# ANTICIPATORY ACTION IN 2022

## A GLOBAL OVERVIEW

**The Anticipation Hub is an initiative of**

German Red Cross · IFRC · Climate Centre

**Supported by**

german humanitarian assistance
DEUTSCHE HUMANITÄRE HILFE

**This report is published in partnership with**

START NETWORK · WFP United Nations World Food Programme · OCHA · Food and Agriculture Organization of the United Nations · WELT HUNGER HILFE WHH

# Acronyms and abbreviations

| | |
|---|---|
| **4As** | Academic Alliance for Anticipatory Action |
| **AADC** | Agri-Aqua Development Coalition-Mindanao |
| **AATF** | Anticipatory Action Task Force |
| **ACCORD** | Assistance and Cooperation for Community Resilience and Development, Inc |
| **ACTED** | Agency for Technical Cooperation and Development |
| **ALIMA** | Alliance For International Medical Action |
| **ARC** | African Risk Capacity |
| **ASEAN** | Association of Southeast Asian Nations |
| **AVAS** | Association of Voluntary Actions for Society |
| **BMZ** | Bundesministerin für wirtschaftliche Zusammenarbeit und Entwicklung / Federal Ministry for Economic Cooperation and Development |
| **BRAC International** | Formerly known as Building Resources Across Communities, Bangladesh Rehabilitation Assistance Committee and Bangladesh Rural Advancement Committee |
| **CAFOD** | Catholic Agency for Overseas Development |
| **CARE** | Cooperative for Assistance and Relief Everywhere; formerly Cooperative for American Remittances to Europe |
| **CERF** | Central Emergency Response Fund |
| **CHF** | Swiss franc |
| **CNRS** | Center for Natural Resource Studies |
| **COP27** | 2022 United Nations Climate Change Conference / 27th Conference of the Parties of the United Nations Framework Convention on Climate Change |
| **CRED** | Centre for Research on the Epidemiology of Disasters |
| **CRS** | Catholic Relief Services |
| **DAM** | Dhaka Ahsania Mission |
| **DG ECHO** | Directorate-General for European Civil Protection and Humanitarian Aid Operations |
| **DREF** | Disaster Response Emergency Fund |
| **EAP** | early action protocol |
| **ESDO** | Eco Social Development Organization |
| **EU** | European Union |
| **EW4ALL** | Early Warnings For All |
| **FAO** | Food and Agriculture Organization of the United Nations |
| **FOREWARN** | Forecast-based, Warning, Analysis, and Response Network |
| **FY** | financial year |
| **G7** | Group of Seven |
| **GBP** | Great British pound |
| **GFFO** | German Federal Foreign Office |
| **GMDFI** | Green Meadow Development Foundation, Inc |
| **HANDS** | Health & Nutrition Development Society |
| **IASC** | Inter-Agency Standing Committee |
| **IDEA** | Initiative for Development & Empowerment Axis |
| **IFRC** | International Federation of Red Cross and Red Crescent Societies |

| | |
|---|---|
| **IOM** | International Organization for Migration |
| **IRB** | Islamic Relief Bangladesh |
| **LCDE** | Leyte Center for Development, Inc |
| **LEDARS** | Local Environment Development and Agricultural Research Society |
| **MEAL** | monitoring, evaluation, accountability and learning |
| **MID-P** | Merti Integrated Development Programme |
| **MIDEFEHOPS** | International Movement for the Rights of Children, Women and Widowers and their Social Advancement / Mouvement international pour les droits des enfants, des femmes et des veufs et leur promotion sociale |
| **MMS** | Manab Mukti Sangstha |
| **n/a** | not available |
| **NASA** | National Aeronautics and Space Administration (USA) |
| **NDP** | National Development Programme (Bangladesh) |
| **NGO** | non-governmental organization |
| **NSS** | Nazrul Smriti Sangsad |
| **OCHA** | United Nations Office for the Coordination of Humanitarian Affairs |
| **PACIDA** | Pastoralist Community Initiative and Development Assistance |
| **RAAWG** | Regional Anticipatory Action Working Group |
| **RCRC** | Red Cross Red Crescent |
| **RDRS Bangladesh** | Formerly known as the Rangpur Dinajpur Rural Service |
| **REAP** | Risk-informed Early Action Partnership |
| **SAPCONE** | Sustainable Approaches for Community Empowerment |
| **SEEDS** | Sustainable Environment and Ecological Development Society |
| **SFERA** | Special Fund for Emergency and Rehabilitation Activities |
| **SKS Foundation** | Samaj Kallyan Sangstha Foundation |
| **SPUP-CSC** | Saint Paul University Philippines - Community Development Center |
| **TBD** | to be determined |
| **TUPADO** | Turkana Pastoralist Development Organization |
| **UN** | United Nations |
| **UNDP** | United Nations Development Programme |
| **UNFPA** | United Nations Population Fund |
| **UNHCR** | United Nations High Commissioner for Refugees |
| **UNICEF** | United Nations Children's Fund |
| **UN Women** | United Nations Entity for Gender Equality and the Empowerment of Women |
| **USD** | United States dollar |
| **V20** | Vulnerable Twenty Group of Ministers of Finance of the Climate Vulnerable Forum |
| **WASH** | water, sanitation and hygiene |
| **WFP** | World Food Programme |
| **WHO** | World Health Organization |
| **WMO** | World Meteorological Organization |

# Table of contents

Construction of a flood-protection dam in the cultivation area of Maradi, Niger. © FAO

This report is the first in what will become an annual overview of anticipatory action, documenting changes in the sector over time. It draws upon desk research conducted during 2022 to map frameworks and activations worldwide. The data collected was then verified and updated by organizations active in this sector. The report was written by the Anticipation Hub, with contributions from several partners, notably members of the Anticipatory Action Task Force.

If you are involved in anticipatory action and have frameworks and/or activations to include in future editions, please get in touch: **anticipation-hub@drk.de**

## Box 1. What is anticipatory action?

Anticipatory action is part of the disaster risk management cycle. It refers to actions taken to reduce the impacts of a forecast hazard before it occurs, or before its most acute impacts are felt. The actions are carried out in anticipation of a hazard's predicted impacts and based on a forecast of when, where and how the event will unfold (**IFRC 2020** ).

Anticipatory action takes different forms and happens on a range of scales, depending on the mandate of the organizations involved, the context in which people live, the type of hazard they are facing and the available forecasts for that hazard. For this report, we have included those that meet the following parameters:
• The objective is to reduce the potential impacts of forecastable hazard(s).
• Actions are designed based on forecasts or predictive analyses of when and where a hazard will occur.
• Actions are implemented before a hazard's impact, or before its most acute impacts are felt.

Anticipatory action works best if the following core components are agreed by stakeholders in advance:
• the actions to be taken and the specific roles of each stakeholder
• the forecasts for that hazard and the threshold levels that are used to 'trigger' the actions
• financing, with both the amount and source prearranged to allow the actions to be implemented once the triggers are met.

**The Anticipation Hub provides further resources that explain how anticipatory action works.**

**Learn more: bit.ly/3MJF27s**

# 1. Introduction

If it wasn't already clear, then 2022 put it beyond doubt: climate change is no longer a challenge for the future. It is happening now and causing increasing levels of devastation across the world. In 2022 there were major floods in Bangladesh, Pakistan and across much of western and central Africa, while tropical storms struck Africa, Asia and Central America. Countries in eastern Africa and beyond saw crippling droughts continue as the rains failed for another year, while almost every continent experienced heat waves, often of unprecedented levels. These and other hazards left a trail of destruction behind them, costing thousands of people their lives, and millions more their homes, possessions and livelihoods.

