EARLY ACTION

THE STATE OF PLAY 2023

REAP Risk-informed Early Action Partnership

About REAP

Launched at the UN Climate Action Summit (UNCAS) in September 2019, the Risk-informed Early Action Partnership (REAP) brings together an unprecedented range of stakeholders across the climate, humanitarian and development communities with the aim of making 1 billion people safer from disaster by 2025.

The Partnership is built around four ambitious targets that aim to drive a systemic shift towards acting earlier to reduce the impacts of disasters. It creates a space in which Partners and aligned organisations from across its various constituencies use the ambitious targets to mobilise commitments and inspire action.

Acknowledgements

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A note on definitions

Relevant terms within this report use the definitions set out within the Glossary of Early Action Terms: 2022 Edition.

Suggested citation

Cover photo: © Yuichi Ishida / UNDP

CONTENTS

ABBREVIATIONS

ACMAD	African Centre of Meteorological Application for Development
ADB	Asian Development Bank
AICCRA	Accelerating Impacts of CGIAR Climate Research for Africa
AOSIS	Alliance of Small Island States
ASEAN	Association of Southeast Asian Nations
AUC	African Union Commission
CCA	Climate Change Adaptation
CDP	Centre for Disaster Protection
CERF	Central Emergency Response Fund
CGIAR	Consultative Group on International Agricultural Research
COHAFA	European Council Working Party on Humanitarian Aid and Food Aid
COP	Conference of the Parties
CREWS	Climate Risk and Early Warning Systems Initiative
CSO	Civil Society Organisation
DG ECHO	Directorate-General for European Civil Protection and Humanitarian Aid Operations
DKH	Diakonie Katastrophenhilfe
DREF	Disaster Relief Emergency Fund
DRF	Disaster Risk Finance
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EAP	Early Action Protocol
EW4All	United Nations Secretary-General's Early Warnings for All initiative
EWEA	Early Warning Early Action
EWS	Early Warning System(s)
FAO	Food and Agriculture Organization of the United Nations
FCDO	Foreign, Commonwealth & Development Office (UK)
GBON	Global Basic Observing Network
GCF	Green Climate Fund
GEO	Group on Earth Observations
GFDRR	Global Facility for Disaster Reduction and Recovery
GNDR	Global Network of Civil Society Organisations for Disaster Reduction
GPPi	Global Public Policy Institute
GRMA	Global Risk Modelling Alliance
ICPAC	IGAD Climate Prediction & Applications Centre
ICRC	International Committee of the Red Cross
IDF	Insurance Development Forum

IFPRI	International Food Policy Research Institute
IFRC	International Federation of Red Cross and Red Crescent Societies
IGAD	Intergovernmental Authority on Development
IIED	International Institute for Environment and Development
INGD	National Institute for Disaster Management (Mozambique)
ITU	International Telecommunication Union
LDC	Least Developed Country
MEL	Monitoring, Evaluation and Learning
MHEWS	Multi-Hazard Early Warning System(s)
NAP3	Third National Adaptation Programme of the United Kingdom
NGO	Non-governmental Organisation
NMHS	National Meteorological and Hydrological Service
NPDRR	National Platform for Disaster Risk Reduction (Nepal)
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
PAF	Pre-arranged Financing
RAAWG	Regional Anticipatory Action Working Group
RC Climate Centre	Red Cross Red Crescent Climate Centre
RCRC	Red Cross Red Crescent
REAP	Risk-informed Early Action Partnership
SFERA	Special Fund for Emergency and Rehabilitation Activities
SIDS	Small Island Developing States
SOFF	Systematic Observations Financing Facility
UCL WCR	University College London Warning Research Centre
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP	United Nations Environment Programme
UNESCAP	UN Economic and Social Commission for Asia and the Pacific
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	UN General Assembly
UNSSC	United Nations System Staff College
WAHAFA	Welthungerhilfe Anticipatory Humanitarian Action Facility
WFP	World Food Programme
WHH	Welthungerhilfe
WISER	UK Met Office Weather and Climate Information Services
WMO	World Meteorological Organization

FOREWORD

2024 is going to be a challenging year as climate impacts continue to accelerate in scale, intensity and frequency; as action and implementation on mitigation and adaptation fail to keep pace; and as conflict and insecurity mark the world. As a consequence, our key goals are at risk, including keeping 1.5C alive, fulfilling the 2030 Agenda for Sustainable Development, and meeting the targets of the Sendai Framework for Disaster Risk Reduction.

But collectively, we're no strangers to challenge, and 2023 sowed important seeds of hope. The decision to establish the first global fund for Loss and Damage under the UNFCCC, the incorporation of early warning and early action as a priority action area for the DRR strategy of the G20, progress on the Early Warnings for All initiative, and the vigour and attention COP28 paid to the nexus of development, climate and humanitarian issues, all provided us with momentum and a platform to tackle the challenges ahead.

One of REAP's notable endeavours was co-developing the Getting Ahead of Disasters Charter with the UAE, and then securing endorsements from over 40 governments and organisations by COP28. The Charter demonstrated the willingness of stakeholders to come together across sectors and geographies to support shared ambition around financing early action. As co-Chairs we thank

and pay testament to the work of the Secretariat, our UAE colleagues and endorsing partners in achieving this success. We are committed to using the Charter to further drive positive practice for effectiveness on early action financing and we welcome your support on this.

To remain relevant and effective in a changing world, we must all continue to look ahead to the challenges of the future and ask if our work is bringing about the change that we want to see. Each of REAP's State of Play reports seeks to ask and answer that question by reflecting on the work being undertaken globally on early action and identifying examples of good practice that can teach us useful lessons.

The question also applies to our partnership, and will be a focus for us all over 2024 as we deliberate on REAP's role and impact post-2025. As co-Chairs of REAP's Governing Board, we are committed to supporting the Partnership to be evidence-led, ambitious and confident in order to arrive at an outcome that benefits those increasingly at risk from the effects of climate change. We thank you for your continued support, leadership and endeavours on early action which will support us all to rise to the challenges ahead of us and deliver against the vital goals of our Partnership.

**Fatumanava-o-Upolu III
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SUMMARY
WHERE DO WE STAND?

Now in their third year, the State of Play reports provide snapshots of international, regional and national investments, commitments and activities linked to early warning and early action. This year's report focuses on the work of REAP Partners following the recommendations of the 2022 report; identifies both upcoming (for 2024) and longer-term issues, and opportunities for addressing them; and provides an overview of commitments and activities that contribute towards REAP's 4 Targets (see Target chapters).

Part of the Weather Mtaani awareness campaign under DARAJA, this mural in Lindi village, Kibera, showcases new forecast alerts produced by the Kenya Meteorological Department. © Kounkuey Design Initiative (KDI)

On the state of play of early action

2023 marked substantive developments in line with the **recommendations** from last year's State of Play:

1. **Support to regional bodies** and **leadership at the regional level** for early warning and early action increased, but finding ways to further increase government leadership in anticipatory action systems, at national as well as regional levels, remains a top priority.

2. Several Partners demonstrated the benefits of **cross-sectoral cooperation**, such as through joint strategies for scaling up anticipatory action to prevent specific impacts, or joint publications to contribute to strengthening information sharing on evidence-based progress – even though these efforts remain insufficient when compared to the challenges faced.

3. 2023 saw increasing recognition of the value of and need to work with a **full value chain** understanding of early warning early action systems[1], while the humanitarian community has taken further steps to mainstream anticipatory action. Learning opportunities have also increased to support capacity-building on diverse topics, approaches and target audiences relevant to EWEA.

4. The Getting Ahead of Disasters Charter was launched at COP28 to **improve the efficiency of finance for disasters** (including for early action), and a number of REAP Partners have adopted organisational strategies that seek to **expand financial mechanisms and instruments** and to include more diverse funding sources, which remains a top priority for bringing early action to scale.

5. **Risk communication** approaches that acknowledge communities vulnerable to disasters as senders of information, rather than merely receivers, have become more recognised as essential for developing meaningful EWEA. However, true people-centredness continues to remain a gap in many EWEA strategies and activities, which often lack feedback mechanisms for community input and omit risk information generated within the communities.

6. We have observed progress on the **coherence in reporting** on activities of different stakeholders to avoid generating multiple sets of data that are difficult to reconcile, for example where organisations are working in the same region, or where initiatives share similar aims. Moreover, a number of stakeholders have worked on new approaches to measure (state) funding for anticipatory action or broader EWEA activities, which will help to make future investments in early action more transparent, and to hold donors accountable for their commitments.

For **2024**, priority topics include: the ongoing impacts of El Niño; expanding anticipatory actions to more hazard types; increasing the number of disaster risk financing instruments that support early and anticipatory approaches; and finding a middle ground between differing perspectives on how best to scale anticipatory action.

Looking further ahead, continued efforts are needed to enable humanitarian, development and climate actors to work better across their respective sectors, and this year's research and analysis has put forth **three steps to implement this approach**.

1. Shared understanding should be sought regarding the role (and limitations) of EWEA, including anticipatory action, within the broader disaster risk management cycle and long-term planning. This requires deeper exploration of how anticipatory action and humanitarian experiences can be used to support cross-sectoral collaboration with development and climate actors.

2. Global policy discussions must consider and be informed by the realities facing the implementing communities and organisations most affected by the impacts of climate change.

3. Relevant initiatives, partnerships and networks working on different aspects of early action need to clarify and make sense of their specific added value, how they relate to one another, and what benefits stakeholders can expect from their engagement.

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1 The "full value chain" includes, but is not limited to: systematic observations; climate and weather monitoring; impact-based forecasting; early warning system design and implementation; risk communication; early action planning and delivery; development of appropriate financing instruments and delivery of finance across the various components of the value chain; the elements that establish an enabling environment, such as national legislation, policy and planning; and development and mainstreaming of risk knowledge and capacity.

Progress against REAP's targets

REAP was launched with four shared targets, each of which contribute to making 1 billion people safer from disaster by 2025. Developed by the convening Partners of REAP, these ambitious targets are achievable only through partnership and a shared commitment to joined-up, risk-informed early action.

Target 1 aims, by 2025, for 50 countries to review and integrate their crisis/disaster risk management and climate adaptation laws, policies and/or plans to ensure that they reduce climate change impacts and exposure on people and the environment. As of now, Target 1 has been achieved as more than 50 different countries have taken the different steps outlined for the Target. Many Partners continue to identify integrated approaches as a priority and several organisations directly contribute to further bringing the Target forward by supporting countries on integrating relevant policies and plans. Progress has also benefited from increased government leadership: the work of the Partnership attracts more and more governmental actors; governments are speaking more about the integration of early action; and there is a strong movement towards institutionalising EWEA as an approach to addressing disasters. However, while national-level leadership on integrated legislation and policy is critical to ensure the environment exists for comprehensive disaster risk management approaches, translation and contextualisation are required to bridge the gap between internationally agreed policy frameworks, national systems, and connecting and adapting these efforts to the local level.

To achieve **Target 2**, by 2025, 1 billion more people must be covered by financing and delivery mechanisms connected to effective early action plans, ensuring they can act ahead of predicted disasters and crises. Comparable funding data on early action remains conspicuously unavailable but the disbursements of the five largest humanitarian funds show that spending on anticipatory action has increased considerably over the past years: in 2022, the latest year with full reporting data, funding indicated as "anticipatory" came to more than USD 63.8 million, which represents a rise of more than 50 per cent since 2020 (where these funds spent a maximum of USD 41.5 million). However, research completed by the Centre for Disaster Protection shows that only 2.7 per cent of international development financing was pre-arranged in 2021, while anticipatory finance claimed an even lower share at just 0.2 per cent of humanitarian funding.

Progress has been made on Target 2, but the goal still requires considerably more effort – primarily on scaling up and delivering financing for early action, but also on reporting on how many people are reached by relevant programs. However, there is a way forward for the first of these challenges – "Getting Ahead of Disasters: A Charter on Finance for Managing Risks," endorsed by over 40 countries and organisations at COP28, provides a roadmap for sustainably achieving Target 2.

The goal of **Target 3** is that by 2025, we achieve at least USD 500 million invested in early warning system infrastructure and institutions to target early action in "last/first mile" communities. It seems plausible that Target 3 has been achieved by now: several Partners contributed to improving early warning system infrastructure with financing of over USD 500 million, in addition to growing momentum around the United Nations Secretary-General's Early Warnings for All (EW4All) initiative. Several governmental Partners indicated Target 3 as their priority. However, continued work linked to this Target remains important. For example, while many Partners see it as a given that "local" or "last/first mile" communities are at the core of their activities, this focus is still identified as "hard to measure." Moreover, many of the large humanitarian donor countries still do not directly work with local implementing partners.

Target 4 aims to ensure that by 2025, 1 billion more people are covered by new or improved early warning systems, including heatwave early warning, connected to longer-term risk management systems, and supported by effective risk communication and public stakeholder dialogue. In 2023, Target 4 benefited from heightened awareness of the nuances of early warning systems in international fora, and increased mobilisation around enabling early warning and early action thanks to the momentum generated around the EW4All initiative. Measurable progress has been made on warning dissemination and communication, but, in stark contrast, disaster risk knowledge lags behind significantly. Regarding actual implementation of the Target's different objectives, the road ahead remains long. While the number of multi-hazard early warning systems increased across all regions, still half of the world's countries are lacking such systems with persistent and considerable geographic differences.

INTRODUCTION

Purpose

The annual State of Play reports contribute to the growing evidence base of lessons learned on what it takes to bring early action to scale. Now in the third year, each report provides snapshots of international, regional and national investments, commitments and activities linked to early warning and early action. Building a solid and well-founded evidence base becomes ever more vital as interest and momentum coalesce around the subject. REAP, in particular, continues to attract Partners from across relevant sectors and disciplines – compared to 34 Partners at its launch, REAP has grown to a total of 86,[2] adding 12 new Partners in 2023 alone. Yet an even greater number of organisations and entities demonstrate a clear commitment to the early warning and early action agenda through membership and participation in related initiatives, networks and partnerships – a key theme of this year's report.

This year's State of Play is an update from the 2021 and the 2022 reports, and comes at the midpoint of REAP's overarching aim of making 1 billion people safer from disasters by 2025.[3] This report is also one of two elements of REAP's Mid-term Stocktake that its Governing Board requested: next to this State of Play report, the "Partnership Stocktake" examined the workings of the Partnership itself. The two reports assess how REAP Partners and other relevant actors are collectively progressing towards REAP's aim of making people safer from disaster, and what contribution the Partnership is making to that progress.

Structure

This report aims to showcase, in Part 1, the work of REAP Partners following REAP's call to continued action from 2022, as well as key themes to look out for in 2024 arising from the research and discussions with key informants. Based on the developments of 2023 and the trajectory heading into 2024, and to support moving towards making early action a normative approach to disasters over the long term, the State of Play 2023 report also identifies three fundamental and persistent issues, as well as opportunities for addressing them (see "Looking further ahead" chapter). The **first** issue focuses on the need to understand anticipatory action as part of broader disaster risk management (DRM) action, and integrate it consistently into the long-term DRM cycle (taking as a starting point the first of REAP's three Drivers of Change: global commitment on policy and practice). The **second** identifies the need to ground global policy debates in the realities of implementation and thus ensure that international goodwill and ambition support action on the ground (in line with the Driver of Change of enabling local- and country-level ownership and leadership).

The **third** addresses the need to bring greater clarity to the landscape of initiatives, networks and partnerships working on early warning and early action, identifying relative strengths and points of complementarity, and supporting stakeholders to make clear decisions as to where to dedicate their limited time (in support of the Driver of Change that fostering collaboration is essential to scaling up EWEA).

In Part 2, the report provides a broader overview of commitments and activities that contribute towards REAP's 4 Targets. Each Target chapter also includes a short "Story of Change" from an initiative contributing towards reaching the Target. The examples included in the report are featured for their relevance to the three Drivers of Change, the guiding methodology by which REAP seeks to bring about systemic change. Where relevant, progress in 2023 is presented alongside achievements from the past three years and evidence gathered in the Partnership Stocktake.

The Drivers of Change

1 **Global commitment on policy and practice**

Ensuring that the global policy environment enables early action at the regional and national levels, including by scaling up finance and investment.

2 **Enabling local- and country-level ownership and leadership**

Supporting climate vulnerable countries by strengthening international coordination; building linkages with people-centred approaches; and scaling up Partner activities at the regional and national levels.

3 **Fostering collaboration and linking supply with demand (or facilitating a "marketplace")**

Increasing collaboration, coherence and understanding between key actors and communities involved in the early action agenda in order to bridge silos and achieve greater collective impact.

Analytical framework and methodology

This report was commissioned by REAP to outline recent changes and updates on early action. The State of Play 2023 does not intend to provide a comprehensive picture of all evidence, but rather offers an overview of new and strengthened policies, programmes and approaches from 2023. To achieve this, it builds on an extensive review of policy, planning, legislative, operational, and monitoring documentation from the Partnership, its Secretariat and stakeholder organisations as well as academic research published before the cut-off date of 29 September 2023 (as well as some additional key publications issued after this date); qualitative information gathered through key informant interviews (interviewed remotely for the Partnership Stocktake and the State of Play report); and an online survey targeting all Partners of REAP.

The desk-based literature review analysed different types of publications, such as: reports; evaluations; analyses; (reports from) events, webinars and workshops; websites and databases; journal articles and other academic research; briefings; news and press releases; statements from governments and multilateral organisations; protocols; ministerial declarations; and regional and national plans, strategies and roadmaps.

Eight REAP Partner organisations offered their time and insights in semi-structured interviews at different stages of the research process (see Annex 3). Moreover, insights were gathered through consultations with the REAP Secretariat, its advisors and research consultants; in engagements with the Partnership's Working Groups; as well as during a session at the 11th Global Dialogue Platform on Anticipatory Humanitarian Action.

The survey was launched on 28 August and closed on 28 September 2023. It contained questions about the progress Partners made in implementing the REAP agenda in 2023 (or would make before the end of the year), what they saw as critical milestones and good practices in 2023, and what they would recommend to support achieving the 4 Targets of REAP. Thirty-two Partners responded and provided their valuable insights, and five more submitted statements via email.

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2   As of January 2024.
3   The Partnership was launched at the UN Climate Action Summit in September 2019.

Research challenges for the State of Play 2023

Practical challenges arose during the research phase and, in part, those outlined in the State of Play 2021 and 2022 reports still apply, including:

- Partners struggle to share quantitative data on progress against the 4 Targets, because data is either unavailable, not systematically measured or not collected in a way that directly fits the Targets.

- Many Partners have committed to work towards the Targets more generally, but it can be arduous to translate broader commitments into action that is measurable.

- Measuring progress on early action interventions continues to be hampered by the lack of agreed-upon baseline data and comprehensive empirical datasets.

- Research could only be conducted in English, French and German, which limits the range of possible sources.

For this report, the research team used an online survey to gather comprehensive information from all Partners. The response rate, however, was lower than expected, leading to more follow up research. Moreover, the time-line of the State of Play report proved to be challenging for Partners, in particular that the cut-off date for responses (via the survey or during the interviews) was set before the end of the calendar year.

The past decade has evidenced both a proliferation of activities that contribute to improving early warning early action, and an improvement in the documentation of those activities. The abundance of input and approaches makes selection necessary, which has become more difficult for each new State of Play report.

A Kenya Meteorological Department (KMD) weather station in Turkana County, northern Kenya, on September 23, 2022.
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PART 1
ON THE STATE OF PLAY OF EARLY ACTION

Progress on REAP's call to continued action

2023 marked substantive developments in line with the recommendations from the 2022 State of Play. The following section contains examples of how the six recommendations have been implemented. Broader examples of how Partners have engaged in progressing towards the Targets are outlined in the corresponding chapters.

The 2022 State of Play report emphasised the necessity of continuing to focus on **collectively** bringing about a systemic shift towards acting earlier, and the 2023 Partnership Stocktake re-iterated the need to keep driving forward alignment, coherence and complementarity between relevant actors. While the Partnership Stocktake praised REAP for its ability to bring diverse sets of actors together, there was some indication that true cross-sectoral collaboration has not yet been achieved. As a Partnership – and for other initiatives also – progress depends on each and every Partner's ambition, willingness and capacity to step across sectoral lines and forge new relationships with the aim of increasing the collective impact of activities to make people safer from disasters.

> **"The impacts of climate change are not slowing. Approximately 3.3 to 3.6 billion people live in contexts that are highly vulnerable to climate change, and we must ask ourselves the question: are we doing enough to ensure that they are safe from disasters?** — State of Play 2022

Progress on recommendation 1
Strengthen regional approaches for scaling up early action

> Support to regional bodies and leadership at the regional level for early warning and early action increased, but finding ways to further increase government leadership in anticipatory action systems, at national as well as regional levels, remains a top priority.

" **Early action stakeholders experienced at working across regions and at different levels should make their expertise available to regional bodies to better inform regionalised approaches to early action.** — State of Play 2022

Support to and leadership at the regional level increased in 2023. In **East Africa**, a number of organisations worked more closely with the Intergovernmental Authority on Development (IGAD) on finalising the *IGAD Regional Roadmap for Forecast-based Anticipatory Action*, which will support harmonisation and coordination of anticipatory action in the region. The IGAD Climate Prediction & Applications Centre (ICPAC), the Anticipation Hub and the World Food Programme (WFP), as well as stakeholders of the Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) project, organised a workshop to build awareness and sensitise the integral role of anticipatory action in mitigating disaster impacts in East Africa, and to develop a joint understanding of what is needed to adopt anticipatory actions across the region. This workshop brought together National Disaster Management Authorities and National Met Services to discuss anticipatory action and generate information that informed the IGAD roadmap. WFP, the United Nations Office for Disaster Risk Reduction (UNDRR), the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), and the Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO) then supported IGAD to launch the roadmap at COP28, with participation from IGAD member states. It is not yet clear, however, how the implementation of the roadmap will be funded.

In **West Africa and the Sahel**, the Permanent Interstate Committee Against Drought (CILSS) launched the Regional Task Force on Anticipatory Action for Food Security in close collaboration with the Food and Agriculture Organization of the United Nations (FAO) and WFP. This task force is open to participation and is supported by a secretariat provided by the African Regional Climate Centre (African Centre of Meteorological Application for Development – ACMAD) and IFRC. The aim of the task force is to spearhead regional coordination, learning and advocacy for anticipatory action (AA) in the field of food security and food crisis management. The task force will implement priority activities included in the AA Roadmap 2023–25 for West Africa, with the overall goal to increase regional and national capacities on AA and promote the institutionalisation of these approaches.

Looking to the **Caribbean**, the Climate Risk & Early Warning Systems (CREWS) initiative co-published a "strategic roadmap for advancing multi-hazard impact-based early warning systems and services in the Caribbean". The report offers concrete recommendations on how to transform multi-hazard early warning systems (MHEWS) in a people-centred way, through participation from gender groups, community leaders, vulnerable groups, and the private sector in the region.

