity, probability and duration. When predictions are combined with complementary information, such as on exposure and vulnerability, it is possible to identify populations at risk of being affected before a disaster strikes. FbF is a mechanism that enables early warning systems to take early action measures based on pre-agreed forecast triggers and protected funding.

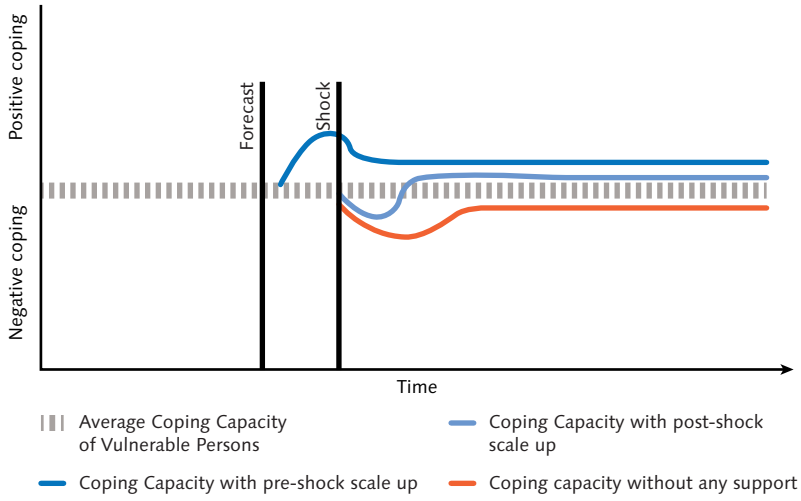
An FbF system consists of a series of danger levels or thresholds based on weather forecasts, with corresponding actions pre-agreed and embedded in standard operating procedures or plans, and a predefined funding source for such actions. These elements are key to ensuring that, once a threshold is surpassed, the system will be able to act efficiently *before* a potential hazard event materialises.

FbF advances traditional early warning approaches towards an impact-based forecasting approach by combining risk analysis, understanding of potential impacts and analysis of forecast reliability. It does not replace post-disaster response approaches, but aims to reduce vulnerable people's negative coping strategies, by acting early to mitigate impacts and losses (Figure 1). For instance, in 2016, based on a five-day forecast of cold waves, an FbF system in Peru supported the vaccination efforts and distribution of veterinary kits to reduce the risk of mortality of alpacas, which are often families' only source of income (Peruvian Red Cross et al., n.d.).

Several early actions can be taken based on forecast information, selected on the basis of their effectiveness, such as prepositioning of relief items, distribution of goods, etc. In Bangladesh, the mechanism is expected to provide a one-off cash transfer in advance of floods and cyclones to help households avoid high costs of evacuation after a disaster has happened.

Successful activation of forecast-based cash transfers or other actions depends on the capacity of the system to pre-identify beneficiaries, as well to execute distribution in the short window of time between a forecast and the occurrence of the hazard. As such, the sustainability and effectiveness of the FbF approach requires that it be embedded in broader risk management structures, for instance at country or regional level.

Figure 1: FbF supports earlier coping capacity for improved outcomes



Source: Meghan Bailey, 2017. Adapted by authors.

POTENTIAL SYNERGIES BETWEEN SOCIAL PROTECTION AND FORECAST-BASED FINANCING

Linking forecast-based action with social protection programming aims to make better use of existing systems to protect people before disasters. This integration can make social protection systems more effective in managing climate risks, especially by supporting some key features:

Climate-sensitive social protection planning and targeting

In contexts where climate risks are significant, social protection systems must plan for more frequent and more severe disasters when designing interventions. Combining weather information and risk analysis may allow for the selection of intervention areas on the basis of chronic vulnerability and risk of shocks and stresses. Combined with other measures of vulnerability, it can also support identification and pre-registration of potential beneficiaries.

Scalability of programmes at different timescales

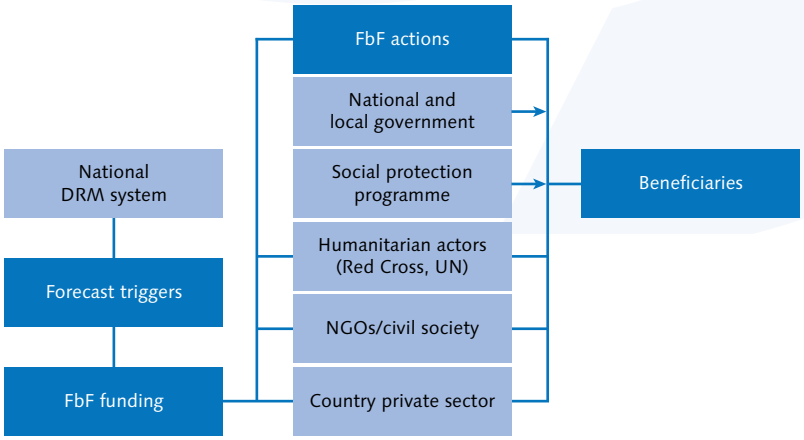
Climate-smart social protection programmes should be able to rapidly scale up during a crisis and back once the crisis is over. A forecast-based action mechanism would be a key piece of such a system, helping establish objective indicators and agreed plans of actions as well as ring-fenced financing to enable anticipatory action.