Yet among growing global concern about the increasing number of hazards, and the fact that many are intensifying in scale, there was one encouraging trend in 2022: around the world, 35 countries are implementing anticipatory action approaches (Box 1) and are ready to act ahead of forecast hazards. By aggregating data from across the world, this report shows that:
● through the **70 frameworks**[1] in place globally, **7.6 million people** are now better prepared to act ahead of the predictable impacts of hazards, and able to recover more quickly afterwards
● the financing committed through these frameworks in 2022 reached **138 million US dollars**[2]
● **47 anticipatory action frameworks** were activated in 2022, reaching **3.6 million people** as a minimum estimate.

## About this report

Section 2 of this report document presents – for the first time – the current global scale and impact of anticipatory action. Section 3 demonstrates how the scope of this approach also expanded in 2022 – in terms of the hazards to which it is applied, the different triggers in place, and the range of anticipatory actions being implemented. Importantly, 2022 saw greater attention given to non-climate-related hazards such as conflict and health, and many practitioners are adjusting anticipatory systems so

that they can be applied to more of these. There was also regional progress, including in Africa, Asia-Pacific and Latin America and the Caribbean.

Evidence that anticipatory action is growing is undoubtedly encouraging. And yet the number of people reached through activations in 2022 represents only a fraction of those who are vulnerable to the impacts of hazards: in 2021, 101.8 million people were affected by disastrous events, which accounted for 10,492 deaths and caused approximately 252.1 billion US dollars of economic losses (**CRED 2022** ⧉).[3] These figures demonstrate a clear and urgent need to scale up anticipatory action still further and help more people to cope with forecast hazards.

There was positive news in this respect too. As Section 4 notes, several governments and donors increased their commitment to this approach during 2022. And the current scale of anticipatory action worldwide indicates that while hazards are likely to continue increasing in scale and impact in the coming years, we now have another tool with which to fight them.

## Box 2. Coordinated anticipatory action

Coordinated anticipatory action – where different organizations work together in a country, and on the same hazard – is rare, but in 2022 there were increased efforts to improve this.

In April, ahead of floods in South Sudan's Unity State, funds were disbursed for anticipatory action. This enabled 15 national and international non-governmental organizations (NGOs) and seven United Nations (UN) partners to strengthen dykes around vital infrastructure, maintain access for communities and humanitarian workers, manage storm waters during heavy rains, and make water and sanitation infrastructure flood-proof.

In Nepal, an anticipatory action framework was activated in June 2022, based on forecasts of severe monsoon flooding. The UN Central Emergency Response Fund (CERF) disbursed funds quickly, supporting three UN agencies – the World Food Programme (WFP), the United Nations Population Fund (UNFPA) and UN Women[4] – and local partners, in close collaboration with the government, to act before the floods. Together, they were able to: disseminate early warning messages to local communities; provide cash assistance to vulnerable families; distribute relief packages, health kits and multipurpose cash support; and facilitate access to essential services such as psycho-social counselling.

In Niger, following observations of below-average rainfall, the anticipatory action framework for drought was activated in August 2022. CERF funds were used by seven UN agencies, in close collaboration with over 15 national and international NGOs and the government, to mitigate the immediate impacts, with anticipatory assistance provided across the food security, health, nutrition, protection, and water, sanitation and hygiene (WASH) sectors. Among the actions implemented, WFP supported 48,000 smallholder farmers to scale up water-harvesting activities in 90,000 small catchments (covering 1,700 hectares), while the Food and Agriculture Organization of the United Nations (FAO) supplied drought-resistant agricultural inputs to the same farmers. WFP also provided cash to 6,000 households and disseminated climate information and advice through in-person training, mobile phones and community radio programmes. These actions helped people to avoid adopting negative coping strategies such as selling their harvests too early (which usually commands a lower price).

**Table A2 provides further information about these activations.**



WFP's anticipatory cash assistance in western Nepal benefitted 15,000 people at risk of severe flooding.
© WFP/Srawan Shrestha

**1** In this report, we use the term 'framework' to refer to all types of anticipatory action plan, protocol and framework.

**2** Financing for anticipatory action is provided in different currencies. For comparison and aggregation purposes, we have converted these into US dollars, based on the exchange rates at that time.

**3** Data for 2022 was not available at the time of writing.

**4** Officially the United Nations Entity for Gender Equality and the Empowerment of Women.

# 2. Anticipatory action in 2022

## 2.1 Anticipatory action in 2022: frameworks

Figure 1 shows the 35 countries with anticipatory action frameworks in place during 2022; full details of these are in Table A1 at the end of this report. Figure 2 summarizes these figures, while Figures 3 and 4 provide a breakdown of these frameworks, by organizational type and funding levels, respectively.
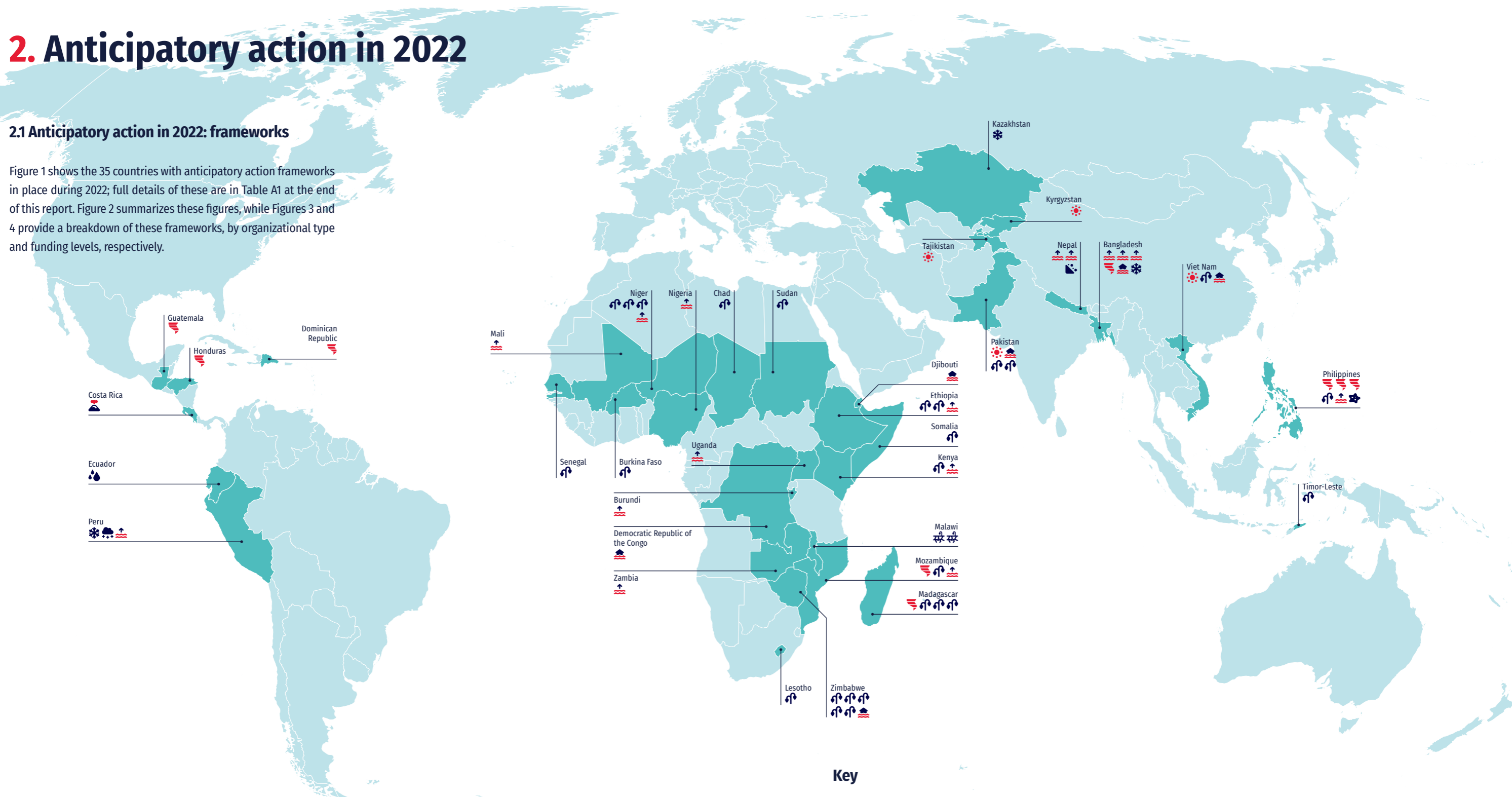