In **Europe**, Start Network and OCHA, along with the REAP Secretariat, worked with REAP Partner Sweden[4] to provide technical inputs on the priority topic "responding to climate-induced humanitarian crises and scaling up anticipatory action" for the Working Party on Humanitarian Aid and Food Aid (COHAFA), a mechanism within the EU Council to inform Member States and shape EU policy priorities. The EU is now developing an AA roadmap and shows interest in exploring risk-informed and anticipatory approaches that include crisis modifiers, although the timeline for these ambitions is uncertain.

Growing interest among regional bodies for the EWEA agenda was also evidenced by those who identified alignment between their work and the mission of REAP. In 2023, new members at the regional level included:

- The Government of Samoa, which is also the Chair of the Alliance of Small Island States (AOSIS), and which has taken up the position of REAP Governing Board Co-Chair;
- The African Union Commission (AUC);
- The Asian Disaster Preparedness Centre (ADPC).

Despite this progress, a regularly-mentioned priority is finding ways to increase government leadership in anticipatory action systems, at both national and regional levels. Document research and key informant interviews underlined the importance of stronger involvement of national governments and overcoming potentially differing approaches or priorities as necessary ways forward to reach meaningful anticipatory action at scale. Nevertheless, while build money for anticipatory action systems reaches the national level, the largest funds providing fuel money for anticipatory action operate primarily within the international system: the major share of implementations following activations are either UN-, Red Cross Red Crescent- or (albeit smaller in funding) NGO-led (also see Scott 2023 and a learning report from CERF in Nepal).

Progress on recommendation 2
Operationalise, incentivise and institutionalise collaboration

> Several Partners demonstrated the benefits of cross-sectoral cooperation, such as through joint strategies for scaling up anticipatory action to prevent specific impacts, or joint publications to contribute to strengthening information sharing on evidence-based progress – even though these efforts remain insufficient when compared to the challenges faced.

Over the last year, cross-sectoral cooperation has enabled new links with promising opportunities. This includes the collaboration between the Green Climate Fund (**GCF**) and the **CREWS** initiative, who operationalised their joint Scaling Up Framework for Early Warning (see Target 3 chapter). Another example is the private sector **Howden Group Foundation's** financial contribution of GBP 400,000 (approximately USD 485,000) to **Start Network** to protect at-risk countries from the climate crisis through the "Start Ready" financing mechanism.

The Insurance Development Forum (**IDF**), **MapAction** and **Start Network** started a trilateral partnership in 2022, cooperating to ensure critical decision-making ahead of crises, and enable effective action on the ground at an early stage. As part of their commitment to REAP's Targets, IDF members are funding the work of MapAction, which will be used by Start Network's financing facility "Start Ready" over three years (2021–2024). To support decision-making ahead of an event, MapAction provides historic and real-time hazard data analysis, as well as base maps and vulnerability analyses. To date, seven country missions have been completed, building capacity and strengthening geospatial information management through training on Geographical Information Systems (GIS) for professionals working on anticipatory action and disaster risk reduction.

Increasing collaboration within sectors is also key, and **FAO** and **WFP** have been making strides in this area.

" **To truly mainstream and embed coordination and collaboration, actors must be incentivised and enabled (for those without existing access) through provision of funding, exchanges of technical expertise and access to decision-making.** — State of Play 2022

Following a workshop on Anticipating Food Crises that the UN agencies conducted in November 2022, together with the Global Network Against Food Crises, they shared outcomes of the workshop in a joint report, published in June 2023. Based on these results, they then published a joint strategy for scaling up anticipatory action to prevent food crises (September 2023).

FAO, with technical support from REAP Partner the Centre for Disaster Protection (**CDP**), published an analysis of the effectiveness of FAO's anticipatory actions in Afghanistan. Joint publications contribute considerably to strengthening information sharing on evidence-based progress (see "Progress on Recommendation 6" chapter). A similar publication was also released for Viet Nam covering the experience of acting early ahead of Typhoon Noru in the Central Provinces.

Progress on recommendation 3
Deepen the understanding of and expand accessibility across the full value chain of early warning early action activities

2023 saw increasing recognition of the value of and need to work with a full value chain understanding of early warning early action systems, while the humanitarian community has taken further steps to mainstream anticipatory action. Learning opportunities have also increased to support capacity-building on diverse topics, approaches and target audiences relevant to EWEA.

" Truly mainstreaming whole-of-society collaboration requires levelling the playing field, both in terms of knowledge (what makes up the EWEA value chain and who is active within it) and access (where to go for financing, technical assistance and other support). — State of Play 2022

While these developments are positive, collaboration must be continuously pursued across sectors and levels. REAP's Partnership Stocktake, conducted in 2023, identified ongoing challenges in this area, including: the difference between fostering genuine collaboration and simply bringing different actors together in dialogue; the need to reflect on whose interests are represented, and to find ways to engage those with less capacity, who are usually the ones most in need of support; and the failures of the international system to ensure that resources are more equitably distributed. The purpose of improving collaboration at the international level should be to provide greater and more effective support to those most at risk from the climate crisis.

The year 2023 saw increasing recognition of the value of and need for end-to-end early warning and early action systems, not least within the context of the **EW4All** initiative. Several endeavours contributed to progress against this recommendation. The G20, under the Presidency of India, situated EWEA firmly within the realm of disaster risk reduction activities by establishing a G20 Disaster Risk Reduction Working Group, which adopted global coverage of early warning systems as its first priority action area. Its aim was to "lead the way towards universal coverage of multi-hazard early warning systems that result in early and anticipatory action, in terms of technology, finance, and capacity support." After meeting three times in 2023, the G20 Disaster Risk Reduction Working Group Meeting: Outcome Document and Chair's Summary commits the G20 to, inter alia, "foster collaboration… in the development and implementation of people-centred and all-of-society approaches to multi-hazard early warning systems that reach the 'last mile'"; and the G20 New Delhi Leaders' Declaration, published at the end of the G20 summit, calls on all stakeholders for more speed throughout the EWEA value chain,[5] including through

support and capacity strengthening, in particular for developing countries, least developed countries (LDCs) and small island developing states (SIDS).

At India's request, REAP along with **UNDRR** supported the meetings of the newly-formed working group through producing an input paper and presentations, and participating in side events that took place on the occasion of the three meetings of the working group (March/April, May, July 2023). Partners also contributed in a number of areas – on global coverage of early warning systems but also related action areas such as financing frameworks for disaster risk reduction – that are part of the G20 Disaster Risk Reduction Working Group Roadmap 2023–2025. The Roadmap establishes concrete actions and timescales for achieving its goals, for both G20 countries and supporting non-State partners, and stands as the G20's contribution to the calls to action in the Political Declaration of the UN General Assembly High-Level Meeting on the Sendai Framework's Midterm Review. Advocacy on the need to prioritise the work of the DRR Working Group over the long term – from Member States and from individual organisations such as **UNDRR**, the International Institute for Environment and Development (**IIED**) and **CREWS** (and with support from the REAP Secretariat) – helped to ensure that the Working Group will be maintained under future presidencies, promising to contribute to sustainable change in the longer term.

The humanitarian community has also taken further steps to mainstream anticipatory action, with REAP Partners (including the **German Federal Foreign Office**, **Save the Children**, **OCHA**, and **WFP**) leading discussions on how the new iteration of the Grand Bargain will include anticipatory action, and co-chairing the newly established AA working group. The **Anticipation Hub** has also been acting as an advisor to the Grand Bargain Secretariat on how to best integrate anticipatory action in the Humanitarian Programme Cycle. Involved stakeholders see the role of anticipatory action in the Grand Bargain within the wider context of its links to risk-informed development and climate action, evidence

of a positive shift in humanitarian perspectives towards a full EWEA value chain approach.
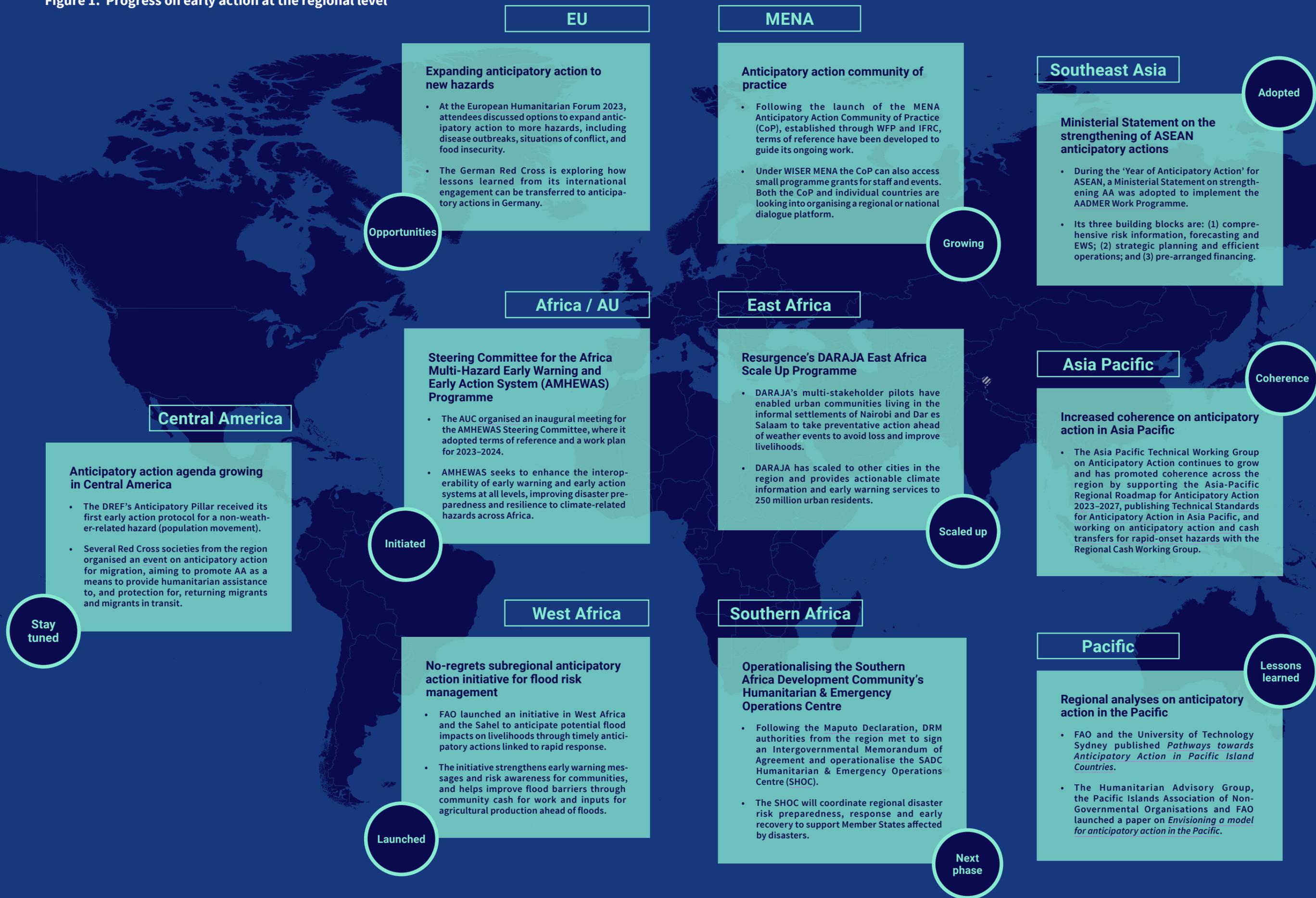
Multiple actors are also expanding learning opportunities by developing freely available online courses, covering diverse topics, approaches and target audiences relevant to EWEA. Through a participatory consultation process, the **ASEAN Secretariat** and a project consortium developed a training module on Gender Equality and Social Inclusion-Responsive Anticipatory Action for Member States, the ASEAN Committee on Disaster Management, academia, NGOs, and civil society organisations (CSOs). The module builds on the ASEAN Framework on Anticipatory Action in Disaster Management, and explains the mainstreaming of gender equality and social inclusion in the framework's building blocks.[6] Meanwhile, the **IFRC** launched a new course on anticipatory action, while in the context of its work on anticipating and preventing crises, **UNDP** started a Crisis Academy, mainly targeting UNDP staff but also other UN agencies and NGOs to create shared understanding around crises. It includes a Prevention Academy to help "UNDP country office staff to act early and at scale for conflict prevention and peacebuilding through a development lens." Another example, of particular relevance to REAP's Target 1, is the Thought Leadership Course "Synergizing Disaster Risk Reduction and Climate Change Adaptation," developed by **UNDRR** and the United Nations System Staff College (**UNSSC**) with inputs from the **members of REAP's Target 1 Working Group**. Targeting mainly "decision-makers and -shapers," disaster risk reduction and climate change adaptation focal points at different levels, it has already been accessed by around 4,000 people.

To engage actors with specific technical expertise on a more local level, **FOREWARN Bangladesh** organised its first Disaster Hackathon 1.0 together with Open Mapping Hub Asia-Pacific and the Humanitarian OpenStreetMap Team (**HOT**). The hackathon encouraged participants to use free and open data sources to develop innovative solutions linked to improving a variety of subjects, such as early warning systems, support for specific hazards or sectors, or data analytics for disaster management.

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5 For a description of the "value chain" see footnote 1.

6 These building blocks are: (1) risk information, forecasting and early warning systems; (2) planning, operations and delivery; and (3) pre-arranged finance.

Figure 1. Progress on early action at the regional level

EU
Expanding anticipatory action to new hazards

- At the European Humanitarian Forum 2023, attendees discussed options to expand anticipatory action to more hazards, including disease outbreaks, situations of conflict, and food insecurity.
- The German Red Cross is exploring how lessons learned from its international engagement can be transferred to anticipatory actions in Germany.

Opportunities

MENA
Anticipatory action community of practice

- Following the launch of the MENA Anticipatory Action Community of Practice (CoP), established through WFP and IFRC, terms of reference have been developed to guide its ongoing work.
- Under WISER MENA the CoP can also access small programme grants for staff and events. Both the CoP and individual countries are looking into organising a regional or national dialogue platform.

Growing

Southeast Asia
Ministerial Statement on the strengthening of ASEAN anticipatory actions

- During the 'Year of Anticipatory Action' for ASEAN, a Ministerial Statement on strengthening AA was adopted to implement the AADMER Work Programme.
- Its three building blocks are: (1) comprehensive risk information, forecasting and EWS; (2) strategic planning and efficient operations; and (3) pre-arranged financing.

Adopted

Africa / AU
Steering Committee for the Africa Multi-Hazard Early Warning and Early Action System (AMHEWAS) Programme

- The AUC organised an inaugural meeting for the AMHEWAS Steering Committee, where it adopted terms of reference and a work plan for 2023–2024.
- AMHEWAS seeks to enhance the interoperability of early warning and early action systems at all levels, improving disaster preparedness and resilience to climate-related hazards across Africa.

Initiated

East Africa
Resurgence's DARAJA East Africa Scale Up Programme

- DARAJA's multi-stakeholder pilots have enabled urban communities living in the informal settlements of Nairobi and Dar es Salaam to take preventative action ahead of weather events to avoid loss and improve livelihoods.
- DARAJA has scaled to other cities in the region and provides actionable climate information and early warning services to 250 million urban residents.

Scaled up

Asia Pacific
Increased coherence on anticipatory action in Asia Pacific

- The Asia Pacific Technical Working Group on Anticipatory Action continues to grow and has promoted coherence across the region by supporting the Asia-Pacific Regional Roadmap for Anticipatory Action 2023–2027, publishing Technical Standards for Anticipatory Action in Asia Pacific, and working on anticipatory action and cash transfers for rapid-onset hazards with the Regional Cash Working Group.

Coherence

Central America
Anticipatory action agenda growing in Central America

- The DREF's Anticipatory Pillar received its first early action protocol for a non-weather-related hazard (population movement).
- Several Red Cross societies from the region organised an event on anticipatory action for migration, aiming to promote AA as a means to provide humanitarian assistance to, and protection for, returning migrants and migrants in transit.

Stay tuned

West Africa
No-regrets subregional anticipatory action initiative for flood risk management

- FAO launched an initiative in West Africa and the Sahel to anticipate potential flood impacts on livelihoods through timely anticipatory actions linked to rapid response.
- The initiative strengthens early warning messages and risk awareness for communities, and helps improve flood barriers through community cash for work and inputs for agricultural production ahead of floods.

Launched

Southern Africa
Operationalising the Southern Africa Development Community's Humanitarian & Emergency Operations Centre

- Following the Maputo Declaration, DRM authorities from the region met to sign an Intergovernmental Memorandum of Agreement and operationalise the SADC Humanitarian & Emergency Operations Centre (SHOC).
- The SHOC will coordinate regional disaster risk preparedness, response and early recovery to support Member States affected by disasters.

Next phase

Pacific
Regional analyses on anticipatory action in the Pacific

- FAO and the University of Technology Sydney published *Pathways towards Anticipatory Action in Pacific Island Countries*.
- The Humanitarian Advisory Group, the Pacific Islands Association of Non-Governmental Organisations and FAO launched a paper on *Envisioning a model for anticipatory action in the Pacific*.

Lessons learned

Progress on recommendation 4
Diversify funding sources and mechanisms while ensuring they complement one another

The Getting Ahead of Disasters Charter was launched at COP28 to improve the efficiency of finance for disasters (including for early action), and a number of REAP Partners have adopted organisational strategies that seek to expand financial mechanisms and instruments and to include more diverse funding sources, which remains a top priority for bringing early action to scale.

> **" The goals should be: increased levels of finance; existing finance that is made more anticipatory (and therefore more efficient); and finance that is delivered directly to the national and local levels.**
> — State of Play 2022

Expanding financial mechanisms and instruments and including more diverse funding sources remains a top priority to bring early action to scale. To this end, REAP provided substantive support to the United Arab Emirates, the **COP28 President**, to put finance for early action and risk management on the COP agenda and centre it as a key component of its non-negotiated outcome track, with a non-binding and non-negotiated call to action. In a letter to the United Nations Framework Convention on Climate Change (UNFCCC) Parties issued in the summer of 2023, the COP28 President urged support for the Risk-informed Early Action Partnership. The REAP Secretariat, supporting the COP28 Presidency, then facilitated a consultative process to develop the "Getting Ahead of Disasters" Charter, which sets out principles that, when implemented, are designed to increase the overall amount, as well as improve the efficiency and effectiveness, of finance and investments for early action. While still dependent on continued buy-in from important stakeholders, including REAP Partners, the co-development process and resulting Charter are already drawing closer linkages between finance for EWEA/AA and for climate action (also see Target 2 chapter).

Seeking to expand access to finance, Welthungerhilfe (**WHH**) launched a project that will enable WHH and other NGOs to develop and operationalise early action protocols (EAPs) in Sub-Saharan Africa together with local humanitarian partners. Funded by the **German Federal Foreign Office**, the WAHAFA (Welthungerhilfe Anticipatory Humanitarian Action Facility) aims to strengthen and push for anticipatory humanitarian actions jointly with other NGOs, providing access to anticipatory financing outside of the well-known START funds. Importantly, EAPs developed under the WAHAFA will follow a multi-hazard approach in countries and emphasise NGO participation, particularly from local NGOs.

REAP Partners have also adopted organisational strategies that seek to expand and improve financial mechanisms for EWEA and anticipatory action. For example, as part of its Strategic Plan 2023–2026, **OCHA** commits to supporting and facilitating anticipatory approaches, including by using "its own financing tools to facilitate, generate evidence for and scale up collective anticipatory action", also noting "the private sector's increasingly large role in anticipatory action, including through blended financing models." Meanwhile, the **GCF** published its Strategic Plan 2024–2027, where it commits to support the establishment of new or improved early warning systems.

After reaching a decision at COP27 to create a dedicated **loss and damage fund** and **new funding arrangements** for countries suffering losses and damages due to the adverse effects of climate change, a follow-up decision to operationalise these items was agreed upon in the opening plenary at COP28, with anticipatory action acknowledged as a relevant funding arrangement. The decision was followed by several country pledges to the new fund. Many of these pledges, however, remain vague in terms of their timeframe and whether they are new or additional to former pledges. How the funds will be disbursed and what the governance of the fund will look like in practice will be subject to further discussions in 2024.

Progress on recommendation 5
Starting with effective two-way risk communication, ensure better connection along the entire EWEA value chain

Risk communication approaches that acknowledge communities vulnerable to disasters as senders of information, rather than merely receivers, are widely recognised as essential for developing meaningful EWEA. However, true people-centredness continues to remain a gap in many EWEA strategies and activities, which often lack feedback mechanisms for community input and omit risk information generated within the communities.

Communication for water-specific EWS is one of five technical focus areas of the "Water at the heart of climate action" initiative, aiming to reduce "the disconnection between communities and national-level early warning systems." Launched at the UN Water Conference in 2023, the initiative will be implemented by several Red Cross Red Crescent (**RCRC**) entities, **UNDRR**, the World Meteorological Organization (**WMO**), and the Systematic Observations Financing Facility (**SOFF**). Taking a local perspective as the starting point, it aims to break down barriers among sectors and organisations, and to improve cooperation around water-related risks in Ethiopia, South Sudan and Uganda; the initiative will then scale to Rwanda. Despite being included in the initial cohort, activity in Sudan was put on hold due to the conflict that arose in 2023. However, the initiative has been working with the International Committee of the Red Cross (**ICRC**) to develop a conflict-sensitive approach to its programme of activity. The initiative is featured in more detail in the Story of Change for Target 3.

Another important initiative is the Amrita Center for Wireless Networks and Applications, which won this year's Averted Disaster Award. The Amrita Center works on landslide early warning technology in India and aims to link science and technology with local approaches of affected communities. Co-designed solutions include community members' active participation in monitoring and reacting to imminent landslides.

With support from USAID's Bureau of Humanitarian Assistance, **FAO** is implementing a project on *Capturing emerging and good practices to improve community engagement in anticipatory action*. Through practical guidance and training at the country level, the project aims to strengthen the equitable and inclusive participation of all groups, including through improving two-way communication channels across all steps from early warning to anticipatory action.

While understanding is building around the role of communities in risk communications, in practice, EWS and their strategies and processes for communicating risks all too often lack people-centred approaches, feedback mechanisms for community input, or the integration of risk information generated within the communities they are designed to support.

> **" Designing and developing effective risk communication systems offer a practical way to explore how to incorporate multiple stakeholders and their needs, priorities and capabilities.** — State of Play 2022

Progress on recommendation 6
Strengthen the coherence of monitoring activities and improve information sharing on evidence-based progress

We have observed progress on the coherence in reporting on activities of different stakeholders to avoid generating multiple sets of data that are difficult to reconcile, for example where organisations are working in the same region, or where initiatives share similar aims. Moreover, a number of stakeholders have worked on new approaches to measure (state) funding for anticipatory action or broader EWEA activities, which will help to make future investments in early action more transparent, and to hold donors accountable for their commitments.

