

Willitts-King, Barnaby; Weingärtner, Lena; Pichon, Florence; Spencer, Alexandra

Research Report

Risk-informed approaches to humanitarian funding: Using risk finance tools to strengthen resilience

ODI Report

Provided in Cooperation with:

Overseas Development Institute (ODI), London

Suggested Citation: Willitts-King, Barnaby; Weingärtner, Lena; Pichon, Florence; Spencer, Alexandra (2020) : Risk-informed approaches to humanitarian funding: Using risk finance tools to strengthen resilience, ODI Report, Overseas Development Institute (ODI), London

This Version is available at:

<https://hdl.handle.net/10419/233925>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by-nc-nd/4.0/>



Report

Risk-informed approaches to humanitarian funding

Using risk finance tools to strengthen resilience

Barnaby Willitts-King, Lena Weingärtner, Florence Pichon and Alexandra Spencer

May 2020



INSPIRE CONSORTIUM 
Humanitarian policy for action



Funded by
European Union
Civil Protection and
Humanitarian Aid

The INSPIRE Consortium supports DG ECHO in developing policies through research, workshop facilitation and the dissemination of results. It brings together four leading European institutions within the humanitarian sector: Groupe URD (France), as consortium coordinator, GPPi (Germany), IECAH (Spain) and ODI (United Kingdom).

Readers are encouraged to reproduce material for their own publications, as long as they are not being sold commercially. ODI requests due acknowledgement and a copy of the publication. For online use, we ask readers to link to the original resource on the ODI website. The views presented in this paper are those of the author(s) and do not necessarily represent the views of ODI or our partners.

This work is licensed under CC BY-NC-ND 4.0.

Cover photo: The aftermath of Typhoon Haiyan in Tacloban City, Philippines. Credit: IHH

About the authors

Barnaby Willitts-King is a Senior Research Fellow at the Humanitarian Policy Group (HPG) at ODI.

Lena Weingärtner is a Senior Research Officer at ODI.

Florence Pichon is a Research Associate at ODI.

Alexandra Spencer is a Research Officer at HPG.

Acknowledgements

The authors are grateful for the support of all those interviewed, our Directorate-General for Civil Protection and Humanitarian Aid Operations (DG ECHO) focal points, Gaëlle Nizery and Jelena Milos, and all those who commented on an earlier draft of the paper. Thanks to Emily Wilkinson (ODI) for her constructive peer review comments and other ODI and Inspire colleagues for their parts in producing this report.

This paper represents the views of the authors and not DG ECHO or those interviewed.

Contents

About the authors	3
Acknowledgements	3
List of figures and tables	6
Acronyms	7
Executive summary	9
1 Introduction	13
1.1 Structure of the paper	13
2 Methodology	14
2.1 Approach taken	14
2.2 Limitations of the study	14
3 Overview of disaster risk financing in the humanitarian sector	15
3.1 What is the current state of DRF policy and practice in humanitarian and development fields?	16
3.2 DRF instruments to support comprehensive risk management	17
3.3 What is the role of donors in DRF?	25
3.4 Major challenges to the development and implementation of DRF tools in the humanitarian sector	26
4 Risk-based financing in DG ECHO	30
4.1 Existing policies and mandates	30
4.2 Operational frameworks and budget lines	31
4.3 DG ECHO's current approach to crisis preparedness and response	31
4.4 DRF instruments currently used/supported by DG ECHO	32
4.5 Opportunities and barriers within DG ECHO to shift from crisis response funding to a DRF framework and tools	35

5	Disaster risk financing instruments with potential for DG ECHO	37
5.1	Instrument 1: crisis modifiers and setting better incentives for preparedness and response planning	37
5.2	Instrument 2: microinsurance	42
5.3	Instrument 3: pooled funds – response and anticipation	44
5.4	Instrument 4: risk pooling for humanitarian organisations through replica mechanisms of sovereign risk pooling or transfer	45
6	Discussion and recommendations	47
6.1	Operational framework	47
6.2	Instruments	49
6.3	Partnerships and capacity across the nexus	52
7	Conclusions	55
	References	56
	Annex 1: Building an operational framework for DG ECHO in disaster risk financing	61
	Annex 2: List of interviewees	65
	Annex 3: Study terms of reference	66

List of figures and tables

Figures

Figure 1	Disaster risk financing along the disaster management cycle	10
Figure 2	Building blocks of disaster risk financing	16
Figure 3	Risk layering	17
Figure 4	DG ECHO's spending on disaster preparedness, 2014–2019	32
Figure 5	DG ECHO engagement with disaster risk financing instruments	33
Figure 6	Instruments and operational framework	47
Figure 7	Risk financing strategy and operationalisation	48
Figure 8	Networks and potential partners for disaster risk financing	54

Tables

Table 1	Summary of instruments	38
Table 2	Crisis modifiers in comparison	41
Table A1	List of interviewees	65

Acronyms

ALERT	Acute Large Emergency Response Tool
ARC	African Risk Capacity
ASEAN	Association of Southeast Asian Nations
BMZ	German Federal Ministry for Economic Cooperation and Development
BRACED	Building Resilience and Adaptation to Climate Extremes and Disasters
CBPF	Country-based Pooled Fund
CCRIF SPC	Caribbean Catastrophe Risk Insurance Facility
CERF	Central Emergency Response Fund
CSO	civil society organisation
DG DEVCO	Directorate-General for International Cooperation and Development
DFID	UK Department for International Development
DG ECHO	Directorate-General for Civil Protection and Humanitarian Aid Operations
DPL with Cat DDO	Development Policy Loans with Catastrophe Risk Deferred Drawdown Option
DREF	Disaster Relief Emergency Fund
DRF	disaster risk financing
DRR	disaster risk reduction
EAP	early action protocol
ERM	Emergency Response Mechanism
EU	European Union
FAFA	Financial and Administrative Framework Agreement
FAM	Famine Action Mechanism
FAO	Food and Agriculture Organization of the United Nations
FbA	forecast-based action
FbF	forecast-based financing
FGD	focus group discussion
FPA	Framework Partnership Agreement
GAD	Government Actuaries Department
HEA	household economy analysis
HIP	Humanitarian Implementation Plan
HSNP	Hunger Safety Net Programme
IBLI	Index-based Livestock Insurance
IDA	International Development Assistance
IDF	Insurance Development Forum
IFRC	International Federation of the Red Cross and Red Crescent Societies

IGP	InsuResilience Global Partnership
ILS	insurance linked securities
INGO	international non-governmental organisation
KfW	Kreditanstalt für Wiederaufbau
LGU	local government unit
MFI	microfinance institutions
MPC	multipurpose cash
NFIP	US National Flood Insurance Program
NGO	non-governmental organisation
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
OFDA	Office of United States Foreign Disaster Assistance
PCRIC	Pacific Catastrophe Risk Insurance Company
PEF	Pandemic Emergency Financing Facility
PSNP	Productive Safety Nets Programme
RCRC	Red Cross Red Crescent
REAP	Risk-Informed Early Action Partnership
RRF	Rapid Response Facility
SEADRIF	Southeast Asia Disaster Risk Insurance Facility
SFERA	Special Fund for Emergency and Rehabilitation Activities
SOP	Standard Operating Procedure
ToR	terms of reference
UNDP	United Nation Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNFCCC	United Nations Climate Change Convention on Climate Change
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WASH	water, sanitation and hygiene
WFP	World Food Programme
WHO	World Health Organization

Executive summary

The international humanitarian system is exploring ways to respond differently to meet needs in the face of the funding gap. The Grand Bargain, for example, is making some progress in improving the efficiency and effectiveness of the response system. In parallel, there is an increase in the use of disaster risk financing (DRF) instruments to address needs using a more timely, pre-planned, risk-informed approach. Having the right funding mechanisms in place to be able to respond appropriately in advance of, or as quickly as necessary after, a shock is critical.

In its most ambitious form, a more risk-informed approach to humanitarian action – including DRF – is being developed by a number of key actors in the humanitarian system. Humanitarian actors are also contributing expertise to better dealing with the underlying causes of vulnerability and fragility through better development responses in coordinated humanitarian–development nexus approaches.

The Directorate-General for Civil Protection and Humanitarian Aid Operations (DG ECHO), through the Inspire consortium, commissioned this study from ODI to explore the role that pre-arranged financing can play in reducing or mitigating disaster impacts by supporting anticipatory action and response. The study terms of reference (ToR) state the objective is ‘to assist DG ECHO in developing approaches to mainstreaming risk-based financing and specific risk financing tools for reducing the impact of disasters, decreasing overall ex-post humanitarian funding and enhancing preparedness.’

DRF in the humanitarian sector

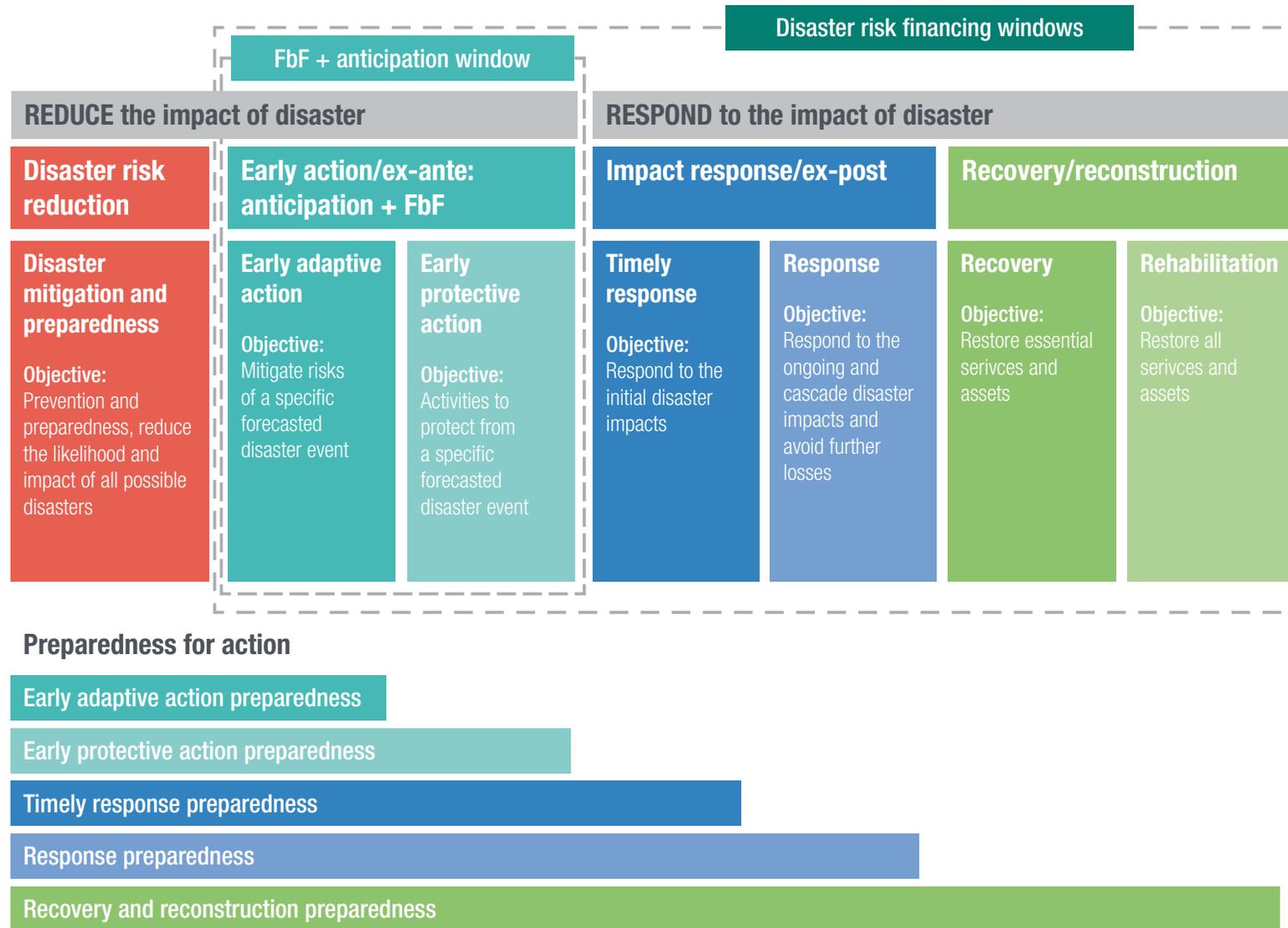
Traditionally, DRF has been defined as a mechanism of financial protection for countries to ‘increase their financial response capacity in the aftermath of disasters and to reduce the economic and fiscal burden of disasters by transferring excess losses to the private capital and insurance markets’ (Mahul, 2011). As such, DRF is a complement to comprehensive disaster risk management, which – according to frameworks commonly used in application to DRF – spans risk reduction, preparedness, response, recovery and reconstruction (World Bank, 2018c).

While an element of planning and pre-agreement of funding is essential to all DRF instruments, some instruments may be geared towards disbursing funds in anticipation of an event, whereas others facilitate response, recovery or reconstruction afterwards. The varying needs in different windows of opportunity for action (shown in Figure 1) thus influence the choice and design of instruments.

Critical elements of DRF include:

- **Risk modelling:** understanding and quantifying risks and defining trigger mechanisms or softer, risk-informed, allocation and decision-making processes.
- **Pre-planned activities and delivery mechanisms:** through contingency plans, early-action protocols, standard operating procedures and systems that can balance effective and timely disbursement of funds with requirements of accountability and transparency of humanitarian actors and donors.
- **Pre-agreed and timely funding:** supported through a combination of different financial instruments, which are layered for protection against events of varying severity and frequency. How instruments are layered also

Figure 1 Disaster risk financing along the disaster management cycle



Source: Harris and Swift (2019).

depends on their relative cost-effectiveness and timeliness for different types of events (World Bank, 2018c; Harris and Jaime, 2019).

The humanitarian DRF community of practice is engaged in an evolving debate about how traditional design processes for DRF must be adapted to be compatible with humanitarian objectives and principles. Donors play several roles in DRF:

1. Direct implementation of DRF instruments.
2. Funding partners to set up and run DRF instruments.
3. Policy and advocacy role.
4. Innovator and early adopter role.

While most of DG ECHO's budget is focused on response – and allocated in a responsive manner – DG ECHO supports or has engaged with a number of DRF instruments to varying extents, both from the response and disaster preparedness budgets.

This study focuses on four instruments that have been considered relevant for further investigation: crisis modifiers, microinsurance, pooled funds and replica mechanisms attached to disaster risk pools. DG ECHO is already investing in some of these instruments, however a critical issue is the importance of embedding how these instruments are deployed within a clearer operational framework, giving strategic coherence to what is currently a fragmented approach.

Recommendations

The overarching recommendation is that DG ECHO better integrate risk financing and risk-informed approaches into its programming and funding, in order to facilitate a timelier and more effective response to humanitarian crises. This recommendation is structured around the interdependency between expanding and learning from new and existing financing instruments, and the development of an operational framework that sets the strategic approach for DG ECHO, based on engagement with current instruments. This also relies on building new partnerships and networks, the third pillar of these recommendations.

Pillar 1: develop an operational framework

DG ECHO has a policy commitment to disaster preparedness and a small dedicated budget (€50 million). However, the overriding finding from this preliminary survey is that DG ECHO is not integrating or implementing this commitment across the entirety of its considerable, response-focused humanitarian programming. Risk-based approaches are fragmented across the organisation.

Recommendation 1: Develop a DRF approach for DG ECHO within the disaster preparedness strategy, complemented by more specific DRF operational frameworks at country level.

Recommendation 2: Integrate DRF to mainstream a risk-informed approach across the organisation.

Pillar 2: expand and learn from instruments

The four instruments discussed in more detail in this paper provide different potential opportunities for further engagement and DG ECHO has varying levels of expertise to support their implementation. Part of DG ECHO's more strategic approach will be to critically evaluate where and how these instruments have added value and to create a learning feedback loop for future investments in these or other instruments.

Recommendation 3: Pilot selected instruments based on further DG ECHO reflection and prioritisation to use the Humanitarian Implementation Plans (HIPs) and emergency toolbox in a more anticipatory way.

Recommendation 4: Fund institutional learning and robust, independent research for new and existing pilots to inform scaling and further investment.

Recommendation 5: Build incentives for disaster risk reduction (DRR) and resilience into DRF instruments.

Pillar 3: build partnerships and capacity across the nexus

Beyond DG ECHO investment in specific instruments and an operational framework, the critical third pillar of engagement in expanding a risk-based approach will be to expand DG ECHO's partnerships within the European

Commission and with external partners underpinned by increased capacity and specialist expertise to deliver an expanded engagement.

Recommendation 6: Develop an overarching joint approach on DRF and the nexus between the Directorate-General for International Cooperation and Development (DG DEVCO) and DG ECHO; this is critical to generate traction and impact in DRR and resilience.

Recommendation 7: Participate in key networks with donors, practitioners and scientists. Mobilise new and existing networks to co-fund across DRR/resilience, preparedness, anticipatory action and response, for example from development donors and climate funds.

Recommendation 8: Expand DG ECHO capacity to develop frameworks, support internal mainstreaming, and build partnerships.

1 Introduction

Against a backdrop of increasing humanitarian budget needs (\$28.8 billion according to the latest Global Humanitarian Overview (OCHA, 2019a)), but slowing growth in humanitarian assistance contributions (Development Initiatives, 2019), the international humanitarian system is exploring new ways to meet needs. The Grand Bargain, for instance, is making some progress in improving the efficiency and effectiveness of the response system. In parallel, the use of DRF instruments is increasing along with trends towards enhancing preparedness and anticipation in humanitarian operations to address needs using a more timely, pre-planned, risk-informed approach. Humanitarian funding is often late as well as being insufficient, and financing plays a central role in addressing these challenges. Having the right funding mechanisms in place is critical to be able to respond appropriately in advance of, or as quickly as necessary after, a shock (Clarke and Dercon, 2016).

A more risk-informed approach to humanitarian action and funding is being developed by several key actors in the humanitarian system. In turn, bringing in the expertise of humanitarians to reduce the underlying causes of vulnerability and fragility through better development responses in coordinated humanitarian–development nexus approaches is critical. While this has long been an ambition of the humanitarian sector – with renewed impetus from the 2016 World Humanitarian Summit – the cultural and organisational changes required are significant and progress can be slow.

In this context, DG ECHO, through the Inspire consortium, commissioned this study from ODI to explore the role that pre-arranged financing can play in reducing or mitigating disaster impacts by supporting anticipatory action and response.

The study ToR states the objective is ‘to assist DG ECHO in developing approaches to mainstreaming risk-based financing and specific risk financing tools for reducing the impact of disasters, decreasing overall ex-post humanitarian funding and enhancing preparedness. The study would review risk financing tools applied as per DG ECHO’s scope of intervention’ (see Annex 3 for ToR).

There is considerable interest among humanitarian aid actors in more broadly exploring the role that new financing mechanisms involving private finance can play to increase the supply of funding or provide different solutions. This may be through the use of impact bonds, equity investments or insurance instruments. The first two are still at an early stage of implementation and have been mostly explored in the context of forced displacement and protracted crisis; they are beyond the scope of this study (Willitts-King et al., 2019). This paper will therefore focus primarily on insurance and other instruments that are used to make resources available before, during or after specific disaster events or crises.

1.1 Structure of the paper

This paper begins with an overview in chapter 3 of the DRF landscape including discussion of terminology, before introducing specific instruments according to a risk layering typology. Chapter 3 also discusses the specific roles that donors play in enabling DRF, and the challenges in implementing a risk financing approach. Chapter 4 then considers DG ECHO’s approach to DRF, situating this within the overall DG ECHO way of working. It then focuses on our suggested instruments for deeper investigation by DG ECHO, before chapter 5 reflects on the wider strategic questions of implementing a risk-informed approach, and institutional challenges.

2 Methodology

2.1 Approach taken

This study is based on a review of secondary literature on existing DRF instruments and their use in the humanitarian sector; interviews and focus group discussions (FGDs) with DG ECHO staff and stakeholders; and interviews with additional key people with experience in research, policy and implementation in this field.

This informed an in-depth review of four potentially suitable instruments, drawing on project documents, secondary literature and interviews/FGDs. A full list of interviewees is included in Annex 2. A consultation workshop with DG ECHO and DG DEVCO colleagues was undertaken in Brussels on 17 December 2019 to inform the draft report.

2.2 Limitations of the study

This study was completed before the Covid-19 outbreak was declared a pandemic and its findings therefore do not incorporate analysis of this significant event, which will undoubtedly have important implications for DRF.

Given the rapid timeline for the study, this paper provides an overview of the topic and discussion of particular instruments, which is intended as a starting point for DG ECHO to guide further engagement. It points to the opportunities and challenges of using DRF instruments in the humanitarian space, but it

would need to be followed up with substantive analysis and further actions.

There is a discussion of existing evidence in the paper, but this is limited by what kind of evidence exists; in some cases, this is fairly small. For instance, the field of index-based microinsurance – particularly in agriculture – has produced an increasing number of impact evaluations and literature reviews in recent years, thus slowly improving the knowledge about the effects of insurance on household well-being. Less systematic evidence is available to date about the impacts of other DRF instruments such as crisis modifiers or catastrophe bonds, although some case studies and operational learning exist in these areas. This is partly because more high-quality monitoring, evaluation and learning is needed to help better understand the impacts of DRF and partly because some of the approaches are new in general or new in humanitarian contexts, hence evidence is naturally limited.

It also needs to be noted that the literature included in this paper is non-comprehensive and, given the time and resource constraints of the study, does not constitute a systematic review. Instead, authors drew on existing reviews and identified further relevant literature through reference tracing, online searches and through institutions and programmes involved in implementing the specific DRF instruments discussed in this paper.