**Figure 1.**
**Active anticipatory action frameworks around the world**

## Key

| | | | | | | |
|---|---|---|---|---|---|---|
| ❄ | Cold wave | 🌧 | El Niño (extreme rainfall) | 🚶 | Population movement |
| 👥 | Conflict | ✵ | Epidemic | ⛈ | Rain flood |
| 👥 | Conflict and violence | ≈ | Flash flood | ⛆ | Riverine flood |
| 🌀 | Cyclone / typhoon / hurricane | ⛰ | Flood | ⛈ | Storm |
| ✿ | Disease outbreak | ☀ | Heat wave | 🌀 | Tropical storm |
| 🌾 | Drought | ☁ | Heavy snowfall | 🌋 | Volcanic ash |
| ❀ | Dry spell | ⛰ | Landslide | 🔥 | Wildfire |
| ↝ | Economic crisis | 🦗 | Locust | ❄ | Winter storm |
| ✊ | Electoral violence | ☁ | Mudflow | ● | to be defined |

**Figure 2. Anticipatory action frameworks in 2022: by numbers**

**Countries** with active anticipatory action frameworks

↓

**35**

**Active** anticipatory action frameworks

↓

**70**

Number of **people** covered

↓

**7.6ᵐ**

**Preagreed financing** available (US dollars)

↓

**138ᵐ**

Active anticipatory action frameworks **by hazard**



* Peru has a combined framework for cold waves and heavy snowfall.
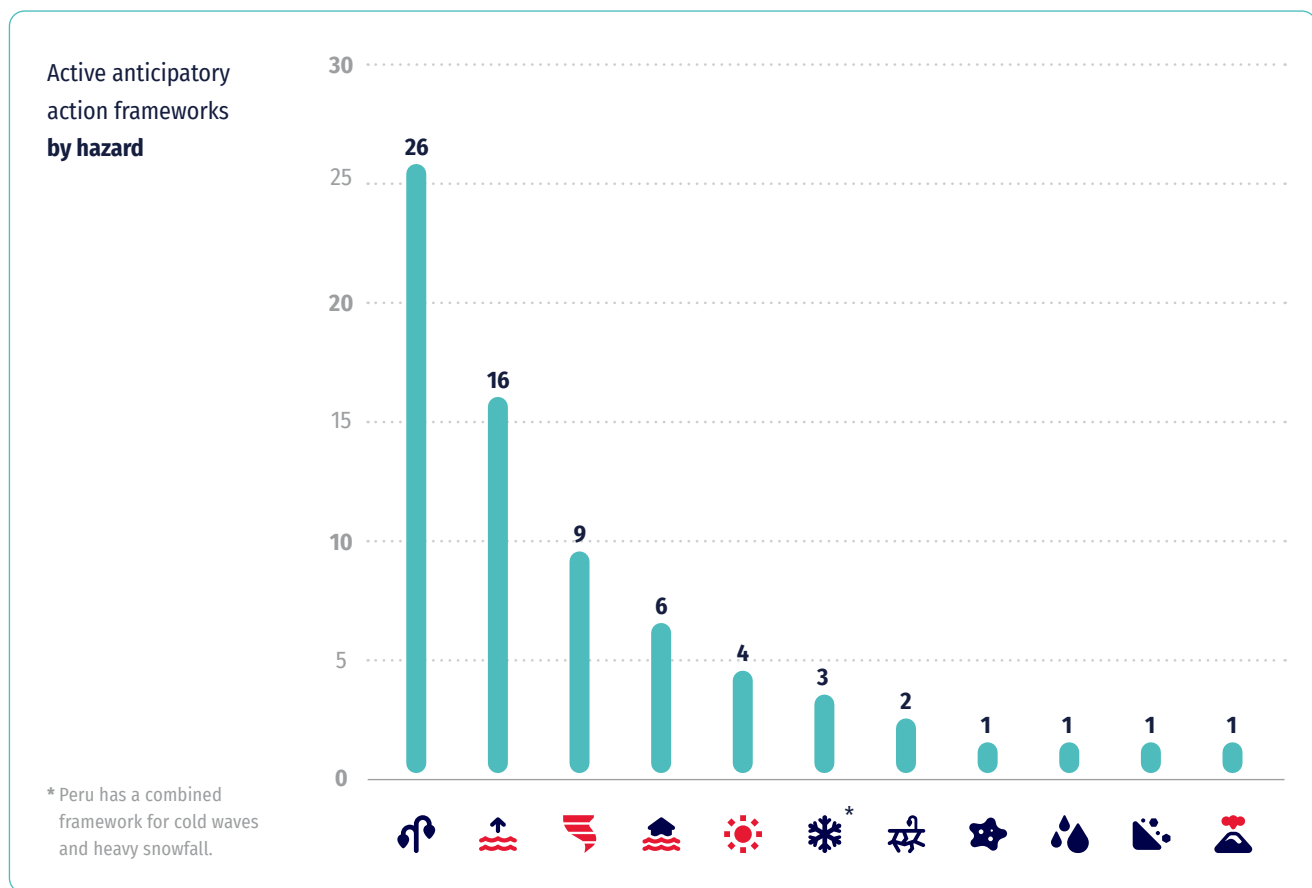
Bar chart values: 26, 16, 9, 6, 4, 3, 2, 1, 1, 1, 1
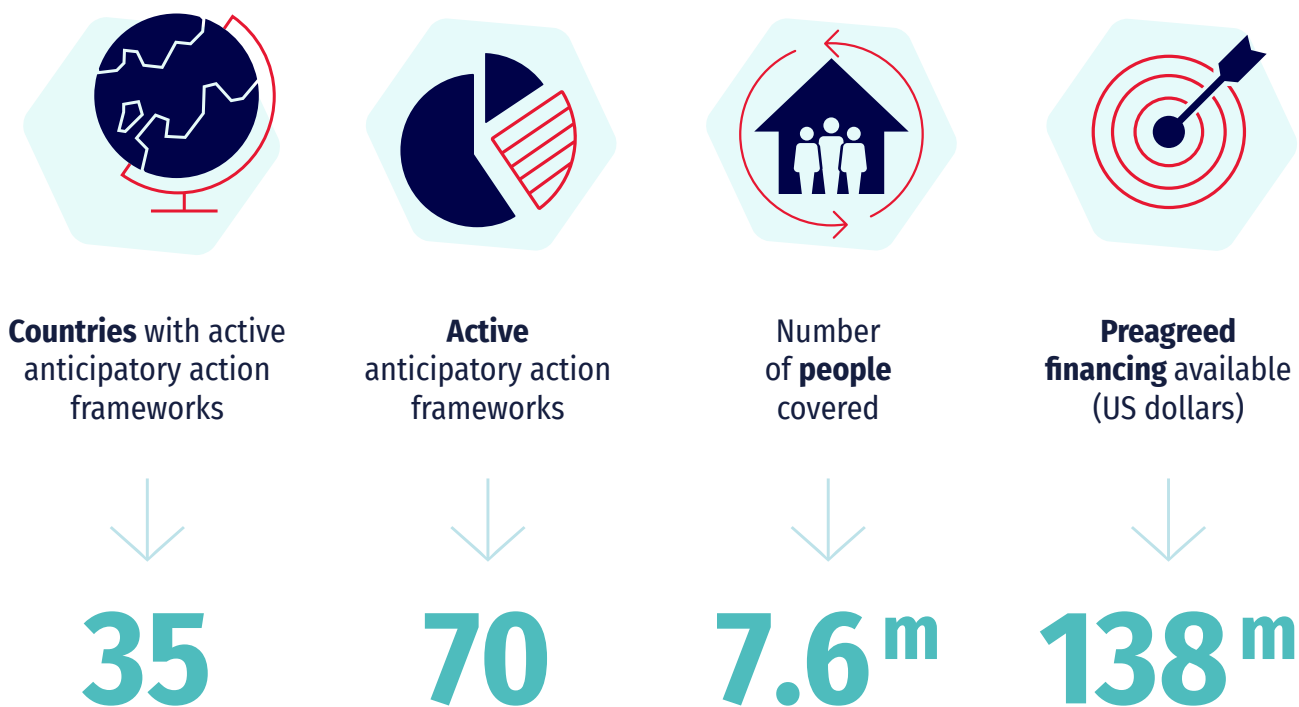
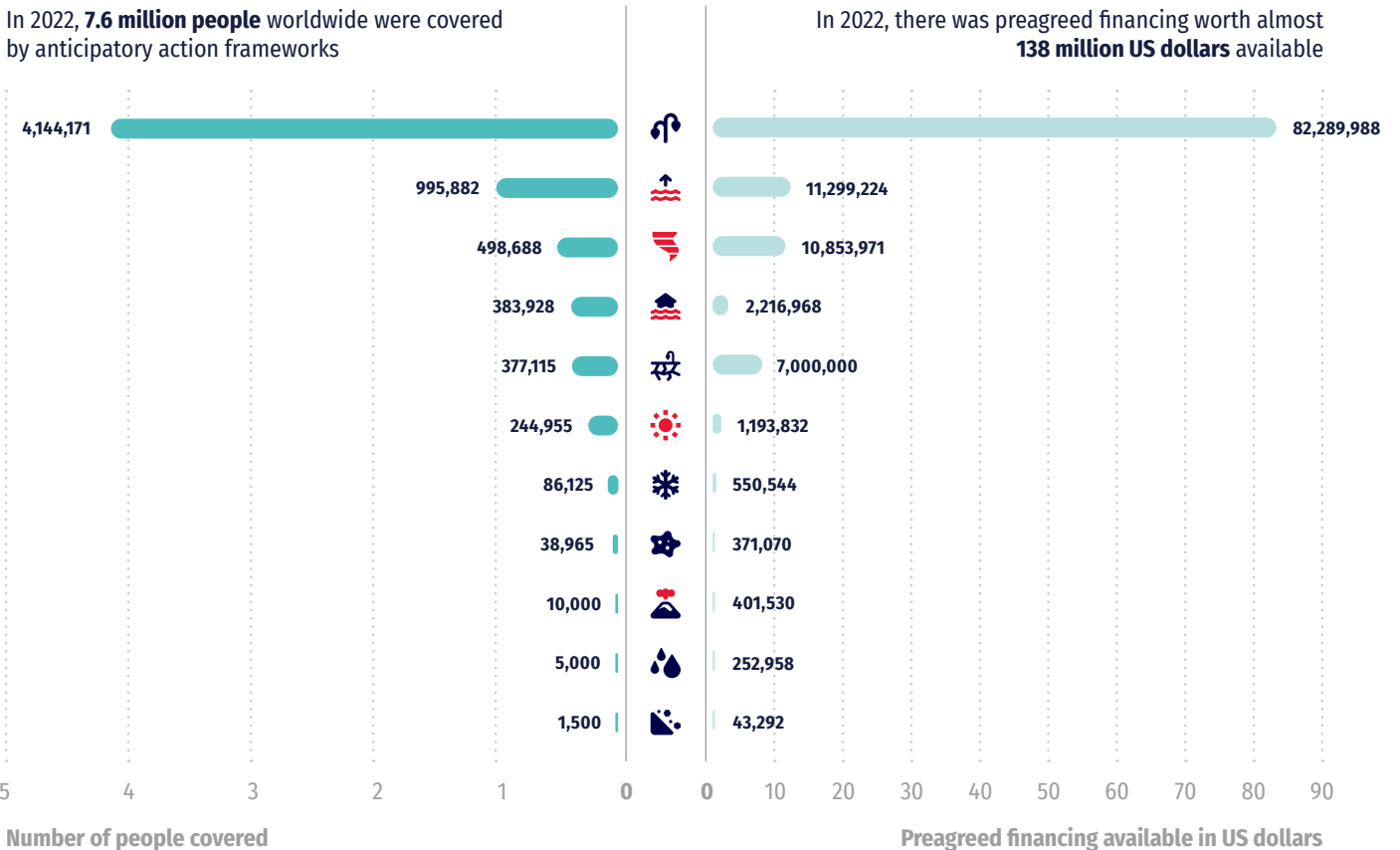**Figure 3. Anticipatory action frameworks by hazard and organizational type**