Coherence in reporting has been progressed in several areas, including **UNDRR** and **WMO's** global monitoring report of MHEWS. While previously addressing progress on the Sendai Framework commitments, it is now directly linked to reporting on progress in line with the EW4All initiative's objectives (see Target 4 chapter).

Meanwhile, several approaches to measuring (state) funding for anticipatory action or broader EWEA activities were advanced during the year. Most significantly, building on the G7 Foreign Ministers' 2022 Statement on Strengthening Anticipatory Action in Humanitarian Assistance, under Germany's leadership the **G7** are developing common guidelines to monitor, measure and report on their annual funding amounts for anticipatory action. The method suggests and includes examples of the kinds of "build" and "fuel" elements donors should

account for. In the spirit of finding a joint monitoring system, it acknowledges prior groundwork attempts of the **CDP** and the Global Public Policy Institute (**GPPi**). While the method is currently still being tested and might still be modified, the hope is to also link it to discussions around Grand Bargain 3.0 priorities, in order to agree on a joint definition of what constitutes anticipatory action (funding).

Moreover, in its State of pre-arranged financing for disasters 2023 report, **CDP** has not only provided a distinction between disaster risk financing and the narrower pre-arranged financing (PAF) (which could be used for anticipatory action or crisis response), but also developed a methodology to capture direct and indirect anticipatory or pre-arranged finance (see Target 2 chapter).

> **"Attention needs to be dedicated to alignment across a broad range of monitoring, evaluation and learning approaches (horizontally) as well as ensuring that MEL activities are capturing data at multiple levels (vertically).** — State of Play 2022

Topics of emerging importance and outlook for 2024

El Niño phenomenon

In the second half of 2023, forecasts predicted the natural climate phenomenon El Niño, which typically occurs every two to seven years and has major influences on weather patterns for up to a year in many parts of the world. Over large parts of Africa, for example, El Niño can lead to severe droughts in some regions and floods or storms in others. As the phenomenon is predictable with a considerable lead time, allowing for planning and implementation of anticipatory actions, many Partners mentioned this as a key focus for 2023 (and potentially beyond).

- **WFP** released USD 12.8 million for anticipatory actions to avoid and mitigate predicted humanitarian impacts of drought caused by El Niño in four Southern African countries, and USD 4.1 million to safeguard the lives and livelihoods of people in anticipation of floods across seven districts in Somalia.

- **FAO** launched an El Niño Anticipatory Action and Response Plan, which prioritises action in 34 countries in four regions (East Africa, Southern Africa, Latin America, and Asia-Pacific) with a focus on mitigating the phenomenon's effects on agriculture and food security. It aims to reach 4.8 million people by March 2024 and the interventions planned require USD 160 million funding. To date, in close coordination with governments and partners, FAO has launched anticipatory actions in 19 countries, providing support to approximately 700,000 vulnerable people (farmers, herders and fishers) to help them maintain food production.

- **Regional AA Working Group (RAAWG) partners** in Southern Africa jointly launched the first and largest interagency activation for drought based on the forecasted El Niño. An estimated USD 17 million was disbursed to implement multi-sectoral anticipatory action, reaching 693,000 beneficiaries across the region. The RAAWG Secretariat (FAO, IFRC and WFP) also coordinated the development of the first interagency El Niño CERF Anticipatory Action Frameworks for Madagascar and Zimbabwe, together with OCHA's Regional Office for Southern and Eastern Africa.

In August 2023, **ACMAD** organised a Policy Dialogue Day for Anticipatory Action to promote dialogue and enhance understanding among partners around El Niño. While pointing out that El Niño may present some potential benefits, ACMAD underlined that these can only be leveraged if all stakeholders collaborate closely to alleviate potential negative impacts. Many REAP Partners were involved in the panel discussion, including OCHA, IFRC, UNDRR, and AUC. Highlighting the importance of El Niño for anticipatory action, the **Anticipation Hub** published an FAQ on the topic.

Expanding the scope of anticipatory action

A new technical working group on **multi-risk, including compound risk**, was launched at the 2023 Global Dialogue Platform and aims to facilitate connections across academia, practitioners and donors; accelerate learning; and focus on joint analyses to produce practical guidance for the anticipatory action community. Another working group on **locally-led anticipatory action** was launched in August 2023, and is currently co-chaired by Diakonie Katastrophenhilfe (DKH), the German Red Cross, the Global Network of Civil Society Organisations for Disaster Reduction (GNDR), Start Network, and WHH. Meanwhile, the Centre of Excellence for Climate and Disaster Resilience organised a consultation for a handbook on **early warning and early action in fragile contexts**. The launch of the handbook (2024) is preceded by the policy paper "Early Warning Systems and Early Action in Fragile, Conflict, and Violent Contexts: Addressing growing climate & disaster risks." Germany is also funding a MapAction project with approximately USD 540,000 (EUR 500,000) to improve data access and quality for the **use of anticipatory action, including in fragile and conflict-affected settings**.

In November 2023, IFRC, the German Red Cross and FAO co-organised a workshop on **anticipatory action in displacement contexts**, hosted by the Anticipation Hub. To discuss current approaches and tangible ways forward, the workshop brought together experts and practitioners already involved in, or looking at, anticipatory action for displacement; researchers and other institutions working on models that could be used to anticipate displacement and its humanitarian outcomes; as well as donors.

Efforts to expand anticipatory actions to **more hazard types** also continued. For example, a CERF Anticipatory Action Framework aiming to prevent a **cholera pandemic** in the Democratic Republic of the Congo was triggered (USD 750,000, targeting 150,000 people in the DRC). The co-leads of the Working Group on Anticipatory Action and Health under the Anticipation Hub have also published a brief on **anticipatory action for epidemics**.

Enabling early action through insurance

Several partners are collaborating and getting more involved in increasing the number of disaster risk financing instruments that support anticipatory approaches. At the end of 2022, **OCHA** and the **African Risk Capacity** began a partnership to improve risk management and mitigate disaster impacts through parametric insurance, which aims to increase accessibility and transfer risks to the markets. **WFP** is also planning additional pilots that leverage climate risk insurance elements to scale up anticipatory action programmes (see Target 2 chapter). Beyond anticipatory action, **IDF** has approached several governments to support capacity building and increase their understanding of the opportunities offered by risk insurance, including through the Tripartite Agreement held with UNDP and the German Government. In a public-private partnership with Aon and **CDP**, **IFRC**'s Disaster Relief Emergency Fund (**DREF**) developed an insurance product as a new financing model for humanitarian response: up to CHF 5 million will be invested annually to fund the insurance premium, which would generate up to CHF 20 million in disaster risk financing. Other REAP Partners support the use of insurance by funding premiums and product development, although insurance providers still observe some reluctance from donors to fund insurance premiums at scale within the humanitarian sector. Despite the positive development, several survey respondents recommended designing even more comprehensive parametric insurance and disaster risk finance instruments, which could support the endeavours of the **Global Shield**, the **Insurance Development Forum**, and **UNDP**'s Insurance and Risk Finance Facility.

From terminological differences towards conceptual debates

Finally, as part of the key informant interviews conducted for this State of Play, as well as in public and informal discussions, the debate around terminology and definitions (see the State of Play 2022 and the REAP Glossary) seems to have moved into a next phase, illustrated by the recurring question of how to frame the pathway to scaling up EWEA. In essence, one framing emphasises the humanitarian aspects of anticipatory action: it uses humanitarian action as a departure point, and plans to scale up by reaching out to development, climate and other actors to support funding anticipatory action as a means to avoid or mitigate humanitarian impacts. Another framing adopts a broader perspective on anticipatory action: it focuses on developing a greater diversity of approaches and activities, and addressing a broader timescale through anticipatory insurance or risk-informed development, to take two examples. These framings are not necessarily mutually exclusive, but effort will be required on all sides to find an effective way (or ways) forward.

Water shortage, soil salinity and erosion are serious issues in Uzbekistan, but a project supported by UNDP and GCF has been working to strengthen climate-sensitive sectors. © UNDP Uzbekistan

Looking further ahead: priorities to bring early action to scale

An ever-greater number of actors are engaged in the early warning early action agenda, including on policy development, investment, planning, and implementation. Thanks in large part to the greater diversity of actors contributing to improved awareness, understanding and collaborative action across the full value chain, approaches to the agenda are also becoming more sophisticated and nuanced. Most actors agree with and support calls for humanitarian, development and climate actors to work in closer harmony, across sectors and levels, as recommended by the 2022 State of Play.

This year's research and analysis highlighted three important ways to make that move. They may even be regarded as prerequisites for achieving our common objectives, including REAP's 4 Targets and the EW4All's aim to have everyone covered by early warning systems. Each has been linked to one of REAP's three Drivers of Change[7] to indicate where action could begin; however, each of the Drivers of Change will need to be addressed to achieve progress in these three areas.

Integrating anticipatory action into broader disaster risk management action

> Deeper exploration is required into the future of anticipatory action: Will it remain a predominantly humanitarian matter? Can we take it to the scale required with humanitarian resources alone? Alternatively, how can anticipatory action and humanitarian experiences be used to support cross-sectoral collaboration with development and climate actors? This exploration should support shared understanding on the role (and limitations) of EWEA, in particular anticipatory action, as a part of long-term planning and the broader disaster risk management cycle.

Anticipatory action, despite originating within humanitarian organisations, receives widespread political support across sectors. Efficient and effective anticipatory action can prevent or minimise losses of development gains, and can support responses to climate losses and damages, as well as reduce acute humanitarian needs. If brought to scale, it has the potential to change the lives of even more of the people who are most affected by the climate crisis and exposed to its risks. However, we must continue to identify how to take anticipatory action to the scale demanded by increasing needs. An issue that actors continue to grapple with is the level of financing available for delivering anticipatory action: while progress is being made, as noted in the Target 2 chapter of this report, it remains insufficient.

Realising the potential of anticipatory action will also mean embedding it firmly into a coherent and coordinated disaster risk management cycle. Anticipatory action – as a short-term intervention that responds to residual risks that cannot be avoided, mitigated or transferred through risk-informed development and climate adaptation and resilience building – needs to work hand-in-hand with those approaches in order to support long-term development and ongoing disaster risk reduction efforts. The responsibility for ensuring this takes place falls on humanitarians, development and climate actors alike.

Risk-informed approaches are inherent to anticipatory action, and its positive short-term impacts can contribute effectively as a key enabler in long-term sustainable development – if it is effectively integrated with longer-term processes. It is through adopting a long-term risk-informed lens to planning that we will not only close the gaps in the current fragmented approach to disasters, but also unlock more coordinated finance across the disaster management cycle. To take anticipatory action to scale, deeper strategic conversations are required between climate, development and humanitarian actors to position us jointly regarding the shifts required in business-as-usual financing, implementation, and evaluation.

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7   See Introduction chapter for a description.

So where do we go from here?

Starting point: *global commitment on policy and practice (driver of change 1)*

This issue will have to be addressed from multiple angles, by a diverse set of actors, in a range of contexts. The **"Getting Ahead of Disasters" Charter**, in its attempt to catalyse coordinated action across sectors and timescales, offers a roadmap to achieve this in relation to finance. Governments and organisations that have endorsed the Charter – as well as those who have yet to do so – are strongly encouraged to use its principles to assess how they can shift their approaches to providing finance before disaster impacts in line with the needs identified above. The work of the **Grand Bargain political caucus on scaling up anticipatory action** also promises progress in this area. It states that, among other priorities for change, anticipatory action should be a collective effort shared between humanitarian, development and climate actors. If the political caucus is able to work with development and climate colleagues to deliver concrete recommendations on how anticipatory action can be used as a lever to better integrate humanitarian, development and climate action, we may soon see a clear pathway towards true cross-sectoral collaboration.

Grounding global policy debates in the realities of implementation

We must consider the realities faced by implementing organisations on the ground. Global policy discussions must support and be informed by the communities most affected by the impacts of climate change who are implementing early warning and early action.

There is a disconnect between global policy debates and the realities of community-based implementation of early warning and early action. This is also true when it comes to linking funding for anticipatory action with longer-term development or climate change adaptation and mitigation efforts. In practice, these silos exist more at the policy and strategic funding level.

REAP's main arena of influence is at the international level, but it benefits from the active involvement of its Partners in putting programmes along the value chain into action at all levels. This diverse membership gives REAP the means to elevate the concerns and practical considerations of those who are often not heard on the global stage. But to do so, there still remain challenges to overcome. The Partnership Stocktake showed that REAP has a lot of scope to improve its engagement with non-Western governments and organisations – challenges which are likely faced by many other initiatives, partnerships and networks. Within its current work and through its Partners, REAP aims to bridge different levels of activity by exchanging information, raising awareness and sensemaking. Governmental and non-governmental Partners from countries most affected by climate change impacts see the value added through this approach. Other actors engaged in policy debates are strongly encouraged to address the disconnect between international and local levels, between policy debates and implementation.

The EW4All initiative, for example, may offer an opportunity to create systemic change from the national and sub-national levels – if all pillars are interconnected and the decision-making power is situated at the national and subnational levels.

So where do we go from here?

Starting point: *enabling local- and country-level ownership and leadership (driver of change 2)*

The onus for action on this issue should rest primarily at the international level – where the greatest share of resources sits. Attending to the needs of underrepresented groups should always be considered at the earliest stages of planning, even where this is not simple. Opportunities already exist: the **EW4All** initiative has committed to establishing a Multi-Stakeholder Forum to enhance consultation and foster collaboration with a wider group of partners, and the **Water at the Heart of Climate Action initiative** (see Target 3 chapter Story of Change) is adopting an approach that centres local decision-making. The **"Getting Ahead of Disasters" Charter** also notes, in Principle 5, the need to "prioritise locally-led and people-centred approaches to taking action ahead of disasters, with government leadership and greater involvement of local actors and systems." Ultimately, progress should ensure that local actors are not just consulted, but regarded as equal partners and provided with access to resources for implementation based on local needs.

Making sense of the initiatives, partnerships and networks working on early warning and early action

Relevant initiatives, partnerships and networks need to clarify and make sense of their specific added value, how they relate to one another, and what benefits stakeholders can expect from their engagement. This is vital for enabling members of the global community to make informed decisions as to where they dedicate their time and resources.

The increasing number of initiatives, partnerships and networks active along the entire early warning early action value chain gives rise to real risks of confusion and loss of engagement among key stakeholders, and of duplication and/or competition for limited resources among important efforts to make people safer from disasters. Based on research, conversations, interviews, and surveys throughout the year, it has become apparent that REAP has to do its part to clarify its specific mandate and operational niche, and the value it can add to its Partners' ambitions. The purpose of this is not to separate out the initiatives, but to highlight their synergies. For this reason, REAP must also be transparent about its scope and added value in relation to other initiatives – identifying where its sister initiatives have the momentum, focus and resources to better progress certain action areas. This sensemaking process should influence how the initiatives, partnership and networks develop over time, with changes being demand-driven by the organisations and countries they are designed to support. Identifying gaps and ways to fill them by adapting already-established structures will help to avoid a further proliferation of initiatives. For example, questions remain over what the future holds for REAP past 2025, and while the Partnership Stocktake evidenced a desire among Partners to see REAP continue its work, it is not a given that this will happen – if a new phase is needed it must be designed to fulfil a specific gap in the current landscape.

So where do we go from here?

Starting point: *fostering collaboration and linking supply with demand (driver of change 3)*

This State of Play, complementing similar efforts, contributes a starting point to the discussion of where different initiatives are locating themselves on the EWEA value chain (see Annex 1). REAP encourages other initiatives to engage in similar sensemaking and participate in exchanges on commonalities and differences, to allow new actors to better understand the complementarities and unique value propositions of those working on early warning and early action.

Traditional forecasters and scientists from the Kenya Meteorological Department (KMD) gather under a tree to compare the traditional and scientific forecasts for the oncoming season. © Kiplagat Edwin / ICPAC

PART 2
PROGRESS AGAINST REAP'S TARGETS

Target 1: National comprehensive risk management

By 2025, 50 countries have reviewed and integrated their crisis/disaster risk management, climate adaptation laws, policies and/or plans to ensure that they reduce climate change impacts and exposure on people and the environment.

Where do we stand?

As of now, Target 1 has been achieved as more than 50 different countries have taken the different steps outlined for the Target. However, while national-level leadership on integrated legislation and policy is critical to ensure the environment exists for comprehensive disaster risk management approaches, translation and contextualisation are required to bridge the gap between internationally agreed policy frameworks, national systems, and connecting and adapting these efforts to the local level.

Many Partners underline the continued relevance of Target 1 and identify it as a priority for them. Several organisations directly contribute to moving towards the Target by supporting countries on integrating relevant policies and plans. While some work with the same governments, and the timeframe of some engagements stated below remains unclear, taken together it seems apparent that **Target 1 has been progressed in more than 50 different countries**. This includes the following endeavours:

- The IFRC Disaster Law team supports national governments through advocacy and with checklists for reviewing disaster risk management laws,

regulations, policies, and plans. The Disaster Law Database shows that **IFRC and National Societies** supported the implementation of International Disaster Response Laws Guidelines in 38 countries' national instruments[8] as well as in several regional instruments.[9] Moreover, the team has drafted a snapshot of how to legislate for early warning early action. It also published pilot Guidelines on Disaster Risk Governance for comment, which build on existing research on Disaster Risk Reduction (DRR), preparedness and similar fields to provide guidance on the implementation of international instruments such as the Sendai Framework.

- **WFP** published several briefs on their collaboration with governments in Southern Africa and saw concrete advances, for example, in assessing if investments made sense on the institutional level based on monitoring and evaluation guidance. The organisation also saw an increase in governments involved in anticipatory action. This includes direct collaboration, for example, in Mozambique, where WFP seconded an anticipatory action specialist to the National Institute for Disaster Management (Instituto Nacional de Gestão e Redução do Risco de Desastres, or INGD) to support coordinating the technical working group and the integration of anticipatory actions within the existing national processes. In Somalia, WFP assisted SoDMA in formulating a national flood AA framework to enable multi-actor AA ahead of El Niño-induced floods; it also supported the development of government-led AA in Bangladesh, Mozambique, Lesotho, Fiji, and Haiti through building connections to national social protection programmes. WFP also facilitated two cooperation exchanges – between the Governments of Indonesia and the Philippines, and between the Governments of the Dominican Republic and Mozambique – to learn about the integration of AA principles in policy and financial frameworks.

- In its annual report, **CREWS** outlines that the Democratic Republic of the Congo, Mozambique and Togo adopted decrees, and five countries in the Pacific validated national strategic plans or frameworks for stronger governance on hydrological, meteorological and climate services in 2022. Moreover, CREWS reported providing support for developing or strengthening national plans, strategies, bills, standard operating procedures, and legislation for national meteorological and hydrological services (NMHSs) in 16 countries in Africa, 21 countries in Asia and the Pacific, and 30 countries in the Caribbean.

- **FAO** monitors different indicators showing the organisation's contribution towards Target 1, indicating support for over 20 countries in developing a total of 45 DRR strategies – 19 national, 20 local and 6 sectoral – with regard to the implementation of the Sendai Framework Target E in agriculture, as well as for another 20 countries in developing anticipatory action protocols as part of sector-specific DRM strategies.

- The **UNDRR** and **WMO** Global Status of Multi-Hazard Early Warning Systems 2023 report highlights that out of the 101 countries that report having a MHEWS, 95 have also reported the existence of DRR strategies. While it is not yet possible to report how many of these have integrated early warning and early action into their DRR strategies, the report confirms that countries with more comprehensive strategies tend to have higher MHEWS coverage, highlighting both the potential within and the critical nature of Target 1.

REAP Partners consistently highlight the critical role that governments must play in driving progress against Target 1. While REAP made initial inroads in supporting coordination of the international actors already working on or interested in early action, the work of the Partnership now attracts more and more governmental actors. The Partnership gives them a platform to share challenges and co-develop solutions, for example by featuring national-level discussions during Partnership meetings. Interviewees observed that governments are speaking more about early action – a development that stakeholders link to REAP's influence – and that there is a strong movement towards its institutionalisation as an approach to addressing disasters.

Interview partners observe more involvement of governments in international and regional events, including during the Global and Regional Dialogue Platforms on Anticipatory Humanitarian Action. For example, during the 2023 Regional Dialogue Platform for the Americas, the Central American intergovernmental body for disaster response (the Coordination Center for Disaster Prevention in Central America and the Dominican Republic, or **CEPREDENAC**) committed to integrate anticipatory action into national DRM policies, legal frameworks, civil-protection systems, and contingency plans with multi-sectoral and inclusive approaches. Moreover, **Colombia** co-hosted a session on the development of a National Sectoral Plan for Preparedness, Anticipatory Action and Response for El Niño 2023–2024.[10]

Other examples of progress on policies at the national level include **Samoa**'s Disaster Management Office, which is currently reviewing the country's National Disaster Management Plan and aims to develop a National Disaster Risk Management Policy. Similarly, **Nepal**'s National Disaster Risk Reduction and Management Authority, which views comprehensive risk management as one of the country's priority areas, is currently engaged in drafting a concept note and corresponding action plan

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8 Those 38 countries are: Bhutan, Bosnia and Herzegovina, Burkina Faso, Cambodia, Colombia, Cook Islands, Costa Rica, Ecuador, El Salvador, Finland, Guatemala, Honduras, Indonesia, Italy, Kyrgyzstan, Maldives, Mexico, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Norway, Panama, Paraguay, Peru, Philippines, Rwanda, Samoa, Seychelles, Tajikistan, Turkmenistan, Thailand, Vanuatu, Viet Nam.

9 This includes the Regional Mechanism for Humanitarian Assistance in the Event of Disasters of the Central American Integration System, the Guidelines on International Cooperation for Humanitarian Assistance among Andean Countries, the European Union Host Nation Support Guidelines, the ASEAN Agreement on Disaster Management and Emergency Response, and the ASEAN Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations.

10 "Plan Sectorial de Preparación, Acción Anticipatoria y Respuesta a probable Fenómeno de El Niño 2023–2024."

for a MHEWS, and is updating a policy for water-induced disaster management.

Following a July 2022 strategy workshop in the Maldives,[11] the National Disaster Management Authority and the Ministry of Environment, Climate Change and Technology jointly presented to REAP Partners how the Maldivian government has agreed to integrate DRR and Climate Change Adaptation (CCA) plans. They will ensure synergy in implementation through an integrated national committee, established to enhance national coordination, and are formulating an action plan on DRR-CCA, with an accompanying monitoring and evaluation framework. The Target 1 Working Group has also hosted the Governments of Trinidad and Tobago and Uganda to share their experiences and challenges in integrating DRR and CCA into policy frameworks, or in developing integrated strategies. As such discussions take shape, it is also part of the working group's annual plan to continuously update the mapping exercise to identify the next opportunities. The focus of working group members during 2023 was on initiating collective discussions within target countries, bringing together relevant government ministries and supporting organisations to identify opportunities for joint planning and strategies.