3 Overview of disaster risk financing in the humanitarian sector

In a context of rising humanitarian need, governments, donors and humanitarian actors are exploring ways to improve the timeliness and cost-effectiveness of humanitarian funding. In doing so, they are increasingly drawing on DRF approaches. Traditionally, DRF has been defined as a mechanism of financial protection for countries to ‘increase their financial response capacity in the aftermath of disasters and to reduce the economic and fiscal burden of disasters by transferring excess losses to the private capital and insurance markets’ (Clarke and Mahul, 2011). As such, DRF is a complement to comprehensive disaster risk management, which – according to frameworks commonly used in application to DRF, e.g. by the World Bank or the Start Network – spans risk reduction, preparedness, response, recovery and reconstruction (World Bank, 2018b).¹

More recently, humanitarian donors and practitioners – including international humanitarian agencies and non-governmental organisations (NGOs) – have started to explore the potential of DRF for faster and more predictable funding. There is also an expectation that DRF can incentivise pre-planning and preparedness, thus supporting a wider shift towards a more risk-informed approach in humanitarian funding and action (Harris and Jaime, 2019). Critical elements of DRF (see also Figure 2) include:

1. **Risk modelling:** understanding and quantifying risks and defining trigger mechanisms or softer, risk-informed, allocation and decision-making processes.
2. **Pre-planned activities and delivery mechanisms:** through contingency plans, early-action protocols, standard operating procedures and systems that can balance effective and timely disbursement of funds with requirements of accountability and transparency of humanitarian actors and donors.
3. **Pre-agreed and timely funding:** supported through a combination of different financial instruments, which are layered for protection against events of varying severity and frequency. How instruments are layered also depends on their relative cost-effectiveness and timeliness for different types of events (World Bank, 2018b; Harris and Jaime, 2019).

The humanitarian DRF community of practice is engaged in an evolving debate about how traditional design processes for DRF need to be adapted to be compatible with humanitarian objectives and principles. A critical argument in this debate revolves around the need to ensure that the identification and development of relevant financial instruments – as part of a layered approach to DRF – is driven by the purpose to support principled humanitarian action (rather than by a focus on individual ‘innovative’ instruments) (Harris and Jaime, 2019). This involves considerations of

¹ Note that the Sendai Framework uses different categories of disaster risk management: avoiding new risks, reducing existing risks and managing disasters. The disaster management cycle is considered outdated by some experts, but is included here due to its common use in the field of DRF, which mostly relates to the ‘managing disasters’ category of the Sendai definition.

timeliness of funding to support action before, during and after a crisis (see Figure 1).

3.1 What is the current state of DRF policy and practice in humanitarian and development fields?

DRF is moving out of its original domain within the private sector and among governments, who have used DRF to pool risk, protect budgets and provide immediate liquidity in the wake of a disaster event. Recently, the development and humanitarian sectors have shown a budding interest in the potential of DRF to improve risk management (within their organisations as well as in the countries and communities in which they work) and enable faster and more effective humanitarian action. A range of new approaches are being piloted and refined by NGOs and donors, bringing with them new thinking about how DRF instruments can improve poor people’s resilience to disasters.

For humanitarian actors, this trend is driven by a grim challenge: in 2018, only 56.5% of requested funding for global humanitarian needs was met (GHO, 2019). Facing a growing gap between needs and available funding, donors are interested in reforming humanitarian finance to make crisis funding faster, reliable and more cost effective, for

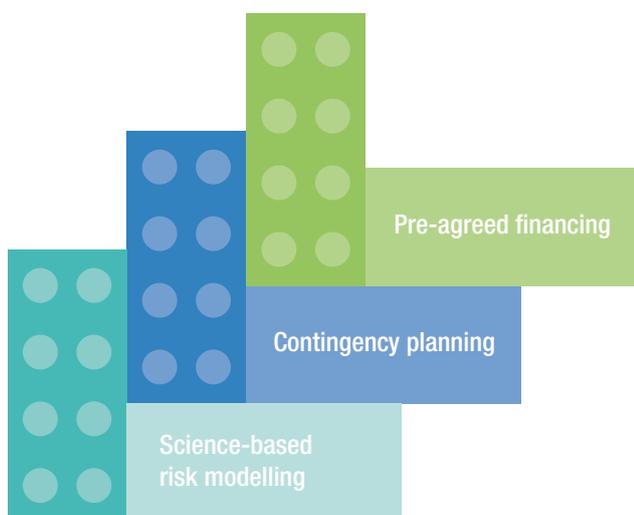
example through the Grand Bargain and nascent approaches to innovative finance (Willitts-King et al., 2019). DRF does not allocate new resources into an overstretched system; but it is a method of smoothing over volatility in financing needs (Ranger and Clarke, n.d.). DRF can also theoretically lower costs by enabling a more efficient response or more timely action, thus making the available funding stretch further. Through their element of pre-agreement – and, in some cases, automated trigger mechanisms – there is potential for DRF instruments to enhance the reliability of funding and to disburse funds quicker than would be the case through a traditional humanitarian response or post-disaster appeals process.

From a humanitarian perspective, there is a clear ethical rationale for interest in DRF instruments: if DRF is more timely than traditional humanitarian aid, it can potentially save more lives. For example, if the West African Ebola response had arrived one month earlier, studies suggest half of the caseload could have been avoided (Kucharski et al., 2015). Had DRF tools, such as the World Bank’s new Pandemic Emergency Financing Facility (PEF), been able to deliver finance to tackle the crisis more rapidly, the spread of the disease might have been contained, saving lives and reducing the costs of responding to the epidemic (although other factors beyond financing, such as response capacity, were also relevant).

For development actors, climate change and disasters present major and growing risks to development investments. Faced with an estimated 26 million people falling into extreme poverty every year due to disasters (Hallegate et al., 2017), development actors are designing poverty-reduction programmes to enhance people’s resilience to hazards.

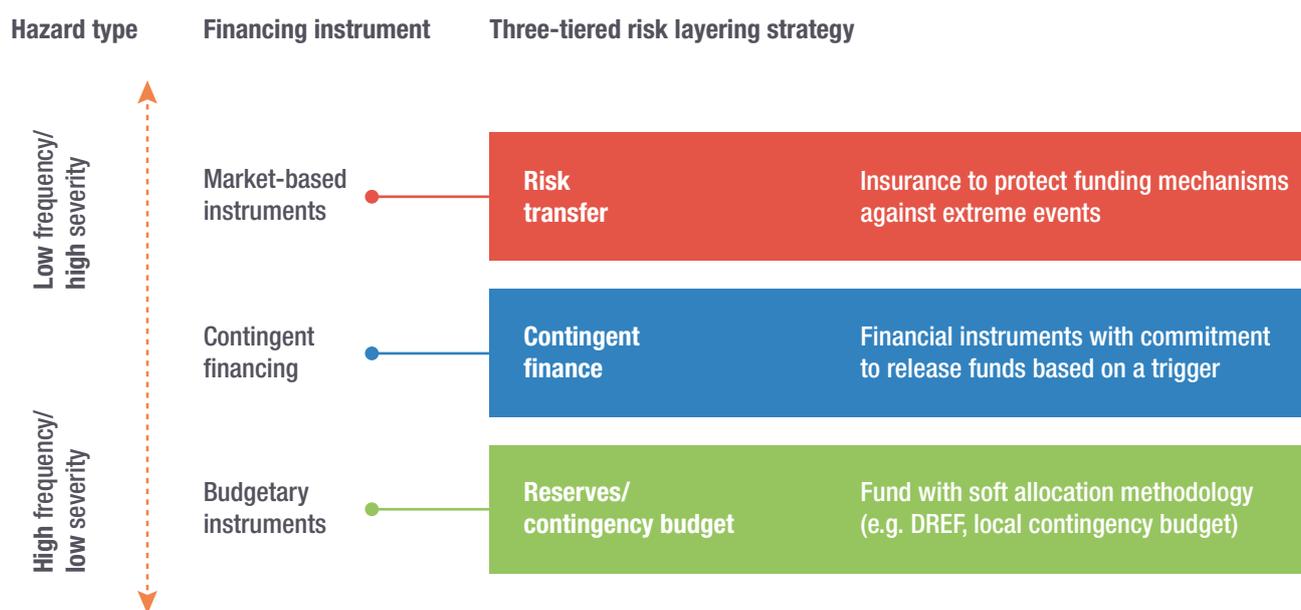
It is in this broader context that new tools, such as forecast-based action (FbA), crisis modifiers, ‘replicas’ of sovereign risk insurance, and the World Bank’s new Famine Action Mechanism (FAM) and PEF have been developed. As it stands, DRF instruments are still treated as discrete approaches, rather than a comprehensive set of tools to cover

Figure 2 Building blocks of disaster risk financing



Source: based on Harris and Swift (2019).

Figure 3 Risk layering



Source: GRIF/IFRC Presentation on Disaster Risk Finance.

different phases of the disaster management cycle (Harris and Jaime, 2019). Many are still in piloting or refining stages, but these approaches are starting to generate a patchy evidence base about how DRF tools can contribute to or undermine humanitarian and development objectives.

DRF instruments are only as strong as the delivery system that channels the dedicated funds to recipients – be it through civil society organisations (CSOs), NGOs, government or the private sector. One prominent example of a ‘delivery system’ with potential to deliver speedy assistance before or after a disaster, for instance in the form of cash transfers, is a shock-responsive social protection scheme. Such schemes intend to reach more people or increase payments to existing social protection beneficiaries based on a trigger for anticipated or observed hazards, with the expectation that this additional support will enable people to cope better with disaster impacts (Oxford Policy Management, 2017). This paper examines DRF but does not examine delivery systems themselves in depth (whether different channels or modalities such as cash or in-kind assistance), although these are undoubtedly crucial for effectively mitigating disaster risks or responding to impacts for vulnerable people.

3.2 DRF instruments to support comprehensive risk management

The World Bank has defined four core principles of DRF that provide a framework for stakeholders to evaluate policy decisions and financial instruments (World Bank, 2018c). The principles highlight the importance of the following aspects:

1. **Timeliness of funding:** includes the speed at which funds can be delivered and an understanding of the timing of needs as an important consideration for policy-makers (speed is important, but not all funds are necessarily needed immediately).
2. **Disbursement of funds:** governments need committed instruments and mechanisms to support the effective allocation and disbursement of funds when necessary.
3. **Risk layering:** a combination of DRF instruments is needed to address different types of risks; needs cannot be met by a single instrument alone.
4. **Data and analytics:** governments need access to accurate and specific data to inform financial decisions.

The following section explores DRF instruments currently used, supported or considered by key international donors and multilateral institutions and is structured using the third core principle: risk layering (Figure 3). It discusses mechanisms that fall into one of three categories as put forward by the World Bank (ibid.): budgetary instruments, contingent financing and market-based instruments. Following this review, a further category was added to incorporate hybrid mechanisms that employ one or more of these types of financing in their activities. This list is not fully comprehensive, but intends to provide an indicative overview of instruments and experiences with specific consideration of humanitarian actors

It is important to note that the instruments detailed in this section, across all categorisations, require pre-planning. This means that the mechanisms are set up in advance of a crisis, so differ from unplanned ad hoc or post-emergency funding such as humanitarian aid and donor funding, tax increases or unplanned borrowing or asset sales.

3.2.1 Budgetary instruments

Local or institutional contingency budgets and funds

Description: Can be held within a project, institution, or national budget. Examples include:

- DG ECHO emergency response mechanisms
- UK Department for International Development's (DFID's) Rapid Response Facility (RRF)
- Dutch Relief Alliance
- Canadian Humanitarian Relief Fund
- Asia-Pacific Disaster Response Fund.

At the institutional level:

- World Health Organization's (WHO's) Contingency Fund for Emergencies
- Philippines Red Cross's Relief Fund
- Myanmar Red Cross's Emergency Management Fund.

Red Cross funds are held by the National Societies; they accumulate interest and are used for immediate action during an emergency.

The specific activation criteria for contingency budgets and funds differ between instruments and operators. DFID's RRF, for instance, considers a number of parameters before making a decision to activate, such as the magnitude and humanitarian impact of the crisis, the position of the national government or recognised authority, actions of other donors and implementation partners and the UK perspective (DFID, 2019).

Used where: Globally.

Scale: Generally subnational; within region, municipality, project, or national level, accessed by contingency budget or fund holder (e.g. NGO, Red Cross Red Crescent (RCRC) National Society, national or subnational government).

Window(s) of disbursement: Response, recovery and reconstruction.

Benefits: Theoretically faster than waiting for approval from international agencies based in Geneva, New York or London.

Constraints: Depends on the fund. Most contingency funds are relatively small, particularly in comparison to the capital in risk transfer instruments like insurance. Depending on the owner of the fund, they may be difficult to replenish. For instance, a fund like the Myanmar Red Cross's Emergency Management Fund was created by a one-time transfer and is only replenished by interest accumulation and by ad-hoc donor interest. Differing allocation requirements across all mechanisms and a context-specific allocations process could create uncertainty surrounding potential allocations.

Country-based Pooled Funds

Description: Funds that allow donors to pool their contributions into single, unearmarked funds to support local humanitarian efforts. The United Nations Office for Coordinating Humanitarian Affairs (UN OCHA) manages 18 Country-based Pooled Funds (CBPFs) under the leadership of the Humanitarian Coordinator. The funds channel financing to the highest-priority projects for the best-placed responders in line with the priorities detailed in the relevant Humanitarian Response Plan (OCHA, 2019).

Used where: Globally:

- OCHA: Yemen, Syria (cross-border), South Sudan, Sudan, Ethiopia, Syria, Somalia, DRC, Afghanistan, CAR, Nigeria, Iraq, occupied Palestinian territories (oPt), Myanmar, Lebanon, Ukraine, Pakistan and Jordan.
- EU country-based Trust Funds.
- Start Fund: as well as the global Start Fund, Start Network is piloting a decentralised CBPF in Bangladesh.

Scale: National level.

Window(s) of disbursement: Response.

Benefits: Humanitarian pooled funds can offer relatively rapid access to flexible funding and, unlike their global counterparts, are able to directly fund NGOs and other local organisations (Lattimer and Swithern, 2017). Furthermore, the literature suggests that CBPFs allow for more timely, coordinated and principled assistance (Carter, 2018). Efficiencies are gained through donors pooling funds; technically funds should be more rapidly available than bilateral applications for humanitarian funding. CBPFs also offer capabilities for multi-year funding and thus more predictable humanitarian financing (Carter, 2018).

Constraints: Performance is linked to the quality of humanitarian structure in each country, for instance in terms of delayed decision-making, high transaction costs for local/national NGOs and ineffective cooperation (Carter, 2018). Another constraint is the potentially overstated role of CBPFs in supporting multi-year funding. There are also risks that national NGOs are disadvantaged against international NGOs (INGOs) unless dedicated windows for NGOs are created (Stoddard et al., 2017; Carter, 2018). Not currently used for anticipation.

Global anticipation and response funds with soft allocation

Description: Funds that enable anticipatory action and response based on soft allocation criteria for disbursement or decision-making. In some cases these funds may be pooled, i.e. have multiple contributors and provide access for a wider range of institutions. They generally aim to fund rapid response to new and underfunded emergencies, and are increasingly expanding to fund anticipatory action. Examples include

- Central Emergency Response Fund (CERF)
- Disaster Relief Emergency Fund (DREF)²
- Start Fund
- Food and Agriculture Organization of the United Nations' (FAO's) Special Fund for Emergency and Rehabilitation Activities (SFERA).

The Start Fund is already funding anticipatory action through its Crisis Anticipation Window and SFERA through its Early Action Fund to reduce and mitigate impacts of expected humanitarian emergencies. At the time of writing, the CERF was preparing pilots to implement such anticipatory action. The release of funding from these pooled funds is generally based on soft allocation methodology, in which guidelines or criteria exist but decisions are made on a case-by-case basis rather than using automated triggers.³ The Start Fund Anticipation Window requires no submission of an early action plan or standard operating procedures.

Used where: Globally; Start Fund is moving from global fund to regional hubs.

Scale: Global funds: CERF has a grant facility of \$450 million; Start Fund \$10 million annual disbursement capacity; International Federation of the Red Cross (IFRC) DREF allocations totalled \$18.5 million in 2018. Funds accessed by eligible member organisations (e.g. UN, Start

2 Based on its trigger mechanism, FbA by the DREF is further discussed below under the forecast-based financing and action heading. FbA by the DREF are funds held within the DREF that are guaranteed for anticipatory actions that have been elaborated in pre-approved and verified Early Action Protocols. Financial allocations are automatic and are channelled directly to National Societies based on a pre-approved trigger. This is considered separate from DREF funding.

3 Exceptions to this are the forecast-based financing (FbF) and FbA by the DREF mechanisms operated through different parts of the RCRC Movement, which are discussed further under contingent financing.

Network members, RCRC National Societies): SFERA allocated \$36.1 million in 2018.

Window(s) of disbursement: Anticipation and response.

Benefits: Theoretically faster than waiting for ad hoc post-disaster aid allocations and appeals funding. Pooled funds are larger than local and institutional funds and spread risks over geographic areas and organisations. For the CERF in particular, pooled funds can offer flexible funding to both emerging and underfunded emergencies (CERF, 2018). In addition, anticipation and response funds with allocation criteria can help to bridge the gap between a crisis and the arrival of financing from other donors.

If deployed sufficiently early ahead of an expected crisis, anticipatory funds can also help mitigate the impacts of hazards, thus reducing need. For example, anticipatory funding to mitigate the impacts of drought could protect vulnerable people's assets or prevent stress migration, depending on the fund's criterion for disbursement, volume and type of support. In practice, however, empirical evidence is still scarce on the extent to which anticipatory funds mitigate impacts of hazards and how this compares to regular, seasonal interventions or a later disbursement of funds. This is partially because these funds are relatively new, and partially because conducting a controlled study on the outcomes from anticipatory action faces a range of methodological challenges (for a summary, see Weingärtner et al., 2020).

Constraints: It may be difficult to consistently replenish the fund. These funds are only available to specific institutions (e.g. UN for the CERF, RCRC for the DREF, Start Network members for the Start Fund), so not necessarily integrated with government planning. In the case of the Start Fund, CBPFs are project based and have a short implementation period. Soft triggers (which are not automated) and flexible decision-making can delay the release of funding. Further to this, in its current form, the CERF is not as fast as it could be, but funding early action could encourage a faster delivery of aid (Pichon, 2019).

Crisis modifiers

Description: A financial mechanism built into a development, resilience, or humanitarian

project, which allows predetermined funding (usually from within the project or in a separate contingency fund) to be allocated for addressing new or anticipated humanitarian needs that manifest over the course of implementation.

Used where: DG ECHO, East and West Africa (United States Agency for International Development (USAID)), West Africa (Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED)).

Scale: Crisis modifiers are generally project-based, so they are designed to fit to project scale, which will vary by donor, operating organisation and crisis type. However, USAID OFDA (Office of United States Foreign Disaster Assistance), for example, will fund humanitarian activities up to \$500,000 per event with a cap of \$1 million per year (USAID, 2015). They are accessed by project implementing organisations.

Window(s) of disbursement: Anticipation and response.

Benefits: Crisis modifiers can address smaller crises that may fall under the radar of humanitarian response, or where there are changes to the humanitarian situation. These mechanisms have been recognised as providing a rapid and early response to (emerging) crises and allowing for coordination and coherence between resilience and humanitarian programming (USAID, 2015). This mechanism offers better integration of humanitarian and development activities; in some cases, crisis modifiers can more quickly respond to new humanitarian needs in order to protect the development gains made by long-term projects (USAID, 2015; Peters and Pichon, 2017).

Constraints: They usually have a predetermined budget ceiling, which limits the scope of the response and the number of times it can be accessed. Criticisms suggest that, despite early warning mechanisms, funds are not released early enough to protect those most in need due to issues related to such systems or natural human bias (Montier, 2017). Furthermore, crisis modifiers generally only cover project areas and may be separate from wider humanitarian response, but this is not always the case.

3.2.2 Contingent financing

Forecast-based financing and action with commitment to release funds based on triggers

Description: Funds aimed at enabling anticipatory action that are linked to scientific forecasts (e.g. climate and weather forecasts or impact-based forecasting) and are disbursed once a certain trigger threshold is crossed. Examples include the RCRC FbF. The IFRC is also developing a new window in the DREF called 'FbA by the DREF', which is dedicated to releasing money for early action. Early action protocols or standard operating procedures are required to be developed in advance to access the mechanism, which will release money automatically based on a pre-agreed trigger.

Used where: Globally.

Scale: Generally project-based, so designed to fit to project scale; accessed by eligible member organisations (e.g. RCRC National Societies).

Window(s) of disbursement: Anticipation.

Benefits: These trigger-based mechanisms can address smaller crises that may fall under the radar of humanitarian response in a timely and predictable manner. There is a potential for greater integration between humanitarian and development activities when delivering forecast-based initiatives through existing channels (for example government-led social protection programmes) but, equally, activities could be delivered through standalone FbA mechanisms (Costella et al., 2017, cited in Wilkinson et al., 2018).

Constraints: FbA/FbF mechanisms (including those with commitments to release funds based on triggers, but also those with soft allocation) usually have predetermined budget ceilings that form the basis of early action protocols (EAPs). Existing mechanisms often cover project areas and are therefore limited in scale and may be separate from wider humanitarian response. However, new flexible EAPs are being developed and tested with the aim of covering the most impacted areas. There is an uncertainty related to the accuracy of forecasting tools and the appropriateness of the response relative to that forecast. Further challenges include capacity constraints within humanitarian organisations and local

hydro-met services, as well as considerable costs of setting up robust FbA systems. To scale for wider humanitarian response, strong national government buy-in is required; though there have been indications of interest from governments where FbA has been trialled, only the Mongolian government's meteorological agency has so far developed impact-based forecasts for the Dzud season that can be used to trigger early actions (IFRC, 2019b).

Contingent credit lines

Description: A pre-agreed line of credit that can be accessed in the event of a disaster to immediately provide liquidity to the government borrower. This could have either a hard trigger (e.g. related to the intensity of the hazard) or a soft trigger, such as the declaration of a state of emergency by the government. It offers bridge financing while other sources of post-disaster funding are mobilised and allows for budget support to governments hit by a natural hazard (Clarke and Mahul, 2011). Examples include the World Bank's Development Policy Loans with Catastrophe Risk Deferred Drawdown Option (DPL with Cat DDO).

Used where: Globally.

Scale: Often national; an element of long-term financing agreements. Dependent on lender and borrower arrangements but World Bank DPL with Cat DDOs offer International Bank for Reconstruction and Development (IBRD)-eligible countries up to \$500 million or 0.25% of GDP (whichever is less).