Active anticipatory action frameworks
**by organizational type**

Active anticipatory action frameworks
**by organizational type and hazard**



- UN agencies
- IFRC
- NGOs

**71** **Total number of organizations**
implementing anticipatory action in 2022

See Table A1 for a full list of these.
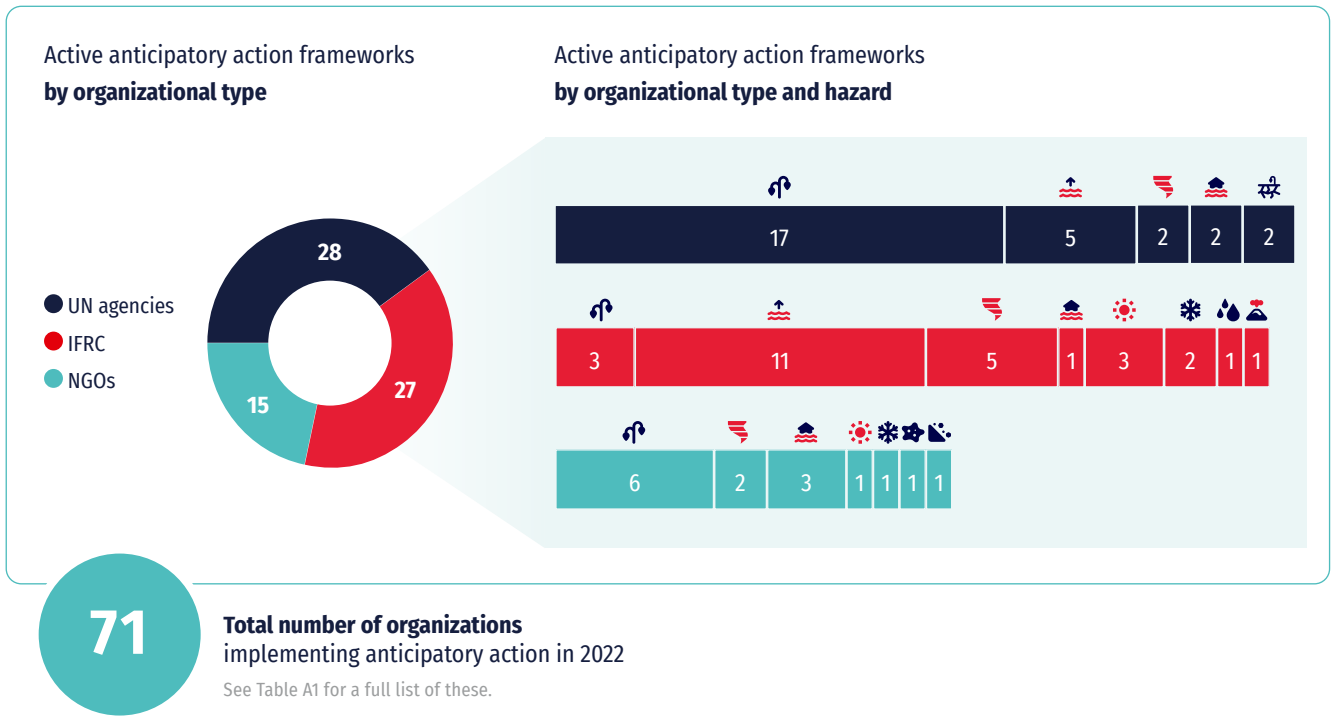
**Figure 4. Anticipatory action around the world: coverage and preagreed financing \***