Opportunities

Promising developments at national and regional levels will further contribute to enhancing integrated approaches. The **AUC** developed the Continental Civil Capacity Mechanism for Disaster Preparedness and Response (3CMDPR), which was endorsed by the AU Summit of Heads of State and Government in February 2023. Once operational, the mechanism aims to build pan-African responses to disasters within and outside the continent; to promote a culture of anticipatory action and impact-based financing; and to create a pool of resources to be accessed by Member States for impact-based financing and disaster response. Moreover, the AUC established the Anticipatory Action Dialogue Platform for Regional Economic Communities (RECs), Member States and partners. In Central America, following the official commitment to integrate anticipatory action in national DRM and civil protection systems, policies and legal frameworks, governments represented in **CEPREDENAC** have declared 2024 as "the year of anticipatory action" in Central America.

International actors are also working to build national- and regional-level capacity for reviewing and integrating climate change adaptation and disaster risk management

strategies and plans, by publishing learning materials for governmental and other stakeholders. This includes the "Thought Leadership Course – Synergizing Disaster Risk Reduction and Climate Change Adaptation" developed by **UNDRR** and **UNSSC**. Several thousand people have already taken the course. Moreover, the **Anticipation Hub** is currently finalising a learning module for governments that aims to provide robust training on how to mainstream meaningful anticipatory action into national DRM policies. The module is expected to be tested and launched over the course of 2024 and combines inputs from the perspectives of different Partners, including **CREWS**, **ICPAC**, the **UK Met Office**, and **WMO**. Recognising the need to enable country-level leadership and to be informed by national-level priorities, the **Anticipation Hub** aims to attract more governmental partners in the future (only four members were governments at the time of research), given that the Hub's policy and advocacy work often targets national issues.

To support national and regional approaches from the NGO side, **Save the Children** developed a Framework for Anticipatory Action. At the UN level, the United Nations Population Fund (**UNFPA**) is currently developing an internal Anticipatory Action Framework, a tool focusing on providing Sexual and Reproductive Human Rights and Gender-based Violence (GBV) services at the local level. It is also worth observing developments following the Secretary General's Action Agenda on Internal Displacement, in which EWEA plays a role: for example, **WFP** committed to prevent new displacements and to protect existing IDPs through the scale-up of anticipatory action and finance, while **FAO** and **IOM** partnered together in the Asia-Pacific region to unpack the potential of anticipatory action for climate-induced mobility and develop a methodology to pilot the approach in the region.

In terms of donor support to Target 1, the **UK** wants to improve coordination across various actors, including climate funds, international financial institutions (IFIs) and humanitarian agencies, and to scale up anticipatory action, especially in fragile and conflict-affected states impacted by climate change. In the UK itself, the Third National Adaptation Programme (NAP3) was launched in July 2023. The NAP3 responds to 61 risks and opportunities, including drought, flooding and extreme heat events. For the first time, it also includes dedicated responses to the effects of overseas climate impacts on the UK, including risks related to violent conflict, displacement, food security, accessibility and safety, supply chain disruption, the UK finance sector, and

systemic and cascading international risks. Emergency alerts for events that represent a severe threat to life are part of a public information system developed by the UK Government (and tested in April 2023). Moreover, the UK Met Office issues impact-based warnings with likelihood and impact severity matrices, which can trigger action from authorities. Funding for these actions is, however, not set aside in advance, but financed by the Treasury's reserves. Lessons learned at the international level, which the **UK Met Office** aims to implement at the national level include "co-production" across sectors with potential users of the services, impact-based forecasts, and integration with social protection programmes.

Challenges

Several Partners suggest that while REAP and other EWEA-focused initiatives are trying to influence policy changes and measure the extent to which policy shifts are taking place, it is going to remain challenging to draw clear causal links between inputs and outcomes because policy change not only happens slowly but is usually the result of a number of factors. However, given the momentum behind EW4All, there is an opportunity to embed monitoring of these changes across a large range of projects in varied geographies. At the outcome level, the EW4All Logic Model identifies a number of relevant cross-cutting enablers, including: clear institutional, policy and legislation frameworks in place to develop and implement early warning systems; effective coordination between relevant agencies and stakeholders; and plans for the development and implementation of EWS that have been not only developed, but also financed

and operationalised. The opportunity that exists through EW4All is that projects established under its umbrella prioritise the enabling environment as a foundational element of effective EWS. To incorporate that perspective, those projects will need to identify relevant indicators to track progress towards comprehensive risk management to a more granular level than the Sendai Framework Monitor, for example.

While national-level leadership on integrated legislation and policy is critical to ensure the environment exists for comprehensive disaster risk management approaches, this should not stop at the national level. Translation and contextualisation are required to bridge the gap between internationally agreed-on policy frameworks and national systems. But an even bigger step is needed to connect and adapt these efforts to activities taking place at the local level. Interviewees commented that, ultimately, the positive change that the international community aims to bring about may remain unrealised unless international actors are able to adapt their approaches to fit with civil society organisations and citizens in affected communities.

This is particularly clear in the Pacific Islands, for example. Ongoing challenges include not only gaps in capacity and technical and financial resources, but also the remoteness of the islands and the lack of data coverage from international instruments. While regional approaches and coordination mechanisms can help move towards Target 1 everywhere, linking the different levels seems particularly relevant for SIDS.

Computer monitors displaying DEWETRA and the East Africa Hazards Watch apps showcasing real-time monitoring and forecasting of natural hazards at ICPAC Head offices in Nairobi, Kenya. © Kiplagat Edwin / ICPAC

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11   See Target 1 chapter Story of Change in the 2022 State of Play report.

30 • Early Action: The State of Play **2023**

STORY OF CHANGE
Building alignment at a National Dialogue on Anticipatory Action

In Nepal, the government seeks to move from conventional disaster response to risk-informed approaches. It supports this shift by leading the development of a shared, national commitment to anticipating disaster impacts and enabling action ahead of shocks. Nepal's objective is clear: saving lives and building a more resilient future through forward-thinking approaches to disaster risk management.

In May 2023, taking this ambition a step further, the country's National Disaster Risk Reduction and Management Authority (REAP Partner since 2021) organised the second National Dialogue on Anticipatory Action. The Dialogue brought together government ministries and authorities, such as the National Disaster Risk Reduction and Management Authority of the Ministry of Home Affairs, and the Ministry of Health and Population, as well as technical partners from the RCRC Movement, INGOs and UN agencies. The Dialogue offered a platform to showcase good practices, to exchange experiences and lessons learned, and to inform Nepal's policy direction on anticipatory action. Three thematic areas were of particular relevance: (1) multi-hazard risks; (2) disaster risk financing and risk transfer mechanisms; and (3) shock-responsive social protection. The National Dialogue benefited from the work of the national Community of Practice on Anticipatory Action and Shock Responsive Social Protection.

In convening this second National Dialogue, the Nepalese government demonstrated national-level leadership in: **integrating anticipatory action with other national systems and policies** such as social protection; integrating anticipatory action **at all governmental levels**; and **linking ambitions to general disaster risk reduction efforts**, as the outcomes directly feed into the National Platform for Disaster Risk Reduction (NPDRR). Moving this process forward in a joint endeavour serves as a practical example of aligning country- and local-level ownership and leadership, which REAP identifies as a key driver of systemic change.

Where does it go from here? The Nepalese government has promising plans: first, they are working towards a national roadmap to integrate and mainstream coordinated anticipatory action into all aspects of humanitarian response and preparedness; second, the NPDRR wants to establish an "Anticipatory Action Clinic," a dedicated centre for knowledge exchange, and a collective approach among government agencies, non-profit organisations, academia, the private sector, and local communities.

Other countries are also demonstrating commitment to making anticipatory action a cross-sectoral concern: Uganda held its first National Dialogue on Anticipatory Action in 2022, which led the government to set up a Disaster Risk Finance Technical Working Group with representatives from various ministries, departments and agencies in Uganda, the United Nations and the Red Cross. The Uganda Red Cross Society is planning to hold the National Dialogues biannually. Under the lead of Pakistan's National Disaster Management Authority, anticipatory action stakeholders also organised the country's first National Dialogue in December 2023. In Bangladesh, the Anticipatory Action Technical Working Group under the leadership of the Ministry of Disaster Management and Relief hosted the country's second National Dialogue Platform in September 2023.

Target 2: Early action financing and delivery

By 2025, 1 billion more people are covered by financing and delivery mechanisms connected to effective early action plans, ensuring they can act ahead of predicted disasters and crises.

Where do we stand?

Interview partners and survey respondents believe that progress is being made on Target 2, but it still requires considerably more effort. The five largest humanitarian funds show that spending on anticipatory action has increased by more than 50 per cent since 2020 (to USD 63.8 million), but research completed by the Centre for Disaster Protection shows that only 2.7 per cent of international development financing was pre-arranged in 2021 (USD 1.9 billion), while anticipatory finance claimed an even lower share at just 0.2 per cent of humanitarian funding. Reporting globally on how many people are reached by relevant programs remains challenging.

The **GCF** anticipates building the resilience of 1 billion people through 243 GCF projects – although the methodology for arriving at this figure is not readily available – and has invested almost USD 933 million in early warning over 62 projects. Thus, a portion of the 1 billion may indeed benefit from coverage by early action plans, but more work would be required to confirm this. More detailed data (albeit of a different scale) comes from the Anticipation Hub, according to which anticipatory actions reached at least 3.6 million people in 30 countries through activations of 47 frameworks in 2022. The number of people covered by different early action protocols – most of them for drought – was considerably higher at 7.6 million people, through a total of 70 frameworks, and backed up by almost USD 138 million of agreed finance. An additional 97 frameworks were also under development across 61 countries in 2022.

Based on its methodology note for calculating donor PAF for crises, the **CDP** has now published the "State of pre-arranged financing for disasters 2023" report. The report counts contributions towards activities to prevent, prepare for and respond to crises, and clearly distinguishes between broader pre-arranged finance on the one hand and more specific anticipatory finance on the other.[12] CDP concludes that while international development financing[13] for PAF grew from USD 177 million to USD 1.9 billion between 2017 and 2021, it remains a small share of total crisis financing flows (across prevention, preparedness and response): in 2021, only 2.7 per cent of all financing was pre-arranged, and between 2017 and 2021 the annual average was even less (2.2 per cent). Anticipatory finance occupied a far lower share at 0.2 per cent of humanitarian funding in 2021.

In submissions for this report, the **UK** indicated that it is "developing, testing and expanding" the methodology to measure disbursements for both direct and indirect pre-arranged finance across all relevant programming of the UK's Foreign, Commonwealth and Development Office (FCDO), and equally called for other REAP Partners to adopt the same methodology. Several other Partners have also developed or were working on methodologies to capture direct and indirect anticipatory or pre-arranged finance. This includes the G7 approach, led by **Germany** (see "Progress on recommendation 6" in Part 1), as well as **USAID**'s Climate Adaptation Support Activity (CASA), which developed resources and tools to strengthen organisational readiness for disaster risk finance (DRF), AA and EA for both USAID and the broader humanitarian community (see Story of Change in this chapter).

However, given the lack of a jointly agreed-upon mechanism, developing new (and unaligned) methodologies at different levels risks further contributing to existing confusion. As one interviewee put it: "If we are not clear enough about the concept, we will not see the difference." Apart from the greater concern that funding might not suffice

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12 The Centre uses the following definitions: PAF is financing that "has been approved in advance of a crisis and that is guaranteed to be released to a specific implementer when a specific pre-identified trigger condition is met" and "may be used for anticipatory action or in response to a crisis, either linked to a clear plan for a very specific purpose or general budget support," whereas anticipatory finance must be "released before the peak impacts of a hazard that is known to be imminent, in order to reduce those impacts."
13 For a more detailed definition, please see the CDP's *State of pre-arranged financing for disasters 2023* report, page 21.

to reach early action at scale, the worry remains that, while donors will continue to allocate funding, the lack of monitoring on agreed-upon measures may prevent a consistent and robust proof-of-concept for early action.

REAP's Financing Early Action Work Plan 2023–2025 builds on the Partnership's continued work following the Finance for Early Action report from 2022 and the Wilton Park dialogues that followed. Following the overarching goal to diversify and expand finance for early action across sectors, the REAP Secretariat and interested Partners followed through with a commitment based on a 2022 recommendation and established an informal discussion group working on relationship-building with and advocacy to Multilateral and Regional Development Banks (MDBs and RDBs). The objectives of the group are: (1) to develop support for governments and bilateral donors (who sit on the boards of MDBs and RDBs), which will enable these groups to influence bank policy and encourage the adaptation of crisis financing instruments in line with best practice/principles, as well as to support governments' in-country dialogues with MDBs and RDBs (two meetings have already taken place and more initial consultations are ongoing); and (2) to articulate asks and offers from REAP to Development Banks, and onboard more partners.

Both the REAP Secretariat and REAP Partners provided support to the **G20 Presidency** (India) in 2023, through preparing papers and presentations for the newly formed G20 DRR Working Group. The REAP Secretariat developed an input paper on finance for early action to inform priority area 1, universal coverage of early warning systems, which helped to initiate formal engagement between REAP and the G20 with India leading efforts to ensure that current ambitions remain on the agenda for Brazil's G20 Presidency. The DRR Working Group's Roadmap embedded financing for EWEA (see "Progress on recommendation 3" in Part 1). In 2024, under the leadership of **UNDRR**, **REAP**, **CREWS**, **WMO**, and the UN Economic and Social Commission for Asia and the Pacific (**UNESCAP**), the G20 aim to "conduct an in-depth analysis of the financial and technological requirements across the four pillars of early warning systems to provide universal coverage and develop a framework to engage with and mobilise public and private investments to ensure availability of pre-arranged finance and resources for early actions."

Spotlight on disaster risk financing

Progress has been made in operationalising the links between DRF mechanisms and climate risk insurance programmes and anticipatory action, to support taking AA to scale. For example, to support adaptation to increasing financial losses due to climate-related disasters, **WFP** has programmes in Bangladesh, Haiti, Mozambique, and Zimbabwe that include both climate risk insurance elements and anticipatory actions. Further pilots are planned, including to scale up existing anticipatory action programmes with (climate risk) insurance services. This is the case, for example, with the Forecast Index Insurance initiative in Guatemala, which includes a preliminary payout trigger before anticipated extended dry spells.

With the aim of leveraging private sector technical and financial capacity, and improving understanding of pre-arranged finance and early action among private sector actors (such as the insurance sector) and early action stakeholders, the REAP Secretariat collaborated closely with **CDP**, **IDF** and **WTW** in developing learning and advocacy materials, including a workshop in November 2023. CDP also published a guidance note on making disaster risk financing work better for risk-affected people. Another step towards better understanding how to sensibly link anticipatory action to risk financing approaches is the release of a compendium of think pieces, drafted by the Sectoral Community on Linking Anticipatory Action to Risk Financing.

Global financing pledges and commitments

The UN General Assembly (UNGA) response to the Sendai Framework Midterm review – in which it recognised the close links between the Sendai Framework's ambition to enhance disaster preparedness, implementing MHEWS and EW4All – acknowledged increasing ambitions to finance anticipatory action, including REAP's efforts to address the humanitarian financing gap. However, ambition must result in action.

This year's G7 Foreign Minister's statement again highlighted the importance of, and reaffirmed the G7's commitment to, anticipatory action. Concrete details were, however, lacking on how this commitment would be implemented. Government donors also published financial commitments towards EWEA, including to support other governments. Much of this support goes through humanitarian pooled funds or international organisations rather than via bilateral agreements between governments or national-level organisations. Several Partners contributing to this report who engage in these practices confirm them as a preferred method for channeling funding

Germany also re-confirmed its goal of investing 5 per cent of its humanitarian budget to scale up anticipatory action as of 2023, and published its expenses from 2015 to 2022 (see Table 2). In 2022, its investment amounted to almost **USD 63 million** (EUR 58 million) and the country plans to allocate at least USD 100 million in 2023. Germany is mainly supporting anticipatory actions through capacity building and contributing pre-arranged financing to pooled funds that will be released when triggered. Moreover, in 2023, the German government and **WHH** have set up a new financing mechanism for anticipatory action aimed at NGOs with a focus on Sub-Saharan Africa (WAHAFA). As part of the G7 Presidency in 2022, Germany had pushed for clearer definitions to increase transparency and allow for easier monitoring of international expenses (see "Progress on recommendation 6" in Part 1). The country also indicated that anticipatory action will be part of its upcoming humanitarian strategy (2024–2027).

Getting Ahead of Disasters: A Charter on Finance for Managing Risks

A major output from REAP's Financing Early Action Work Plan in 2023 was "Getting Ahead of Disasters: A Charter on Finance for Managing Risks," launched at COP28 and endorsed by over 40 governments and organisations. The Charter came about through a collaboration between the UAE – the COP28 Presidency – and the REAP Secretariat and involved Partnership-wide consultation to develop the final text.

The five principles of the Charter were formulated from the recommendations of the 2022 Finance for Early Action report, and refined in several group and bilateral consultations. The impetus provided by the early endorsers of the Charter – some of whom are not yet REAP Partners – offers the opportunity to engage a diverse audience around concrete steps for embedding the principles in investment and programming decisions, and thus implement risk-informed action at scale. This will support existing policy commitments and initiatives, further details of which are available in a companion piece to the Charter. The key next step for REAP and its Secretariat will be to determine how to support stakeholders in implementing the Charter, and what accountability will look like.

Figure 2 Anticipatory action expenses of the German Government
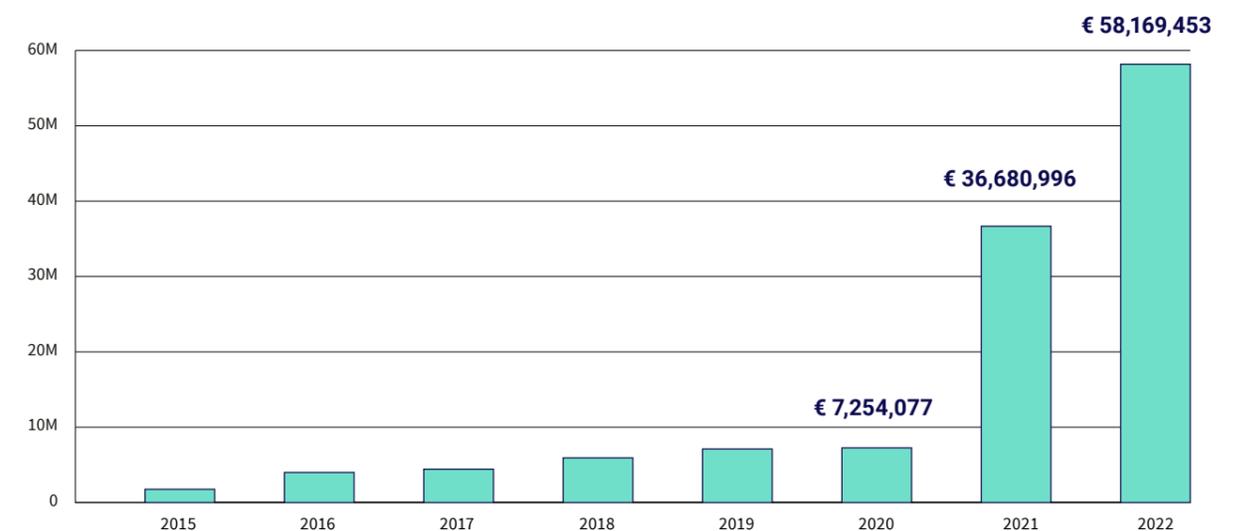
Debates are ongoing as to whether humanitarian (and other) donors should commit to allocate a certain percentage of their budgets towards anticipatory action (as, for example, demanded by the Rockefeller Foundation and done by the German government). Others call on donors to provide more climate finance through existing channels for anticipatory action to mitigate the impact of climate-related disasters. More concretely, apart from allocations purely towards anticipatory humanitarian action, more commitments were made to fund actions linked to the EWEA value chain (albeit a direct connection to early warning or early action cannot always be established).

- For the GCF's second replenishment (GCF-2), **Germany** committed more than USD 2.1 billion (EUR 2 billion); **Canada** announced more than USD 330 million (CAD 450 million); and the **US** announced a contribution of USD 1 billion.

- The **UK** is a major donor (alongside Germany and more recently Canada and Japan) to the Global Shield Financing Facility (GSFF, formerly GRiF) at the World Bank. The programme runs from 2019–2027, with a full life value of almost USD 190 million (GBP 150 million). While more related to REAP's Targets 3 and 4, the UK **FCDO** and UK Met Office Weather and Climate Information Services (**WISER**) project have also developed the Climate Action for a Resilient Asia (CARA) programme, running from 2019 until 2029. As a technical assistance facility, it builds capacity at national, subnational and community levels to integrate climate resilience into government-wide policy. The programme also cooperates with the private sector, including banks and financial regulators. Other WISER programmes in Africa, MENA and Asia-Pacific are designed to cover the regional level for transboundary risks.

- At the Africa Climate Summit (in Nairobi in September 2023), a total of USD 23 billion was pledged for climate adaptation and resilience efforts (a full breakdown was not available). Donors include governments, the private sector, multilateral organisations, banks, and philanthropies; commitments are intended to align with the Nairobi Declaration. This includes USD 481 million from **Germany** for climate finance; USD 30 million from the **US** for climate-resilient food security

efforts on the continent, and USD 4.5 billion from the **UAE** for clean energy initiatives. The Nairobi Declaration adopted at the summit includes a commitment from Heads of States to strengthen "early warning systems and climate information services, as well as to take early action to protect lives, livelihoods and assets" (see Target 3 chapter).

Some Partner governments also indicated their commitments to support EWEA activities in their own and other countries:

- **Nepal** considers Target 2 a priority for its country and intends to allocate around USD 750,000 (100 million Nepali rupee) annually for early warning, risk mapping and anticipatory action.

- **Samoa's** Disaster Management Office is supporting the territory of Tokelau with expanding implementation of their Community Disaster and Climate Risk Management programme to all villages.

- While international actors gain more and more experience in developing anticipatory action in humanitarian contexts in Africa, the Americas and Asia, forecasting and anticipatory action capacities in Europe are not yet implemented systematically. Involving local communities or mainstreaming these approaches in national disaster risk management systems (that is, following advice given internationally) are also far from being standard procedure. The **German Red Cross** plans to pilot anticipatory action in two to three regional branches in Germany. The National Society faces all-too-familiar challenges such as greater familiarity with responding to disaster impacts, rather than taking proactive, anticipatory action; the difficulty of coordinating over several levels of government; and open questions around integrating these approaches into existing financing mechanisms.