Window(s) of disbursement: Response, recovery and reconstruction.

Benefits: The use of a soft trigger may capture more events than those covered under sovereign risk transfer mechanisms and therefore allow governments to access funding more easily. Contingent credit lines can thus complement other DRF instruments (Clarke and Mahul, 2011). Pre-agreed budget lines often mean that funding can be accessed quickly. To access the instrument, governments must make specific policy reforms to enable or promote improved risk management (Clarke and Dercon, 2016).

Constraints: Lending arrangements are made to governments, so may not be suitable in more fragile contexts. Borrowers must have

an adequate macroeconomic framework at the inception and renewal stages and for DPL with Cat DDOs in particular, a disaster risk management programme that is monitored by the World Bank (Clarke and Mahul, 2011). There is the potential for opportunity costs as funds are reserved (GAD, forthcoming).

3.2.3 Market-based instruments

Sovereign disaster risk insurance

Description: Insurance mechanisms that support governments to manage disasters such as earthquakes, droughts, flooding and hurricanes (Martinez-Diaz et al., 2019). In many cases, sovereign disaster risk insurance operates through regional risk pools and is parametric in nature. This means that ex ante agreements secure the future release of funds based on hard triggers, for instance low rainfall levels. Examples include the African Risk Capacity (ARC), Caribbean Catastrophe Risk Insurance Facility (CCRIF SPC), Pacific Catastrophe Risk Insurance Company (PCRIC) and the Southeast Asia Disaster Risk Insurance Facility (SEADRIF).

While these mechanisms have been primarily geared towards governments, pilot studies are underway to develop disaster risk insurance products for NGOs. ARC Replica policies have been taken out by Start Network and the World Food Programme (WFP), with the first ARC Replica payout having been announced for Senegal at the end of 2019. Some mechanisms (e.g. ARC) require standard operating procedures that specify the use of payouts and delivery of assistance as a prerequisite to access the pool, while others (e.g. CCRIF) do not.

Used where: Africa (ARC), South-east Asia (SEADRIF), Caribbean (CCRIF), Pacific (PCRIC).

Scale: Transnational, regional.

Window(s) of disbursement: Response and recovery.

Benefits: Countries can pool risk through a common insurance pool and draw on each other's expertise in disaster response; insurance can help to avoid delays and inefficiencies often related with ex post humanitarian assistance (Talbot and Barder, 2016). Replica mechanisms have the potential to enhance coordination between governments and humanitarian actors through matching policies and aligned contingency planning. Where sovereign insurance policies are accompanied by additional and explicit efforts (for instance around technical assistance, capacity building, data sharing, establishing technical working groups at national level, or developing data visualisation tools that support decision-making), these may also support risk reduction, preparedness or anticipation. However, such mechanisms need to be built in from the design phase, require adequate resourcing, and should include a wide array of stakeholders to facilitate appropriate use.

Constraints: Premium payment can be problematic for some humanitarian donors and organisations, either because these are funds channelled to a 'non-traditional' private sector entity such as an insurance company or because they are not going directly to saving lives and supporting vulnerable people.⁴ Insurance is most cost-effective for major hazards, while it is less appropriate for small or medium-sized hazards (GAD, forthcoming), though some mechanisms also pay out for less impactful and more frequent events. Basis risk⁵ – as a result of both geographical elements or poorly designed

4 Similar constraints also apply to the other market-based instruments and are discussed further in section 3.4 on the major challenges of DRF in humanitarian contexts.

5 'Basis risk in index insurance arises when the index measurements do not match an individual insured's actual losses. There are two major sources of basis risk in index insurance. One source of basis risk stems from poorly designed products, and the other from geographical elements. Product design basis risk is minimised through robust product design and back testing of contract parameters. Geographical basis risk is a factor of the distance between the index measurement location' and the location of the insured asset or investment (IFC, 2019).

or specified products – can be a major issue and needs to be carefully managed.⁶

Insurance linked securities (ILS)/catastrophe bonds

Description: Insurance linked securities and catastrophe bonds transfer the risk of natural hazards from the government to capital market investors (Baca and Jain, 2018). They therefore offer financial protection, similar to insurance, should an event occur. These are sometimes set up through an intermediary such as the World Bank (World Bank, n.d.). A payout is made to the government or other institution following the occurrence of hard triggers, for instance a pre-agreed rainfall level or earthquake magnitude. Typically, they are most suitable for low frequency, high severity events such as earthquakes and volcanoes (Baca and Jain, 2018). Examples include the Pacific Alliance Catastrophe Bond for Earthquake Risk and the recently announced IFRC volcano bonds.

Used where: Pacific Alliance (Colombia, Chile, Mexico and Peru); discussions underway for the Philippines; regional, global.

Scale: Regional, national. The Pacific Alliance Catastrophe Bonds offered coverage of up to a total of \$1.36 billion for the four countries included. IFRC suggests volcano catastrophe bonds would be worth \$15 million.

Window(s) of disbursement: Response.

Benefits: The use of parametric triggers ensures the rapid disbursement of funds, particularly in comparison to traditional insurance mechanisms that require on-site visits and comprehensive loss assessments (IFRC, 2019a). Catastrophe bonds offer multi-year coverage and those issued through the World Bank do not count as debt stock of the sponsoring sovereign (Baca and Jain, 2018).

Constraints: Catastrophe bonds can be time- and resource-intensive to set up; there

are generally multiple parties and agreements involved and due diligence is required before bonds can be issued (Baca and Jain, 2018). The higher costs of these requirements often mean catastrophe bonds are only suitable for higher risk events. As with sovereign disaster risk insurance, discrepancies with data use between governments and the bondholders could result in disagreement over activation of triggers.

Microinsurance

Description: Microinsurance protects low-income individuals, households and small businesses against specific perils in exchange for a premium payment, which is determined by the likelihood and costs related to the respective peril (IFC, 2019). Microinsurance can help manage a variety of risks – including illness, damage to property or loss of agricultural production.

In recent years, an increasing number of index-based microinsurance products have been developed. This means payouts are determined in accordance with a pre-agreed index, for instance based on rainfall or yield data, to allow for clear triggers for disbursement. These products offer protection of, or compensation for the loss of, assets and investments. Examples include Index-based Livestock Insurance (IBLI) in Ethiopia, Kenya and Mongolia and index-based crop insurance products available in an increasing number of countries globally. In many instances, index-based microinsurance products are bundled with other financial services such as loans and savings, or with agricultural inputs. In some cases, they are integrated with measures to reduce disaster risk, for instance by tying together requirements for adherence to building codes with access to loans and insurance,⁷ though some studies highlight that the potential for incentivising risk reduction through insurance

6 For instance, sovereign disaster risk insurance can pose problems when the insurance pool and the government use different parameters and sources of data to understand impacts. During a 2016 drought in Malawi, the ARC insurance company did not pay out based on its parametric triggers, as the model showed a low number of people had been affected. The policy had been designed on long-cycle maize crop, but most farmers grew short-cycle maize during the 2015/2016 season, which was not accounted for in the model. After the discrepancy was investigated, ARC Ltd paid \$8.1 million to the Government of Malawi (African Risk Capacity, 2016).

7 See section 3.4 on the role of major challenges of DRF in humanitarian contexts for further discussion of the links between (micro)insurance and risk reduction.

is underutilised in practice (see for instance Surminski and Oramas-Dorta (2014), who discuss this in relation to flood insurance).

Used where: Globally.

Scale: Dependent on specific mechanism; subnational, community level.

Window(s) of disbursement: Response, recovery, reconstruction.

Benefits: Some studies report positive welfare effects on household asset accumulation for those covered under microinsurance schemes. Payouts can help avoid negative coping strategies (such as reducing consumption or selling productive assets) post-disaster, and therefore support positive development outcomes.⁸ However, empirical evidence on the longer-term impacts of (index-based) microinsurance covering natural hazards is still a work in progress. Index-based insurance can help support a quicker release of funds compared to more conventional products that rely on claims assessment processes. Market-based insurance also has the potential to be a financially sustainable mechanism (Cole et al., 2012).

Constraints: Insurance markets have been slow to develop in many countries and require high up-front investments; liquidity constraints affect the ability to pay premiums; low levels of financial literacy of target communities and limited trust in the insurance product or its provider are further constraints (Cole et al., 2012). Many schemes have been struggling to reach scale and financial viability in practice. Evidence on the applicability and impact of index-based microinsurance in more complex humanitarian contexts is limited to date and questions of how and when to transition between life-saving aid and financial inclusion interventions remain (Moore et al., 2019). Basis risk can become an issue for the insured as well as for the insurer in the case of index-based products.

3.2.4 Hybrid instruments

Hybrid instruments employ a combination of more than one type of DRF instrument and hence do not fall directly within one of the three categories of budgetary instruments, contingent financing and market-based instruments.

Pandemic Emergency Financing Facility (PEF)

Description: An innovative and insurance-based financing mechanism housed at the World Bank for cross-border, large-scale disease outbreaks (PEF, 2019). Payments can go directly to governments and pre-approved frontline responder organisations (such as WHO and the United Nations Children's Fund (UNICEF)) and can do so through either the PEF's cash window or once triggered through its insurance window. In doing so, this mechanism makes available financing to stem the risk of pandemics and minimise the health and economic consequences of an outbreak.

Used where: Globally; all International Development Assistance (IDA)-eligible countries can access funds from the PEF.

Scale: Transnational, national. The PEF insurance window can provide payments of up to \$425 million during its initial three-year period for all qualifying outbreaks combined. But payment ceilings exist for each of the disease families covered: \$275 million for pandemic Flu, \$150 million for Filovirus, \$195.8 million for Coronavirus and \$75 million for other covered diseases (Rift Valley, Lassa Fever, Crimean Congo). The cash window is expected to disburse allocations between \$1 million and \$5 million. The PEF approved two payments from its cash window for the Ebola response in the DRC for \$20 million and \$30 million respectively.

Window(s) of disbursement: Response.

Benefits: Parametric triggers are in place for the insurance window, which should enable a swifter allocation of funds (PEF, 2019).

Constraints: Domestic pandemic preparedness and response plans must be submitted to the facility with the requests for funds. If these documents are not up to date or in place, this could add additional time constraints for affected governments. If a pandemic does not cross international borders, it does not receive finance through the insurance window. For a case like Ebola, this has been a point of frustration for humanitarian and health workers working on the crisis. The mechanism only covers large-scale outbreaks of a pre-established group of diseases

⁸ For an overview of existing studies and a discussion of the literature on microinsurance in relation to resilience, see Moore et al. (2019) and Weingärtner et al. (2017).

identified as likely to cause major pandemics – diseases beyond this list would not be eligible for funds. However, the PEF design and triggers are being reviewed (as of September 2019) and the next phase of the fund could include more incentives for countries to invest in preparedness, cover more pathogens, and could expand coverage to more countries (World Bank, 2019). Allocations from the cash window require a number of processes that are likely to decrease the speed with which funds are released to responding organisations.

Famine Action Mechanism

Description: The World Bank’s FAM will link early warning systems with pre-agreed financing so that when triggers are met, funding can begin to flow almost immediately within an agreed operational framework. The FAM will also support the mobilisation of multi-year funding to provide predictable, large-scale investments to address the root causes of famine (World Bank, 2018b).

Used where: Global, but yet to be used. Being piloted in Somalia, with the framework being tested and validated in 2020.

Scale: National, regional.

Window(s) of disbursement: Anticipation and response.

Benefits: Designed with early warning systems and hard triggers to enable a fast and more effective response. It is aiming to offer better coordination to prevent the duplication of efforts and better impact (CERF is using a common framework for its early action window pilot for Somalia). Provides a crucial bridge between the humanitarian and development sectors.

Constraints: Has taken time to develop to implementation stage; it has involved a complex multi-stakeholder process with uneven buy-in. The World Bank sees itself as the ‘first mover’ in developing the framework, which will then bring others on board.

Insurance-backed recovery lending

Description: Insurance-backed recovery lending allows for increases in post-disaster lending by small-scale creditors, like microfinance institutions (MFIs), by covering these institutions with insurance policies (i.e. meso-level insurance). Payouts from the insurance policy would then

allow creditors to offer loan capital to potential clients in the aftermath of a crisis where demand is often high and under-served. A major rationale for insurance-backed recovery lending is to support livelihoods recovery efforts and thus to restore income-earning potential. In turn, access to recovery lending may require an articulate plan for a viable use of the funds (VisionFund, 2016). An example is the VisionFund recovery lending scheme, which was active in the Typhoon Haiyan response and has offered recovery lending to some of the countries affected by the 2015–2016 El Nino, where \$3.3 million was disbursed through VisionFund to more than 14,000 clients in Malawi, Kenya and Zambia.

Used where: Globally, mostly in pilot phases.

Scale: National, subnational.

Window(s) of disbursement: Recovery.

Benefits: MFIs can deliver recovery lending soon after a disaster to support the rapid recovery of clients’ livelihoods. Furthermore, MFIs can arrange financing to be put in place prior to a disaster so that they can maintain their supply of credit to poor communities. Recovery lending is deemed to be affordable and thus reduces risk of over-indebtedness of clients. It has also supported steps to wider financial inclusion by allowing MFIs to reach out to new clients who, under normal conditions, would be excluded from accessing financing. Following the successful repayment of these loans, the same clients can then access further loans under the normal lending criteria. (VisionFund, n.d.).

Constraints: Relies on existing MFI institutions and markets, so not appropriate in all contexts. Recovery loans are not suitable for all individuals, for example those who are highly indebted or without viable cash-generating options are likely to be excluded (Kibet, 2017).

3.3 What is the role of donors in DRF?

The many stakeholders involved in a coordinated response have different roles. Donors play several roles in DRF.

1. Direct implementation of DRF instruments

Donors can operate instruments directly, for instance through different budget mechanisms

that give them the flexibility to disburse funds. As detailed above, this can take the form of dedicated disaster preparedness and response budget lines (as in DG ECHO), crisis modifiers (e.g. DG ECHO, USAID), in-house contingencies, or rapid response mechanisms with pre-agreed arrangements with partners (e.g. DFID's rapid response mechanism).

2. Funding partners to set up and run DRF instruments

Donors can make contributions to partners (whether UN, NGOs, governments or private sector) to respond to or set up DRF instruments. This can be through contributions to pooled funds (e.g. CERF or CBPFs), institutional funds or investment in the development and renewal of early action protocols (e.g. Germany's support to IFRC's forecast-based financing programme).

3. Policy and advocacy role

Beyond funding, donors use their influence and networks to build different partnerships and affect others' funding – for example through engaging in reform processes or aligning humanitarian, Sendai, Paris and Sustainable Development Goals funding. Examples include the World Bank engagement with countries to develop national DRF strategies, the Insurance Development Forum (IDF) and InsuResilience Global Partnership (IGP), which facilitate collaboration between the public, private and non-profit sectors in the insurance sector, or the United Nations Climate Change Convention on Climate Change (UNFCCC), the United Nations Office for Disaster Risk Reduction (UNDRR) and the United Nations Development Programme's (UNDP's) role in tracking and aligning financial flows across international policy frameworks.

4. Innovator and early adopter role

Finally, donors can play a critical role in using or providing funding and resources to innovate and pilot new approaches. This can be done through different mechanisms, such as challenge funds, 'uncertain' investments into new instruments, enabling experimentation, piloting and learning, but also requiring a high-risk tolerance. In an emerging field, this allows new and potentially

more risky ideas to be tested before there is a body of evidence for what works. Bilateral donors willing to fund more innovative approaches on DRF in the humanitarian space to date include DFID and the German government. Furthermore, a range of NGOs and other humanitarian actors – such as the Start Network and its members, or the RCRC Movement – and UN organisations – including FAO, WFP and OCHA – have been involved in the development and trialling of new instruments in recent years.

3.4 Major challenges to the development and implementation of DRF tools in the humanitarian sector

Competing purposes and interests: Standard DRF instruments, especially market-based ones, were not originally developed within and for the development or humanitarian spaces. The metrics for success are defined by disbursement of funding, rather than the outcomes that funding produces for vulnerable people (Harris and Jaime, 2019). As Hillier (2018) points out, commercial insurers would be 'expected to prioritize growth and profitability, and perhaps consider impact evaluation as a "nice to have" feature rather than core business' (Hillier, 2018: 29). Even programmes that are designed to be explicitly pro-poor, such as the IGP or the Risk-Informed Early Action Partnership (REAP), set targets that monitor progress by counting the number of poor households covered by insurance or early warning systems, rather than the outcomes for those people (ibid; Global Resilience Partnership, 2019). Reframing success to align with humanitarian ends is a greater challenge than simply expanding the poor's access to and coverage by DRF instruments, but requires bringing in a humanitarian lens for designing instruments and tracking their impacts.

Historically, impact modelling for DRF instruments has not systematically incorporated information on the type and cost of appropriate response actions. For instance, flood impact modelling may be tied to a trigger about the number of households that will be affected (thus the costs of potentially rebuilding these houses will be considered when calculating economic impacts). However, the appropriate response may be related

to repairing water and sanitation infrastructure instead and, as a result, the disbursed volume of funding is not based on an understanding of the costs of adequate response measures (Harris and Swift, 2019). Models underpinning DRF instruments are not currently assessing how far modelled impacts and actual response needs diverge, though, more recently, efforts have been underway to explore the application of probabilistic catastrophe risk models to estimate response needs (e.g. in relation to the Pacific Risk Information System and the Africa RiskView software) (Porter and White, 2016).⁹

At present, a growing community of practice among humanitarian actors is concentrating on developing tools and guidelines to adapt DRF instruments to humanitarian mandates. One notable example is the Start Network's recent guidelines on integrating household economy analysis (HEA)¹⁰ into DRF modelling. The approach argues that these data can help determine triggers for various local livelihood zones, or cumulative triggers set at national levels based on modelled outcomes across several livelihood zones (Harris and Swift, 2019). The HEA analysis can point to which wealth groups are most likely to face deficits during a forecasted crisis and point to windows of opportunity for action when deficits are more likely to occur. The recent Impact before Instruments discussion series co-released by the Start Network, the IFRC and the RCRC Climate Centre proposes further cornerstones for adequate and beneficial use of DRF approaches in humanitarian contexts as well as for humanitarian objectives (Harris and Jaime, 2019).¹¹

Technical capacity and information

asymmetries: Related to the novelty of DRF in

the humanitarian field, new technical capacity to select, design and implement an adequate and effective suite of DRF instruments to support humanitarian objectives is also required within humanitarian institutions and through partnerships. This capacity needs to span the different components of DRF – risk modelling, planning and delivery and pre-agreed and timely funding. In turn, actors with experience in DRF and existing relevant technical capacity may have limited understanding of the realities of implementing action on the ground and what implications this has for making DRF work in humanitarian contexts. An increasing number of networks and brokers aiming to facilitate collaboration and new partnerships has emerged in recent years to reduce this gap, particularly in relation to insurance (e.g. the IDF or the IGP). Yet, impartial advice from experts without a stake in any particular (type of) instrument remains scarce and is sought after by governments as well as humanitarian organisations and donors. More recently, the Centre for Disaster Protection was set up with the aim to address some of this need through advisory and quality assurance support.

Spanning humanitarian and development fields: Despite efforts to bridge the humanitarian–development nexus, as encouraged by the Grand Bargain, financing and programming between the sectors remain largely separate. In theory, DRF can bridge these fields by providing funding for humanitarian action before, during and after crises that can help enable and protect development gains. In practice, however, questions about whether costs related to DRF instruments are the responsibility of humanitarian or development actors remain

9 Porter and White (2016) also suggest using probabilistic catastrophe risk models to assess poverty outcomes. Using household income and expenditure data in Ethiopia, they study whether a social safety net programme mitigated the impact of drought on poor rural households. Controlling for factors such as education and health, they find a smaller decrease in consumption compared to households that did not have access to the social safety net programme, and conclude that the method could be used to form the basis of a vulnerability module in a catastrophe risk model (which could potentially inform modelling for DRF instruments in the future).

10 HEA is a humanitarian tool that provides a quantitative approach to identifying the impacts of a hazard event on household income and resources (FEG Consulting and Save the Children, 2008).

11 The different areas for consideration discussed as part of the series include: risk analytics; planning and coordination; accountability, transparency and participation; preparedness resources; instruments and funds.

a barrier to effective collaboration (Poole, 2015: 23). How partnerships are built across the humanitarian–development nexus is not a *fait accompli* with the introduction of DRF instruments, but requires a concerted effort involving joint planning and donors that are willing to think unconventionally.

Crisis modifiers have been used as an instrument to explicitly bridge these fields.¹² In the case of DG ECHO, crisis modifiers are used in humanitarian programmes, so do not explicitly tie together development and humanitarian actors unless certain provisions are made in implementing partners’ contingency plans. Crisis modifiers, as they were deployed in the BRACED programme or in USAID’s work in Ethiopia, however, build in the possibility of a spike in humanitarian needs over the lifetime of a development programme and ring-fence finance to address these potential needs. In theory, as a programme has established relationships and ongoing work in the communities where it operates, the crisis modifier should be a more effective and rapid way of deploying additional funding than mobilising a new humanitarian response (Peters and Pichon, 2017). In the BRACED programme, crisis modifiers were deployed to address conflict-related displacement and major flooding that affected the implementation of resilience projects; however, development actors were not always well-equipped to deliver humanitarian programming, uncertain how to apply humanitarian principles to targeting or to procure supplies quickly. Some efforts were slowed by unnecessary bureaucracy and pressures to deliver pre-planned development programme milestones and humanitarian support simultaneously (*ibid.*).