In addition, because FbF focuses on different levels of danger and thresholds, it can support the scale-up of social protection interventions to deal with different 'layers of risk'. These can range from the frequent but less damaging events to the rare but catastrophic disasters.

Timeliness and reliability of support

The faster support reaches people affected by an extreme event, the less likely they are to resort to negative coping strategies (Hillier and Dempsey, 2012). Experience from social protection programmes has shown that even those with shock-responsive mechanisms in place still take time to respond, given the need to plan, coordinate and prepare for action (Hobson and Campbell, 2012). A forecast-based mechanism would be able to offer additional lead times to enable more timely action. Standard operating procedures and adequate funding in place would enable benefits to reach social protection beneficiaries (and non-beneficiaries) more predictably and reliably once triggered by a forecast. The political will to establish such a standardised and objective system of action would need to be in place from the beginning for it to be successfully implemented.

Figure 2: Social protection linked to a system-wide FbF mechanism



Source: Authors.

More adequate interventions, earlier

Understanding how climate risks affect households' assets and livelihood strategies is critical for identifying appropriate interventions through social protection. By placing an emphasis on risk analysis and impact forecasting, an FbF mechanism can enable pre-selection of actions that are appropriate to context and that mitigate the expected impacts of a shock. Cost-benefit analysis of actions is also key to ensure the right ones are triggered at the right time, based on different levels of risk.

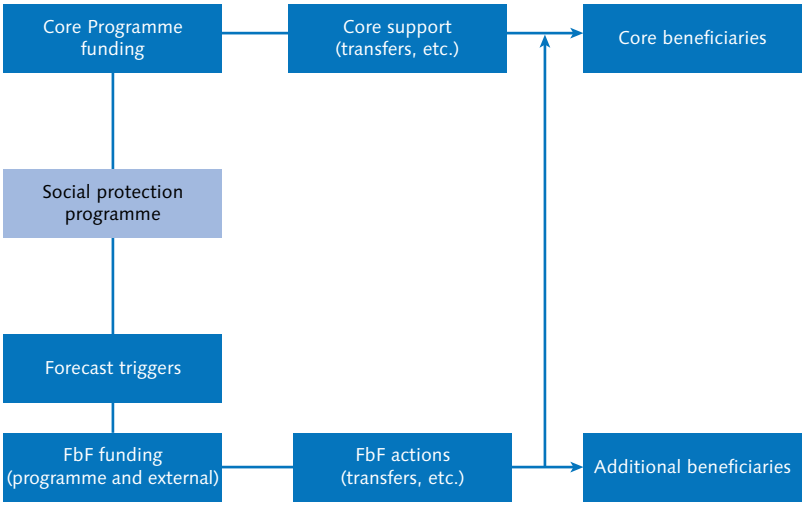
WHAT WOULD THE INTEGRATION OF FORECAST-BASED FINANCING AND SOCIAL PROTECTION LOOK LIKE?

Although there are few experiences with linking early action in general, and forecast-based action in particular, with social protection it is possible to infer models under which such integration could occur based on existing experiences with FbF approaches. Below, we explore two of these models.

The three elements of an FbF system (predefined triggers, actions and funding) are crucial to the disaster risk management system of a country. Ideally, social protection would link to or be a part of such system, thus acting in coordination with a wider FbF mechanism (Figure 2). In this way, other actors could potentially mobilise a broad range of actions and funding in addition to social protection, thus reaching more people with tailored support.

Alternatively, an FBF mechanism could be integrated into an existing social protection system or programme, triggering support to existing or new beneficiaries (Figure 3). This model would be particularly relevant for social protection programmes that already have a scalable system for response, where a logical next step

Figure 3: FbF mechanism integrated into a social protection structure or programme



Source: Authors.

would be to move from response to anticipation of shocks by embedding a forecast-based mechanism into it. Such a model may be easier to implement in the short term and serve as an initial departure point. It will also require strong coordination and consistency with national and regional contingency plans and actions.

Forecast-based triggers can be established for one or multiple hazards, and actions can be defined according to different levels of probability of the risk materialising. Depending on lead time, a number of social protection actions can be triggered. For example, on the one- to three-month timeframe, public works efforts could be expanded to reinforce critical infrastructure. On the three- to seven-day timeframe, unconditional cash transfers could be released to support the evacuation of people and assets or to help them avoid negative coping strategies such as taking high-interest loans. Actions would need to be consistent with government contingency plans and established in standard operating procedures. A financial protocol would indicate where the funds are to be physically placed (e.g. international, regional or national level), roles and responsibilities for managing them and how they can be accessed.