Spending updates from humanitarian funds

Since the first State of Play report, the disbursements of the five largest humanitarian funds to deliver anticipatory action have constantly increased: in 2022, the latest year with full reporting data, funding indicated as "anticipatory" came to more than USD 63.8 million, which represents a rise of more than 50 per cent since 2020 (when these funds spent a maximum of USD 41.5 million).[14]

14 In some cases, these funds also report total funding for anticipatory and early action. However, due to differing calculation methodologies, the numbers do not compare well. This is less of an issue for the disbursement figures.

Figure 3 Increase in anticipatory action disbursements of the five largest humanitarian funds[15]
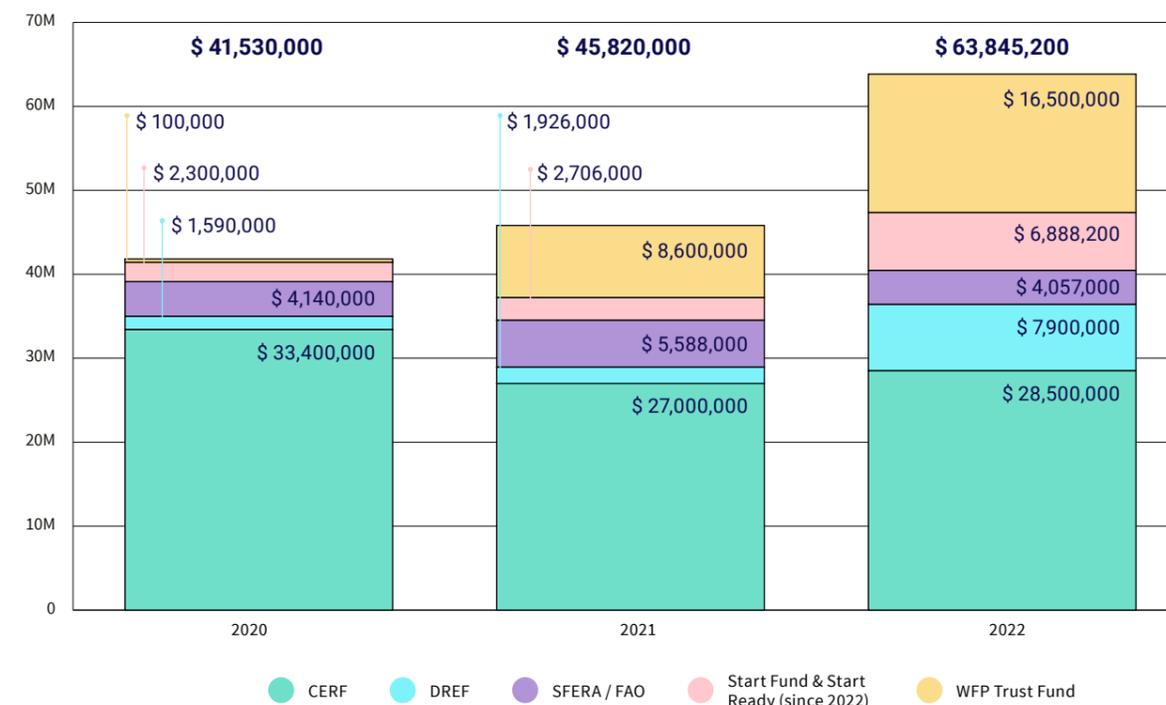
In 2022, **CERF** released **USD 28.5 million** in anticipatory funding in four countries (DRC, Nepal, Niger, and South Sudan). A total of **700,000 people** were assisted through these anticipatory actions. In addition, the fund allocated USD 145 million to eleven countries[16] for early action against predictions of rising food insecurity, and the South Sudan and Yemen Humanitarian Funds complemented allocations for predicted floods with USD 4 million and USD 8 million respectively, bringing the total anticipatory and early action funding from OCHA for 2022 to USD 185 million. Over the course of the year, the Emergency Relief Coordinator endorsed four more anticipatory action frameworks, to a total of 10 OCHA-facilitated multi-actor and cross-sectoral frameworks. More recent information from 2023 indicates that, at the end of September, USD 65 million was available from CERF for additional anticipatory action frameworks.

The IFRC's **DREF** has two pillars, the Anticipatory Action Pillar and the Response Pillar. From the total USD 67 million (CHF 59 million) provided in 2022 (reaching more

than 15 million people), a total of **USD 7.9 million** (CHF 6.9 million) was released under the Anticipatory Pillar on a grant basis. Of the 21 EAPs in place in 2022 (targeting **780,000 people**), seven were triggered. The largest share went towards anticipatory action to prevent the impacts of droughts and food insecurity, as well as floods. Seven more EAPs and three simplified EAPs were developed. In 2023, by the end of September, IFRC had activated EAPs in Zambia and Ecuador for floods, as well as in Honduras and Zimbabwe for drought. In 2023, the IFRC network further scaled up their work on anticipatory action, and now have more than 40 EAPs and simplified EAPs in the pipeline. The IFRC website provides detailed real-time data on all allocations, including on their timeframe, type of action, and region.

Under the Anticipatory Action Window of the Special Fund for Emergency and Rehabilitation Activities (**SFERA**), FAO received USD 8.7 million in 2022, of which almost **USD 4.1 million** was actually triggered. These anticipatory interventions were implemented in eight

15 For CERF: see p9: https://reliefweb.int/attachments/2dcec05c-7ff0-40bd-9671-025073f0821f/CERF_ARR_2022%20May%2022%20YM.pdf
For DREF see: p24: https://www.ifrc.org/sites/default/files/2023–07/DREF-2022-Annual-Report_0.pdf
For SFERA/FAO: see See p5: https://reliefweb.int/attachments/7af409d3-a902-4658-be74-b69064375660/cc5195en.pdf
For Start Fund & Start Ready: see p8: https://start-network.app.box.com/v/2022annualreport
For WP Trust Fund: see p7: https://docs.wfp.org/api/documents/WFP-0000148257/download/?_ga=2.242740802.1746044818.1707038781–2063555525.1692200593
16 Those eleven countries are Burkina Faso, Chad, Ethiopia, Kenya, Mali, Niger, Nigeria, Somalia, South Sudan, Sudan, and Yemen.

countries.[17] In 2023 the fund also allocated more than USD 15 million to support farmers, herders and fishers in 24 countries ahead of forecasted hazards, including drought, cold waves, floods, and cyclones. Most of these anticipatory actions aimed to mitigate the expected effects of El Niño-induced hazards on agricultural livelihoods and food security: FAO has launched an El Niño Anticipatory Action and Response Plan, which aims to reach **4.8 million people**, with planned interventions requiring USD 160 million in funding.

In 2022, almost **USD 6.9 million** (GBP 5.5 million) was disbursed for crisis anticipation through the Start Network's global and national funds and financing mechanisms. Of that amount, the **Start Fund** disbursed USD 3.9 million (GBP 3.1 million) for crisis anticipation. Since the beginning of 2022, almost **730,000 people** have been reached through Start Fund anticipation activities. While the mechanism allows for anticipatory alerts to be raised, there are no pre-agreed EAPs with a specific amount of people covered. The case is different, however, for **Start Ready**, a risk pool financing mechanism that went live in May 2022. In 2022 alone it covered **590,000 people** at risk of 10 different climate hazards in eight countries with about **USD 5 million** (GBP 4 million).

In its 2022 report on anticipatory action, **WFP** indicated that it is developing AA programmes in 28 countries in cooperation with governmental and humanitarian partners. In total, USD 36.8 million were pre-arranged (out of WFP's global portfolio of USD 41 million) in case of trigger activations for countries with an Anticipatory Action Plan, of which **USD 16.5 million** was in fact disbursed. The already existing plans and "last-mile early warning information" reached more than **3.2 million people**. Looking at the countries with an AA activation, more than 1.7 million people were "covered and assisted through forecast-based anticipatory actions against climate shocks" and "provided with direct access to information on weather and climate risk."

Social protection

Social protection mechanisms have the potential to be an important lever for using anticipatory finance to deliver early actions, including through people-centred approaches. For more (and better coordinated) evidence-based advocacy around Target 2, REAP's Working Group on linking social protection and early action produced briefing notes for key social protection forums such as the Adaptive Social Protection Forum in 2023. The Working Group aims to increase awareness that using social protection mechanisms may help to scale up anticipatory action. Furthermore, the working group has collated more than 170 documents into an evidence index for social protection, finance for early action and DRF.

WFP published a comparative analysis from a three-year-long project, looking at the organisation's influence on national capacities and systems for anticipating drought in Madagascar, Mozambique and Zimbabwe. The report also contributes to advancing linkages to social protection systems: in Mozambique, WFP has supported INGD to review the national disaster management fund manual and integrate anticipatory action, and has opened a bank account linked to a trigger system and owned by INGD to which partners can directly pre-allocate funding (see also Target 1 chapter). To assist a range of actors in understanding how to strengthening the links between DRF and social protection, WFP also published a brief containing an overview of concepts and operational considerations for fostering greater alignment between the two.

OCHA indicated an intention to facilitate cash distributions through established systems. One example is a forthcoming framework for Fiji: once triggered, cash distributions will be managed through the national social protection scheme of the government's Department of Social Welfare. A similar modality is also in the pipeline in the Philippines, with **FAO** and the **Department of Social Welfare and Development** exploring the usage of government funds to be released based on drought triggers. The partnership will see the government providing support through cash for work and cash for training, led by the Department with a top-up of FAO resources for in-kind support to at-risk farmers. The programme comes under the three-year Programmatic Partnership with FAO and **DG ECHO** exploring how social protection systems can be risk informed and lead to opportunities to ensure the sustainability of the anticipatory action through government systems approach.

Opportunities

WFP and **FAO** developed a joint strategy on anticipatory action. The two organisations see five possible entry points for collaboration[18] and have committed to working together on scaling up AA measures in terms of geographic coverage and types of shock, and on advocating at the policy and institutional levels. More concrete objectives include following joint guidelines, AA protocols or capacity building efforts. The organisations also agreed on common principles around AA in protracted crises – to mitigate the impact of new hazards and shocks and prevent food security deterioration among vulnerable communities – and around operationalising the Humanitarian-Development-Peace nexus. For example, in Uganda, FAO and WFP are planning a joint anticipatory action programme which includes developing AA protocols for plant and livestock pests and diseases, as well as for drought and floods.[19]

The International Institute for Environment and Development (**IIED**) has developed and launched the Anticipatory Social Protection Index for Resilience (ASPIRE) diagnostic tool, which is designed to explore the readiness of a country's existing social protection programmes to deliver climate resilience. More specifically, the tool can serve to assess overarching social protection policies and systems, and evaluate the implementation and effectiveness of specific programmes and social protection mechanisms in different climate risk settings. As a result, the toolkit should help to design insurance pre-payout mechanisms for social protection programmes. Moreover, IIED plans to publish a new tool and assessment to help national governments implement anticipatory action.

One year after the agreement at COP27 to establish a **Loss and Damage Fund** and **Funding Arrangements**, discussions on its operationalisation have moved forward (see "Progress on recommendation 4" chapter).

Negotiations within the Transitional Committee, established to provide recommendations on the Fund and funding arrangements, dealt with the fundamental questions of what and whom the fund should actually benefit, who should be paying into it, and how it should be governed. This involved extensive discussions throughout 2023, including on the role of anticipatory action within the range of responses to loss and damage. In general, anticipatory and early action are seen to play a role in minimising loss and damage, as elements of the funding arrangements – reflected in the final decision text agreed on at COP28. However, the new Fund and the approach envisioned for its operationalisation also constitute a potential avenue for ensuring that anticipatory and early action support broader comprehensive risk management approaches. Throughout the document, the text emphasises the need for coherence and complementarity. For example, it states that the Fund may provide financial support complementary to humanitarian response actions, and also that the Fund "should operate in a manner that promotes coherence and complementarity with new and existing funding arrangements for responding to loss and damage associated with the adverse effects of climate change across the international financial, climate, humanitarian, disaster risk reduction and development architectures." The text also states that the Fund may deploy instruments for PAF, for which anticipatory action can provide a range of tested tools. However, any use of anticipatory or early action as a response to potential losses and damages should be needs- and demand-driven by climate vulnerable countries and communities. Several governments have already submitted pledges to the Fund during COP28, totalling at least USD 655.9 million (as of December 9, 2023).

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17   Those eight countries are: Burkina Faso, Cabo Verde, Iraq, Madagascar, Niger, Rwanda, Sri Lanka, and Tajikistan.

18   Early warning systems and trigger set-up; AA selection and implementation; research, learning and impact analysis; advocacy and finance; and supporting institutionalisation.
19   A stakeholder workshop about the pests and diseases protocols was planned for November 2023, with the aim of drafting the report as a workshop result.

Embedding risk-informed approaches in funding and financing decisions

Over the past decade, USAID has developed resources and tools to help advance effective climate adaptation approaches, including early and anticipatory action, as well as disaster risk finance. The USAID Climate Adaptation Support Activity (CASA) has taken this further by publishing three reports aimed at strengthening USAID and the humanitarian community's organisational readiness. The outputs offer a clear vision for linking anticipatory action to disaster risk finance, and for bridging the gap between long-term action to reduce exposure to hazards and their impacts (e.g., through traditional disaster risk reduction programmes) and reactive humanitarian response, through "risk-informed" approaches.

In particular, the policy brief outlines actionable recommendations for donors and other humanitarian actors to scale up risk-informed and anticipatory humanitarian approaches. These recommendations are based on three other outputs: a conceptual framework for humanitarian donors and other practitioners to develop and implement disaster risk finance activities, early action, and anticipatory action; a Disaster Risk Finance and Anticipatory Action Readiness Checklist for practitioners (published as an Annex to the framework); and a global mapping of humanitarian disaster risk finance instruments and initiatives.

The CASA recommendations sit across multiple REAP Targets and Drivers of Change. To ensure that more people are appropriately covered by financing and delivery mechanisms to act ahead of predicted disasters, for example, the recommendations call on humanitarian actors to concentrate on specific impacts they want to address when supporting national-level efforts, rather than merely focusing on using one specific (innovative or DRF) financing instrument and thus following a mechanism-led approach. This is re-emphasised by the call for more risk-layered approaches, going beyond the use of one single instrument to instead layer pre-arranged finance in the most efficient and effective way. This is already happening in practice, for example, in several pooled funds, but it can be done more at scale. To address the challenge that risk-informed approaches require long-term funding at scale beyond the capacities of the current humanitarian system, the reports recommend adopting risk-informed assistance within climate finance strategies, as well as considering how best to coordinate international and national climate-related loss and damage mechanisms with the international humanitarian system. In addition, the reports recommend that disaster risk management frameworks and funding mechanisms, which facilitate risk-informed assistance, be updated; include pre-agreed risk-informed triggers; and be built on risk assessments, accurate forecasts and established early warning systems, as well as arranged in advance to ensure money and resources are available without delays when they are needed.

Together, these reports clearly state that long-term and transformative changes are needed to respond to the challenges posed by the climate crisis – and this means changes at a systemic level. One of these changes will come about by ensuring that the humanitarian system is fully integrated into holistic approaches to climate impacts. To that end, this body of work offers a strong conceptual framework for how to approach this challenge through making better use of available finance.

Target 3: Early warning investment

By 2025, USD 500 million invested in early warning system infrastructure and institutions to target early action in "last/first mile" communities, building on existing initiatives.

Where do we stand?

Last year's State of Play anticipated good prospects for reaching Target 3, and it seems plausible that it has been achieved by now: several Partners contributed to improving early warning system infrastructure, with financing of over USD 500 million in addition to growing momentum around the EW4All initiative. However, continued work linked to this Target remains important, especially regarding the focus on "last/first mile" communities, which is still identified as "hard to measure."

Several Partners have a specific focus on financing, building new or improving (multi-hazard) early warning systems. During 2023, the **GCF** initiated eight additional early warning projects with a total value of more than USD 203 million (USD 286 million co-financed), which are awaiting the final approval of the Board. The projects would target early warning priorities in 24 countries. In total, the GCF indicates investment of USD 933 million in a total of 62 early warning projects. Moreover, as of 2023, **CREWS** has received contributions of USD 105 million from its Members, which are used to support LDCs and SIDS through 10 country projects and eight regional projects, plus four short-term actions.

At the global level, under **EW4All**, pillar leads finalised implementation plans for each pillar as well as a national-level implementation toolkit. Ambitions included organising a workshop to develop its *Handbook on the Use of Risk Knowledge for Early Warning Systems*, which was open for consultation at COP28 (linked to Pillar 1); and a rapid assessment across the 30 at-risk countries selected for initial support based on specific priority hazards to inform upcoming national workshop discussions (linked to Pillar 2). SOFF has also undertaken readiness work in 19 countries, aiming for 36, while two are already preparing funding requests (linked to Pillar 2, as well).

At the regional level, the Nairobi Declaration, which was adopted during the Africa Climate Summit in early September 2023, includes the African Heads of State and Governments' commitment to strengthen "early warning systems and climate information services, as well as [to take] early action to protect lives, livelihoods and assets and inform long-term decision-making related to climate change risks." They also specifically refer to the relevance of indigenous knowledge and citizen science in EWS.

To bring this commitment to life, the **AUC's** AMHEWAS programme, which is funded with an initial budget of USD 75 million, reports enhancing multi-hazard risk knowledge in African countries, with support from the Italian Government. In 2022, over 400 advisories, such as the Continental Watch bulletin, were issued with early warning and disaster risk information to take anticipatory action before a disaster struck. Moreover, to build institutional capacity in RECs and eventually all AU Member States, 37 Member States from the ECOWAS (15), IGAD (6) and SADC (16) regions benefited from training on multi-hazard early warning and the production of AMHEWAS products in 2023.

It is also important to understand what the Targets mean for national governments in concrete terms. In particular, several governmental Partners responding to the survey indicated Target 3 as their priority. This includes REAP's new Partner the **Government of Samoa**, which translates the Target into plans to expand the network of emergency sirens that were installed on the main island Upolu in 2014. At the end of 2022, funded by the **GCF** (over USD 360,000) and with project support from **UNDP**, the Government of Samoa installed new flood alert sirens, which are directly connected to the national Disaster Management Office's Emergency Radio Network. However, upgrading and expanding the network to reach the whole of Samoa is still dependent on funding. Another example is the **People's Republic of Bangladesh**, which plans to construct different types of evacuation centres all over the country and counts this as a contribution to Target 3. Similarly, in **Nepal**, the government is establishing local emergency operation centres at the municipal level to reach "first/last mile" communities for early warning and early action. This includes installing automatic smart sirens for the dissemination of risk messages and other early warning efforts.

In addition to the above example in Samoa, **UNDP** has been actively supporting government agencies and local communities to develop or improve flood management and forecasting systems, as well as MHEWS in several countries through multi-year programmes, often in collaboration with other REAP Partners.[20] Among other places, UNDP is also working in Georgia, where it reviewed the legal framework for disaster risk knowledge, which includes recommendations to improve hazard mapping and zoning policies, thus contributing towards both Target 3 and Target 4. The forecasting system utilises real-time data streams from meteorological and hydrological stations, allowing for a timely and community-driven early warning system including evacuation protocols, and protecting livelihoods and people at risk from hazards within Georgia. As part of this USD 74 million project co-financed by GCF and the Governments of Georgia and Switzerland, which is running from 2018 to 2025, individual hazard maps (including landslides, storms, drought, and flood) were produced in the western part of the country.

To support the scale-up of these efforts, REAP has developed a joint work plan for its Targets 3 and 4, given their interconnected focus on systemic change in the design and use of early warning systems. Two working groups are contributing to moving towards the two Targets: the Early Warning Initiatives (EWI) Working Group (co-led by **Practical Action** and the **UK Met Office**) and the Risk Communications Working Group (co-led by **BBC Media Action** and **Resurgence**; see Target 4 chapter). The work plan is set around contributing to four overarching objectives: (1) a common understanding of the early warning early action value chain(s) across different sectors; (2) an understanding of the financial flows throughout the value chain and where investment opportunities lie; (3) engaging a wider range of actors across the national, regional and global levels; and (4) the development of resources that support the inclusive and effective design of risk communications. In line with the 2022 State of Play report's recommendations, the working groups aim to deliver a shared conceptual framework for the EWEA value chain.

More specifically, REAP's EWI Working Group focuses on Target 3 delivery and began to accelerate its exchange and coordination this year. It identified several research questions for short papers on: inclusive and actionable EWS; connecting early warnings with early action; connecting timescales; and other cross-cutting issues. The papers will support designing and implementing better early warning systems. Furthermore, the working group developed a paper on the roles of different State and non-State actors in building early warning systems, focusing on inclusive multi-stakeholder processes to ensure that early warnings are indeed delivered effectively (forthcoming). The recommendations and a set of (immediate, short-to-medium term, and medium-to-long term) actions aim to inform a cross-cutting and inclusive approach to developing and providing early warning and early action, and include linkages to the UN Secretary-General's EW4All initiative.

"Last/first mile"

As in previous years, many Partners see it as a given that "local" or "last mile" communities are at the core of most or all their activities, as they aim, for example, to use feedback processes to integrate community perspectives and thus develop methods for reaching them as directly as possible. Some developments indicate a more deliberate approach to increased "last/first mile" engagement, for example, the new working group on locally-led anticipatory action formed by the **Anticipation Hub** (August 2023) and co-chaired by **DKH**, the **German Red Cross**, **GNDR**, **Start Network**, and **WHH**. Moreover, **CREWS** published a Guidance Document on People-Centered Risk-Informed Early Warning Systems, which considerably benefited from Partnership inputs and showcases a good practice of involving all stakeholders and practitioners along the EWEA value chain: CREWS received feedback from the REAP Secretariat as well as additional input from REAP Partners through consultations on people-centred early warning systems. **FAO** drafted a step-by-step guidance note on community engagement in anticipatory action, including for setting up EWS. It is mainly targeted towards FAO Country Offices and their partners and suggests concrete tools for each step.

However, fundamental challenges to this aspect of Target 3 remain. The large humanitarian donor countries do not directly work with implementing organisations – providing funding directly to "local" NGOs is often described as not feasible, not efficient or simply not legally possible. These donors aim to reach "first/last mile" communities through intermediaries, namely the (international) humanitarian organisations they are funding, such as UN agencies, international funds or the START Network. In this regard, the Partnership might help to underline that donor governments play a key role in increasing the amount of money reaching the local level and ensuring that actual funding amounts can be measured and monitored – and thus that they should be held accountable for being more people-centred.

Opportunities

While actors supporting the **EW4All initiative** contribute to all of REAP's Targets, the clearest opportunities for achieving REAP's aims remain with Targets 3 and 4. In purely financial terms, the initiative will need to leverage more than USD 3 billion of financial commitments – including at least USD 1.18 billion on observations and forecasting and USD 550 million on warning dissemination and communication – indicating that the finance required for Targets 3 and 4 would be available. Indeed, investment is already being pledged through Partners such as **GCF**, **SOFF**, **CREWS**, **USAID**, and others. Progress will also now be easier to monitor, thanks to the public dashboard launched at COP28. It aims to track and measure progress against the four pillars and inform decision-making, using different sources from the four pillar leads and partners.