Incentivising resilience and development co-benefits: A further link between DRF and development is related to incentivising investment in resilience, risk reduction and planning (see for instance Warner et al., 2009; Clarke and Dercon, 2016). The potential of DRF instruments to incentivise risk reduction has

been well documented. In the case of insurance, for instance, there is an expectation that closer collaboration between the public sector and the insurance industry would support risk reduction by improving risk awareness and education, risk pricing, regulation and enabling conditions, opportunities for direct investment in DRR, and by making DRR a prerequisite for insurance (Warner et al., 2009). In practice, much of whether this potential is realised depends on how instruments are structured and whether they are designed to incentivise risk reduction and better risk management (Surminski et al., 2016). For instance, the CCRIF has a technical assistance programme which can – among other things – support local DRR initiatives, but this programme is relatively small. CCRIF also prepares risk profiles for each of its member countries, but these were not designed to support risk management planning more broadly (though interest has been expressed by some stakeholders to enhance their usability) (Martinez-Diaz et al., 2019). Furthermore, the potential for sovereign risk pools to crowd in additional DRM investments appears limited to date. A formative evaluation of the ARC indicates that ‘there is [...] no current evidence of greater investment in DRM [disaster risk management] resulting from increased knowledge due to the experience with ARC’ from the Kenya, Malawi or Mauritania case studies included in the evaluation (Oxford Policy Management and Itad, 2017).

There is also still limited evidence as to whether DRF effectively incentivises DRR in developing countries and, if so, how to unlock this potential.¹³ In the case of insurance, this may partly stem from the difficulty of implementing risk-based pricing and a risk that premium subsidies could distort incentives for risk reduction. ‘More worrying still is the potential for insurance to undermine DRR or increase maladaptation (Cutter et al., 2012), for instance, when the insured feel a “false” sense of security or when insurance reduces the perceived urgency of managing disaster risks more broadly

12 For a more detailed discussion of crisis modifiers and their use within DG ECHO, see chapter 4.

13 See, for instance, Surminski and Oramas-Dorta (2014) for a discussion of links and missed opportunities for incentivising DRR through flood insurance.

(Surminski, 2014)' (Weingärtner et al., 2017: 20). A prominent example of this is the US National Flood Insurance Program (NFIP), which has in some cases reinforced vulnerability and exposure to flooding by facilitating (re)construction of houses in highly flood-prone areas.¹⁴ These are also critical considerations for implementation of DRF in humanitarian settings.

Enhanced and sustainable planning/coordination: Contingency planning is crucial to communicate how DRF will be used and who is responsible for which actions. By planning ahead in the form of contingency plans, standard operating procedures or early action protocols,

there is potential to better align efforts between stakeholders. However, many initiatives or organisations establish their own contingency plans rather than building on existing national plans or working with CSOs, NGOs and government ministries to develop coordinated plans. Recent efforts such as CBPFs or replica mechanisms for sovereign risk pools have aimed to enhance coordination within and beyond the humanitarian system, for instance with governments, by aligning funding and planning. Yet, questions remain around how DRF can encourage coordinated contingency planning where other initiatives have failed.

14 See, for instance, Williams Walsh (2017) or Sisson (2019) for reporting on the issue.

4 Risk-based financing in DG ECHO

DG ECHO's work is guided by a number of policy frameworks and guidance notes, and its involvement in DRF is evident in a number of areas. This section sets out the current state of play, concluding with an analysis of actual practice and areas where fragmentation and inconsistent implementation in the absence of a more strategic approach may be holding back DG ECHO's potential.

4.1 Existing policies and mandates

DG ECHO's work in crisis preparedness and response is guided by the EU Consensus on Humanitarian Aid, which was signed by relevant institutions in 2007. This framework reaffirms the EU's commitment to the humanitarian principles of neutrality, humanity, independence and impartiality, highlights specific policy objectives and attempts to improve the coherence, effectiveness and quality of their work in humanitarian response (DG ECHO, 2019). DG ECHO has adopted a needs-based approach for its crisis operations, which allows it to allocate its resources to those with the greatest needs and highest levels of vulnerability (DG ECHO, 2016).

Included in the Consensus framework is a prioritisation for disaster preparedness activities through DG ECHO's DRR policy (2013), which has led to the systematic integration of risk management and resilience into their programmes and projects in all sectors. In 2017, 65% of DG ECHO programmes included a disaster preparedness element (DG ECHO, 2019). The European Union (EU) has invested in early warning systems and has supported partners to develop cost-effective methods for risk mitigation and to build evidence on the need for early action. For 2019, DG ECHO's

strategy explicitly mentioned crisis anticipation and response preparedness, in addition to its provision of humanitarian assistance (DG ECHO, 2018a):

- Supporting strategies and complementing existing strategies that enable local communities and institutions to better prepare for, mitigate and respond adequately to natural disasters by enhancing their capacities to cope and respond, thereby increasing resilience and reducing vulnerability.
- Strengthening the global humanitarian preparedness and response capacity of humanitarian partners by increasing the effectiveness and reinforcing the capacity of international humanitarian organisations and NGOs to assess, analyse, prepare and respond to humanitarian crises.
- The overall policy framework for disaster preparedness is the DG ECHO thematic policy on DRR from 2013. A new disaster preparedness strategy is being developed in 2020.

In terms of resilience, the EU describes this as a core component in both its development and humanitarian programming. In doing so, all humanitarian projects are subject to the Resilience Marker, which highlights the ways in which the project reduces the risks faced by affected communities and aims to strengthen their coping capacity (DG ECHO, 2019).

On this theme, the EU recognises that scaling up social protection systems in response to shocks has the capacity to improve the resilience of vulnerable communities (DG ECHO, 2018a). In this context, social protection systems can support populations to better manage risks and shocks while offering an immediate response in

crisis situations to prevent human suffering and mortality. With this in mind, the EU has invested in a number of complementary social protection projects in Ethiopia and Turkey. In other countries, work is underway to make existing social protection systems ‘shock-responsive’.

For all of these policies, DG ECHO is bound by its financial regulation that guides where and how its resources are directed. This ensures that mandatory principles, minimum standards and procedural requirements are in place for all funding agreements (DG ECHO, 2014). Relevant regulations for this research include that humanitarian assistance must be given in non-reimbursable grants, it should be financed through international organisations and it should offer the ability for monitoring, accountability and reporting. Furthermore, adherence to DG ECHO’s needs-based approach is a key component in its financial decision-making; scarce humanitarian funding should be spent with sound financial management against specific policy aims.

4.2 Operational frameworks and budget lines

Over the 2014–2020 period, the EU allocated a budget of €6.6 billion for humanitarian assistance. DG ECHO’s overall planned budget in 2019 was almost €1.5 billion, before any additional contingency budget was added over the course of the year in response to new and emerging needs. Including the contributions of Member States, DG ECHO is among the top three international humanitarian aid donors globally. This can be broken down into two budget lines, with most resources being directed towards humanitarian aid and food assistance and €50 million being allocated for disaster preparedness activities.

The disaster preparedness budget line focuses on Sendai Priority 4: ‘enhancing disaster preparedness for effective response with applying a multi-hazard approach’ (DG ECHO, 2019). In order to achieve this, the funding supports national and local preparedness systems to respond earlier and better. As it is separate from the response budget line, the disaster preparedness budget line offers greater scope to be applied to piloting new approaches that

could be replicated with response funding. These two funding streams have been seen as separate in some regions due to the complex nature of financing disaster preparedness in conflict and refugee settings, which occupy much of the humanitarian space. However, greater integration has been demonstrated in parts of Asia, where a more holistic approach allows for coordination with national and local governments. There is a desire to continue this integration of the disaster preparedness and humanitarian budgets when responding to crises globally, recognising the need to improve response and better prepare for the future and capacity to respond.

Beyond these distinct budget lines, data provided by DG ECHO shows how more funding is being directed towards disaster preparedness activities. The specific disaster preparedness budget has been relatively stable since 2014 at around €50 million annually, while the supplementary humanitarian assistance directed towards such activities has fluctuated. This has had a significant impact on the total sum and proportion of funds allocated by DG ECHO to disaster preparedness needs (see Figure 4).

4.3 DG ECHO’s current approach to crisis preparedness and response

DG ECHO is a response-focused donor. The majority of their annual budget is programmed according to annual Humanitarian Implementation Plans (HIPs). These are based on an analysis of likely needs, based on prior experience from field-based DG ECHO technical experts and inputs from implementing partners and the UN-coordinated Humanitarian Needs Overview and Humanitarian Response Plans.

HIPs are generally framed around needs rather than risk, except when there is a disaster preparedness angle. This does not always consistently align with the DG ECHO thematic policy on preparedness for response and early action stating that ‘the needs assessment presented in the Single Form should reflect, whenever relevant, the exposure to the range of hazards and threats affecting people at the village/community level (natural hazards, economic- or conflict-related threats), the related vulnerability of the targeted population and their ability to cope’.

Figure 4 DG ECHO's spending on disaster preparedness, 2014–2019



Source: Data shared bilaterally by DG ECHO.

It goes on to state that ‘Risk-informed programming across sectors should protect operations and beneficiaries from hazard and threat occurrence, and include contingency arrangements for additional or expanded activities that might be required. Information from risk assessments and early warning systems should be incorporated into programme decision-making and design, even where the humanitarian operation is not the result of a specific hazard’ (DG ECHO, 2018b).

4.4 DRF instruments currently used/supported by DG ECHO

While most of DG ECHO’s budget is focused on response – and allocated in a responsive manner – DG ECHO supports or has engaged with a number of DRF instruments to varying extents, both from the response and disaster preparedness budgets. The following section explores these in line with the disaster risk layering strategy put forward in chapter 1 (see Figure 5).

4.4.1 Budgetary instruments

Local or institutional contingency budgets and funds
 DG ECHO makes use of institutional contingency budgets and funds through its

emergency response mechanism, the emergency toolbox. It contains four distinct tools, which each aim to respond to differing crisis types and intensities. Thus, each offers a range of payout values. In 2018, €21 million was delivered through the emergency toolbox, based on assessments of need by DG ECHO experts and partners. The four tools include:

- The Acute Large Emergency Response Tool (ALERT), which is designed for use in large natural hazard-related disasters where more than 100,000 people or greater than 50% of the population are affected. This tool aims to allocate funds within 24–48 hours of the onset of the emergency. In 2018, ALERT was activated for six disasters (floods, earthquakes and a cyclone) across Kenya, Ethiopia, Nigeria, Indonesia and the Philippines. These emergencies received between €650,000 and €2 million each.
- The small-scale tool targets a limited number of people (fewer than 100,000) who are affected by natural or manmade crises. Maximum allocation values per action total €300,000. In 2018, this tool was activated seven times, responding to a cyclone in Tonga, refugees in Nigeria, medical

assistance in Nicaragua, a volcanic eruption in Guatemala, dam collapse in Laos, floods in Venezuela and an earthquake in Haiti.

- Epidemic outbreaks receive allocations from the specific epidemics tool. This tool was used five times in 2018 to respond to cholera, Ebola and Lassa fever outbreaks in Djibouti, Niger, Zimbabwe, the Democratic Republic of Congo (DRC) and Nigeria respectively.
- Finally, DG ECHO utilises the IFRC’s DREF through its emergency toolbox. This fund provides support to national RCRC societies in the immediate aftermath of a disaster. Current contributions total a maximum of €3 million per year and €200,000 per allocation. DREF made 42 allocations globally in 2018 and allowed DG ECHO to support national RCRC societies to respond to floods, volcanos, population movements and earthquakes. Some preparedness activities for Ebola and cholera outbreaks were also supported by the DREF in the same year.

Country-based Pooled Funds

DG ECHO is currently negotiating with OCHA about their contribution to CBPFs. This contribution is being piloted with the South Sudan

and Ukraine CBPFs. It was hoped that DG ECHO would make their first contribution in 2019.

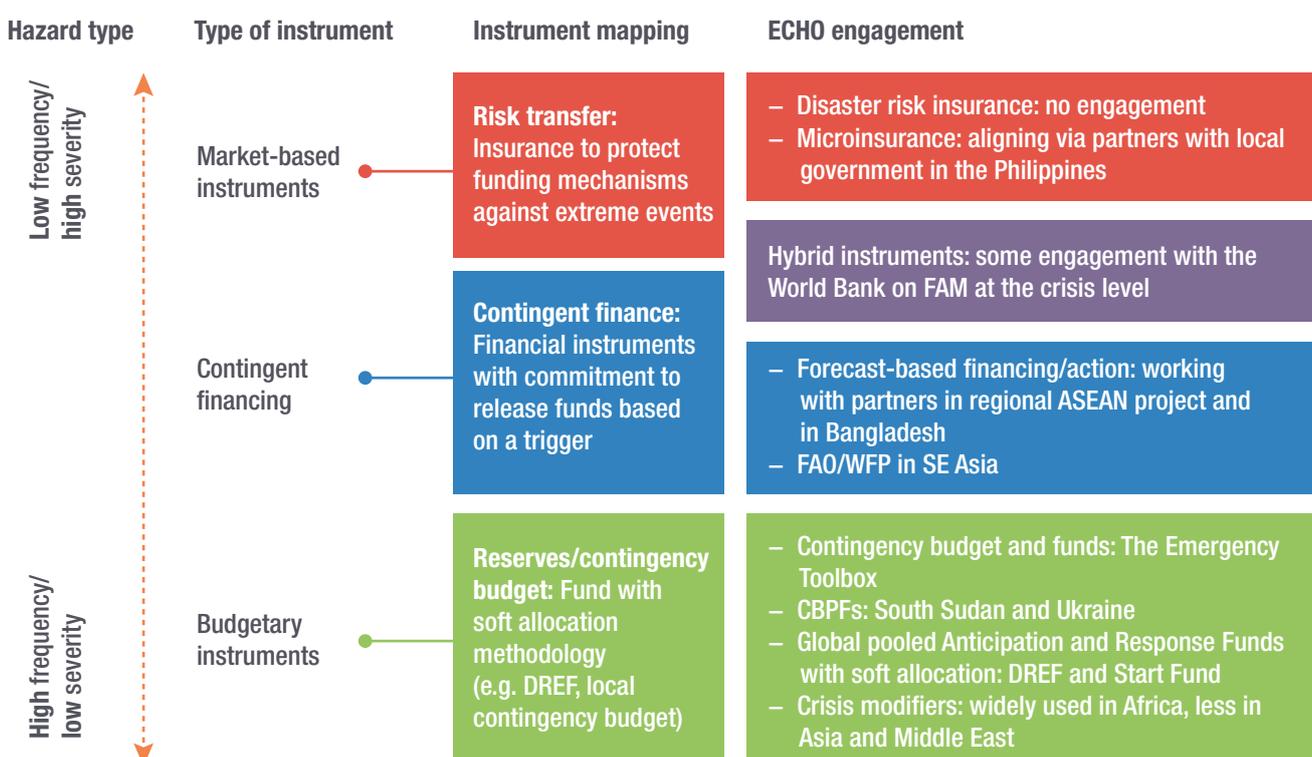
Global pooled anticipation and response funds with soft allocation

DG ECHO contributes towards global pooled anticipation and response funds (with soft allocation) through its partnerships with the Start Fund and, as previously mentioned, the DREF. The Start Fund offers rapid financing to underfunded small- and medium-scale crises as well as spikes in chronic humanitarian crises. In addition, it provides anticipatory funding to impending crises, which responds to the recognised gap in humanitarian financing. As yet, DG ECHO does not contribute to the CERF.

Crisis modifiers

DG ECHO uses crisis modifiers within its humanitarian programmes as an opportunity to plan for changes in need and/or shocks. Thus far, this instrument has been widely used in Africa and the Caribbean, but less so in Asia and the Middle East due to the nature of crises affecting these regions and their suitability and effectiveness of crisis modifiers to respond to the contextual needs. Examples of disaster

Figure 5 DG ECHO engagement with disaster risk financing instruments



preparedness projects with a crisis modifier element include:

- Integrated emergency water, sanitation and hygiene (WASH) and multipurpose cash (MPC) response to the most vulnerable families in South Central Somalia, implemented by Polish Humanitarian Action.
- Strengthening resilience to disasters in urban and rural Malawi (Red Cross).
- Enhancing disaster preparedness for effective early action and response in Lower Athi and Lower Tana River Basins as well as responding to rapid-onset emergencies in Kenya (Red Cross).
- Strengthening national, district and local preparedness and response capacities, linking early warning to early action and fostering scalability of the action in Mozambique (Red Cross).
- Strengthening DRR systems and awareness to reach the most vulnerable population groups in Mozambique (CARE).

DG ECHO has focused their use of crisis modifiers in humanitarian programmes on relatively small and fast-onset hazards that would not necessarily otherwise register in humanitarian programmes, or as a method of covering the gap in an initial response before other humanitarian instruments are activated. There is little academic or grey literature that examines how effective crisis modifiers are in protracted crises. Because of the dynamic nature of protracted crises and changing humanitarian needs, a flexible funding mechanism like a crisis modifier is a sensible tool from an operational perspective.

4.4.2 Contingent financing

Forecast-based finance and action

DG ECHO has played a role in facilitating further investment in FbF and FbA through projects with partners in Asia. Specifically, in 2019 DG ECHO supported the project ‘Scaling up Forecast-based Financing/Early Warning Early Action and Shock Responsive Social Protection with innovative use of climate risk information for disaster resilience in ASEAN’. This project focuses on interventions in Vietnam, Cambodia, Myanmar and the

Philippines. Working through FAO, UNICEF, WFP, UN Women and UNDRR as well as the IFRC and NGOs, this intervention aims to strengthen the capacity of Association of Southeast Asian Nations (ASEAN) member states to develop risk-informed and shock-responsive social protection. This will consolidate the FbF/EWEA pilots and support the implementation of the ASEAN Guidelines and Country Roadmap to Establish Shock-Responsive Social Protection Systems.

Further projects include supporting flood FbA and learning in Bangladesh, through partnership with a consortium of NGOs and technical agencies led by CARE Deutschland. This project aims to bolster the case for early action for flood events by implementing an FbA system in three districts in north Bangladesh that are prone to flooding (Gaibandha, Kurigram and Jamalpur). This will involve working with local and national government authorities to overcome the economic, technical and institutional constraints limiting its uptake.

Contingent credit lines

Not currently supported by DG ECHO.

4.4.3 Market-based instruments

Disaster risk insurance (macro and meso)

Not currently supported by DG ECHO. There has been limited engagement from DG ECHO in disaster risk insurance through consultations with insurance sector stakeholders, including multilateral development banks, climate risk modellers and insurance companies.

Insurance linked securities/catastrophe bonds

No DG ECHO engagement reported.

Microinsurance

DG ECHO has funded partners to implement projects with a microinsurance element. For example, through the Moving Urban Poor Towards Resilience (Move Up) consortium, DG ECHO supported microinsurance schemes for the urban poor in some cities in the Philippines to contribute to resilient livelihoods (Cruz, 2019).

Insurance-backed recovery lending

No DG ECHO engagement was reported.

4.4.4 Hybrid instruments

PEF and FAM

DG ECHO does not invest in these instruments, primarily because it is not a World Bank shareholder, although the EU Member States are. However, it has engaged in operational inputs at crisis level and is kept in the loop regarding progress on the FAM.

4.5 Opportunities and barriers within DG ECHO to shift from crisis response funding to a DRF framework and tools

Many humanitarian donors are exploring how to shift towards using a disaster or crisis risk financing approach, and are at different stages of this exploration, although all are still grappling with the challenges of working across humanitarian/development siloes.

As summarised in Figure 5, DG ECHO is already using a number of DRF instruments – notably crisis modifiers and other budgetary instruments with an element of contingency funding, but these are at a relatively small scale. There have been some elements of supporting microinsurance instruments in contexts such as the Philippines, which have been primarily through disaster preparedness funding rather than response funding. DG ECHO has also focused on a number of country-specific pilots rather than a consistent organisational approach, and its annual funding envelope constrains it from investing in multi-year initiatives. The response focus limits DG ECHO's ability to invest in developing innovative pilots or fund design and start-up costs for new instruments.

In terms of the four roles that donors play (see section 3.3), to date DG ECHO has focused on direct implementation and funding to partners, rather than innovating or undertaking policy advocacy. There is some in-house expertise in DG ECHO in risk financing and risk-based approaches, but it is fragmented. This has limited DG ECHO's external strategic engagement with other donors and partners working on DRF. Given the increased level of dialogue among key humanitarian donors on the application of such instruments and

engagement by the World Bank in humanitarian contexts, this wider engagement is an important future area for DG ECHO to consider.

In practice, implementation of the DRR policy has evolved from a focus on community-based disaster risk management from the former Disaster Preparedness DG ECHO (DIPECHO) programme (now mainstreamed into country and regional humanitarian implementation plans) to current discussions around moving DG ECHO towards a risk-based approach working more at the system level. A new disaster preparedness strategy is under development and DRF is seen as one element within this wider shift.

There are several legal, political and organisational considerations that inform the scope for shifting towards a DRF framework in DG ECHO, as referenced above. DG ECHO's humanitarian aid regulation (1996) defines DG ECHO's role as funding 'humanitarian aid operations' but did not foresee many of the innovations that have emerged in the subsequent 20 years, including pooled funding and the rising role of the private sector. According to discussions with DG ECHO experts, there is some scope for interpretation of the regulations. However, the primary mechanism will be through funding partnerships with NGOs Framework Partnership Agreement (FPA) and the Financial and Administrative Framework Agreement (FAFA), with the UN as DG ECHO's go-to channel. Funding to the private sector except through a procurement process is harder to envisage, while direct funding to governments is very unlikely.

The experience of moving towards DG ECHO contributing to CBPFs managed by OCHA is very relevant. Until around 2017, the view in DG ECHO was that it could not contribute to pooled funds as these did not qualify under the humanitarian aid regulation as amounting to 'humanitarian aid operations'. With a re-interpretation of the regulation, this is now becoming a reality in two countries (Ukraine and South Sudan), but the process of ensuring that such contributions are consistent with DG ECHO's other requirements, and can be carried out within the OCHA framework agreement with DG ECHO, is a detailed technical negotiation that will require many months of work to finalise.

There are varying views within DG ECHO when it comes to moving towards DRF. There is a widespread concern that DG ECHO is currently not configured to ‘hold back’ funding from response for more anticipatory activities – in a situation where needs outstrip available funding, it is anathema to keep funds in reserve in case of an emergency, shock or unfolding crisis, when those funds could be used immediately to respond to needs. This at heart is the tension between a needs-based versus a risk-based approach to planning and financing. It is also the case that some approaches have been developed as ‘workarounds’ to overcome structural challenges faced by DG ECHO in not being able to respond quickly in certain situations, for example due to requirements for extended negotiation over activities between

DG ECHO and partners. Moving towards a more risk-based approach, including DRF instruments, would ideally help address some of these structural challenges and reduce the need for more ad hoc and piecemeal workarounds.