In 2022, **7.6 million people** worldwide were covered
by anticipatory action frameworks

In 2022, there was preagreed financing worth almost
**138 million US dollars** available



| Number of people covered | | Preagreed financing available in US dollars |
|---|---|---|
| 4,144,171 | | 82,289,988 |
| 995,882 | | 11,299,224 |
| 498,688 | | 10,853,971 |
| 383,928 | | 2,216,968 |
| 377,115 | | 7,000,000 |
| 244,955 | | 1,193,832 |
| 86,125 | | 550,544 |
| 38,965 | | 371,070 |
| 10,000 | | 401,530 |
| 5,000 | | 252,958 |
| 1,500 | | 43,292 |

**Number of people covered**

**Preagreed financing available in US dollars**

\* The breakdown of figures excludes data from FAO, as FAO's funding is flexible and determined based on a hazard's expected impact and the available funding. Prearranged SFERA funds for anticipatory action currently amount to about 11 million US dollars. Considering the average cost per direct beneficiary from previous interventions, this could directly protect the agricultural livelihoods and food security of approximately 785,000 people ahead of forecast shocks.

## 2.2 Anticipatory action in 2022: activations

Anticipatory action frameworks were activated 47 times in 2022. Figure 5 shows the countries where these activations took place, and for which hazards; full details of each, including the financing available, are in Table A2. Figure 6 provides combined figures for these activations, including the total financing and the number of people reached globally.
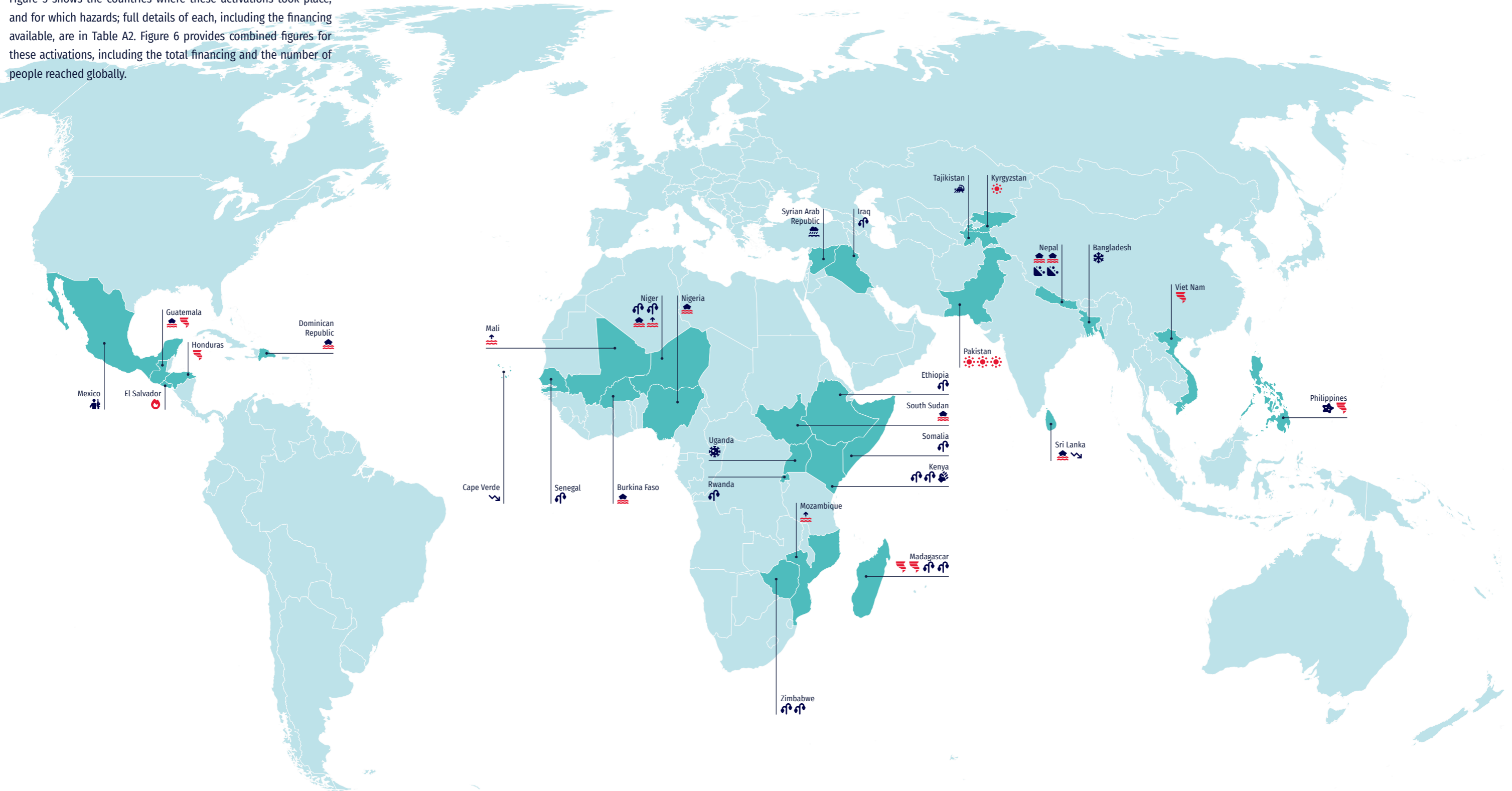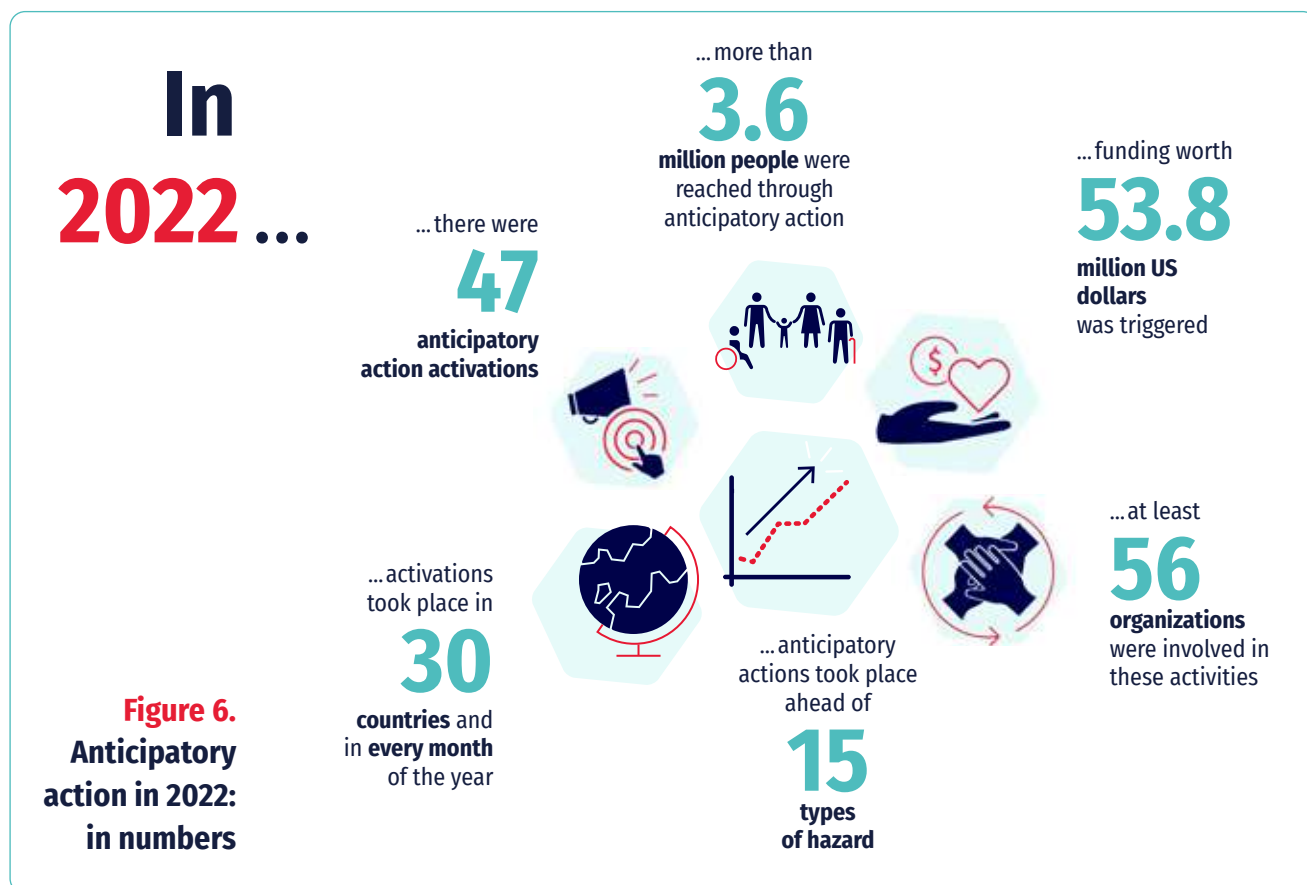