KEY CONSIDERATIONS FOR SUSTAINABLY LINKING FORECAST-BASED FINANCING AND SOCIAL PROTECTION

There are a number of opportunities, but also limitations, in linking FbF with social protection. We highlight some of the latter, fully recognising the need for further research and analysis beyond this brief.

Forecasts and risk analysis

The success of an FbF mechanism depends, to a certain extent, on forecast skill – that is, the accuracy involved in correlating the prediction of an extreme event to the actual occurrence of one. Forecast skill varies across countries and, in many cases, is limited, which influences how much confidence can be generated to act at different geographic scales.

Meanwhile, action could be taken on a forecast without the hazard materialising. If calibrated well, and given the lower costs of early action, the cost of sometimes acting in vain would be outweighed by smaller post-disaster impacts in the cases in which the extreme event does occur (Coughlan de Perez et al., 2014).

Actions must correlate with intended impact

While it is essential to understand the risks vulnerable populations are exposed to, the impacts of climate shocks are also a function of underlying vulnerabilities, many of which are rooted in structural inequalities. Discovering and understanding these vulnerabilities is essential for prioritising actions. The identification and targeting of beneficiaries will also need to take these into account, including the fact that beneficiaries of regular social protection programmes may not be the ones most affected by climate shocks. Finally, forecast-based action is not likely to eliminate completely the need for *ex-post* response – though it should significantly reduce it.

Financing

Financing of a forecast-based action system requires overcoming significant challenges in the way aid funding is structured. While many organisations are already acting early to mobilise resources based on available data and evidence, there is still a need to convince several funding agencies of its cost effectiveness, by means of evidence and data. Social protection programmes could potentially establish contingency funds or budget reserves from programme funds, but additional, sustainable, sources of financing would be required. These could include global relief pooled funds and preparedness funds; contingency funds or contingent credit lines; insurance; or catastrophe bonds.

Coordination with climate and disaster risk management actors

Successful implementation of both climate-smart social protection and forecast-based action approaches requires partnerships and coordination among diverse stakeholders in the climate and disaster risk management sectors. This is often difficult because it entails the need to harmonise different mandates, interests and priorities. For instance, it is often the case that different government institutions manage the understanding of risks and forecast science, respectively.

The design of an FbF system will require a rigorous analytical and consultative process in order to be able to guarantee use of funds in an uncertain environment. The delivery of forecast-based actions will require strong pre-established commitments and agreements.

CONCLUSIONS

While social protection systems that focus on disaster response are important, they are only one part of the picture in managing climate risks. In order to increase the cost effectiveness of actions and reduce the burden of shocks on vulnerable populations, acting earlier, even before the shock has happened, is essential. Social protection has vast potential to support anticipation, risk mitigation and overall preparedness at system level.

One way it can do this is by more effectively integrating early warning early action tools such as FbF mechanisms. This integration would help reach more people, faster, even *before* the impacts of foreseeable extreme events materialise. Such an approach would increase timeliness of interventions, likely resulting in improved efficiency and ability to scale up actions to address avoidable losses and suffering. This would truly help bridge development and humanitarian action and protect development gains from extreme weather and climate events.

In areas of where climate risks are significant, the design of new social protection systems or programmes should include a feasibility study for the integration of forecast-based action mechanisms from the outset.

For existing social protection systems programmes, social protection practitioners, disaster managers, and scientists should converge to discuss the elements listed above. Depending on the local situation, an FbF system could be introduced in phases, first targeting the most predictable hazards with relatively simple and affordable early actions, and then expanding to more complex actions or less predictable events.

It will be important that donors and governments commit to fund this and design the outcome assessments of their social protection investments to look at whether early actions have been taken and what difference they have made. Ultimately, if properly designed and implemented, anticipatory social protection systems would benefit people at risk and protect development gains.

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The BRACED Knowledge Manager generates evidence and learning on resilience and adaptation in partnership with the BRACED projects and the wider resilience community. It gathers robust evidence of what works to strengthen resilience to climate extremes and disasters, and initiates and supports processes to ensure that evidence is put into use in policy and programmes. The Knowledge Manager also fosters partnerships to amplify the impact of new evidence and learning, in order to significantly improve levels of resilience in poor and vulnerable countries and communities around the world.

The Knowledge Manager consortium is led by the Overseas Development Institute and includes the Red Cross Red Crescent Climate Centre, the Asian Disaster Preparedness Center, ENDA Energie, ITAD, Thomson Reuters Foundation and the University of Nairobi.