Where DG ECHO has invested in anticipatory, early action and rapid response mechanisms, there is also a tension with slow-onset or slowly unfolding crises – for example droughts or flare-ups in protracted crises – which are less likely to receive additional timely funding.

The scope for experimenting with different approaches is quite constrained by the rules governing how DG ECHO’s humanitarian response funding is spent by partners (and limiting DG ECHO’s ability to fund governments or businesses directly).

5 Disaster risk financing instruments with potential for DG ECHO

Based on an analysis of DG ECHO's approaches and parameters for operating differently, along with interviews and stakeholder consultations, the research has identified four instruments from those described above that should be further investigated for their relevance to, and initial experiences by, DG ECHO: crisis modifiers, microinsurance, pooled funds and replica mechanisms attached to disaster risk pools. These are summarised in Table 1. Detailed implementation feasibility will need to be explored in more depth by DG ECHO.

While DG ECHO is already investing in some of these instruments, a critical issue (explored further in chapter 6) is the importance of embedding how these instruments are deployed within a clearer operational framework, giving strategic coherence to what is currently a fragmented approach.

5.1 Instrument 1: crisis modifiers and setting better incentives for preparedness and response planning

5.1.1 What advantages do crisis modifiers provide?

Provide flexibility to respond to changing conditions

Crisis modifiers were developed as a buffer for shocks occurring within an ongoing project. By setting aside funding for implementing partners to respond to new crises, they serve as a programmatic tool to build flexibility or adaptive approaches into ongoing projects. Though

the use of crisis modifiers has been largely donor-driven thus far, with donors designing instruments and encouraging partners to use them, partners have expressed appreciation for the flexibility they allow. As early as 2014, NGOs working on DG ECHO projects were positive about the possibility to use and include crisis modifiers inside DG ECHO projects, highlighting the potential flexibility to adapt to new or changing needs as a key draw (The FPA Watch Group, 2018). Their use has since grown, with DG ECHO routinely including them in humanitarian contracts as a separate result from the rest of the project.

For a major shift in context, however, a crisis modifier would not be an appropriate instrument. The budgets of a standard crisis modifier in DG ECHO programmes are about 5–10% of the overall budget of the humanitarian project (often amounting to about €500,000). Because of their relatively small budgets, crisis modifiers are better suited to crises where humanitarian needs might be high, but the number of people affected and the geographic scope are limited. A significant change in context should be addressed through an alert or a HIP top-up.

Encourage faster action and close the response 'gap'

Because they do not require a complicated decision-making process, and funds are already held by partners, crisis modifier funds can be released within a few hours. According to DG ECHO's 2019 reporting, the number of days between the start of the crisis and the beginning of the response using a crisis modifier was two to seven days. DG ECHO's other instruments could

Table 1 Summary of instruments

Crisis modifiers	Pooled funds	Microinsurance	Replica mechanisms
Main characteristics of the instrument			
<ul style="list-style-type: none"> • A small, quickly activated contingency fund built into a project budget (representing about 5–10% of the total project budget) reserved for responding to a crisis within a crisis • Designed to give partners flexibility to reshape activities to respond to new humanitarian needs • Not suited for slow-onset events, but potential anticipatory application for fast-onset events 	<ul style="list-style-type: none"> • Incentivise coordination and joint planning; rapid response that is context-specific and driven at country level • Developing framework for first contribution to CBPFs 	<ul style="list-style-type: none"> • Insurance product targeted at low-income individuals, households and small businesses • Offers protection against specific perils in exchange for a premium payment which is determined by the likelihood and costs related to the respective peril • Parametric products, where payouts are determined in accordance with a pre-agreed index, for instance based on rainfall or yield data, to allow for clear triggers for disbursement have become increasingly common 	<ul style="list-style-type: none"> • An insurance mechanism covering non-governmental or UN organisations to replicate and complement governments participating in sovereign risk pools • Aligned contingency planning is a key component
Main advantages of the instrument			
<ul style="list-style-type: none"> • Can improve risk analysis by ensuring partners consider spikes in need and plan for different scenarios and triggers for response • Improves accountability, as partners are contractually obligated to respond within project area 	<ul style="list-style-type: none"> • Can be rapid and driven by crisis priorities and in-country actors • Coordination can be enhanced • Can include local actors 	<ul style="list-style-type: none"> • Can provide direct payouts to individuals, households or small businesses • Potential for rapid disbursement 	<ul style="list-style-type: none"> • Has the potential to enhance speed and coordination of response between government and humanitarian organisations • Potential to enhance accountability through contingency planning
Main challenges of the instrument			
<ul style="list-style-type: none"> • Often covers only project areas, but not always; for a major shift in context a crisis modifier would not be appropriate instrument • In the past, did not work well for drought response, as insufficient geographic scope and resources 	<ul style="list-style-type: none"> • Can be slow, with bureaucratic processes • Additional transaction costs • Less focused on anticipatory action 	<ul style="list-style-type: none"> • Premium payment can be challenging, particularly for low-income target groups • Limited insurance market development, low levels of financial literacy and limited trust towards insurers in many contexts of humanitarian operation • Basis risk 	<ul style="list-style-type: none"> • Dependent on government taking out insurance, requiring strong commitment and partnership • Premium payment can be challenging for government and replica partners • Replica mechanism on its own may not be sufficient to incentivise governments to take out coverage • Basis risk
Cost considerations			
<ul style="list-style-type: none"> • Does not require convening any approval panel, getting additional sign off, and is already built into a project budget • If funds are not used, then partners have an opportunity to propose ways of reallocating in the final months of programming 	<ul style="list-style-type: none"> • Can add additional cost layers for coordination • Requires different accountability mechanisms due to decentralised and pooled process 	<ul style="list-style-type: none"> • High up-front investments required for insurance product design and market-development • Many schemes have struggled to reach scale and financial viability 	<ul style="list-style-type: none"> • Up-front costs through contingency planning process and customisation of modelling • Opportunity to piggy-back onto existing risk pool mechanisms • Potential for co-benefits from enhanced government and humanitarian planning if data and modelling are integrated into other processes

Crisis modifiers	Pooled funds	Microinsurance	Replica mechanisms
Theoretical/expected impact on end beneficiaries			
<ul style="list-style-type: none"> Reduces gap in response time before larger humanitarian response can be mobilised, providing lifesaving support Channels support to people for smaller crises that might otherwise go undetected by international community <p>NB: No (known/publicly available) empirical evidence comparing humanitarian programmes with crisis modifiers to humanitarian programmes without them; most evidence is focused on cost-savings and operational benefits</p>	<ul style="list-style-type: none"> Reduces gap in response time before larger humanitarian response can be mobilised, providing lifesaving support Channels support to people for smaller crises that might otherwise go undetected by international community More appropriate response through local actors 	<ul style="list-style-type: none"> Enhances recovery after a shock by protecting or compensating for the loss of investments and (productive) assets and smoothing consumption Incentivises productive investments through risk transfer <p>NB: In recent years, empirical evidence on the impacts of disaster risk microinsurance has been growing, with some indication that insurance results in greater benefits for the moderate rather than the extreme pool (even when subsidies increase affordability)</p> <p>Independent cost–benefit analyses and comparison with alternative interventions targeting low-income populations (e.g. cash transfer programmes) are still largely absent</p> <p>Evidence on the applicability and impact of index-based microinsurance in more complex humanitarian contexts is limited to date and questions of how and when to transition between lifesaving aid and financial inclusion interventions remain</p>	<ul style="list-style-type: none"> Reduces gap in response time before larger humanitarian response can be mobilised, providing lifesaving support <p>NB: Learning ongoing from first experiences in setting up and implementing replica mechanisms, especially related to ARC Replica payout in Senegal in 2019</p>
Potential partnerships			
<ul style="list-style-type: none"> To improve anticipatory element, partner with Red Cross Climate Centre or IFRC in countries where they have completed impact-based forecasting; partners could use these data for developing triggers for fast-onset hazards To institutionalise learning, work within DG ECHO or with outside evaluators/researchers dedicated to learning about crisis modifier application in protracted crises; this can improve the use of crisis modifiers within DG ECHO but also contribute to the knowledge base for other humanitarian partners 	<ul style="list-style-type: none"> Partner with OCHA to develop funding of pooled funds, and policy engagement via Pooled Fund Working Group 	<ul style="list-style-type: none"> Establish connections with boundary networks and partnerships such as the IGP and the IDF to learn from existing experience with microinsurance instruments and further explore potential added value of DG ECHO in this space, e.g. in contexts of protracted crisis 	<ul style="list-style-type: none"> In partnership with early implementers (Start Network and WFP), learn from the ARC Replica experience to date and explore DG ECHO's potential role in relation to replica mechanisms

take about a month before funds are disbursed to partners. Even then, there could be an additional lag, as partners then need to start procuring goods, transporting supplies and recruiting staff. Crisis modifiers reduce these gaps, especially when one can be triggered based on a forecast of a cyclone or major flood event. According to DG ECHO staff, crisis modifiers could support a partner's capacity to pre-position supplies and prepare surge staff. Though some donors use crisis modifiers to encourage early, preventative actions to reduce the impact of crises, DG ECHO crisis modifiers are designed to be agile but still reactive to crises.

Improve risk planning

As a precondition for accessing crisis modifier funding, DG ECHO's implementing partners should provide contingency planning and various response scenarios for any potential 'crisis within the crisis'. In this sense, crisis modifiers offer potential to improve implementing partners' risk assessment and preparedness for a spike in humanitarian needs. In practice, evidence of how and when this has been done is anecdotal. New efforts to promote risk-informed programming using crisis modifiers should be matched with research and monitoring efforts to track whether partners' behaviour changes and the quality of the response for those affected. Though the use of crisis modifiers is limited to areas where implementing partners are already intervening, the incentives for improved risk planning is a key benefit that could result in better quality humanitarian response.

5.1.2 Should crisis modifiers be anticipatory?

As DG ECHO currently structures them, crisis modifiers are not an anticipatory instrument. During project proposal stages, implementing partners undertake risk assessments and describe scenarios for the activation of a crisis modifier. However, actions under the crisis modifier are not intended to replace DRR efforts. According to DG ECHO staff, a crisis modifier would not be used to build protective infrastructure; a resilience programme with greater resources and expertise would be better placed to do this. There is concern that if crisis modifiers were always used for preventative

purposes to cover gaps in DRR or resilience efforts, they would quickly be depleted. Crisis modifiers can be triggered based on a forecast, but the funds should be used to mobilise a rapid response. The one exception in which preventative action could be considered acceptable, according to DG ECHO staff, would be the evacuation of vulnerable people in a cyclone track. To date, crisis modifiers have not been used for this purpose.

Slow-onset crises have larger windows of time for 'early action', but DG ECHO guidance discourages the use of crisis modifiers for these hazards. Early iterations of crisis modifiers were used by partners to respond to drought, but DG ECHO staff concluded that this was not the most effective way of deploying the funds. Drought has more extensive impacts, covering wide geographic areas and requiring more rigorous needs assessments to understand who is most vulnerable and requires humanitarian assistance. Because crisis modifiers have small budgets, they are not well suited to the task. For slow-onset events, the window of opportunity to forecast or detect a problem occurs months in advance, and DG ECHO can release funds using 'normal' HIP top ups, which should enable partners to deliver a well-planned intervention before peak needs.

Yet there remains potential for DG ECHO's crisis modifiers to be used in a more anticipatory manner. As DG ECHO's implementing partners are required to include contingency plans in contracts with crisis modifiers, there is an opportunity to encourage these partners to use climate and forecast information to ensure these contingency plans are designed to anticipate crises in the project areas (or a crisis within a crisis). Given DG ECHO's experience with drought in which crisis modifiers were not suitable for early action, anticipatory uses should focus on fast-onset events where forecasting capability exists, such as floods or cyclones. DG ECHO would do well to link implementing partners to efforts by IFRC to improve impact-based forecasting, to examine whether forecasting data and thresholds may be appropriate for DG ECHO's own programmes. Keeping with a mandate to focus on saving lives, DG ECHO's

partners could use crisis modifiers for a narrow set of clearly defined ‘anticipatory’ actions: for instance, to help evacuate people and livestock, to pre-position supplies and to prepare human resources for an imminent response.

5.1.3 How do DG ECHO’s crisis modifiers compare with other donors’?

Table 2 summarises the key ways in which crisis modifiers vary among key donors.

Accountability

Though the intent of crisis modifiers is fairly similar across programme documents, the institutional arrangements and procedures for accessing them differ from donor to donor. DG ECHO pioneered a form of accountability for responding to new crises by including crisis modifiers as a separate ‘result’ in a contract. By doing so, implementing partners have an obligation to respond to new crises using the crisis modifier and report back on their use, or reallocate the funding towards the end of the project.

Contingency planning

As with USAID’s more recent use of crisis modifiers, DG ECHO’s approval of a crisis modifier budget is conditional on verifying a partner’s contingency plan and risk-informed analysis of the situation. This is explicitly intended to build trust, so that DG ECHO no longer needs to verify additional data proving new humanitarian needs for the deployment of a crisis modifier. Implementing partners can activate a crisis modifier without approval, as long as an email informing DG ECHO is sent. This is more flexible than even USAID’s approach; in USAID’s RISE II programme the use of crisis modifiers must be covered in contingency plans. If a crisis occurs that was not included in the pre-approved contingency plan, partners have two days to prepare a supplemental work plan with a proposed intervention and budget (Mershon, 2019).

The decision-making process lies within the realm of those implementing the project, rather than with the donor. DG ECHO would only intervene if the use of the crisis modifier were

Table 2 Crisis modifiers in comparison

Donor	Contingency plan requirement	Decision-making process and timeframe	Finance structure	Timeframe for action	Type of crisis	Acceptable action
DFID	No, although evidence for crisis must be provided	Application to DFID donor panel with experts	Funding that sits across at programme level	Set timeframe of 15 days to make decision	Open criteria	Open criteria
USAID	In some programmes	Decisions internal to implementing agency	10% variance of budget within programme	No set timeframe	Open criteria; for some programmes, must be a crisis covered in a contingency plan	Open criteria but relevant to project activities
OFDA (USAID)	No	Application process to OFDA	Pre-assigned but not guaranteed OFDA funding	No set timeframe	No criteria available to review	No criteria available to review
DG ECHO	Yes, pre-approved by DG ECHO, with scenarios and triggers for action	Approval for use of crisis modifier already implicit in the contract. Partners must notify DG ECHO but do not apply for funding	Budget lines within projects	‘A few days’; usually between two to seven days	Fast-onset events	Lifesaving humanitarian support

deemed inappropriate, such as if it were used for preventative risk reduction actions rather than as a response to a crisis.

USAID and DFID's crisis modifiers have been primarily deployed in development or resilience programmes. Though the funding comes from humanitarian budgets, those implementing crisis modifier activities were primarily development practitioners. DG ECHO has distinguished their approach from these 'resilience' approaches by clearly defining humanitarian crisis modifiers as a tool to 'provide essential lifesaving assistance to persons affected by a crisis within a crisis' (DG ECHO, internal unpublished draft 'Flexible financing note', 2019). In this context, crisis modifiers are tools for addressing a spike in needs, not to shift from a development to humanitarian context.

Structure of crisis modifier

At present, the state of evidence does not clearly point to whether a better quality response is facilitated when funds are held by the donor at a programme level and must be applied for, or held within the budget of a project and pre-approved. A crisis modifier can be faster when funds are held at the project level; DG ECHO's approach of project-level finance has delivered aid within a 2–7 day window after the detection of the crisis (ibid.). This is significantly faster when compared with DFID's efforts to implement crisis modifiers in the BRACED programme. There, the decision-making process was often delayed, resulting in support arriving weeks after the flooding and displacement initially occurred (Peters and Pichon, 2017).

5.2 Instrument 2: microinsurance

5.2.1 What does microinsurance offer?

Unlike crisis modifiers, which support anticipation and response at the programme or project level, microinsurance directly targets low-income individuals, households and small businesses. It offers protection against specific perils in exchange for a premium payment which is determined by the likelihood and costs related to the respective peril (IFC, 2019).

So far, DG ECHO's engagement with microinsurance has been largely limited to

the Move Up project implemented by Plan International, Action Against Hunger, CARE and ACCORD in the Philippines. The project aims to contribute towards urban resilience and disaster preparedness in urban poor communities frequently affected by disasters – both related to natural and human-induced hazards such as armed conflict. Risk transfer has been a key component of the project, where microinsurance, along with other financial services, is regarded as a social protection measure and a key contributor to resilient livelihoods for the urban poor.

Microinsurance-related activities under the project revolve around:

1. the study and design of adequate products;
2. policy advocacy at the national and subnational level to integrate risk transfer as a social protection measure into local plans and budgets (SDRI, n.d.).

As part of the Move Up project, a study on the potential for microinsurance was conducted in metropolitan Manila in 2017. About 25% of more than 1,000 respondents that took part in the survey had some kind of insurance (health, personal accident or life insurance). When asked about insurance needs, demand among respondents was greatest for accident insurance (46.2% of respondents), followed by typhoon (22.1%), fire (18.86%) and flood (12.76%) coverage (Cruz, 2019). However, a more in-depth study on the willingness to pay for these products was not conducted, so whether and how much people would be inclined to spend on such policies is unclear. In the project, risk transfer is provided by a private insurer through community savings groups.

5.2.2 What do we know about outcomes, impacts and cost-effectiveness of these tools?

Experiences from the Move Up project highlight some of the major practical challenges, as well as opportunities, related to microinsurance as a DRF instrument. In this case, the Government of the Philippines provides a strong mandate for risk financing in general, and insurance in particular. Private insurance companies are increasingly recognising the potential of previously uninsured parts of the population. At the same time, insights from the project show that the low-income target

population has shown willingness to contribute regularly towards insurance coverage. Partnerships with local government units (LGUs) seem promising to advance policy around risk transfer mechanisms, but the regulatory environment remains restrictive. LGUs also largely disagree to subsidise microinsurance because there are no clear provisions or ordinances for their allocation. Limited market development means that mechanisms to deliver microinsurance to urban poor communities had been largely absent prior to the project. This highlights the need to balance community awareness raising with the creation of localised mechanisms, access points and long-term partnerships. Finally, microinsurance providers showed resistance to insuring people living in high-risk areas (Cruz, 2019).

In recent years, evidence around the impacts of microinsurance against natural hazard-related events has been growing. More specifically, a large share of studies in this field have focused on index-based crop and livestock insurance¹⁵ or property insurance, mainly related to flooding. Overall, microinsurance has shown potential in different contexts to help individuals and households cope with shocks, for instance by smoothing consumption; contributing to the protection of livestock and helping avoid the sale of productive assets (e.g. Bertram-Huemmer and Kraehnert, 2017; Jensen et al., 2017); and advancing welfare gains (e.g. De Janvry et al., 2016), though in some instances the positive impacts reduced over time (Bertram-Huemmer and Kraehnert, 2017). There is also some evidence from field experiments and evaluations that microinsurance products targeting low-income farmers incentivise investment in farming and contribute to a shift towards riskier but higher-return activities (e.g. Mobarak and Rosenzweig

2012; Karlan et al., 2014; Cai et al. 2015; Cole et al., 2017).¹⁶

Yet, important knowledge gaps remain. For instance, less evidence is available on:

- the effectiveness of microinsurance in conflict-prone settings common to many humanitarian interventions;
- whether and how initial positive impacts are sustained over time;
- how the impacts and cost-effectiveness of microinsurance compare to alternative activities, such as investments into other financial services or social protection measures;¹⁷
- how to better use microinsurance to incentivise risk reduction in practice (Moore et al., 2019; Weingärtner et al., 2017).

Inconclusive results from studies on the social and ecological consequences of microinsurance in agriculture have also raised questions about potential maladaptive outcomes, where short-term benefits from insurance may undermine necessary longer-term changes such as livelihood risk diversification or economic transformation (Müller et al., 2017). There may also be a danger that an over-reliance on insurance distorts incentives for risk reduction because it leads to a ‘false’ sense of security or reduces the perceived urgency with which DRR investments are required (Cutter et al., 2012; Surminski, 2014). Research and news reporting have documented this effect in relation to flood insurance schemes, for instance in the US, where the US NFIP has been claimed to reinforce vulnerability and exposure to flooding by enabling the (re)construction of houses in highly flood-prone areas (Williams Walsh, 2017; Sisson, 2019). Furthermore, in the UK, flood insurance has in some cases been found to inhibit adaptive behaviour and favour return to a status

15 ‘Index insurance is a relatively new but innovative approach to insurance provision that pays out benefits on the basis of a predetermined index (e.g. rainfall level) for loss of assets and investments, primarily working capital, resulting from weather and catastrophic events. Because index insurance does not necessarily require the traditional services of insurance claims assessors, it allows for the claims settlement processes to be quicker and more objective’ (IFC, 2019).

16 These studies are summarised in Moore et al. (2019). For further overviews of relevant evidence see Weingärtner et al. (2017) and Cole et al. (2012).

17 An exception here is Jensen et al. (2017), who compare index insurance to cash transfers in northern Kenya.

quo by incentivising rebuilding to the pre-flood state instead of in improved, risk-informed ways that would incorporate flood protection measures (O'Hare et al., 2015). Evidence on the applicability and impact of index-based microinsurance in more complex humanitarian contexts is limited to date and questions of how and when to transition between life-saving aid and financial inclusion interventions remain (Moore et al., 2019).

Practical experience shows that many schemes have struggled to reach scale and financial viability. Common barriers to insurance take-up and renewal include low levels of financial literacy, a lack of trust, transaction costs, behavioural biases and basis risk (Moore et al., 2019, citing: Brown et al., 2013; Carter et al., 2014; Cole, 2015; J-PAL et al., 2016). Critical levers for stimulating take-up may be to change how users perceive insurance, to bundle insurance with loans or agricultural inputs, and to design products that are well-tailored to needs and preferences (Moore et al., 2019; Cole et al., 2012).