**Figure 5.**
**Anticipatory action frameworks activated in 2022**

**In 2022 …**

**Figure 6. Anticipatory action in 2022: in numbers**

…there were **47** anticipatory action activations

…more than **3.6** million people were reached through anticipatory action

…funding worth **53.8** million US dollars was triggered

…activations took place in **30** countries and in every month of the year

…anticipatory actions took place ahead of **15** types of hazard

…at least **56** organizations were involved in these activities

## 2.3 Anticipatory action in 2022: case studies

The following case studies highlight three activations that took place during 2022. Further details, including the financing provided, can be found in Table A2.

**Guatemala and Honduras activate Early Action Protocols ahead of Hurricane Julia**

On 8 October 2022, the Guatemalan Red Cross and the Honduran Red Cross both activated their Early Action Protocols (EAPs) for Floods Associated with Tropical Storms, after forecasts predicted that Hurricane Julia was about to hit these countries. Three days beforehand, preagreed funds were released from the Anticipatory Pillar of the International Federation of Red Cross and Red Crescent Society's (IFRC) Disaster Response Emergency Fund (DREF).

The two National Societies used these funds to instigate anticipatory action, alleviating some of the expected impacts in the areas forecast to be worst affected. In the Sula Valley, Honduras, more than 1,600 families received water and sanitation kits, and around 600 were given cash to spend on their most urgent needs. In Guatemala's Izabal and Alta Verapaz departments, these figures were around 1,300 and 700 families, respectively.

Cash and voucher distribution in Honduras. © Natalie Acosta/German Red Cross

In both regions, water levels were already high due to a heavy rainy season prior to Hurricane Julia. Many families lived along the banks of rivers, streams and embankments, putting them at high risk from floods. Furthermore, most had few resources, making it difficult to relocate or seek shelter elsewhere. The actions undertaken provided the support they needed to survive the floods and recover more quickly once the effects had subsided.

## FAO acts in anticipation of Typhoon Noru in Viet Nam

Typhoon Noru was forecast to hit Viet Nam's Thua Thien Hue and Quang Tri provinces on 28 September 2022, with winds predicted to reach Category 1 levels[5] at a minimum. Three days ahead of the expected landfall, FAO activated its Anticipatory Action Protocol for Typhoons and Tropical Cyclone-induced Flooding. This was done to protect people's lives, livelihoods and food security.

During this three-day window, the project team disseminated early warning messages and distributed cash to the communities expected to be worst affected. The team also provided waterproof drums for people to store their food and personal assets. Shelters for livestock were also planned, but these were not built because the level of flood water was not high enough to warrant the evacuation of livestock from farms.

This activation was the first of its kind in Viet Nam, and prearranged funds from the Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO) were critical for the timely rollout of these anticipatory actions. The lessons learned from acting ahead of Typhoon Noru will be used to inspire further national- and provincial-level anticipatory action in Viet Nam.

## WFP acts ahead of drought in the Horn of Africa

When forecasts predicted that rains in the Horn of Africa would fail for the fourth (March–May 2022) and fifth (October–December 2022) consecutive seasons, WFP reached 206,874 people with

## Box 3. Locally led anticipatory action

The figures reported in Section 2 collate data about anticipatory action funded through mechanisms managed by larger humanitarian agencies and donors. However, there is a growing number of locally led anticipatory action initiatives, in which local stakeholders act ahead of a forecast hazard under their own initiative (i.e., outside of project-based structures). These may use localized funding or have no funding at all, and are often based on local forecasts, knowledge, actions and approaches. Due to several factors, not least the informal nature of many of these initiatives, it was not possible to capture all of them in this report. We will explore ways to do so in future editions.

anticipatory cash transfers, using Somalia's safety-net programme to transfer the money. More than 1.2 million[6] people received early warning messages, in February and in August, through public radio stations.

In Ethiopia's Somali Region, which borders Somalia, cash transfers provided in August reached 25,200 people, while 45,220 pastoralists were helped to preserve animal fodder ahead of the expected drought. Early warning messages reached more than 137,000 people.



Women in Danan *kebele* receive early warning information from community advocates in Ethiopia's Somali Region, as part of an early warning programme to help manage the risks that climate hazards pose to food security. © WFP/Michael Tewelde



Waterproof drums for at-risk families in Viet Nam to store their food and personal assets from flood waters. © FAO



5 See bit.ly/3zcmZ22

6 In both WFP examples, the highest figure is the total number of people reached by all actions. For example, 1.2 million includes those reached with cash transfers (206,874).