SOFF launched an Operational Guidance Handbook on how to develop a GBON (Global Basic Observing Network) National Gap Analysis for peer advisors, implementing entities, and countries receiving financial support to close weather and climate data gaps. During a Partnership meeting, SOFF reported having secured more than USD 65 million for early operations, and USD 200 million for implementation in the first three years.

CREWS has also made progress in enhancing access to its funds. The **CREWS** and **GCF** Scaling Up Framework (reported in last year's State of Play as in development), building on the GCF Simplified Approval Process (SAP), is now finalised and in action. In light of the 2027 deadline for EW4All, CREWS and GCF agreed to pilot the Framework over two years. How does it work? A country that already successfully implemented CREWS-funded projects can access up to USD 25 million (per country) to scale up their projects and move closer towards reaching the EW4All targets. Scaling up can mean, for example, achieving broader geographic range within a country, encompassing more elements along the early warning early action value chain, or reaching more governmental institutions with capacity-building efforts. Moreover, CREWS opened the Accelerated Support Window (ASW), which allows the initiative to provide short-term (under a year), quick-impact interventions to LDCs and SIDS through funding analyses, assessments, or advisory services to monitor or deliver early warning for up to USD 250,000.

Given its close thematic overlap, REAP is supporting the EW4All initiative on the following aspects: enabling engagement from a broad range of actors in support of the pillar leads; fostering exchange across different EWEA initiatives; disseminating EWEA resources to broader stakeholder groups; co-producing and inputting on EW4All plans, tools and frameworks; promoting cross-pillar collaboration; and supporting donor engagement and coordination on EWEA financing. Several interviewees found that the Partnership is well-positioned to support the EW4All initiative's aim to reach each and every person on the planet: REAP has been successful in promoting alignment and reducing competition, and in giving a voice to smaller organisations and CSOs as it can share individual institutional messages with key influencers and decision-makers. Partners confirm that the Partnership offers a valuable space to inform, influence, shape, and deliver knowledge with a greater collective voice. This is particularly relevant as WMO has published a resolution making the initiative its highest priority.

The REAP Secretariat has also provided technical support to the initiative's pillar leads (who are also REAP Partners) in various activities, including: the development of the Pillar Implementation Plans; the EW4All Logic Model; EW4All resource mobilisation and investment tracking; the connections with NGO and academic networks; and the EW4All Regional Implementation Plan Writeshop in Ethiopia (June 2023). Moving forward, it will be key to acknowledge the synergistic nature of the EW4All initiative's goal and REAP's Targets, and to unpack where the greatest value-add is in terms of their respective efforts' complementarity.

Challenges

Some organisations struggle to quantify their efforts towards this Target specifically. For example, one UN agency indicates that EWS are an integral element of their climate adaptation and resilience building projects and programmes, and therefore does not systematically identify investments in EWS separately from other activities. Donors also struggle to track investments specifically benefiting community early warning systems. NGOs whose interventions are targeted to "last/first mile" communities say it is challenging to access dedicated community EWS financing. Several survey respondents recommend that the Partnership help identify opportunities to access finance for EWS at the local and community levels and leverage REAP's advocacy work to contribute to raising awareness on the importance of people-centred early warning.

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20 An overview of all ongoing programmes linked to climate information and early warning systems can be found on UNDP's adaptation website: https://www.adaptation-undp.org/climate-information-and-early-warning-systems

Merging indigenous knowledge with technological approaches to put water at the heart

To minimise the impacts of water-related risks and disasters, and to support the scale-up and inclusion of anticipatory action in national and regional DRR policies and strategies in the Nile Basin, a new initiative was launched to reduce water risk and increase resilience. In June 2023, a strong partnership with a joint vision came together to bring local knowledge to scale and integrate it with technological support for better use of water – a valuable resource – and to prevent water-related hazards from becoming disasters, through "Water at the Heart of Climate Action."

REAP Partners including IFRC, WMO and UNDRR from a technical side, together with the SOFF multi-partner financing mechanism, launched the "Water at the Heart" programme in the Nile Basin (Ethiopia, South Sudan and Uganda, scaling to Rwanda). Funded by the Government of the Netherlands (EUR 55 million, approximately USD 58 million), the approach puts multi-disciplinary country teams in the lead to design country-level WASH policies and actions on forecasting, monitoring, warning about, and ultimately acting upon weather and water-related hazards. The teams will develop country-specific plans to ensure collaboration, alignment and co-creation of the network partners. Early actions aim to prevent humanitarian impacts linked to disaster impacts from both the absence of sufficient water as well as the presence of too much of it. For this, the WMO will strengthen the capacity of and improve the data available to national meteorological organisations; UNDRR will strengthen

national policies to reduce the risk of disasters; and IFRC and national RC societies will strengthen the use of local data and knowledge.

The programme supports the entire early warning early action value chain, aiming to improve water-related risk knowledge, monitoring and forecasting, early warning systems, as well as anticipatory actions and locally-led adaptation. As a starting point, the initiative recognises that meaningful participation in decision-making by local and marginalised actors is weak or non-existent when it comes to reaching global policies and platforms for structural changes. To achieve systemic change, it specifically focuses on not only reaching "first/last mile" communities with early actions, but also on putting their knowledge upfront in the development process and is thus a concrete contribution to REAP's Targets and to the EW4All Initiative.

The initiative was initially designed to operate in Sudan as a fourth country located in the Nile Basin, but activity was put on hold due to the conflict that arose in 2023. However, the initiative has been working with the International Committee of the Red Cross (ICRC) to develop a conflict-sensitive approach to its programme of activity, ensuring that marginalised communities in areas affected by conflict are not left behind. While the five-year programme initially targets a small number of countries, the project aims to be scaled and replicated in more regions if successful.

Target 4: Connecting early warnings with early action

By 2025, 1 billion more people are covered by new or improved early warning systems, including heatwave early warning; connected to longer-term risk management systems; and supported by effective risk communication and public stakeholder dialogue to prompt informed action.

Where do we stand?

In 2023, Target 4 benefited from heightened awareness of the nuances of early warning systems in international fora, and increased mobilisation around enabling early warning and early action thanks to the momentum generated around the EW4All initiative. Measurable progress has been made on warning dissemination and communication, but, in stark contrast, disaster risk knowledge lags behind significantly. Regarding actual implementation of the Target's different objectives, the road ahead remains long. While the number of multi-hazard early warning systems increased across all regions, still half of the world's countries are lacking such systems with persistent and considerable geographic differences.

The 2023 report on the Global Status of Multi-Hazard Early Warning Systems, published by **UNDRR** and **WMO**, directly reports on progress in line with the EW4All initiative's objectives, and is an update to the 2022 report on Target G of the Sendai Framework. It indicates that **half the world's countries are covered through early warning systems**, with 101 countries (52 per cent) reporting the existence of MHEWS in 2022 (up from 95 in 2021 and 50 in 2015). REAP Partners have been supporting this growth – for example, in its reporting for Sendai Framework monitoring, FAO indicated support given to 124 countries for strengthening EWS linked to the agriculture and food security sectors. This collective effort under the EW4All initiative thus contributes to strengthening the coherence of monitoring activities and improving information sharing on evidence-based progress (see Recommendation 6 of the 2022 State of Play report) by drawing relevant data from a number of sources.

However, while there is a consistent trend towards an increase in MHEWS across all regions, half of the world's countries are still lacking such systems. The report also reveals persistent and considerable geographic differences: only 37 per cent of countries in the Americas and the Caribbean, and 45 per cent in Africa, report having a MHEWS – as compared to 67 per cent of countries in Asia Pacific, 55 per cent of Arab States and 55 per cent in Europe and Central Asia. It also points out the particularly low coverage in SIDS (39 per cent) and LDCs (46 per cent). Moreover, an **exact figure for the number of people covered by new or improved EWS is lacking**. Neither the potential overlap between reporting organisations

and countries (in terms of how many people were reached within a country and where), nor the share of countries that are fully covered by MHEWS (rather than covered only in certain locations) are apparent. Under "preparedness to respond" (the EW4All initiative's Pillar 4 and the Sendai Framework's Indicator G4), only one third of countries have reported that their local governments have a plan to act on early warnings – leaving two thirds without these crucial plans at local level. With the existing reporting for Sendai Framework indicators, it is therefore not possible to reliably estimate how many people were reached.

Meanwhile, the Anticipation Hub's Global Anticipatory Action Overview shows that large humanitarian organisations have covered **7.6 million people** with 70 EAPs across 25 countries and supported them to be better prepared to act ahead of predictable disaster impacts. It also states that a further 97 EAPs are under development, meaning that more people will be able to be reached. But the numbers are still small when compared to the scale of the challenges at hand. The Global Status of MHEWS report suggests that EAPs or similar contingency plans – including concrete measures to link early warning to anticipatory actions – support the expansion of the coverage of early warning systems, meaning that they are a critical enabling element of the full value chain. Thus, while the upward trend in EAP coverage is welcome, a systemic change is needed so that plans to act on early warnings are scaled up to reach vastly more people.

As a measure for indicating improvements in linking EWS and early action, **UNDRR** and **WMO** highlight the steadily increasing number of people evacuated in advance of climate impacts, from 188 million in 2015 to 307 million in 2021. However, as with other indicators, there is significant regional difference: while the Asia Pacific region accounted for 64 per cent of all people evacuated, Africa accounted for 3 per cent, and the Americas, the Caribbean and Arab States combined accounted for less than 1 per cent. **CREWS** indicates that in 2022, 111 million "more people [are] better protected by new EWS and forecasting put in place with CREWS support," but also notes differing coverage across regions.

There are a number of examples of success on Target 4-related activities at the national level:

- UNDRR confirmed that the **Mozambique** government's investments into EWS allowed for its successful use and implementation of anticipatory actions before Cyclone Freddy made landfall in Mozambique in February 2023. Relocation to safe areas and pre-positioning of food and water reduced the number of deaths and displacements.

- The Ministry of Disaster Management and Relief of **Bangladesh** indicated, in their inputs to this report, that the lead time for flood early warnings could be considerably increased in the whole country, namely to 3–5 days in advance compared to 24–48 hours.

- **Nepal's** National Disaster Risk Reduction and Management Authority established a multi-hazard Audio Emergency Warning and Notification System in 34 locations in 13 different municipalities particularly exposed to floods. The siren system is connected to SIM cards and the internet, which allows information to be transmitted more easily in different languages. The sound of the siren can be heard up to a 2-kilometre radius. In 2023, installations in 12 more locations were planned.

- In October 2022, the **UK** Health Security Agency launched the Centre for Climate and Health Security. To help local governments map and respond to climate change health impacts, the Centre aims to develop a local authority risk assessment toolkit. Moreover, the Met Office issued its first ever red warning for extreme heat in 2022, having recorded the warmest year on record.

- The Government of Georgia, together with GCF, UNDP and the Swiss Development Cooperation, has launched a project for "Scaling-up multi-hazard early warning system and the use of climate information

in Georgia," which supports 1.71 million people currently at risk from hazards within Georgia (40 per cent of the population). More than 3.7 million people indirectly benefited from climate-informed multi-hazard risk reduction and MHEWS. The project runs from 2018 to 2025.

Given Target 4's focus on ensuring that early warning systems are well-connected to other elements of the value chain and support early action, collaboration across stakeholders is vital. In survey responses for this report, the most distinct collaborative efforts in this area came about through the Partnership acting as a "connector": for example, CREWS was able to leverage opportunities to work with organisations other than its implementing partners (UNDRR, WMO and the World Bank) to co-produce community-focused EWS and reach more people. In Jamaica, for example, REAP connected **Resurgence** and **CREWS** and thus accelerated the development of a mobile app for communities to easily access early warning information. **UNDP** emphasised that a successful partnership between it, **Japan** and **Kyrgyzstan's** Ministry of Emergency Situations helped render avalanche monitoring stations operational in May 2023. The cooperation in the Kyrgyz Republic contributed to avalanche risk awareness and enhanced early warning capacity among communities.

Risk communication

Looking at the EW4All initiative's four pillars and the Sendai Framework's targets, the most progress is being made on warning dissemination and communication (EW4All initiative's Pillar 3 and Target G3), with 46 per cent of countries reporting non-zero scores. In stark contrast, disaster risk knowledge (EW4All initiative's Pillar 1 and Target G5) is the one with the least progress, with only 22 per cent of countries reporting a non-zero score.

To contribute to current discussions on improving effective risk communication, in 2023, REAP's **Risk Communication Working Group** reviewed and documented relevant resources, definitions, examples of Theories of Change and indicators, and advocacy messages that can enable risk communication beyond one-way (top-down) or two-way warnings. With that, in 2024 the Working Group will work on a more comprehensive and meaningful approach to interactive risk communication processes where information is exchanged on multiple levels and in multiple directions. This resource will also contribute to the EW4All initiative and to the design of EWEA interventions to ensure that all aspects of risk communication are considered.

Risk communication is a complex area because organisations use a broad range of channels to convey information on risks and individuals interpret information differently. For example, in a monthly Partnership update, REAP Partner **GSMA** (Global System for Mobile Communications Association) shared that in support of EW4All, it engaged with mobile operators in all 30 'first batch' countries on delivering inclusive risk communication for early warning, primarily focused on cell broadcasts for the dissemination of warnings. **IFRC**, the **South African Red Cross Society** and **GSMA** also commenced a research partnership on inclusive humanitarian risk communication and bringing down barriers for marginalised communities to receive, understand, trust, and act upon warnings. The Partners aim to publish their research findings on improved design methodologies and might extend the project to Malawi in 2024 with support from **UNDP**. Via AMHEWAS, the **AUC** distributed its Continental Watch documents across Africa via email (to 55 Member States, RECs, AU organs and partners) and through official communication channels. The AUC is, however, considering establishing an interactive web-based platform for sharing early warning advisories to increase outreach and coverage.

Risk communication can also take on more creative forms, linking art and games to conveying risk messages. For example, a "street drama from Nepal" used music and dance to convey the urgency to listen to early warning messages and to take early action to the community. This and other less conventional approaches aim to ensure that the needs of different people are considered throughout the EWEA value chain, including in early warning communication and last mile communication channels.[21]

Opportunities

The momentum of the **EW4All** initiative is mobilising actors across the EWEA field. For example, during the Climate Ambition Summit (September 2023), UNDP and the four pillar leads – WMO, UNDRR, International Telecommunication Union (ITU), and IFRC – launched a project to support operationalising EW4All. After an initial injection of USD 1.3 million from the GCF, the objective is to deliver USD 157 million through the GCF and partner governments. The project aims to build on and coordinate with other mechanisms linked to EW4All,

including SOFF and CREWS. At the regional level, several Multilateral Development Banks[22] published a joint declaration in September 2023, welcoming the EW4All initiative and committing to collaborate "to enhance coordination, improve efficiency and scale up action… in line with countries' development plans and requests."

GSMA is undertaking efforts to help ensure that representatives from the mobile industry are engaged in national EW4All workshops, while at the same time promoting the importance of EWS at their high-level events. Moreover, as part of the **ITU's** "Partner2Connect" initiative, GSMA created a pledge for COP28 that would commit the mobile industry to the EW4All initiative and encourage deploying technologies and partnerships "to harness the power of mobile networks for early warnings."

The University College London Warning Research Centre (**UCL WRC**) organised its first "Creating Effective Warnings for All Conference" in September 2023, focusing on designing, implementing and maintaining effective warnings. REAP was a sponsor and several Partners participated in the sessions, highlighting a variety of perspectives in the early warning (and early action) debate, including making academic expertise more visible to all kinds of actors. More concretely, the WRC was able to provide a space to exchange feedback on ongoing academic research, expertise and knowledge of methodologies within the Partnership and beyond.

Challenges

Survey respondents point out that ongoing challenges include siloed approaches between different ministries and stakeholders at the country level; a lack of reliable and long-term investment in capacity-strengthening efforts for local actors; and the modalities of global funding instruments such as CREWS, GCF or SOFF, which cannot be accessed by local actors not holding accreditation.

Moreover, as for many scientific approaches, Partners highlight as an issue the limited usability of climate information due to poor communication: the formats and sophisticated channels used to communicate crucial information stand in stark contrast to the often limited skills on the end-user side (including communities and government actors) to prepare and analyse data for decision-making.

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21 In one project, the RC Climate Centre aimed to encourage learning lessons from aerial acrobats by reflecting, for example, on the importance of embracing collaboration as a foundational element of our work. Another example is a series of online performances of the Full Circle Playback Theatre Dublin and the EU-funded HuT Human-Tech Nexus Project, which aimed to build "a safe haven to cope with weather extremes" through staging personal stories about climate extremes and EWS.

22 The following Multilateral Development Banks endorsed the statement: World Bank, Inter-American Development Bank, Asian Development Bank, African Development Bank, Islamic Development Bank, Caribbean Development Bank, European Investment Bank, Council of Europe Development Bank, and European Bank for Reconstruction and Development.

STORY OF CHANGE
Ensuring locally-led anticipatory action through public dialogue and learning

It is evident that locally-led approaches should be embedded throughout the early warning early action value chain, a principle enshrined in REAP's commitment to being people-centred. However, delivering on this commitment means moving beyond the mere rhetoric of inclusive participation and leadership by communities at risk, to offering practical solutions for how these goals can be achieved. The Global Network of Civil Society Organisations for Disaster Reduction (GNDR), a REAP founding Partner, has risen to this challenge, engaging in public stakeholder dialogues to share knowledge from different fields and actors, all the while being driven by lessons learned at the local level on what is needed to enable local leadership on anticipatory action.

Through the Local Leadership for Global Impact project – a collaborative initiative between GNDR, Diakonie Katastrophenhilfe (DKH) and local partners – experiences and learnings were gathered from civil society organisations in Southern Africa on applying locally-led approaches to anticipatory action. The purpose of this applied learning approach was to produce a call to action directed at national governments and disaster management agencies, EU Member States and donors, and technical agencies on how to mainstream local approaches into anticipatory action planning and design, including for early warning systems. In order to ensure that the call to action was grounded in local experiences but spoke to broader audiences, GNDR and DKH held a roundtable discussion with international partners to share and refine the call before it was finalised.

Understanding the need to follow policy recommendations with practical steps for implementation, GNDR and DKH developed the Locally Led Anticipatory Action Guide & Toolkit. This resource sets out how to collaborate across civil society organisations, communities, donors, and technical agencies to localise and scale up early warning and early action with a shared understanding and common approaches. The guide and toolkit is designed to serve a broad range of stakeholders, and thus covers the basics of anticipatory action – what it is, who needs to be involved and how it can be approached – as well as what is meant by "locally-led anticipatory action" and practical steps for its implementation (from having requisite financing in place to ownership). It spells out what collaboration with local actors (including civil society networks, disaster management authorities and forecasting agencies) and investing in local structures means for decision-makers. More concretely, it asks decision-makers to adapt legal frameworks to ensure accountability, flexible funding arrangements, and local actors' involvement in shaping resource allocations.

So far, the call to action is mainly based on the experience of several countries in Southern Africa. Further plans include hosting several more national roundtables, sharing insights at international policy events, as well as launching a global campaign targeted to key humanitarian actors on local participation and mainstreaming resilience approaches in contingency planning mechanisms. Importantly, GNDR and DKH call on humanitarian, climate change and development actors to join this endeavour.

ANNEXES

Annex 1: Sensemaking of emerging and established initiatives in a dynamic environment

REAP's Partnership Stocktake concluded that "REAP operates within a dynamic, growing ecosystem of initiatives and processes focused on early warning and early action." The ecosystem has evolved over the years and has become, as one Partner suggested, a highly fragmented field with "a plethora of new initiatives."[23] This has created some need to deliver clarity on what each initiative is doing – to show their distinct mandates, objectives, and ways of working, as well as the target audience and stakeholders involved – but, crucially, to also show areas of complementarity and synergy; and, in doing so, build on each other's relative strengths and identify gaps so that they can be filled. Table 1 gives an overview of the starting points of some networks, partners, initiatives, and processes linked to EWEA since 2015.

Table 1 Overview of key initiatives and processes related to early warning and early action (selection)

Year	Initiative
2015	Sendai Framework for Disaster Risk Reduction
2015	Paris Agreement under the United Nations Framework Convention on Climate Change
2015	International Network for Multi-Hazard Early Warning Systems (IN-MHEWS)
2015	The Climate Risk and Early Warning Systems Initiative (CREWS)
2017	InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance solutions
2018	Global Commission on Adaptation (discontinued)
2019	Risk-informed Early Action Partnership (REAP)
2019	Santiago Network (for loss and damage)
2019	Alliance for Hydromet Development
2020	Anticipation Hub
2021	Centre of Excellence for Climate and Disaster Resilience
2021	G7 (Financial commitments to early action and loss and damage)
2021	High-Level Climate Champions Race to Resilience
2021	Global Risk Modelling Alliance (GRMA)
2021	Systematic Observations Finance Facility (SOFF)
2022	Early Warnings for All (EW4All) initiative
2022	G7 (Statements on anticipatory action)
2022	Global Shield against Climate Risks
2022	Sharm el-Sheikh Implementation Plan under the United Nations Framework Convention on Climate Change
2023	G20 Disaster Risk Reduction Working Group
2023	Getting Ahead of Disasters: A Charter on Finance for Managing Risks
2023	Operationalisation of the new funding arrangements, including the fund, for responding to loss and damage

To better understand each initiative's added value and potential contribution to making early warning and early action a normative approach, and to avoid increasing confusion among actors needing to decide where to invest their time, this report gives an overview of selected key initiatives and processes. While not exhaustive, it considers those mentioned during the interviews and in the survey as particularly relevant to REAP; as bringing different actors together (for example, partnerships or joint initiatives); or as being involved in several elements of the EWEA value chain and having a (partial) thematic overlap with REAP and other initiatives.[24] The descriptions below highlight the main focus of each initiative on the EWEA value chain, the main entry points for engagement, and the stakeholders engaged and linked to REAP.

Alliance for Hydromet Development

The Alliance for Hydromet Development, launched at COP25 in 2019, is a global partnership that aims to increase investments in hydrological and meteorological ("hydromet") services, which are critical for providing weather, water and climate information, and thus enabling early warnings. The Alliance brings together humanitarian, development, and climate finance institutions, seeking to coordinate their efforts in increasing hydromet capacities. Alliance members have further committed to strengthening the capacity of national meteorological and hydrological services by 2030 to help ensure that they are meeting minimum monitoring coverage and reporting frequency standards. Against this backdrop, the Alliance committed to establishing the Systematic Observations Financing Facility (SOFF) as an innovative financing mechanism, which was then created as a UN Fund (see below) in the following year (relevant to REAP's Target 3). REAP is a partner of the Alliance for Hydromet Development, and several REAP Partners are Alliance members or partners.