5.3 Instrument 3: pooled funds – response and anticipation

Pooled funds including the IFRC DREF, Start Fund, OCHA-managed CERF and CBPFs are a small but important part of the humanitarian financing landscape. By pooling donor funds, these instruments can in theory respond more rapidly and be better driven by context, incentivise coordination and provide flexibility. Currently, DG ECHO supports both the Start Fund and the DREF.

5.3.1 Do pooled funds facilitate anticipatory action?

The CBPFs are focused on rapid response and have engaged less with preparedness, recovery and development activities, although there are examples of this – such as supporting early action in response to droughts in Somalia and Afghanistan, and preparedness in conflict settings in Yemen and Iraq. The Start Fund crisis anticipation window and the DREF

forecast-based action fund are both emerging examples of ways in which response funds can also build in an element of anticipation (see chapter 2). The CERF anticipatory action pilot in Somalia is interesting to watch in terms of becoming less reactive, although this is still untested and at a small scale. Funding would be released when a pre-agreed threshold based on forecasting information and early warning data is reached and would be tied to a pre-agreed early action plan.

5.3.2 What do we know about outcomes, impacts and cost-effectiveness of pooled funds?

While the evidence is still patchy on the effectiveness of such funds, the forthcoming independent evaluation of UN-managed CBPFs (to be published in early 2020) finds that their effectiveness is improving and some of the longstanding challenges around slow disbursement have begun to be solved. Therefore they are more widely supported, programming \$950 million in 2018 with contributions from 34 donors. Being pre-positioned, they can be faster than many bilateral donors in responding.

CBPFs remain dependent on the humanitarian coordination structures present in-country, which if strong can be further reinforced by the CBPFs; by contrast weak humanitarian coordination and cluster structures struggle to harness the potential of CBPFs. There is also a consensus that to have an impact beyond just funding projects, CBPFs need to represent at least 10–15% of the total humanitarian funding in-country for them to play a role as an influential donor that can shift behaviour in the response system (Stoddard, 2017).

At global level, START Fund and DREF are supported by DG ECHO and are generally well regarded, although there were no recent published external evaluations available to provide more detailed and independent analysis of their effectiveness at the time of writing in late 2019. CERF is seen as relatively rapid within the constraints of UN bureaucracy, but can only directly fund towards UN agencies.

5.4 Instrument 4: risk pooling for humanitarian organisations through replica mechanisms of sovereign risk pooling or transfer

5.4.1 What do replica mechanisms offer?

Recognising the potential of sovereign disaster risk insurance mechanisms for avoiding delays and inefficiencies often related to ex post assistance, humanitarian actors have started to explore options for replicating and complementing governments' insurance coverage through regional risk pools such as ARC or SEADRIF. While many of these conversations are still in their early stages, the Start Network and WFP – in collaboration with ARC – have already developed ARC Replica and started to roll out the product in 2019. A pre-condition for the ARC Replica mechanism is that the government of the country in which Replica is implemented is also taking out an ARC insurance policy (i.e. there needs to be something to replicate). In addition to the drought insurance policy, a contingency fund was set up to allow for a response to events that have severe negative consequences but are still below the attachment point where an insurance payout would be triggered.

A major rationale for humanitarian actors to engage with ARC through the ARC Replica mechanism has been the enhanced predictability in funding that the product offers. Relatedly, ARC processes provide a platform for working with the government as a lead in support of more comprehensive disaster risk management. This is because both the government and the partner require a contingency plan as a prerequisite to accessing the insurance policy. A further incentive for humanitarian actors to engage with governments through ARC Replica has been that it provides a new entry point to ARC and the African Union as partners. Uniting humanitarian actors and government on the technical aspects of the ARC insurance products – such as the customisation process undertaken to tailor the ARC model to different country contexts – may give a country additional leverage in lobbying

ARC to customise and improve the product for the respective country.

5.4.2 What do we know about outcomes, impacts and cost-effectiveness of these tools?

Due to the novelty of sovereign disaster risk insurance replica instruments, no empirical evidence on their impact or cost-effectiveness was available at the time of writing.¹⁸ However, initial lessons are beginning to emerge from ARC Replica implementation through the Start Network and WFP. In Senegal, a payout was triggered for the Senegalese Government (\$12 million) and Start Network (\$10.6 million) in December 2019. The payout had already been announced in August due to observed shortages in rainfall during the planting season and was officially approved by ARC in mid-December after the final implementation plans were submitted by the government and Start Network. Given that a payout was announced well in advance of the official end of the agricultural season (which for the ARC product is 21 November), and based on pre-signed good faith agreements, Start Network NGO members were ready to start implementing quickly once a payout had been confirmed in December, in some cases even before the transfer had been received. Existing coordination across NGOs and a good relationship with government helped align activities in advance and contributed to a promising coordination, though practical implementation was still in preparation at the time of writing. It will be interesting to assess how the government and NGO final implementation plans work together in practice. Having a dedicated focal point in country was regarded as key to establishing the mechanism and coordinating different partners.

Experience from Senegal and from efforts to establish the replica mechanism in other countries has highlighted the importance of strong relationships with the government. Three elements are particularly important:

- 'An MoU which indicates the intent for government to have a Replica programme in

18 An independent evaluation of ARC more broadly is ongoing. For more information see www.opml.co.uk/projects/independent-evaluation-african-risk-capacity.

their country and outlines the ensuing ways of working together;

- A Replica Operational Plan that is annexed to the government's, indicating intended coordination and synergy in interventions.
- Joint customisation of ARV: this enables the Replica partner to have an understanding of the insurance product, and how it is customised at national level, before purchase' (Start Network, personal correspondence).

Building trust and coordinating with government takes time. Terms of collaboration that clearly

state the expectation of involved parties from the outset can help support this process. This involves consideration of a humanitarian–development nexus approach to identify programme priorities and relevant stakeholders. Understanding power dynamics, as well as barriers and opportunities for effective coordination early on is also critical. Finally, from experience to date it appears that the existence of a replica mechanism in itself is not sufficient to incentivise governments to take out coverage. Instead, a pre-existing commitment from government to engage in sovereign disaster risk insurance is required.

6 Discussion and recommendations

Parts of the humanitarian system are increasingly thinking about DRF, but DG ECHO and humanitarian funding as a whole remain mostly reactive and not timely enough. This chapter discusses the implications of the study's analysis for DG ECHO's approach to risk financing, its policies and operations.

The overarching recommendation is that DG ECHO better integrate risk financing and risk-informed approaches into its programming and funding, to facilitate a timelier and more effective response to humanitarian crises. As illustrated in Figure 6, this recommendation is structured around the interdependency between expanding and learning from new and existing financing instruments, and the development of an operational framework that sets the strategic approach for DG ECHO, based on engagement with current instruments. This also relies on building new partnerships and networks, the third pillar of these recommendations.

6.1 Operational framework

DG ECHO has a policy commitment to disaster preparedness and a small dedicated budget (€50 million). However, the overriding finding from this preliminary survey is that DG ECHO is not integrating or implementing this commitment across the entirety of its considerable, response-focused humanitarian programming. Risk-based approaches are fragmented across the organisation. Thinking about DRF is also somewhat ad hoc rather than based on a common understanding or clear rationale for or against a suite of instruments. It is currently not being done strategically at organisational level.

This is partly about DG ECHO deciding how to position itself as a humanitarian donor. Of the

different roles donors are playing in DRF, DG ECHO has focused on direct implementation and funding to partners. The response focus of DG ECHO funding limits its ability to invest in developing innovative pilots or fund design, start-up and maintenance costs for new instruments.

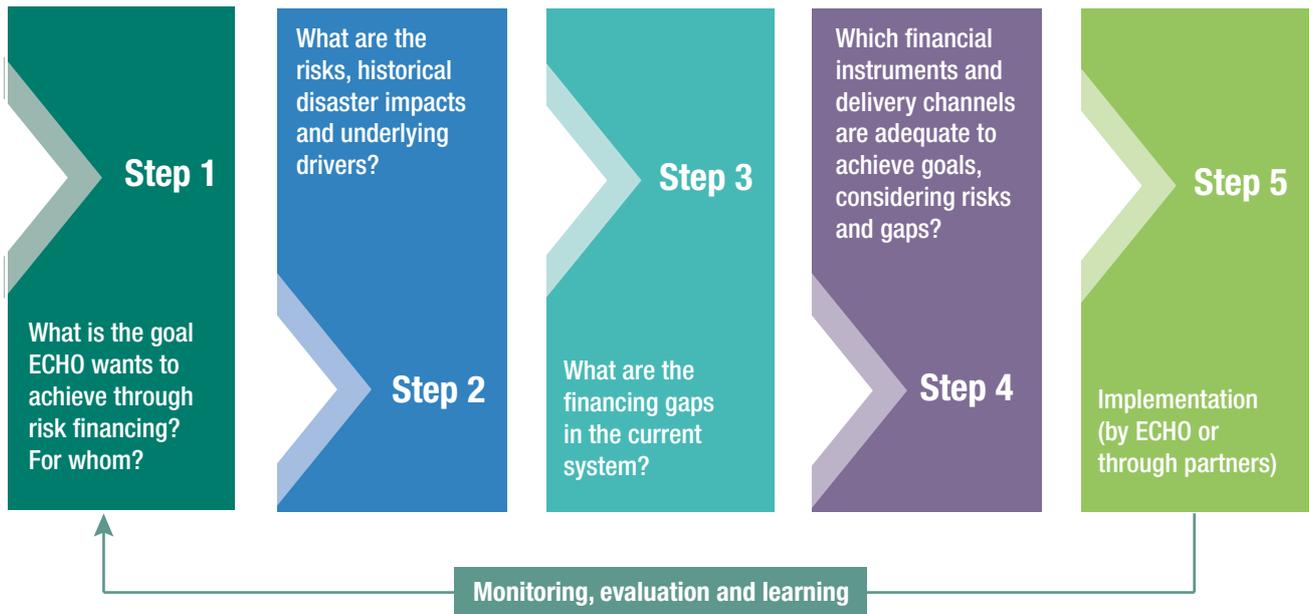
Annex 1 goes into greater detail on the ways DG ECHO could build an operational framework, setting out how DG ECHO needs to convene a wider range of stakeholders with different types of expertise to inform a strategic approach and the choice of specific instruments, possibly around recent or future scenario events.

Figure 6 Instruments and operational framework

**Instruments,
accompanied by learning**



Figure 7 Risk financing strategy and operationalisation



Source: Adapted from World Bank (2018b).

The process of deciding which (suite of) instruments to use is as important as their design and should be driven by clear objectives. It should also be informed by the concept of risk layering and consider the respective advantages of different instruments for addressing hazards of different intensity and frequency, as well as their ability to disburse funds in different windows of opportunity for action along a disaster risk management cycle. Figure 7 highlights the steps required in this process.

Without a more detailed analysis using the tools in Figure 5, Figure 7 and Annex 1, it is not possible to map instruments to crises and make detailed recommendations on which instruments DG ECHO should invest in further. DRF is potentially applicable to a number of crises in which DG ECHO is engaged. The range of DRF instruments can be designed to support rapid-onset events resulting from natural hazards as well as protracted crises relating to conflict and slow-onset events such as drought.

Recommendation 1: Develop a DRF approach for DG ECHO within the disaster preparedness strategy, complemented by more specific DRF operational frameworks at country level

This should be based on an ‘impacts before instruments’ approach, which is driven by objectives rather than a focus on individual instruments. As part of DG ECHO’s disaster preparedness strategy, specific guidance on financing approaches and instruments should be included to inform greater consideration of such options in the development of future HIPs and organisational frameworks. Annex 1 provides more detail on how to develop this as part of an operational framework. DG ECHO should dedicate time, funding and human resources at regional and national levels to determine which instruments to apply and where.

Recommendation 2: Integrate DRF principles to mainstream a risk-informed approach across the organisation

The approach suggested in the new disaster preparedness strategy can underpin an organisational shift towards a risk-informed approach. This will require buy-in and championing from all levels of the organisation and will take time to mainstream. Structural and organisational changes may also support this

shift. These changes will need to reach beyond individual financial instruments and require greater consideration of how DG ECHO operates and funds its activities. The DRF principles proposed by World Bank and Start Network (timeliness of funding; effective disbursement of funds; risk layering; data and analytics – World Bank, 2018c) and good practice principles that have emerged from risk-informed development approaches (inclusive and transparent; phased and iterative; flexible and adaptable; continuous learning and reflection – summarised in Opitz-Stapleton et al., 2019) can provide a starting point for this process.

6.2 Instruments

Each of the four instruments discussed in more detail in this paper offers different potential benefits and DG ECHO has varying levels of expertise to support their implementation. Part of DG ECHO's more strategic approach will be to critically evaluate where and how these instruments have added value and to create a learning feedback loop for future investments in these or other instruments. We recommend crisis modifiers and pooled funds as potential instruments for DG ECHO to pilot, if either or both instruments are deemed relevant and a priority emerging from the new disaster preparedness strategy and DRF operational framework (using the process set out in Annex 1). We also suggest that DG ECHO closely observes and learns from ongoing ARC Replica pilots and explores with implementing organisations – Start Network and WFP – what role DG ECHO could most usefully play in supporting such mechanisms so that they contribute to enhanced coordination and timelier response.

In parallel, DG ECHO should further explore options to enhance the timeliness of its assistance through the existing funding mechanisms, including the emergency toolbox, and the ways in which partners deliver DG ECHO HIPs within the FPA and FAFA arrangements to find ways to be more anticipatory. Technical expertise in-house or externally should be deployed to develop specific business cases for each instrument.

Recommendation 3: Pilot instruments that are deemed relevant based on further DG ECHO reflection and prioritisation to use the HIPs and emergency toolbox in a more risk-informed and anticipatory way

The following summarises more concrete recommendations on each of the four instruments assessed in more detail in this paper: crisis modifiers, microinsurance, pooled funds and risk pooling with replica mechanisms.

Instrument 1: crisis modifiers

As a well-used tool in the Africa region, crisis modifiers are familiar to many DG ECHO staff and partners. In terms of supporting a crisis within a crisis, their use could be more consistently applied or adapted across other regions as part of a 'flexibility' approach, tied to early warning systems where appropriate. There is potential for this to provide a more risk-informed approach, but the scope is limited to project intervention areas and small-scale events. To increase the potential impact of such an approach, DG ECHO should co-develop with DG DEVCO ways in which development funding in crisis situations could follow the crisis modifiers approach of other donors, where development funding is shifted to humanitarian needs (especially in contexts where both DG DEVCO and DG ECHO operate).

As mentioned above, DG ECHO's crisis modifiers are not currently used in an anticipatory manner. There is potential, however, to expand their use to a narrow set of anticipatory actions for fast-onset crises. These could be modelled on the possible 'humanitarian' early actions Pichon (2019) proposes for the CERF, which differed from the kinds of activities the CERF currently funds in timing more than in content. Because DG ECHO requires implementing partners to have contingency plans for a crisis within a crisis, this plan is an opportunity to encourage them to integrate forecast data into their identification of triggers for action. Implementing partners need not develop their own forecasts, but should consult and work collaboratively with national meteorological services and RCRC National Societies in countries where IFRC have developed early action protocols.

DG ECHO's use of crisis modifiers should be accompanied by focused monitoring, evaluation and learning that documents evidence on what conditions crisis modifiers work well in and what kind of support implementing partners may need to apply them in ongoing humanitarian emergencies.

Instrument 2: microinsurance

DG ECHO's role in microinsurance to date has been limited. There are diverse opinions – including deep scepticism – among interview respondents and workshop participants from within the institution as to what role DG ECHO should play in this space. Part of this scepticism is related to the involvement of the private sector in the design and delivery of microinsurance, and the perceived incompatibility between profit-seeking and humanitarian principles.

Based on existing policy and guidance within DG ECHO, it would not be possible at this stage for DG ECHO to support premium subsidies or direct funding to private insurance companies to design and offer products. Yet, as the Move Up example demonstrates, it is possible for DG ECHO to engage in other parts of the insurance value chain, for instance by supporting partners in their implementation of studies, community awareness raising and training, or policy advocacy.

During consultations, questions were raised around why DG ECHO should get involved in microinsurance and what its comparative advantage would be. One reason for engagement may be that microinsurance can function as a social protection or livelihood resilience mechanism in hazard-prone areas where local insurance markets are relatively advanced, thus providing a pathway out of continuous ad hoc, ex post humanitarian assistance. Therefore, DG ECHO's local knowledge and experience of working in protracted crises to support resilience initiatives provides a comparative advantage and is something they can bring to a partnership with development-oriented public and private sector partners. This could help bridge the humanitarian-development divide in such contexts.

At the same time, involvement with insurance initiatives requires engaging in less conventional partnerships, as well as applying humanitarian thinking to DRF, including insurance (see Harris and Jaime, 2019 for a discussion and suggestions

on incorporating humanitarian principles and experience into DRF, for instance with regards to people-centred risk analytics, accountability, transparency and participation, and planning).

It should be recognised that building insurance markets requires a lot of time, along with large up-front investment and strategies for the financial viability of products beyond donor funding – a lot of which is incompatible with DG ECHO's funding requirements and technical capacity. While DG ECHO has potential to be a relevant partner to insurance initiatives with valuable expertise in its areas of operation, the institution does not appear well-placed, willing or likely to play a lead role in microinsurance at present. It should consider where it can add value, either in looking at situations of conflict or displacement, or where there are particular relationships that it can leverage, rather than provide isolated, ad hoc funding.

Instrument 3: pooled funds

The rationale for further investment in pooled funds is to enable DG ECHO to respond more rapidly to on-the-ground changes in context, including through early action and preparedness, although they are primarily response funds. The CBPF and Start Fund have the additional benefit of supporting local organisations that can apply for funds from the CBPF as part of the Grand Bargain 'localisation' commitment, therefore incentivising coordination among humanitarian responders.

As discussed above, DG ECHO is currently developing the administrative arrangements to contribute to UN-coordinated CBPFs for the first time in two crisis-affected countries (Ukraine and South Sudan). This is a complex negotiation to ensure the contribution can be made in line with DG ECHO's Financial and Administrative Framework Agreement with the UN (FAFA) and meet OCHA's requirements. Once this arrangement is in place, DG ECHO should closely monitor performance as this is potentially an area to scale up in future.

Investing in the CBPFs would also create an opportunity for DG ECHO to inform the direction in which the (currently) 18 CBPFs evolve, for example through the Pooled Funds Working Group. This could include exploring

ways in which they can take more anticipatory and timely responses. Further engagement with the START financing facility and DREF in relation to anticipation would be a natural fit given existing partnerships.

While CERF is piloting its anticipatory action window, which could also support some of DG ECHO's goals in relation to strengthening risk-based approaches, current interpretation of the humanitarian aid regulation and longstanding practice is that CERF is not an instrument that DG ECHO can fund. Given the more immediate prospects under CBPFs, this is not recommended as a priority to explore, in part because of the unclear added value set against what would be required to make funding CERF possible, such as amending the DG ECHO regulation.

Instrument 4: risk pooling through replica mechanisms

Though DG ECHO cannot directly fund governments, the importance of effective coordination with government to support disaster response is widely recognised. Replica mechanisms, such as that currently implemented in partnership between ARC, the Start Network and WFP, provide various entry points for DG ECHO to support such collaboration through the partners it already works with in other areas. To date, the German Federal Ministry for Economic Cooperation and Development (BMZ), through the German Development Bank (KfW), has been the main donor for Start Network's engagement with ARC Replica.

KfW support will continue until the end of 2020, but whether and how they will engage beyond that date was unclear at the time of writing. An important area of KfW involvement has been technical assistance to the design and implementation of ARC Replica, which is largely unique to the skillset of bilateral and multilateral development banks as donors.

In addition to this technical assistance, other key funding needs for replica mechanisms include

set-up and operational costs. For instance, these could be to develop contingency plans (a prerequisite for accessing ARC insurance policies); premium payments; and replenishment of possible contingency funds to complement the insurance instrument (e.g. to address more frequent but less severe events that fall below the insurance attachment point, while the insurance product triggers for more severe events).¹⁹ Funding technical assistance set-up costs (e.g. support to contingency planning, customisation of modelling to country context, etc.) through the Start Network or other partners who may show interest to take out replica policies to sovereign risk pools in the future would be the most straightforward fit for DG ECHO.

DG ECHO should closely monitor the current developments with ARC Replica, particularly given the ongoing experience with a first payout in Senegal, to assess its potential added value for engaging in Replica mechanisms in the future.

Recommendation 4: Fund institutional learning and robust, independent research for new and existing pilots to inform scaling and further investment

The empirical evidence for the effectiveness of current DRF instruments is generally low. While the logical case, and in some instances the proof of concept, has been made for why such instruments can be beneficial for better humanitarian response, the robustness of causal links drawn between existing DRF instruments and their impacts on humanitarian outcomes is still limited. In part this is due to the challenging environments within which humanitarians operate, but it stems more deeply from a lack of priority being placed on developing appropriate practical mechanisms for monitoring, evaluation and learning that are connected to programmatic improvement. This will include investment in DG ECHO's own monitoring, evaluation, and learning capacity, that of partners, and the use of external research expertise.

¹⁹ This follows a risk layering approach and common theory in the field of DRF as discussed in chapter 4. In practice, the ARC Replica standard operating procedure for Senegal specifies three different stages of payout: around \$1 million for a 1-in-5 year event, a payment of around \$7.5 million for a 1-in-7–10-year event and a payout of maximum \$13 million for a 1-in-30-year event. In addition to the payout in 2019, the contingency fund was also triggered, not because the event overall was below the attachment point, but because this was the case for two drought-affected regions in particular.

Recommendation 5: Build incentives for DRR and resilience into DRF instruments

As well as providing timelier assistance before, during and after an event through DRF, aligning short- and long-term objectives in disaster funding to incentivise DRR and resilience is critical. For example, this could include requirements to make available improved risk data and analytics (which may be established for the design and implementation of DRF instruments DG ECHO supports) to strengthen DRR planning and preparedness by national and subnational governments or humanitarian actors. This should build on the existing DG ECHO Resilience Marker, which is already used across projects to ‘assess to what extent humanitarian actions funded by DG ECHO integrate resilience consideration’ (DG ECHO, 2014). However, DG ECHO could develop more concrete criteria and questions that apply to projects with DRF components, and the specific opportunities DRF instruments provide for strengthening DRR and resilience. Lessons about what has worked well and what were the missed opportunities from existing DRF mechanisms such as the sovereign risk pools (ARC, CCRIF, PCRIC) should inform these criteria.