## 2.4 Anticipatory action in 2022: new frameworks under development

Figure 7 marks the anticipatory action frameworks that were under development during 2022; full details of these are in Table A3. Figure 8 breaks these figures down by hazard, by country and by organization. Note that some frameworks are for more than one hazard.
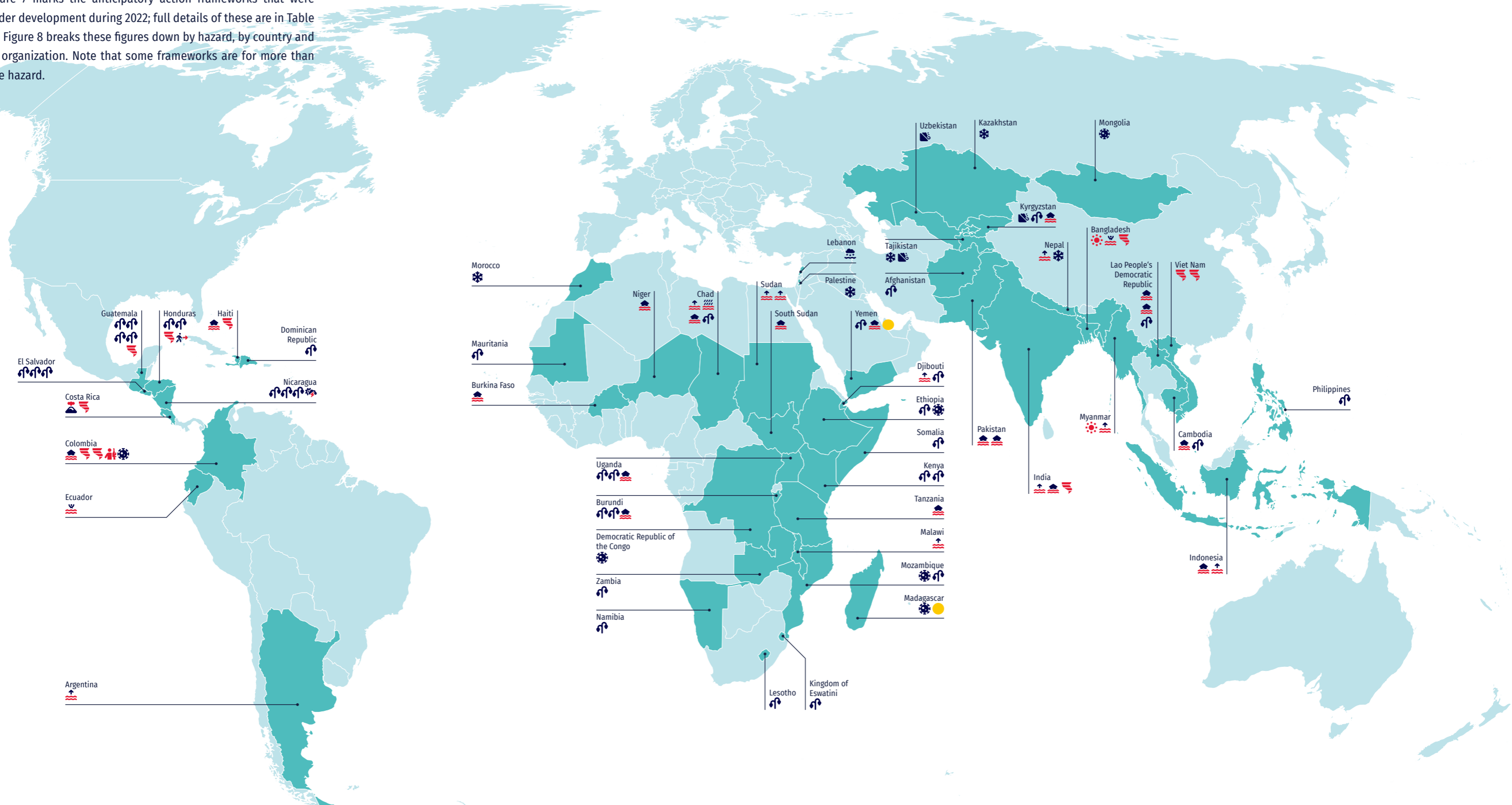


**Figure 7.**
**Anticipatory action frameworks under development in 2022**

## 2.5 Anticipatory action in 2022: new actions

As anticipatory action is scaled up to address further hazards, and practitioners learn more about what works and what doesn't, there are an increasing number of different actions being implemented during activations, and tested ahead of their inclusion in frameworks. In 2022, several organizations expanded the range of actions that they are taking ahead of forecast hazards.

- FAO and the United Nations Development Programme (UNDP), under the Anticipatory Action Framework for Drought in Niger facilitated by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), provided cash for pastoralists to construct fire barriers to protect grazing areas for livestock.
- FAO vaccinated animals ahead of floods in Niger in May/June 2022 to mitigate flood-related livestock illness and losses. The Kenya Red Cross Society also plans to implement this action by providing anticipatory veterinary care (e.g., parasite treatments) and vaccinating animals before floods.
- UNICEF,[7] under the OCHA-facilitated framework for cholera in the Democratic Republic of the Congo, deployed a rapid, localized response in the immediate vicinity of affected households to prevent the further spread of the disease.
- In a twist on the usual provision of water-purification kits or community water points, the Guatemalan Red Cross will purify water in its own plants to ensure access to safe water before, during and after hurricane-induced flooding.

The Anticipation Hub's early action database provides an overview of actions that can be implemented ahead of a hazard. All organizations active in this sector are encouraged to submit their actions to the database.

See **bit.ly/3KaWUX8** ⬈

- The Red Crescent Society of the Republic of Kazakhstan's EAP for Cold Waves, approved in 2022, includes actions such as helping homeless people – specifically including children, older people and people with disabilities – to reach social adaptation centres where they can get hot meals. This EAP also includes actions to evacuate travellers stranded due to road closures or hazardous conditions, helping them to reach shelters.
- The Costa Rican Red Cross will distribute materials for families affected by volcanic ashfall to clean their homes, reducing their exposure to the health impacts of ash.
- WFP Somalia included the use of gender-responsive messages in its anticipatory action plan. These advise vulnerable populations on the best local coping strategies to protect themselves and their families. Examples include informing women about how to improve their planning and use of cash transfers, and how to avoid non-essential spending while maintaining nutrition status for themselves and their children. Messages that target men and elders relate to best community practices during drought, such as ways to build social cohesion and reduce tensions over access to dwindling common resources.

## Box 4. Acting ahead of drought in Madagascar

Southern Madagascar has experienced a prolonged period of drought since 2018, as rainfall has become scarcer (**de Berry 2023** ⬈). This has led to widespread hunger and food insecurity, among other humanitarian issues. In August 2022, FAO's anticipatory action system for Madagascar – which combines weather forecasts with vulnerability data and seasonal observations – indicated an increased risk of dry conditions coinciding with the main 2022/2023 agricultural season in the Grand Sud region.