Anticipation Hub

The Anticipation Hub is a global platform that seeks to facilitate knowledge exchange on anticipatory action. Launched approximately one year after REAP, the Anticipation Hub focuses on peer learning, on collecting knowledge on anticipatory action, on facilitating collaboration among experts, and on advocacy related to anticipatory action (relevant to REAP's Target 2). Over the past years, the Anticipation Hub has become the leading global initiative in anticipatory humanitarian action and is organising annual global and regional dialogue platforms. In addition, the Anticipation Hub's policy and advocacy work increasingly looks towards the national political level to help shape national anticipatory action agendas (relevant to REAP's Target 1). The Anticipation Hub is one of REAP's Partners, and REAP is also a formal member of the Anticipation Hub. To delineate their respective areas of work, both initiatives have agreed on a coordination document and also hold monthly coordination meetings to exchange information, align activities and agree on common priorities.

Centre of Excellence for Climate and Disaster Resilience

The Centre of Excellence for Climate and Disaster Resilience is a joint initiative of WMO and UNDRR, established in 2021. Sharing the same founding organisations, it is linked to the Early Warnings for All Initiative, contributing to the development of the Disaster Risk Knowledge pillar (Pillar 1). The Centre of Excellence (CoE) is also tasked with contributing to policy guidance related to strengthening climate and disaster resilience, supporting capacity-strengthening, and undertaking high-level advocacy. It further aims to help countries avert, minimise and address climate- and disaster-related loss and damage, focusing on highly vulnerable and fragile contexts characterised by extensive needs and limited resilience. The CoE is not a partnership, but similarly to REAP, it aims to be a connector for humanitarian, Disaster Risk Reduction (DRR) and climate change actors, as well as UN agencies, international financial institutions, the private sector, and academia. Most of the CoE's advisory board members are UN agencies.

Climate Risk and Early Warning Systems (CREWS) Initiative

CREWS is a funding mechanism that provides financial support to Least Developed Countries (LDCs) and Small Island Developing States (SIDS) to establish risk-informed early warning services (relevant to REAP's Targets 3 and 4). It was announced at the third UN World Conference on Disaster Risk Reduction in Sendai, Japan, in 2015. CREWS directly cooperates with countries to increase the availability of, and access to, EWS, and primarily funds modernising hydrometeorological infrastructure as well as the capacity-building of national meteorological and hydrological services. Moreover, it financially backs country and regional projects that aim to improve climate risk knowledge, strengthen the dissemination and communication of hazard warnings, and increase the ability to prepare for and respond to warnings. The World Bank (through its Global Facility for Disaster Reduction and Recovery, or GFDRR), WMO and UNDRR are the implementing partners of the CREWS Initiative. The World Bank also functions as Trustee and manages the CREWS Trust Fund, which allows the initiative to receive contributions from donors. CREWS is a Partner of REAP.

Early Warnings for All Initiative

In March 2022, the UN Secretary-General launched the Early Warnings for All initiative (EW4All) with the ambitious goal of ensuring that every person on earth is protected by early warning systems by 2027. The initiative acknowledges the importance of people-centred MHEWS. It seeks to build up preparedness and response capabilities at national and community levels as part of a four-pillar approach, which focuses on delivering across the multiple elements required for effective and end-to-end early warning systems: (1) disaster risk knowledge, (2) observations and forecasting, (3) warning dissemination and communication, and (4) preparedness to respond. The initiative is spearheaded by WMO and UNDRR, with additional support from other key stakeholders, including the IFRC and the ITU, who have taken on the responsibility of acting as pillar leads. All four pillars are thus led by REAP Partners. REAP is engaged in supporting the leads and inter-pillar coordination. CREWS and SOFF are funding mechanisms that donors can contribute to in order to implement activities linked to EW4All. In 2023, the WMO published a resolution making EW4All its highest priority.

Global Shield Against Climate Risks

The Global Shield Against Climate Risks is an initiative jointly established by the G7 and the Vulnerable Twenty Group (the V20) that seeks to increase the availability of pre-arranged finance to address climate risks and to close a financial protection gap. Launched at COP27 in 2022, the Global Shield seeks to coordinate different funds (including SOFF and CREWS) and (climate) financing mechanisms (including insurance), and to facilitate sovereign risk financing as well as forecast-based financing. It also aims to support policy reforms, build capacity and early warning systems for early action, and to ensure close connections between the development of MHEWS and Climate and Disaster Risk Finance and Insurance (CDRFI) solutions. Its Secretariat and functions are an evolution of the InsuResilience Global Partnership and can thus draw on their network of more than 120 members. It also has the backing of key donors (early funding pledges were made by France, Germany, Canada, Ireland, Denmark, and the US, with a total volume of EUR 232.3 million) and two dedicated funding mechanisms: the Global Shield Financing Facility (GSFF), which continues the World Bank's Global Risk Financing Facility (GRiF) but will also engage with other funding initiatives to provide and facilitate pre-arranged protection against climate and disaster related risks for vulnerable people and countries; and the Global Shield Solutions Platform,

which continues the work of the InsuResilience Solutions Fund. While REAP is not an official partner, the former InsuResilience Global Partnership and REAP have agreed on a written Understanding of Cooperation that details areas of common interest, and the two initiatives continue to cooperate in relevant areas.

Insurance Development Forum (IDF)

The Insurance Development Forum is a public-private partnership led by the insurance industry and supported by international organisations. It aims at increasing the coverage and use of insurance mechanisms in disaster-risk prone countries, among others. It allows IDF members, in particular insurance companies, to develop insurance and risk transfer projects with developing countries and to collaborate closely with donors and risk financing mechanisms in funding these insurance projects. The IDF was first announced at the Paris COP21 in 2015 and officially launched by leaders of the UN, the World Bank and the insurance industry in 2016. It has close links to the former InsuResilience Global Partnership, and is now supporting the development of the Global Shield, for example, through the Global Risk Modelling Alliance (GRMA), which, among other goals, builds capacity in climate and disaster risk analytics for climate-vulnerable countries. The IDF is a Partner of REAP, and several IDF members are also REAP Partners.

Systematic Observations Financing Facility (SOFF)

The Systematic Observations Financing Facility is a funding mechanism to which donors can contribute to implement activities contributing to the EW4All initiative. As a UN fund, created by WMO, UNDP and UNEP, and established by the Alliance for Hydromet Development, it became operational in 2022 and provides grants and technical assistance. It addresses the lack of national weather and climate observation data through long-term technical assistance, in particular to LDCs and SIDS that can also receive financial support through grants. It aims to support sustained collection and global exchange of these data and has several partners including national meteorological and hydrological services, Multilateral Development Banks, UN bodies, and multilateral climate funds. SOFF and its partners provide financial and technical assistance, for example, by helping countries to access support and finance provided by international development and climate finance partners and initiatives, including REAP and CREWS partners, and through peer-to-peer exchange from more advanced NMHSs providing technical assistance.

Annex 2: Progress on evidence and research

Several academic and research initiatives have advanced the evidence base for impactful anticipatory action. A major contribution to measuring the state of implementation of anticipatory action was Anticipatory Action in 2022: A Global Overview, published by the **Anticipation Hub**. The report, an annual endeavour, maps the existence and activation of anticipatory humanitarian action frameworks worldwide. Many of the numbers presented in the report are relevant for REAP's Targets and are reflected throughout this report.

New evidence on the impact of anticipatory action was published this year, including two studies on the effects of anticipatory cash transfers: together with partners, the International Food Policy Research Institute (**IFPRI**) published an experimental study assessing the impacts of anticipatory cash against the traditional humanitarian post-shock support mechanism in Nigeria.[25] Meanwhile, researchers from **RCRC organisations** issued a study on the "Effects of anticipatory humanitarian cash assistance to households forecasted to experience extreme flooding" in Bangladesh.[26]

New guidelines on several elements along the EWEA value chain include the **Centre of Excellence for Climate and Disaster Resilience's** policy papers on Early Warning Systems and Early Action in Fragile, Conflict, and Violent Contexts; and Extreme Heat Solutions Package (forthcoming in 2024; a consultation workshop was held in September 2023). The Global Network of Civil Society Organisations for Disaster Reduction (**GNDR**) and **DKH** developed the Locally Led Anticipatory Action Guide & Toolkit (accessible here) (see Target 4 chapter Story of Change).

Further advances are to be expected based on large-scale or targeted research programmes. The Climate Adaptation & Resilience Research Framework

Programme (**CLARE**) is jointly designed and run by the United Kingdom's **FCDO** and Canada's International Development Research Centre (**IDRC**), and includes risk-informed early action as one of its three research themes. Launched in 2022 to bridge gaps between science and action, CLARE is a GBP 110 million (approximately USD 134 million) initiative which initiated its first cohort of research projects in June 2023.

In collaboration with REAP, the Global Disaster Preparedness Center (GDPC) launched another research initiative in 2023. Its Small Grants Research Program aims to enlarge the evidence base on inclusive and people-centred approaches for early warning and early action. The research grants are targeted towards scholars who usually have limited access to funding, with eligibility restricted to researchers from low- and middle-income countries. The one-year research programme runs until July 2024, when the research results will be promoted and disseminated.

Another major opportunity is a call for grant proposals published by the **Government of the Netherlands' Ministry of Foreign Affairs** in October 2023 for Strengthening the Humanitarian Sector 2024–2027. One of three main policy objectives "aims at facilitating initiatives that enable knowledge and principles for anticipatory humanitarian action to be used more effectively in, and in the run-up to, crises caused or exacerbated by people," including those related to conflict. A combined total of EUR 52 million will be allocated jointly to this and the third objective: increasing local leadership through risk- and capacity-sharing.

The following tables set out highlights from scientific research conducted during the review period (Table 2) and a selection of relevant literature reviewed for this year's State of Play report (Table 3).

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25 The results indicate that while anticipatory cash has "significant impacts on reducing negative coping strategies, increasing the number of pre-emptive climate adaptive actions, and increasing investment in productive assets that could enhance future resilience," the researchers did not find significant "impacts on short-term food and non-food consumption expenditures compared to post-shock cash transfers." https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/136812/filename/137023.pdf.

26 The researchers find "robust statistical evidence that the intervention was effective in helping households evacuate the flood-affected area, protecting personal health and well-being, and safeguarding people's productive assets and livestock," as well as "enabling beneficiaries to avoid taking on high-interest loans and selling valuable assets during and after the flood." However, the anticipatory cash "does not appear to have helped cash recipients avoid food-based coping mechanisms or regain their productive capacity sooner after the flood." https://iwaponline.com/hr/article/54/11/1315/98181/Effects-of-anticipatory-humanitarian-cash.

Table 2 Highlights from scientific research

Specific Hazard Types	Multiple Specific Hazard Types	• Anticipation Hub (2023). New briefings examine how anticipatory action works in practice. https://www.anticipation-hub.org/news/new-briefings-examine-how-anticipatory-action-works-in-practice. • Start Network (2023). Pre-alert Guidance notes for Start Fund anticipatory alerts for: Cold Waves, Drought, Flooding, Heatwave, Disease Outbreaks, Conflict and Displacement, and Cyclones, Hurricanes, Typhoons.
	Droughts, Extended Dry Periods	• Centre for Humanitarian Change (2022). Anticipatory action to mitigate drought-induced crises: Tracking drought impacts and aid responses in Kenya and Somalia, 2020–2022. Edinburgh: Jameel Observatory, University of Edinburgh Global Academy of Agriculture and Food Systems and Save the Children. https://era.ed.ac.uk/bitstream/handle/1842/39029/JO_Aareport_lowres.pdf?sequence=3&isAllowed=y. • Gabriela Guimaraes Nobre, Massimiliano Pasqui, Sara Quaresima, Silvia Pieretto, Roҩerio Manuel Lemos Pereira Bonifacio (2023). Forecasting, thresholds, and triggers: Towards developing a Forecast-based Financing system for droughts in Mozambique. *Climate Services*, Volume 30. https://www.sciencedirect.com/science/article/pii/S2405880723000055?via%3Dihub.
	Earthquakes	• Global Earthquake Model (GEM) Foundation (2023). Event: GEM releases New Global Earthquake Hazard and Risk Products. https://www.globalquakemodel.org/gemevents/gem-global-products-release-2023. • Aldo Zollo, Simona Colombelli, Alessandro Caruso, Luca Elia (2023). An Evolutionary Shaking-Forecast-Based Earthquake Early Warning Method. *Earth and Space Science*, Volume 10. https://doi.org/10.1029/2022EA002657.
	Floods	• Evan Easton-Calabria (2023). Acting in Advance of Flooding: Early action in South Sudan. A Feinstein International Center Brief. https://fic.tufts.edu/wp-content/uploads/05.10.23-ActingInAdvanceFinal.pdf • Faith Mitheu, Elena Tarnavsky, Andrea Ficchì, Elisabeth Stephens, Rosalind Cornforth, Celia Petty (2023). The utility of impact data in flood forecast verification for anticipatory actions: Case studies from Uganda and Kenya. *Journal of Flood Risk Management*. https://onlinelibrary.wiley.com/doi/full/10.1111/jfr3.12911.
	Violent Conflict-Related Disasters	• Nicolás Caso, Dorothea Hilhorst, Rodrigo Mena (2023). The contribution of armed conflict to vulnerability to disaster: Empirical evidence from 1989 to 2018. *International Journal of Disaster Risk Reduction*, Volume 95. https://www.sciencedirect.com/science/article/pii/S2212420923003618. • Catalina Jaime, Erin Coughlan de Perez, Maarten van Aalst, Emmanuel Raju, Alexandra Sheaffer (2022). What was known: Weather forecast availability and communication in conflict-affected countries. *International Journal of Disaster Risk Reduction*, Volume 83. https://www.sciencedirect.com/science/article/pii/S2212420922006409.
Specific Components of Early-Warning-Early-Action Programming	Early Warning Systems	• Sarah Begg, Mirianna Budimir, Dharam Uprety, Miguel Arestegui (2023). Towards Effective Early Warning Systems – Impact and Lessons from Nepal and Peru. Practical Action. https://infohub.practicalaction.org/bitstream/handle/11283/622985/EWS_Impact%20and%20lessons%20from%20Nepal%20and%20Peru_07092023.pdf?sequence=9&isAllowed=y. • World Bank, CREWS, UNDRR (2023): A Strategic Roadmap for Advancing Multi-hazard Impact-based Early Warning Systems and Services in the Caribbean. https://documents1.worldbank.org/curated/en/099060623121033174/pdf/P168556001b11f0360b1cb06ac775da70fe.pdf.
	Finance	• Oliver Fordon (2023): Why anticipatory insurance is the next frontier for climate aid. Energy Monitor. https://www.energymonitor.ai/finance/sustainable-finance/why-anticipatory-insurance-is-the-next-frontier-for-climate-aid/. • Michèle Plichta, Lydia Poole (2023). The state of pre-arranged financing for disasters 2023. Centre for Disaster Protection, London. https://www.disasterprotection.org/publications-centre/the-state-of-pre-arranged-financing-for-disasters-2023. • Sectoral Community on Linking Anticipatory Action to Risk Financing (2023): Linking Anticipatory Action to Risk Financing: Compendium of Think Pieces. https://www.anticipation-hub.org/news/the-sectoral-community-on-linking-anticipatory-action-to-risk-financing-releases-a-compendium-of-think-pieces and https://www.anticipation-hub.org/Documents/Other/2023-02_Sectoral-Community-AA-DRF_Compendium-Think-Pieces.pdf.
	Impact (Assessments, Measurement)	• Jonathan Lala, Donghoon Lee, Juan Bazo, Paul Block (2022). Evaluating prospects for subseasonal-to-seasonal forecast-based anticipatory action from a global perspective. *Weather and Climate Extremes*, Volume 38. https://www.sciencedirect.com/science/article/pii/S2212094722000895. • Arielle Tozier de la Poterie, Eduardo Castro Jr., Hafizur Rahaman, Dorothy Heinrich, Yolanda Clatworthy, Luis Mundorega (2023). Anticipatory action to manage climate risks: Lessons from the Red Cross Red Crescent in Southern Africa, Bangladesh, and beyond. *Climate Risk Management*, Volume 39. https://www.sciencedirect.com/science/article/pii/S2212096323000025.
	Policy Approach	• Karlijn Muiderman (2022). Approaches to anticipatory governance in West Africa: How conceptions of the future have implications for climate action in the present. *Futures*, Volume 141. https://dspace.library.uu.nl/bitstream/handle/1874/426162/1_s2.0_S0016328722000805_main.pdf?sequence=1&isAllowed=y.

Cross-Cutting Issues	AI, Machine Learning and other new technology	• Walter David, Michelle King-Okoye, Beatriz Garmendia-Doval (2023). Artificial Intelligence Support to the Paradigm Shift from Reactive to Anticipatory Action in Humanitarian Responses. In: Mazal, J., et al. Modelling and Simulation for Autonomous Systems. MESAS 2022. Lecture Notes in Computer Science, Volume 13866. Springer, Cham. https://doi.org/10.1007/978-3-031-31268-7_9.
		• Benjamin Huynh and Mathew Kiang (2023). AI for Anticipatory Action: Moving Beyond Climate Forecasting. https://arxiv.org/pdf/2307.15727.pdf.
		• L. Monish, S. G. Shaila, A. Vadivel, D. Shivamma, S. G. Sumana (2023). Rainfall Forecast Based Predictive Analytics Model Using Machine Learning. In: Tamane, S., et al. ICAMIDA 2022, ACSR 105: 622–631. https://www.atlantis-press.com/proceedings/icamida-22/125986343.
		• Sarah Whelan and Andrej Verity (2022). How Earth Observation Can Enable Anticipatory Action in Humanitarian Crises. Digital Humanitarian Network. https://reliefweb.int/attachments/0fc36687-3e57-4f20-8173-d1664de2db85/How%20Earth%20Observation%20Can%20Enable%20Anticipatory%20Action%20in%20Humanitarian%20Crises%20-%20October%202022.pdf.
		• WFP (2023). Machine Learning for Early Warning Systems. https://www.wfp.org/publications/2023-machine-learning-early-warning-systems.
	Cash	• Anita Auerbach and Arielle Tozier de la Poterie (2023). A Joint Simulation on Cash-Based Anticipatory Action and Shock-Responsive Social Protection for Floods in the Philippines. https://www.anticipation-hub.org/Documents/Case_Studies/Philippines_Cash_Case_Study_FINAL.pdf.
		• Clemens Gros, Andrea Pronti, Khairul Sheikh, Ahmadul Hassan, Mohammad Shahjahan (2023). Effects of anticipatory humanitarian cash assistance to households forecasted to experience extreme flooding: evidence from Bangladesh. Hydrology Research, Volume 54(11): 1315–1328. https://iwaponline.com/hr/article/doi/10.2166/nh.2023.111/98181/Effects-of-anticipatory-humanitarian-cash.
		• IRC and IFPRI (2023). Acting Before Disaster Strikes: The impacts of anticipatory cash transfers on climate resilience in Northeast Nigeria. https://rescue.app.box.com/s/17e0avdz5uzoal1gkr7v92i44zc563o0.
		• Ha Nguyen Thi Thu, Wannobon Khuan-arch, Eve Riley, Kathryn Taetzsch (2023). Saving Lives and Assets: The value of nexus "Cash" approaches to Anticipatory Action and Social Protection during climate-induced crises. CARE, World Vision. https://www.wvi.org/stories/global-hunger-crisis/saving-lives-and-assets-value-nexus-cash-approaches-anticipatory.
	Community-Based Engagement and Localised Approaches	• Lydia Atiema (2023). Community Engagement and Accountability in Drought Anticipatory Action – Operational Case Study 2023. Kenya Red Cross Society. https://communityengagementhub.org/wp-content/uploads/sites/2/2023/07/Community-Engagement-and-Accountability-in-Drought-Anticipatory-Action.pdf.
		• Save the Children (2023). Towards an Anticipatory and Localized Humanitarian Response – Findings of community consultations on flooding in Maban, South Sudan. https://resourcecentre.savethechildren.net/pdf/Towards-an-Anticipatory-and-Localized-Humanitarian-Response_Community-Consultations-in-Maban-South-Sudan-2022.pdf/.
	Gender	• Mirianna Budimir, Anna Svensson, George Williams, Kevin Blanchard, Audrey Oettli, Dorothy Heinrich (2023). Gender in early warning and early action: why do we still need to talk about it? https://www.anticipation-hub.org/news/gender-in-early-warning-and-early-action.
		• ASEAN, FAO, UN Women (2023). Strengthening gender equality and social inclusion in disaster responsive social protection and anticipatory action in ASEAN. https://asean.org/wp-content/uploads/2023/04/Policy-Brief_ACDM_GESI-in-DRSP-and-AA-in-ASEAN_2023.pdf.
	Loss and Damage	• Mirianna Budimir, Dorothy Heinrich, Carina Bachofen, Simon Loveday, Colin McQuistan (2023). The role of early warning early action in minimizing loss and damage. https://unfccc.int/sites/default/files/resource/early_warning_early_action_for_minimising_loss_and_damage.pdf.
	Refugees, IDPs	• Evan Easton Calabria, Catalina Jaime, Benjamin Shenouda (2022). Anticipatory Action in Refugee and IDP Camps: Challenges, Opportunities, and Considerations. RC Climate Centre. https://www.climatecentre.org/wp-content/uploads/Anticipatory_Action_in_Refugee_and_IDP_Camps.pdf.
	Risk Communication	• Erin Lentz and Daniel Maxwell (2022). How do information problems constrain anticipating, mitigating, and responding to crises? International Journal of Disaster Risk Reduction, Volume 81. https://doi.org/10.1016/j.ijdrr.2022.103242.
	Social Protection	• Ritu Bharadwaj and N Karthikeyan (2023). Shock-responsive social protection in fragile and conflict-affected states: Pathways to supporting adaptive peace building. IIED, London. https://www.iied.org/sites/default/files/pdfs/2023–07/21526IIED.pdf.
		• FAO (2023) Social protection and anticipatory action to protect agricultural livelihoods. FAO, Rome. https://www.fao.org/3/cc7628en/cc7628en.pdf.
		• UNDRR (2023). Analysis of Barriers in Financing and Operationalizing Linkages Between Anticipatory Action and Social protection Systems. United Nations Office for Disaster Risk Reduction. https://www.undrr.org/media/88603/download?startDownload=true.
		• WFP (2023). Linking disaster risk financing with social protection: an overview of concepts and considerations. WFP, Rome. https://docs.wfp.org/api/documents/WFP-0000150130/download/?_ga=2.43059493.1807128180.1706864339–2060721295.1681799528.