6.3 Partnerships and capacity across the nexus

Beyond DG ECHO investment in specific instruments and an operational framework, the critical third pillar of engagement in expanding a risk-based approach will be to expand DG ECHO’s partnerships within the European Commission and with external partners, underpinned by increased capacity and specialist expertise to deliver an expanded engagement.

The first critical area for renewed partnerships is across the humanitarian–development nexus. There is inconsistent engagement by DG ECHO across the nexus and it is not embedded into how DG ECHO operates. There is a desire to contribute to DRR and resilience building, but patchy in-depth understanding of what that means and how to do it, as well as a lack of capacity to engage in this space at the moment. There is also limited engagement with DG

DEVCO on DRF-related issues at the strategic and operational levels.

DG ECHO’s approach in the Jordan refugee response may be a useful example for future engagement across the nexus. This focuses on responding to longer-term development challenges for refugees by integrating them into the national social protection system in Jordan. DG ECHO’s role was to demonstrate the feasibility of this approach as a transition from its traditional support to UNHCR of cash-based response (which will fall to low levels of funding in 2020 if approved). It also advocated with and supported DG DEVCO’s engagement with the Government of Jordan so that DG DEVCO funding to government could be directed at refugee support through national systems and look at issues of employment. In this context, DRF is seen as a way to attract non-humanitarian funding that takes a longer-term perspective and is more rooted in changing and supporting government systems. DG ECHO’s value added is not in providing financing, but in using its understanding of the refugee situation and protection needs to ensure an appropriate response using government systems.

Similar approaches are taken by donors in Ethiopia and Kenya, where the Productive Safety Nets Programme (PSNP) and Hunger Safety Nets Programme (HSNP) respectively are funded by development donors with technical and/or financial input from humanitarian funders on reaching the most vulnerable and scaling up in response to shocks, in part supported by DRF.

Recommendation 6: Develop an overarching joint approach on DRF and the nexus between DG DEVCO and DG ECHO; this is critical to generate traction and impact in DRR and resilience

A joint approach and operational guidance for DRF should be embedded into any existing policies on DRR and resilience within DG DEVCO or DG ECHO and could be modelled on the Joint Guidance Package on Social Protection across the Humanitarian–Development Nexus. Developing a DRF operational framework (following the process proposed in Annex 1) in close collaboration with DG DEVCO could be a first step towards a joint approach.

Recommendation 7: Participate in key networks with donors, practitioners and scientists; mobilise new and existing networks to co-fund across DRR/resilience, preparedness, anticipatory action and response, for example from development donors and climate funds

As an intrinsically multi-stakeholder approach, being more risk-informed entails greater engagement in policy and operational discussions with different networks of donors, practitioners, and scientists. As a major reference donor, DG ECHO should increase its presence in many key fora.

Existing platforms that already convene stakeholders and facilitate collaboration around DRF are a critical starting point (see Figure 8). Priorities for DG ECHO policy/advocacy should include the Pooled Fund Working Group, the REAP, the Forecast-Based Financing Dialogue Platform and the Early Action Taskforce. These forums have played a strong role in promoting timelier action and are already strongly anchored in the humanitarian sector. Participation in the IDF and the IGP provide opportunities for strategic engagement with parts of the private sector, such as the insurance industry or investors. While DG ECHO cannot fund insurance premiums directly under the current regulation, its engagement with important stakeholders from relevant businesses would potentially allow DG ECHO to build strategic, non-financial partnerships that are beneficial to the sector as a whole, for instance in the area of enhancing high-quality, open-access risk data.

Tapping into technical expertise is critical for DG ECHO in moving forward on DRF.

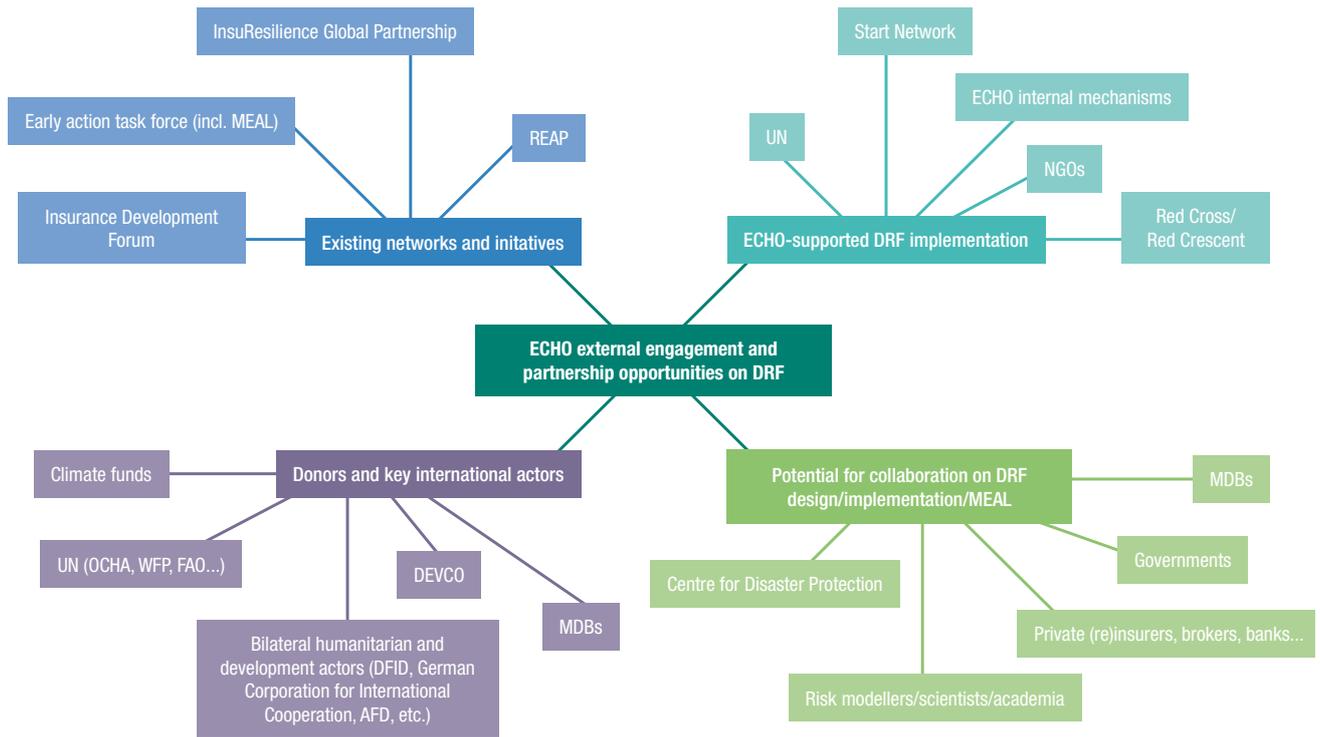
DG DEVCO has a strong existing relationship with the World Bank in this area, which could be leveraged for engagement with DG ECHO. Furthermore, the Centre for Disaster Protection intends to offer advisory and quality assurance services on DRF, which could be useful for DG ECHO to tap into through the process of developing an operational framework, as well as in its role as a direct implementer and funder of DRF instruments.

Recommendation 8: Expand DG ECHO capacity to develop frameworks, support internal mainstreaming, and build partnerships

Critical capacities for successful development and implementation of DRF and anticipatory action include risk assessment and modelling, contingency planning and technical development of financial instruments. Enhanced in-house capacity in these areas – particularly around data and modelling – would not only be beneficial to improving DRF instruments but could also contribute towards a more risk-informed approach to DG ECHO's wider activities and funding – if well integrated into strategy and planning processes.

Given the uneven level of knowledge on risk-based approaches, and their siloing in the disaster preparedness function, enhanced capacity would be recommended in order to support mainstreaming of such approaches across DG ECHO, rooted in the development of an operational framework. This would also be an important capacity to engage with other internal changes, which might be required for example to the FPA to enable partners to engage in a wider range of DRF instruments.

Figure 8 Networks and potential partners for disaster risk financing



7 Conclusions

The humanitarian sector is in a state of flux as it embraces more risk-based approaches to its activities and funding, as a complement to the traditional needs-based approach. DG ECHO is coming into the DRF conversation later than some other donors. This may partly be a consequence of its more constrained response framework, built on the DG ECHO regulation and FPA/FAFA. It is engaging with and funding some DRF activity in certain geographies and specific networks, but without an overarching vision or clarity over its organisational approach. Greater learning across different geographies is essential, and DG ECHO must digest learning from existing uses of DRF instruments to inform a more consistent operational framework.

Shifting the narrative within DG ECHO towards a more risk-informed approach is a

significant cultural change that will need to be embedded in institutional policy and supported by the necessary capacity and consistent senior engagement and championing.

As a reference humanitarian donor, there is an expectation and hope externally that DG ECHO will engage more in shaping the emerging risk-informed approach to humanitarian action. It should first focus on internal processes to maximise learning from existing instruments and increase capacity, using these to develop a reference operational framework, before moving to increase the depth and detail of engagement with external partners in the Commission and beyond. DG ECHO is in a position to fulfil its potential as an influential driver of change in the sector.

References

- African Risk Capacity (2016) 'Press release – Malawi to receive USD 8M insurance payout to support drought-affected families' (www.africanriskcapacity.org/2016/11/14/press-release-malawi-to-receive-usd-8m-insurance-payout-to-support-drought-affected-families/)
- Baca, A. and Jain, A. (2018) *Demystifying catastrophe bonds for debt managers*. Washington DC: World Bank
- Bertram-Huemmer, V. and Kraehnert, K. (2017) 'Does index insurance help households recover from disaster? Evidence from IBLI Mongolia' *American Journal of Agricultural Economics* 100(1): 145–171
- Brown, J.K., Zelenska, T.V. and Mobarak, M.A. (2013) *Barriers to adoption of products and technologies that aid risk management in developing countries*. Washington, DC: World Bank
- Cai, H., Chen, Y., Fang, H. and Zhou, L.A. (2015) 'The effect of microinsurance on economic activities: evidence from a randomized field experiment' *Review of Economics and Statistics* 97(2): 287–300
- Carter, B. (2018) *Country-based Pooled Funds for humanitarian financing*. Brighton: Institute of Development Studies
- Carter, M., De Janvry, A., Sadoulet, E. and Sarris, A. (2014) *Index-based weather insurance for developing countries: a review of evidence and a set of propositions for up-scaling*. Development Policies Working Paper 111
- CERF – Central Emergency Response Fund (2018) *CERF 2018 annual report*. New York: UN OCHA
- Clarke, D. and Mahul, O. (2011) *Disaster risk financing and contingent credit*. Washington DC: World Bank
- Clarke, D.J. and Dercon, S. (2016) *Dull disasters? How planning ahead will make a difference*. Washington, DC: World Bank
- Cole, S. (2015) 'Overcoming barriers to microinsurance adoption: evidence from the field' *The Geneva Papers on Risk and Insurance-Issues and Practice* 40(4): 720–740
- Cole, S., Bastian, G.G., Vyas, S., Wendel, C. and Stein, D. (2012) *The effectiveness of index-based micro-insurance in helping smallholders manage weather-related risks*. London: EPPI Centre, Social Science Research Unit, Institute of Education, University of London
- Cole, S., Giné, X. and Vickery, J. (2017) 'How does risk management influence production decisions? Evidence from a field experiment' *The Review of Financial Studies* 30(6): 1935–1970
- Cruz, C. (2019) 'Move Up: Moving Urban Poor Communities towards Resilience. Experiences on implementing risk-transfer mechanisms in Metro Manila, Philippines'. Presentation at DG ECHO Roundtable on Finance for Disaster Risk Reduction, Brussels, 24 October
- Cutter, S., Osman-Elasha, B., Campbell, J., Cheong, S.-M., McCormick, S., Pulwarty, R., Supratid, S., and Ziervogel, G. (2012) 'Managing the risks from climate extremes at the local level' in C.B. Field, V. Barros, T.F. Stocker, Qin, D., Dokken, D.J., Ebi, K.L., Mastrandrea, M.D., Mach, K.J., Plattner, G.-K., Allen, S.K., Tignor, M. and Midgley, P.M. (eds) *Managing the risks of extreme events and disasters to advance climate change adaptation. A special report of working groups I and II of the Intergovernmental Panel on Climate Change (IPCC)*: 291–338. Cambridge and New York: Cambridge University Press
- De Janvry, A., Ritchie, E.R. and Sadoulet, E. (2016) *Weather index insurance and shock coping: evidence from Mexico's CADENA Program*. Washington DC: World Bank
- Development Initiatives (2019) *Global humanitarian assistance* (<https://devinit.org/publications/global-humanitarian-assistance-report-2019/>)
- DG ECHO – European Civil Protection and Humanitarian Aid Operations (1996) 'Humanitarian aid regulation' (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3Ar10001>)

-
- DG ECHO (2013) *Disaster risk reduction: increasing resilience by reducing disaster risk in humanitarian action*. DG ECHO Thematic Policy Document 5 (https://ec.europa.eu/echo/files/policies/prevention_preparedness/DRR_thematic_policy_doc.pdf)
- DG ECHO (2014) 'Resilience marker. General guidance'. Brussels: European Commission (https://ec.europa.eu/echo/files/policies/resilience/resilience_marker_guidance_en.pdf)
- DG ECHO (2018a) *General guidelines on operational priorities for humanitarian aid in 2019*. Commission Staff Working Document. Brussels: European Commission (<https://ec.europa.eu/echo/sites/echo-site/files/ggophafinal.pdf>)
- DG ECHO (2018b) 'Thematic policies annex to HIP' (https://ec.europa.eu/echo/sites/echo-site/files/hip_thematicpoliciesannex_v2.pdf)
- Els, C. (2019) *Country-based Pooled Funds: the NGO perspective*. Norwegian Refugee Council and UN OCHA (www.nrc.no/globalassets/pdf/reports/country-based-pooled-funds-the-ngo-perspective/country-based-pooled-funds---the-ngo-perspective.pdf)
- Emergency Response Mechanism (2014) 'Third phase of the emergency response mechanism in Afghanistan is completed'. Press release, Kabul (https://missioneast.org/sites/default/files/publications/140519_ERM_3_End.pdf)
- FEG Consulting and Save the Children (2008) *The practitioners' guide to the household economy approach*. Johannesburg: Regional Hunger and Vulnerability Programme
- FPA Watch Group (2018) *Towards a new FPA: state of play and ways forward* (www.urban-response.org/system/files/content/resource/files/main/2018-may-towards-a-new-fpa-framework-paper.pdf)
- GAD – Government Actuary Department (forthcoming) 'Financing crises: considerations in finding the right financing approach'. Centre for Disaster Protection
- GHD – Good Humanitarian Donorship (2018) 'Concept note for the Co-chairmanship of EU–Switzerland of the Good Humanitarian Donorship Initiative'
- Ghesquiere, F. and Mahul, O. (2010) 'Financial protection of the state against natural disasters – a primer'. Policy Research Working Paper 5429. Washington DC: World Bank
- GHO – Global Humanitarian Overview (2019) *Trends in humanitarian needs and assistance 2018*. UN OCHA (www.unocha.org/sites/unocha/files/GHO2019.pdf)
- Global Resilience Partnership (2019) 'UN Climate Action Summit: resilience and adaptation strand. Risk-informed Early Action Partnership (REAP)' (www.globalresiliencepartnership.org/wp-content/uploads/2019/09/REAP-two-pager-230819.pdf)
- Harris, C. and Jaime, C. (2019) *Thinking impact before instruments in disaster risk financing*. London: Start Network
- Harris, C. and Swift, L. (2019) *Disaster risk and forecast-based financing design. a guide to using Household Economy Analysis*. London: Start Network
- Hillier, D. (2018) *Facing risk. Options and challenges in ensuring that climate/disaster risk finance and insurance deliver for poor people*. Oxford: Oxfam International
- IFC – International Finance Corporation (2019) 'Index insurance – frequently asked questions' (www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/priorities/access_essential+financial+services/giif+frequently-asked-questions)
- IFRC – International Federation of the Red Cross and Red Crescent Societies (2019a) *Red Cross making volcano cat bond progress* (<http://media.ifrc.org/innovation/2019/04/23/4113/>)
- IFRC (2019b) 'Mongolia: Dzud. Early action protocol' (https://reliefweb.int/sites/reliefweb.int/files/resources/DZUD%20EAP_Mongolia.pdf)
- IGP – InsuResilience Global Partnership (2019) 'ProPoor principles for insurance' (www.insuresilience.org/wp-content/uploads/2019/06/insuresilience_propoor_190529-2.pdf)
- Jensen, N.D., Barrett, C.B. and Mude, A.G. (2017) 'Cash transfers and index insurance: a comparative impact analysis from northern Kenya' *Journal of Development Economics* 129: 14–28

- J-PAL, CEGA and ATAI – Abdul Latif Jameel Poverty Action Lab, Center for Effective Global Action and Agricultural Technology Adoption Initiative (2016) ‘Make it rain’. Policy Bulletin. Cambridge MA: Poverty Action Lab (www.povertyactionlab.org/sites/default/files/publications/make-it-rain.pdf)
- Karlan, D., Osei, R., Osei-Akoto, I. and Udry, C. (2014) ‘Agricultural decisions after relaxing credit and risk constraints’ *The Quarterly Journal of Economics* 129(2): 597–652
- Kibet, R. (2017) “‘Recovery lending” helps disaster-stricken African farmers get back on track’ *The New Humanitarian*, 14 August (www.thenewhumanitarian.org/feature/2017/08/14/recovery-lending-helps-disaster-stricken-african-farmers-get-back-track)
- Kucharski, A.J., Camacho, A., Flasche, S., et al. (2015) ‘Measuring the impact of Ebola control measures in Sierra Leone’ *Proceedings of the National Academy of Sciences of the United States* 112: 14366
- Lattimer, C. and Swithern, S. (2017) *Global humanitarian assistance report 2017*. Bristol: Development Initiatives
- Lowcock, M. (2018) ‘A casement lecture: towards a better system for humanitarian financing’. Iveagh House, Dublin, Ireland, 23 March
- Martinez-Diaz, L., Sidner, L. and McClamrock, J. (2019) *The future of disaster risk pooling for developing countries: where do we go from here?*. Washington DC: World Resources Institute
- Mershon, A. (2019) ‘USAID’s approach to developing and managing shock responsive programming and adaptive mechanisms’. Adaptation Community Meeting, 16 October (www.climatelinks.org/sites/default/files/USAID%27s%20Approach%20to%20Developing%20and%20Managing%20Shock%20Responsive%20Programming%20and%20Adaptive%20Mechanisms_UpdatedFinal.pdf)
- Mobarak, A.M. and Rosenzweig, M.R. (2012) ‘Selling formal insurance to the informally insured’. Yale Economics Department Working Paper No. 97
- Montier, E. (2017) *Three challenges to scaling up crisis modifiers, and one potential solution* (<https://startnetwork.org/news-and-blogs/three-problems-crisis-modifiers-and-one-potential-solution>)
- Moore, D., Niazi, Z., Rouse, R. and Kramer, B. (2019) *Building resilience through financial inclusion. a review of existing evidence and knowledge gaps*. New Haven: Innovations for Poverty Action
- Müller, B., Johnson, L. and Kreuer, D. (2017) ‘Maladaptive outcomes of climate insurance in agriculture’ *Global Environmental Change* 46: 23–33
- OCHA – United Nations Office for the Coordination of Humanitarian Affairs (2019a) *Global Humanitarian Overview 2020* (www.unocha.org/global-humanitarian-overview-2020)
- OCHA (2019b) *Country-based Pooled Funds (CBPF)* (www.unocha.org/our-work/humanitarian-financing/country-based-pooled-funds-cbpf)
- O’Hare, P., White, I. and Connelly, A. (2016) ‘Insurance as maladaptation: resilience and the “business as usual” paradox’ *Environment and Planning C: Government and Policy* 34(6): 1175–1193
- Opitz-Stapleton, S., Nadin, R., Kellett, J., Calderone, M., Quevedo, A., Peters, K. and Mayhew, L. (2019) *Risk-informed development: from crisis to resilience*. London: ODI
- Oxford Policy Management (2017) *Shock-responsive social protection systems research: literature review*, 2nd edn. Oxford: Oxford Policy Management
- Oxford Policy Management and Itad (2017) *Independent evaluation of the African Risk Capacity (ARC)*. Annex C: case studies. Oxford: Oxford Policy Management
- PEF – Pandemic Emergency Financing Facility (2019) *The Pandemic Emergency Financing Facility: operational brief for eligible countries*. Washington DC: World Bank
- Peters, K. and Pichon, F. (2017) *Crisis modifiers: a solution for a more flexible development-humanitarian system?* London: ODI
- Pichon, F. (2019) *Anticipatory humanitarian action: what role for the CERF?* London: ODI
- Poole, L. (2015) *Future humanitarian financing: looking beyond the crisis*. Rome: FAO
- Porter, C. and White, E. (2016) *The application of a probabilistic catastrophe risk modelling framework to poverty outcomes*. Washington DC: World Bank
- R4 Rural Resilience Initiative (2019) *Annual report 2018*. Rome and Boston: WFP and Oxfam America

- Ranger, N. and Clarke, D. (n.d.) *What role for disaster risk financing and insurance in the UN Central Emergency Response Fund (CERF)?* London: Centre for Global Disaster Protection
- SDRI – Strategic Development Research Institute, Inc. (n.d.) ‘Move Up: Moving Urban Poor Communities Towards Resilience. Operational guidance paper’
- Sisson, P. (2019) ‘How federal flood policy is, and isn’t, addressing climate change today. Reformers push for updates to flood insurance, FEMA maps, and rebuilding programs as recent disasters underscore rising costs’ *Curbed*, 20 September (www.curbed.com/2019/7/29/8931718/storm-flood-climate-change-insurance)
- Stoddard, A. (2017) *International humanitarian financing: review and comparative assessment of instruments*, updated edn. London: Humanitarian Outcomes
- Stoddard, A., Poole, L., Taylor, G., Willitts-King, B. (2017) *Efficiency and inefficiency in humanitarian financing*. London: Humanitarian Outcomes
- Surminski, S. (2014) ‘The role of insurance in reducing direct risk: the case of flood insurance’ *International Review of Environmental and Resource Economics* 7(3–4): 241–278
- Surminski, S. and Oramas-Dorta, D. (2014) ‘Flood insurance schemes and climate adaptation in developing countries’ *International Journal of Disaster Risk Reduction* 7: 154–164
- Surminski, S., Bouwer, L.M. and Linnerooth-Bayer, J. (2016) ‘How insurance can support climate resilience’ *Nature Climate Change* 6(4): 333–334
- Talbot, T. and Barder, O. (2016) ‘Payouts for perils: why disaster aid is broken, and how catastrophe insurance can help to fix it’. CGD Policy Paper 087. London: Centre for Global Development
- USAID – United States Agency for International Development (2015) *Early response to drought in pastoralist areas: lessons from the USAID crisis modifier in East Africa*. Medford, MA and Addis Ababa: Feinstein International Center, Tufts University and Ethiopia Agriculture Knowledge Learning Documentation and Policy Project
- VisionFund (n.d.) ‘Recovery lending in Africa: helping the affected communities to recover faster from negative effects of a disaster’ (www.visionfund.org/publications/case-study/recovery-lending-africa)
- VisionFund (2016) *Disaster-resilient microfinance: learning from communities affected by Typhoon Haiyan*. Manila: ADB and VisionFund International
- Warner, K., Ranger, N., Surminski, S. and Arnold, M. (2009) *Adaptation to climate change: linking disaster risk reduction and insurance*. Geneva: UNISDR
- Weingärtner, L., Simonet, C. and Caravani, A. (2017) *Disaster risk insurance and the triple dividend of resilience*. London: ODI
- Weingärtner, L., Caravani, A. and Suarez, P. (2018) ‘The role of multilateral climate funds in supporting resilience and adaptation through insurance initiatives’. BRACED Knowledge Manager Policy Brief (www.odi.org/sites/odi.org.uk/files/resource-documents/12291.pdf)
- Wilkinson, E., Weingärtner, L., Choularton, R., Bailey, M., Todd, M., Kniveton, D. and Cabot Venton, C. (2018) *Forecasting hazards, averting disasters: implementing forecast-based early action at scale*. London: ODI
- Williams Walsh, M. (2017) ‘A broke, and broken, flood insurance program. Now, an unusual coalition of insurers, environmentalists and fiscal conservatives is seeking major changes in the federal plan as a deadline approaches’ *New York Times*, 4 November (www.nytimes.com/2017/11/04/business/a-broke-and-broken-flood-insurance-program.html)
- Willitts-King, B., Assomull, R., Bryant, J., McCartney, C., Dhami, T., Llewellyn, D. and Adamczyk, S. (2019) *New financing partnerships for humanitarian impact*. London: ODI
- World Bank (n.d.) *Super-sized catastrophe bond for earthquake risk in Latin America*. Washington DC: World Bank
- World Bank (2018a) *Contingent financing: IBRD Catastrophe Deferred Drawdown Option (Cat DDO)* (<http://pubdocs.worldbank.org/en/586311507314951942/product-note-deferred-drawdown-option-2018.pdf>)

World Bank (2018b) 'UN Secretary-General, World Bank President and ministers from developing and donor countries welcome the Famine Action Mechanism' (www.worldbank.org/en/news/feature/2018/10/18/un-secretary-general-world-bank-president-and-ministers-from-developing-and-donor-countries-welcome-the-famine-action-mechanism)

World Bank (2018c) *Disaster risk finance: a primer*. Washington DC: World Bank

World Bank (2019) *Pandemic preparedness financing: status update*. Washington DC: World Bank (https://apps.who.int/gpmb/assets/thematic_papers/tr-4.pdf)

Annex 1: Building an operational framework for DG ECHO in disaster risk financing

For DRF, the process of choosing the right instruments (or suite of instruments) to meet particular objectives is as important as the design and implementation of the instrument itself. Rolling out new risk-based financing in a blanket manner without regard for what disaster risk management niche it will fill could undermine effective response. Probing where and why finance is not fast or effective enough should help DG ECHO practitioners determine whether a new DRF instrument is needed in a certain context, or simply if existing financial regulations or operational processes are not fit for purpose and should be restructured.

There is no set formula for determining which instruments are appropriate in different circumstances. This section provides certain principles and guiding questions to help understand gaps in current financing arrangements and how DRF could fill them. These are based on existing guidance from the World Bank and the UK Government Actuaries Department (GAD) (World Bank, 2018c; GAD, unpublished). Designing this process internally could merit an entire research project of its own. DG ECHO should dedicate time, finance and human resources at regional and national levels to determine which tools to apply and where.

Step 1: What is the goal DG ECHO wants to achieve in this context?

Exploring a typical risk financing instrument may start with the question of ‘who’ needs protection against a crisis – whether it be national governments, businesses or households. Given DG ECHO’s mandate, we assume that the ‘who’ will be vulnerable people affected by (or at risk of being affected by) a humanitarian crisis. The issue at hand is how best to channel funding to meet their needs in a timely and effective manner, whether that be through pooled funds, insurance mechanisms, crisis modifiers, private bonds or contingency budgets.

Step 2: Identify which risks to manage

Protection against *what* is a foundational question for a DRF strategy. The type of crisis determines which kinds of instruments are feasible and cost-effective. We highlight three factors to consider: the size, the predictability and whether the crisis is fast or slow-onset.

Size and frequency

For smaller, more frequent crises, it is not cost-effective to transfer risk: instruments like insurance are resource-intensive to develop and require ongoing running costs to manage (GAD, 2019). Instead, small-scale crises are better served by instruments that retain risk, such as reserve funds (as in a crisis modifier) or other forms of contingency fund (ibid.). Equally, risk-transfer instruments are suitable for less frequent events, when risk can be pooled between countries, institutions or individuals to achieve economies of scale. Insurance that pays out frequently for very severe events is not likely to remain viable. In these cases, risk reduction is likely to be more appropriate.

Fast- or slow-onset

Whether the crisis is a rapid-onset or slow-onset event will shape which instrument is more appropriate, too. Studies have shown that insurance is not well suited for slow-onset processes like drought, and that the benefits of insurance may not always reach the poorest households (for a discussion of the literature on this topic see Weingärtner et al., 2018). The Start Network, which manages a multi-donor pooled rapid response fund, undertook a review of its response to slow-onset crises. It found there was a low ‘activation’ of the fund in response to slow-onset disasters, as there was a poor understanding of when anticipation alerts could be raised and difficulties in coming to decisions about whether and how to act – after all, slow-onset crises often occur in settings where water shortages or food insecurity have become normalised (Start Network, 2018).

DRF should not ignore slow-onset events because of the challenges in setting reliable triggers for action. Instead, these crises speak to the importance of tying access to DRF to pre-planning, with pre-agreed thresholds for action that work backwards from meteorological phenomenon to understand when and how acute livelihood stress manifest, if the goal is to protect livelihoods. The Start Network (2018) recommends funding needs assessments to better understand spikes in a crisis as part of the decision-making process for DRF.

Predictability or modelability

Whether a crisis can be predicted and modelled is key for selecting an appropriate risk finance instrument. Some disaster risk funds, such as the IFRC’s Forecast-based Finance by the DREF, are based entirely on the reliability and skill of the forecasts in order to facilitate early action in places likely to be affected. Other tools, such as crisis modifiers, are more flexible on the criteria for activation and can be applied to a range of crises.

There are two elements to modelling a risk: how predictable the occurrence of the risk is, and how possible it is to assess the potential impacts to estimate how much finance would be required for response. Difficult to model events, such as compounding crises where small hazards combine to produce a larger crisis, are more likely to rely on ad hoc emergency funding because they are particularly difficult to model (GAD, 2019).

Crises that can be modelled should be able to provide predictions about what kinds of response would be most appropriate. Instruments can be designed to release funding based on pre-agreed ‘triggers’ related to risk or probability of a crisis occurring. These triggers are meant to make planning a response easier, as there is a degree of certainty about when and under what conditions finance will be made available, as opposed to the uncertainty of putting out a humanitarian appeal.

Step 3: Identify the financing gap

After a crisis has been selected due to the risks it poses to vulnerable people, the next step is to understand the issues with current financing arrangements. This may require input from a range of stakeholders: beneficiaries of support, delivery partners that are responsible for reaching beneficiaries, other donors or institutions working in response, and government(s). Using a past disaster event as a reference point is helpful to understand what should change about financing arrangements and how DRF instruments can

help fill gaps. It is likely this analysis will not point to the need for a single instrument, but a combination of instruments that can address distinct problems with the speed, volume or delivery of finance.

Though this report does not estimate the relative costs of different instruments, it is important to note that grant financing from donors is the cheapest source of financing post-disaster (Ghesquiere and Mahul, 2010). If choosing to finance an insurance scheme or shock-responsive social protection, there should be a clear rationale for what gap it may fill and how it might improve DRM.

Is there a problem with speed of financing?

In case of a disaster, not all resources are needed at the same time – but when funding arrives is critical to how effective it can be, especially when vulnerable people risk losing livelihoods and assets as a crisis intensifies (World Bank, 2018c). Instruments with parametric triggers, or that are held within budgets with clear criteria for activating, can be much faster than traditional humanitarian support through partners.

If support is chronically late, further investigate whether the bottlenecks are related to decision-making processes, the process whereby actors verify the humanitarian need, the delivery channels for aid to beneficiaries, or insufficient planning between actors. Decision-making and verification processes can be shortened by improved contingency planning and use of parametric triggers that reduce back-and-forth about whether finance is needed. Slow delivery of aid may suggest a different mechanism for delivering support may be appropriate (for instance, scaling up existing social protection systems rather than setting up a parallel cash delivery mechanism).

Is there sufficient incentive to reduce risk and prepare for the crisis?

Incentivising risk reduction and preparedness is a central goal for many DRF instruments. A traditional private sector insurance tool incentivises risk reduction by lowering premiums for positive behaviours. Humanitarian applications do not necessarily follow the same logic, as beneficiaries themselves are not covering the costs in most cases (though in the case of microinsurance, beneficiaries often pay subsidised or full premiums). Humanitarian DRF instruments that attempt to encourage better risk management are targeting the behaviour of the organisation – NGO, government, UN agency or civil society organisation – delivering the support. In this context, one relatively straightforward prerequisite for accessing finance is to make disaster risk management planning mandatory. Some types of funds, including a few crisis modifiers and FbF by the DREF, require implementers to submit a standard operating procedure (SOP) for implementation, an early action protocol based on forecasts, or a cross-institutional contingency plan.

Is support reaching people that need it most?

There are a variety of ways that support can be delivered to ensure that vulnerable people are protected from disaster impacts. The World Bank (2019) DRF primer outlines three channels that apply to poor countries:

- Livelihood support, i.e. indexed micro-insurance for crops or livestock, scalable social protection, or recovery lending through microcredit.
- Public services, i.e. humanitarian support for WASH, education, etc.
- Public assets, i.e. using reconstruction finance to rebuild protective infrastructure.

Knowledge of which instruments are reaching vulnerable people at the right times requires beneficiary feedback and assessing recommendations from evaluations of previous crisis anticipation and response. The tight timeframes for humanitarian relief do not always allow for this type of research to be conducted in the direct aftermath of a crisis. These questions must be posed well in advance of a crisis, disaggregated to understand how needs vary by geography, gender, and income, and linked to a risk management strategy. For the very poorest people in a community, insurance products may not be affordable and direct support through social protection systems (which may be backed to scale up or out in times of crisis through DRF

at government or organisational level) may be a better solution. In settings of displacement, public services may be needed to replace those that were left behind. Any of these channels could be appropriate, provided that ‘pro-poor’ principles are applied, such as equity and ownership (IGP, 2019).

Has finance been sufficiently coordinated between actors?

Just as traditional humanitarian action and funding is subject to duplication of effort if it is not sufficiently coordinated, DRF instruments must aim to reduce duplication and encourage collaboration where possible. Instruments with contingency plans, SOPs or EAPs attached can be one way of facilitating collaboration; given they are developed jointly and integrated into operations across organisations, as is the case for instance between NGOs, UN and government through the ARC Replica mechanism. DG ECHO staff pointed to DG ECHO’s Emergency Response Mechanism (ERM) as an effective tool for promoting partnership and anticipating sector needs in emergencies. These ERMs are implemented through consortium of partners who share information collected on a disaster and needs assessments, intervening in a more timely and effective manner (ERM, 2014).

Pooled funds between donors are another means of promoting coordination and ostensibly reducing reporting needs by adopting common standards and procedures. The OCHA’s CBPFs are growing in prominence: there are currently 18 CBPFs and funding to these instruments nearly doubled between 2014 and 2018 (Els, 2019). Common funds can promote horizontal collaboration between INGOs, but specific provisions should be made for national NGOs to ensure that pooling resources also promotes vertical coordination between global and national actors, empowering the former to participate in global humanitarian systems. National NGOs have less direct access to finance through CBPFs than INGOs and tend to receive funding through sub-granting by INGOs (Els, 2019). These sub-grants are not in and of themselves problematic, though they should be restricted to projects where they add value by increasing capacity of national NGOs to eventually access funding directly (ibid.).

Is there sufficient finance available for different stages of the disaster management cycle?

The disaster risk management cycle requires different instruments to address phases of the cycle (risk reduction, preparedness, anticipatory action, immediate response, recovery and reconstruction), with correspondingly varied finance requirements. Risk reduction investments are often orders of magnitude smaller than funding requirements for response.

Humanitarian organisations rarely tag or track finance according to the ‘phase’ of the crisis when money was spent. This inhibits learning about financing needs as crises evolve, and whether finance is arriving on time to meet these needs. A 2019 feasibility study examining whether the Red Cross could access parametric insurance in Myanmar and the Philippines found that there was little idea within Red Cross offices of when and how much money might be needed across the disaster risk management cycle, inhibiting the development of a sound risk financing strategy (SEADRIF, 2019). Adopting a method of tracking and tagging DRF according to when it is spent is an important precondition for DG ECHO to refine its DRF strategy over time.

Annex 2: List of interviewees

Table A1 List of interviewees

Interviewee	Organisation	Position
European Commission		
Branko Golubovic	DG ECHO	Amman Country Office
Carlos Edo	DG DEVCO	Policy Officer, DRR
Charles Pirotte, Ruxandra Serdean-Verde and Maria Atanassova	DG ECHO	Unit E1 – International and Interinstitutional Relations, Legal Framework
Dorothy Morrissey	DG ECHO	Southern Africa desk
Gaelle Nizery and Jelena Milos	DG ECHO	Unit B2 – Prevention and Disaster Risk Management
Jocelyn Lance	DG ECHO	Dakar Country Office
Karolina Andrzejewska and Viktorija Jeras	DG ECHO	Unit A1 – Emergency Response Coordination Centre (ERCC)
Lidia Rodriguez	DG ECHO	Asia-Pacific Regional desk
Massimo Larosa	DG ECHO	Policy advisor on social protection (Amman/Global)
Priscilla Amiri	DG ECHO	Regional Office Eastern and Southern Africa
Sylvie Montembault and Mary Sawapa	DG ECHO	Regional Office East and South-East Asia
External		
Daniel Clarke	Centre for Disaster Protection	Director
Nandini Munnien and Davide Zappa	DFID	CHASE
Ekhosuehi Iyehen	IDF	Secretary General
Harriette Stone	DFID	Private Sector Section
Juan Luis Coderque Galligo	ICRC	Head of New Financing Models
Katharina Nett	InsuResilience Secretariat	Advisor
Michael Jensen and Julia Wittig	CERF	Chief of CERF Secretariat
Zacharey Carmichael	World Bank	Team leader for the Famine Action Mechanism (FAM) and operations officer
Dirk-Jan Omtzigt and Juan Chaves Gonzalez	OCHA	Head, Humanitarian Financing Analysis Unit
Nazira Lacayo and Sune Bulow	IFRC DREF	Senior officer, Forecast-based Action by the DREF and manager of IFRC Disaster Operations Centre
Christian Pettinkoffer	Munich Re	Special situations

Annex 3: Study terms of reference

Background

Along its disaster preparedness and early action policy objectives, DG ECHO aims to develop risk financing tools that can maximise the impact of an early response that meets the needs of crisis-affected people. There is a mix of financing tools available for early action, response and recovery, each with different benefits, timings and costs – e.g. insurance, blended finance, bonds, funds or guarantees, contingency credit or FbF. The development and testing of those models has been gaining momentum with the aim to pool resources and mobilise investment to match the scale of humanitarian needs.

DG ECHO has been funding FbF. The main examples are: the IFRC (DREF Forecast-based Financing approach), FAO (drought FbF for food security, livelihoods and WASH in Vietnam), WFP (accelerating the use of climate risk data through technology innovation to inform early action and enable shock responsive social protection in South-East Asia) and the Start Fund (anticipation window set up in the fund). FbF is a mechanism that enables a partner to put preparedness actions into play based on reliable risk forecasts.

There is still a lack of evidence on those new financing models, in terms of efficiency, effectiveness, sustainability, replicability and the level of risk reduction achieved with risk transfer (where relevant). There are also barriers to their uptake, including organisational readiness, regulations, absorption capacities, and data and impact measurement capacity.

There have been (recent) initiatives to explore, test and evaluate innovative financing models as well as to promote them. The Good Humanitarian Donorship (currently co-chaired by Switzerland and the EU, DG ECHO) has made ‘promoting principled and effective humanitarian assistance through innovative funding and delivery modalities’ its priority theme for 2018–2020.²⁰ The Humanitarian Investing Initiative, under the umbrella of the World Economic Forum, is another initiative that aims to push the notion of investment rather than funding in the humanitarian development arena. It also wants to create a humanitarian investment ecosystem as well as a platform to unlock new capital in fragile contexts. OCHA has emphasised the need to aggregate, analyse and share findings from pilot schemes.²¹ As regards disaster risk, the Warsaw International Mechanism group on loss and damage under the UNFCCC launched a clearing house on risk transfer.²²

20 See www.ghdinitiative.org/assets/files/GHD%20Reports%20%26%20Updates/GHD-concept-note-2018-2020.pdf

21 See Lowcock (2018).

22 See <http://unfccc-clearinghouse.org/>

Objectives and scope

DG ECHO is looking to carry out an independent study on the effectiveness of risk financing tools as strategies for resilience-building and early action in countries affected by disasters that are recipients of humanitarian assistance.

The objective of the study is to assist DG ECHO in developing approaches to mainstreaming risk-based financing and specific risk financing tools for reducing the impact of disasters, decreasing overall ex post humanitarian funding and enhancing preparedness. The study would review risk financing tools applied as per DG ECHO's scope of intervention.

In particular:

1. The study will provide an overview of the risk-financing policy and practice of DG ECHO's partners and a range of key international donor countries and multilateral institutions. The overview will be based on existing recent reports and publications. In an effort to identify best practices and lessons learnt, the study will identify the intended objectives of the tools (e.g. response), target groups and methods for selecting or designing context-appropriate (e.g. urban, rural, regional, national levels) tools. This overview will also note the challenges to the development and implementation of risk financing tools.
2. The above investigation will provide a landscape analysis narrowing down to a selection and detailed description of four existing risk-financing tools which are most relevant for DG ECHO's humanitarian work. It will notably assess the rationale behind the choice of each particular tool, how they are articulated with early action objectives, their overall cost-effectiveness (including financial implications for the donor) and the impact at community level and the local environment. In addition, it will consider their level of integration with 'traditional' DRR activities under development cooperation programmes as contribution to operationalising the humanitarian–development nexus approach. The selection of the four tools will be based on discussions with DG ECHO's relevant staff (working group, see below).
3. Finally the analysis will lead to a set of recommendations on whether or how to integrate risk financing in DG ECHO funded programmes. These recommendations should provide a justification on whether or how risk financing tools can maximise or provide added value to the programmes DG ECHO is already implementing, which crisis situations risk financing is suitable for and the required preparatory work, notably on provisions of the FPA. The recommendations should also look at practical ways of mobilising (public and private) partners and contributing to initiatives to increase blended or innovative finance in humanitarian aid (e.g. Donor Support Group activities, etc), in view of DG ECHO's current legal framework or needs for mobilising applied research in risk financing.

This study will be based on various research tools such as desk research, secondary/primary data collection and analysis, as well as phone and/or field interviews with experts, European Commission services, NGOs, multilateral institutions, donors and private sector involved in risk financing projects.

Phasing and deliverables

- **Pre-inception phase:** this is envisaged to be a face-to-face meeting between DG ECHO and the consultants to discuss in detail in order to ensure clarity before the work starts.
- **Inception phase:** this will include a detailed outline of the proposed work based upon initial desk review, and a meeting to discuss the study with DG ECHO. The aim will be to ensure clarity over the tasks, the methodology and scope.
- **First draft report:** to be sent to DG ECHO for comments, with a discussion at a consultative workshop (see below).
- **Final report** sent to DG ECHO for any final comments.

At least the first meeting should be face-to-face and the rest either face-to-face or through teleconferencing.

DG ECHO will establish a working group composed of relevant policy, legal and operational colleagues, to interact with the consultants and identify the most relevant instruments. DG ECHO B2 will be the lead unit, with the support of DG ECHO C1 (Inspire focal point).

The contractor will be asked to present the draft report at a consultative workshop to be organised in Brussels in December 2019.

The final report shall be made available to the European Commission in electronic format by February 2020. Furthermore, a user-friendly summary version should be delivered in electronic format communicating the key findings and messages of the study.

Timeline and budget

The researchers are expected to be contracted in September 2019. A progress report shall be made available to the Commission after ten weeks. The final report shall be ready by February 2020. The offer should recommend a budget, including a breakdown as well as a timeline.



**Evidence.
Ideas.
Change.**

ODI is an independent, global think tank, working for a sustainable and peaceful world in which every person thrives. We harness the power of evidence and ideas through research and partnership to confront challenges, develop solutions, and create change.

ODI
203 Blackfriars Road
London SE1 8NJ

+44 (0)20 7922 0300
info@odi.org

odi.org
odi.org/facebook
odi.org/twitter