Table 3 Literature Review for the State of Play 2023 (selection)

Authors / Organisation	Title	Publication type	Link to Publication	Year
Anticipation Hub	Anticipatory Action in 2022: A Global Overview	Report	https://www.anticipation-hub.org/download/file-3244	2023
Anticipation Hub	Minimizing loss and damage through anticipatory action: how the climate and development community can help to bring this approach to scale	Policy paper	https://www.anticipation-hub.org/Documents/Policy_Papers/22_017_WP_Policy_RZ_Web.pdf	2022
Auerbach, Anita and Arielle Tozier de la Poterie	A Joint Simulation on Cash-Based Anticipatory Action and Shock-Responsive Social Protection for Floods in the Philippines	Study	https://www.anticipation-hub.org/Documents/Case_Studies/Philippines_Cash_Case_Study_FINAL.pdf	2023
Begg, Sarah, Mirianna Budimir, Dharam Uprety, Miguel Arestegui (Practical Action)	Towards Effective Early Warning Systems – Impact and Lessons from Nepal and Peru	Brief	https://infohub.practicalaction.org/bitstream/handle/11283/622985/EWS_Impact%20and%20lessons%20from%20Nepal%20and%20Peru_07092023.pdf?sequence=9&isAllowed=y	2023
Bharadwaj, Ritu and N Karthikeyan (IIED)	Shock-responsive social protection in fragile and conflict- affected states: Pathways to supporting adaptive peace building	Report	https://www.iied.org/sites/default/files/pdfs/2023-07/21526IIED.pdf	2023
Boult, Victoria L.	Forecast-based action for conservation	Journal article	https://conbio.onlinelibrary.wiley.com/doi/pdfdirect/10.1111/cobi.14054	2023
Budimir, Mirianna (Practical Action) and Carina J Fearnley (UCL Warning Research Centre)	The core warnings pillar: ensuring success of the early warnings for all initiative	Brief	https://www.ucl.ac.uk/sts/sites/sts/files/the_core_pillar_report.pdf	2023
Budimir, Mirianna, Anna Svensson, George Williams, Kevin Blanchard, Audrey Oettli, Dorothy Heinrich	Gender in early warning and early action: why do we still need to talk about it?	Blog post	https://www.anticipation-hub.org/news/gender-in-early-warning-and-early-action	2023
Caso, Mirianna, Dorothea Hilhorst, Rodrigo Mena	The contribution of armed conflict to vulnerability to disaster: Empirical evidence from 1989 to 2018	Journal article	https://www.sciencedirect.com/science/article/pii/S2212420923003618?ref=cra_js_challenge&fr=RR-1	2023
Centre for Humanitarian Change	Anticipatory action to mitigate drought-induced crises: Tracking drought impacts and aid responses in Kenya and Somalia, 2020-2022	Report	https://era.ed.ac.uk/bitstream/handle/1842/39029/JO_AAreport_lowres.pdf?sequence=3&isAllowed=y	2022
CERF	Annual Results Report 2022	Report	https://cerf.un.org/sites/default/files/resources/CERF_ARR_2022_Edited%20080723.pdf	2023
CGIAR Initiative on Climate Resilience	Helping communities help themselves: early warning systems help save lives	Blog post	https://www.cgiar.org/news-events/news/helping-communities-help-themselves-early-warning-systems-help-save-lives/	2023
Choularton, Richard and Emily Montier (USAID)	Windows of Opportunity for Risk-Informed Humanitarian Assistance	Policy paper	https://www.climatelinks.org/resources/policy-brief-windows-opportunity-risk-informed-humanitarian-assistance	2023
Choularton, Richard and Emily Montier (USAID)	Windows of Opportunity for Risk-Informed Humanitarian Assistance: An Anticipatory, Early Action, and Disaster Risk Finance Framework	Report	https://www.climatelinks.org/resources/windows-opportunity-risk-informed-humanitarian-assistance-anticipatory-early-action-framework	2023

Authors / Organisation	Title	Publication type	Link to Publication	Year
Choularton, Richard and Emily Montier (USAID)	Global Mapping of Humanitarian Disaster Risk Finance. Report of the USAID Climate Adaptation Support Activity implemented by Tetra Tech and funded by the U.S. Agency for International Development	Report	https://www.climatelinks.org/resources/global-mapping-humanitarian-disaster-risk-finance	2023
CREWS	Annual Report 6 – 2022	Report	https://library.wmo.int/index.php?lvl=notice_display&id=22281	2023
CREWS	Guidance Document on People-Centered Risk-Informed Early Warning Systems	Guidance note	https://library.wmo.int/viewer/67171/?offset=#page=1&viewer=picture&o=download&n=0&q=	2023
David, Walter, Michelle King-Okoye, Beatriz Garmendia-Doval	Artificial Intelligence Support to the Paradigm Shift from Reactive to Anticipatory Action in Humanitarian Responses	Book chapter	https://www.pure.ed.ac.uk/ws/portalfiles/portal/367409509/DavidEtal2023ArtificialIntelligenceSupport.pdf	2023
DREF	2022 Annual Report	Report	https://www.ifrc.org/sites/default/files/2023-07/DREF-2022-Annual-Report_0.pdf	2023
Easton Calabria, Evan, Catalina Jaime, Benjamin Shenouda (RC Climate Centre)	Anticipatory Action in Refugee and IDP Camps: Challenges, Opportunities, and Considerations	Report	https://www.climatecentre.org/wp-content/uploads/Anticipatory_Action_in_Refugee_and_IDP_Camps.pdf	2022
Easton-Calabria, Evan	Acting in Advance of Flooding: Early action in South Sudan	Brief	https://fic.tufts.edu/wp-content/uploads/05.10.23-ActingInAdvanceFinal.pdf	2023
FAO	Guidance note: Community engagement in Anticipatory Action	Guidance note	https://doi.org/10.4060/cc5966e	2023
FAO	Anticipatory Action and Response Plan, August–December 2023, Mitigating the expected impacts of El Niño-induced climate extremes on agriculture and food security	Framework	https://www.fao.org/documents/card/en/c/cc7267en	2023
FAO	Anticipatory Action and Response Plan, October 2023–March 2024, Mitigating the expected impacts of El Niño-induced climate extremes on agriculture and food security	Framework	https://www.fao.org/3/cc8496en/cc8496en.pdf	2023
FAO	Viet Nam. Impact of Anticipatory Action. Racing against Typhoon Noru	Study	https://www.fao.org/3/cc8439en/cc8439en.pdf	2023
FAO	Afghanistan - Impact of Anticipatory Action. Curbing La Niña-induced drought	Study	https://www.fao.org/3/cc8141en/cc8141en.pdf	2023
FAO and IOM	Climate-induced human mobility: How can anticipatory action play a role in Asia and the Pacific?	Framework	https://www.fao.org/3/cc6742en/cc6742en.pdf	2023
FAO	Social protection and anticipatory action to protect agricultural livelihoods	Report	https://www.fao.org/3/cc7628en/cc7628en.pdf	2023
FAO and DG ECHO	Programmatic partnership: Increasing capacities and scale for Anticipatory Action	Report	https://reliefweb.int/attachments/7c5847c5-1aad-4f7f-b58b-77ce40fdbb33/cc3850en.pdf	2023
FAO and WFP	Anticipating food crises – Common principles to address challenges relating to Anticipatory Action. Outcomes of the Anticipating Food Crises workshop, Rome, November 2022	Report	https://doi.org/10.4060/cc6359en	2023

Authors / Organisation	Title	Publication type	Link to Publication	Year
FAO and WFP	How can we anticipate food crises? Some key principles proposed by a consortium of organizations	Blog post	https://www.anticipation-hub.org/news/how-can-we-anticipate-food-crises	2023
FAO and WFP	FAO-WFP Anticipatory Action Strategy – Scaling up anticipatory actions to prevent food crises	Strategy	https://www.wfp.org/publications/fao-wfp-anticipatory-action-strategy	2023
G20 DRR Working Group	G20 Disaster Risk Reduction Working Group – Roadmap 2023-2025	Roadmap	https://g20drrwg.preventionweb.net/media/89679/download?startDownload=true	2023
G20 Leaders	G20 New Delhi Leaders' Declaration – New Delhi, India, 9-10 September 2023	Declaration / Call to Action	https://www.g20.org/content/dam/gtwenty/gtwenty_new/document/G20-New-Delhi-Leaders-Declaration.pdf	2023
GNDR (Global Network of Civil Society Organisations for Disaster Reduction)	Scaling up locally led anticipatory action – so that no one is left behind	Declaration / Call to Action	https://reliefweb.int/attachments/a9553d3a-11cb-4b35-bd80-9f00f66d2947/GNDR-Call-to-Action-Scaling-Locally-Led-Anticipatory-Action.pdf	2023
GNDR (Global Network of Civil Society Organisations for Disaster Reduction)	Localising Climate Projections – How local actors can lead climate risk narrative processes	Guidance note	https://www.gndr.org/wp-content/uploads/2022/09/Localising-Climate-publication_EN_Web.pdf	2022
Guimarães Nobre, Gabriela, Massimiliano Pasqui, Sara Quaresima, Silvia Pieretto, Rogério Manuel Lemos Pereira Bonifácio	Forecasting, thresholds, and triggers: Towards developing a Forecast-based Financing system for droughts in Mozambique	Journal article	https://www.sciencedirect.com/science/article/pii/S2405880723000055?via%3Dihub	2023
Huynh, Benjamin Q. and Mathew V. Kiang	AI for Anticipatory Action: Moving Beyond Climate Forecasting	Journal article	https://arxiv.org/pdf/2307.15727.pdf	2023
IASC and WFP	Background Note: Strengthening the IASC Approach to Early Warning and Anticipatory Action	Brief	https://interagencystandingcommittee.org/system/files/2023-01/Background%20Note%20on%20Strengthening%20Early%20Warning%20and%20Anticipatory%20Action%20to%20Tackle%20the%20Climate%20Crisis.pdf	2023
IFRC	World Disasters Report 2022	Report	https://wrd.unwomen.org/sites/default/files/2023-03/2022_IFRC-WDR_EN.pdf	2023
IRC and IFPRI	Acting Before Disaster Strikes: The impacts of anticipatory cashtransfers on climate resilience in Northeast Nigeria	Brief	https://rescue.app.box.com/s/17e0avdz5uzoal1gkr7v92i44zc563o0	2023
Jaime, Catalina, Erin Coughlan de Perez, Maarten van Aalst, Emmanuel Raju, Alexandra Sheaffer	What was known: Weather forecast availability and communication in conflict-affected countries	Journal article	https://www.sciencedirect.com/science/article/pii/S2212420922006409?via%3Dihub	2022
Lala, Jonathan, Donghoon Lee, Juan Bazo, Paul Block	Evaluating prospects for subseasonal-to-seasonal forecast-based anticipatory action from a global perspective	Journal article	https://www.sciencedirect.com/science/article/pii/S2212094722000895?via%3Dihub	2022
Lentz, Erin C. and Daniel Maxwell	How do information problems constrain anticipating, mitigating, and responding to crises?	Journal article	https://doi.org/10.1016/j.ijdrr.2022.103242	2022
LoCAL GCCA+	2022/2023 LoCAL GCCA+ progress report: realizing demand with standard and scalable locally led action	Report	https://www.uncdf.org/article/8328/local-report-2019-2022	2023

Authors / Organisation	Title	Publication type	Link to Publication	Year
Mitheu, Faith, Elena Tarnavsky, Andrea Ficchì, Elisabeth Stephens, Rosalind Cornforth, Celia Petty	The utility of impact data in flood forecast verification for anticipatory actions: Case studies from Uganda and Kenya	Journal article	https://onlinelibrary.wiley.com/doi/full/10.1111/jfr3.12911	2023
Monish, L., S. G. Shaila, A. Vadivel, D. Shivamma, S. G. Sumana	Rainfall Forecast Based Predictive Analytics Model Using Machine Learning	Journal article	https://www.atlantis-press.com/proceedings/icamida-22/125986343	2023
Muiderman, Karlijn	Approaches to anticipatory governance in West Africa: How conceptions of the future have implications for climate action in the present	Journal article	https://dspace.library.uu.nl/bitstream/handle/1874/426162/1_s2.0_S0016328722000805_main.pdf?sequence=1&isAllowed=y	2022
OCHA	OCHA's Strategic Plan 2023-2026	Report	https://reliefweb.int/attachments/02a3b5e1-5149-414e-81a9-4708895ea92e/OCHA%20Strategic%20Plan%202023-2026.pdf	2023
Pham, Kimberly (WFP)	Building Systems to Anticipate Drought in Southern Africa	Report	https://www.wfp.org/publications/2023-building-systems-anticipate-drought-southern-africa	2023
Plichta, Michèle and Lydia Poole (Centre for Disaster Protection)	The state of pre-arranged financing for disasters 2023	Report	https://www.disasterprotection.org/publications-centre/the-state-of-pre-arranged-financing-for-disasters-2023	2023
REAP	Pursuing Coherence and Complementarity: Building Resilience Through Financing Early Action; REAP Input Paper to the G20 DRR WG – Priority Issue 3	Guidance note	https://g20drrwg.preventionweb.net/media/88840/download?startDownload=true	2023
Save the Children	Save the Children's Framework for Anticipatory Action	Framework	https://resourcecentre.savethechildren.net/pdf/Save-the-Children_Framework-for-Anticipatory-Action_2022.pdf/	2022
Save the Children	Towards an Anticipatory and Localized Humanitarian Response – Findings of community consultations on flooding in Maban, South Sudan	Study	https://resourcecentre.savethechildren.net/pdf/Towards-an-Anticipatory-and-Localized-Humanitarian-Response_Community-Consultations-in-Maban-South-Sudan-2022.pdf/	2023
Scott, Zoë (Centre for Disaster Protection)	The future of Anticipatory Action: Four challenges to reaching scale and sustainability	Blog post	https://www.disasterprotection.org/blogs/the-future-of-anticipatory-action-four-challenges-to-reaching-scale-and-sustainability	2023
Scott, Zoë (Centre for Disaster Protection)	How Can Anticipatory Action Reach Scale and Sustainability? Learning from CERF in Bangladesh	Report	https://static1.squarespace.com/static/61542ee0a87a394f7bc17b3a/t/64e70d5b3d403b51e9a44481/1692863837962/How+Can+Anticipatory+Action+Reach+Scale+and+Sustainability_Learning+from+CERF+in+Bangladesh_Final.pdf	2023
Scott, Zoë (Centre for Disaster Protection)	How Can Anticipatory Action Reach Scale and Sustainability? Learning from CERF in Nepal	Report	https://static1.squarespace.com/static/61542ee0a87a394f7bc17b3a/t/64e71025c6eb3227c842c104/1692864551002/How+Can+Anticipatory+Action+Reach+Scale+and+Sustainability_Learning+from+CERF+in+Nepal_Final.pdf	2023
Secades, Urbe and Ana Solorzano (WFP)	Integrating Anticipatory Action and Social Protection	Brief	https://docs.wfp.org/api/documents/WFP-0000144265/download/?_ga=2.197490415.1936630885.1693382113-2063555525.1692200593	2022
Start Network	Annual Report and Accounts	Report	https://startnetwork.org/learn-change/resources/annual-reports/annual-report-2022	2023
Subedi, Ashma, Ramiz Khan, Roop Singh (RC Climate Centre)	Nepalgunj Heat Action Plan 2023	Report	https://preparecenter.org/wp-content/uploads/2023/07/Nepalgunj-Heat-Action-Plan-2023.pdf	2023

Authors / Organisation	Title	Publication type	Link to Publication	Year
Swithern, Sophia (Centre for Disaster Protection)	Making Disaster Risk Financing Work for Disaster-Affected People	Guidance note	https://static1.squarespace.com/static/61542ee0a87a394f7bc17b3a/t/64d4e03e89ca822a3ad0f903/1691672639987/Making+disaster+risk+finance+work+for+risk-affected+people.pdf	2023
Taggart, Robert, Nicholas Loveday, Deryn Griffiths	A scoring framework for tiered warnings and multicategorical forecasts based on fixed risk measures	Journal article	https://arxiv.org/pdf/2108.12814.pdf	2022
Tozier de la Poterie, Arielle, Eduardo Castro Jr., Hafizur Rahaman, Dorothy Heinrich, Yolanda Clatworthy, Luis Mundorega	Anticipatory action to manage climate risks: Lessons from the Red Cross Red Crescent in Southern Africa, Bangladesh, and beyond	Journal article	https://www.sciencedirect.com/science/article/pii/S2212096323000025?via%3Dihub	2023
UNDRR	GAR Special Report: Measuring Resilience for the Sustainable Development Goals	Report	https://www.undrr.org/media/88718/download?startDownload=true	2023
UNDRR	The Report of the Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030	Report	https://sendaiframework-mtr.undrr.org/publication/report-midterm-review-implementation-sendai-framework-disaster-risk-reduction-2015-2030	2023
UNDRR	Words into Action: A Guide to Multi-hazard Early Warning Systems (12)	Report	https://www.undrr.org/media/87690	2023
UNGA	Main findings and recommendations of the midterm review of the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030	Report	https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/764/26/PDF/N2276426.pdf?OpenElement	2023
UNGA	Resolution on Disaster risk reduction A/RES/77/164	Resolution	https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/755/60/PDF/N2275560.pdf?OpenElement	2022
United Nations	The United Nations Secretary-General's Action Agenda on Internal Displacement – Follow-Up to the Report of the UN Secretary-General's High-Level Panel on Internal Displacement	Strategy	https://www.un.org/en/content/action-agenda-on-internal-displacement/assets/pdf/Action-Agenda-on-Internal-Displacement_EN.pdf	2022
WFP	Annual Performance Report for 2022	Report	https://www.wfp.org/publications/annual-performance-report-2022	2023
WFP	Scaling up anticipatory actions for food security – Anticipatory Action Year in Focus 2022	Report	https://www.wfp.org/publications/scaling-anticipatory-actions-food-security-anticipatory-action-year-focus-2022	2023
WFP	Climate Risk Insurance Annual Report 2022	Report	https://www.wfp.org/publications/2022-climate-risk-insurance-annual-report	2023
WFP	Annual Review 2022	Report	https://docs.wfp.org/api/documents/WFP-0000150530/download/?_ga=2.204945360.1936630885.1693382113-2063555525.1692200593	2023
WFP	Anticipatory Cash Transfers and Early Warning Information Ahead of Drought in Ethiopia	Brief	https://docs.wfp.org/api/documents/WFP-0000145564/download/?_ga=2.133485262.1936630885.1693382113-2063555525.1692200593	2022
WFP	The Science behind Saving and Changing Lives	Brief	https://docs.wfp.org/api/documents/WFP-0000147806/download/?_ga=2.196616172.1936630885.1693382113-2063555525.1692200593	2023
WFP	Anticipating Extreme Weather – Mozambique	Brief	https://docs.wfp.org/api/documents/WFP-0000145540/download/?_ga=2.129924044.1936630885.1693382113-2063555525.1692200593	2022

Authors / Organisation	Title	Publication type	Link to Publication	Year
WFP	Strengthening Haiti's capacity to face floods and hurricanes with anticipatory action	Blog post	https://www.anticipation-hub.org/news/strengthening-haitis-capacity-to-face-floods-and-hurricanes-with-anticipatory-action	2023
WFP	Anticipating Drought in the Grand Sud – Anticipatory Action activation in Madagascar: Findings and lessons learnt	Report	https://docs.wfp.org/api/documents/WFP-0000150948/download/	2023
WFP	From warnings to action: strengthening Karamoja's resilience to weather shocks	Blog post	https://www.anticipation-hub.org/news/from-warnings-to-action-strengthening-karamojas-resilience-to-weather-shocks	2023
WFP	Linking disaster risk financing with social protection – An overview of concepts and considerations	Report	https://docs.wfp.org/api/documents/WFP-0000150130/download/?_ga=2.110023237.1936630885.1693382113-2063555525.1692200593	2023
WFP	Study on the Use of Climate-related Indigenous Knowledge Systems to Support Anticipatory Action in Zimbabwe	Report	https://docs.wfp.org/api/documents/WFP-0000145045/download/?_ga=2.129850060.1936630885.1693382113-2063555525.1692200593	2022
WFP	Calm Before the Storm: Anticipatory Action Strengthens Disaster Risk Management in the Philippines	Case study	https://docs.wfp.org/api/documents/WFP-0000148143/download/?_ga=2.137877488.1936630885.1693382113-2063555525.1692200593	2023
WFP	Machine Learning for Early Warning Systems	Brief	https://docs.wfp.org/api/documents/WFP-0000154485/download/?_ga=2.137151280.1846614490.1701867857-1289930173.1693304189	2023
WFP, Country Office Nepal	Joint Post-Distribution Monitoring (PDM) of Forecast-based Anticipatory Action Project (FbAA) 2022	Study	https://docs.wfp.org/api/documents/WFP-0000148999/download/?_ga=2.139287411.1936630885.1693382113-2063555525.1692200593	2023
Whelan, Sarah and Andrej Verity (Digital Humanitarian Network)	How Earth Observation Can Enable Anticipatory Action in Humanitarian Crises	Report	https://reliefweb.int/attachments/0fc36687-3e57-4f20-8173-d1664de2db85/How%20Earth%20Observation%20Can%20Enable%20Anticipatory%20Action%20in%20Humanitarian%20Crises%20-%20October%202022.pdf	2022
World Bank, CREWS, UNDRR	A Strategic Roadmap for Advancing Multi-hazard Impact-based Early Warning Systems and Services in the Caribbean	Guidance note	https://documents1.worldbank.org/curated/en/099060623121033174/pdf/P168556001b11f0360b1cb06ac775da70fe.pdf	2023
Zaman, Towrin, Khandker Tarin Tahsin, Savio Rousseau Rozario, Adiba Binte Kamal, Mizan R. Khan, Saleemul Huq, Md. Bodrud-Doza	An overview of disaster risk reduction and anticipatory action in Bangladesh	Journal article	https://www.frontiersin.org/articles/10.3389/fclim.2022.944736/full	2022
Zollo, Aldo, Simona Colombelli, Alessandro Caruso, Luca Elia	An Evolutionary Shaking-Forecast-Based Earthquake Early Warning Method	Journal article	https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2022EA002657	2023

Annex 3: List of interview partners

Organisation	Name	Position
Anticipation Hub	Kara Siahaan	Head of Anticipation Hub
CREWS	Maria Lourdes Kathleen Macasil	Programme Officer
FAO	Niccolò Lombardi	Anticipatory Action Coordinator
German Federal Foreign Office	Konstantin Klammert	Desk Officer for Anticipatory Action
IFRC	Gantsetseg Gantulga and Stephanie Julmy	Anticipatory Action Coordinator and Lead, Climate and Resilience
REAP	Emma Flaherty, Simon Loveday, Ben Webster, Gavin White	REAP Secretariat Members
UNDRR	Animesh Kumar	Head of UNDRR Office in Bonn
WFP	Jesse Mason and Montserrat Barroso	Global Coordinator Forecast-based Financing and Special Advisor to the REAP Secretariat

Risk-informed Early Action Partnership
REAP