Based on this information, FAO, WFP and other partners coordinated their efforts to maximize the impacts and reduce duplication. FAO acted to strengthen the resilience of 4,000 of the most vulnerable households in the region, through activities including the provisio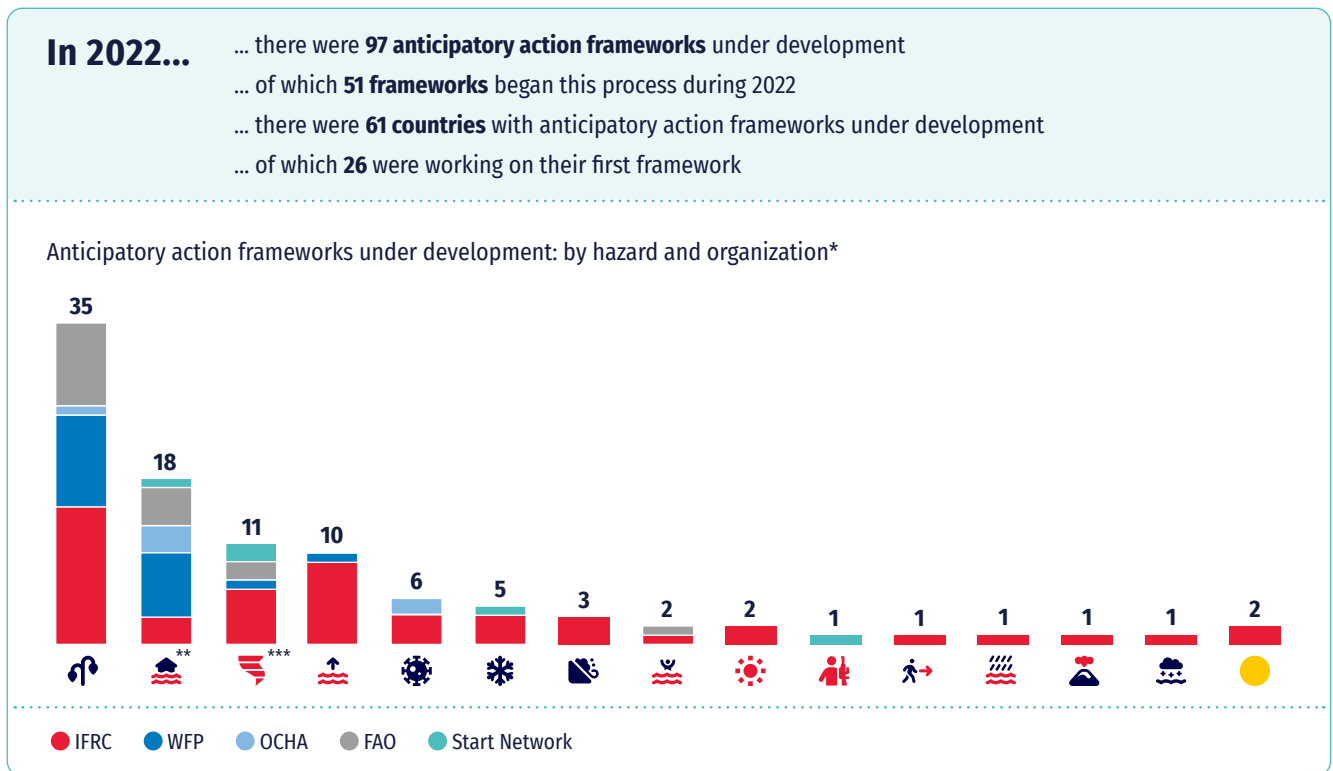n of short-cycle and drought-tolerant seeds, together with micro-irrigation kits. Households received small livestock species, both for food and to diversify their income sources in the coming lean period. Some households were given unconditional cash transfers, which enabled them to meet their immediate needs (e.g., buying food) and to protect their productive assets. This in turn meant they could implement agricultural activities planned for the next season, such as breeding livestock or planting crops.

WFP and the government of Madagascar disseminated early warning messages and tailored advisories to people, which explained how to cope with the impending impacts of drought. WFP also provided cash assistance to support agricultural production and for water mobilization,[8] reaching 62,210 people.

---

**7** Officially the United Nations Children's Fund.
**8** Water mobilization refers to activities such as constructing and rehabilitating irrigation and storage infrastructure (e.g., dams, wells).

**Figure 8. Anticipatory action frameworks under development: in numbers**

**In 2022...** ... there were **97 anticipatory action frameworks** under development
... of which **51 frameworks** began this process during 2022
... there were **61 countries** with anticipatory action frameworks under development
... of which **26** were working on their first framework

Anticipatory action frameworks under development: by hazard and organization*



● IFRC  ● WFP  ● OCHA  ● FAO  ● Start Network

\* Deviations from the total number of frameworks can be explained by the fact that some address multiple hazards, and some are co-led by more than one organization. For full details, see Table A3.

\*\* One jointly led by FAO and WFP
\*\*\* Including tropical storms (Nicaragua).

## 2.6 Anticipatory action in 2022: new triggers

Most anticipatory action approaches use predefined triggers to activate their frameworks. These triggers often combine forecasts with other data (e.g., on past losses and damages) to determine when there is a strong likelihood that severe humanitarian impacts will occur. Using forecasts has limitations, of course, in terms of certainty and the time available to act, but in 2022 several organizations showcased pragmatic ways to address this.

To increase the lead time available between a storm being forecast and it happening – often less than three days – the National Red Cross Societies in Guatemala and Honduras, supported by the German Red Cross and the Red Cross Red Crescent Climate Centre, decided not to act ahead of a storm's landfall, but instead before the impacts of the floods caused by its rainfall; many vulnerable communities found the floods caused by a storm more damaging than high winds. Using a new trigger model, which combines a forecast of the storm's track with a forecast from the Global Flood Awareness System, a crucial extra three to four days' lead time could be gained. The areas with the worst flood impacts were correctly predicted during the activation ahead of Hurricane Julia (see Section 2.3), even though the hurricane moved 400 kilometres south across the countries.

Often, the data for forecast models needs to be calibrated and in 2022, Welthungerhilfe involved communities in Zimbabwe to achieve this. It used a crop-development monitoring model, based on the Water Requirement Satisfaction Index, to estimate the impacts of water availability on food security. However, data triangulation and verification were needed to address uncertainty, due to the geographical specifics and spatial resolution available. Welthungerhilfe used crop assessments and feedback from farmers and communities to complement its model; this enabled a successful activation ahead of a lean season.

And what can be done when there are no useful forecasts available? In the Democratic Republic of the Congo, forecast models were not ready to capture the first identified case of cholera. To address this, OCHA developed a trigger that uses the number of suspected cholera cases and the number of deaths. Its anticipatory action framework is activated when an outbreak is deemed likely to become critical, but can still be contained through actions that support local-level responses and limit the risk of the disease spreading from one health zone to others.

# 3. Major milestones in anticipatory action during 2022

## 3.1 Global policy developments

There was significant progress on institutionalizing anticipatory action in 2022, with several promising initiatives for scaling up this approach. The G7 Foreign Ministries issued a statement which affirmed their common understanding of anticipatory action, and committed to scaling up and embedding anticipatory action in the humanitarian system, with a significant increase in financial resources (**GFFO 2022** ⧉). Acknowledging that anticipatory action can reduce the risk of the loss and damage associated with climate change, the Council of the European Union called on the European Commission, the European External Action Service and EU Member States to "support the integration of anticipatory action into the humanitarian programme cycle as well as adaptation plans in response to climate change" (page 6, **Council of the European Union 2022** ⧉). The G7, the EU and its Members States must be held accountable for realizing these commitments.

At the regional level, there was evidence of growing institutionalization among regional bodies, including specialized entities. These are set to play a key role in embedding anticipatory action in national frameworks, while sharing lessons learned and providing guidance in their regions on how to integrate this approach. These regional bodies also provide opportunities for international actors and initiatives to support the scaling up of anticipatory action; such opportunities are not always available at the national level. Section 3.3 provides region-specific details of these initiatives.

In addition to this growing institutionalization, two initiatives launched in 2022 allow for collaboration across sectors. The Early Warnings for All (EW4ALL) initiative (**WMO 2023** ⧉) aims to ensure that every human has access to early warnings by 2027. The *Executive Action Plan* (**WMO 2022** ⧉), unveiled at the 2022 United Nations Climate Change Conference (COP27), sets out clear steps to achieve this goal. If implemented effectively, this offers the chance to deepen exchange and collaboration between the hydrometeorological, humanitarian and development communities; for example, between national meteorological and hydrological services, national disaster management authorities, humanitarians, research institutions and media partners. Pivotal to its success will be ensuring that there is broad-based and cross-sectoral engagement across its 'pillars', especially at local levels, rather than leaving its implementation to a limited group of international actors.

The Global Shield Against Climate Risks was also launched at COP27, by the G7 and V20.[9] This aims to provide, and ease access to, funds to develop and scale up instruments for disaster risk finance that minimize, reduce and address climate-related losses and damages for governments, communities, businesses and households. A broad range of instruments are eligible for this, including anticipatory action actors (**BMZ 2022** ⧉). The Global Shield is an important step towards coordinating the fragmented global landscape for disaster risk financing and the proliferation of actors in this space. The key to its success will be ensuring an equal balance in the distribution of funds, between countries and between instruments; in other words, it will be necessary to ensure that decisions about funds are grounded in local needs, not vested interests. Frameworks for anticipatory action are in place or being developed in five of the seven 'pathfinder' countries. This is an opportunity for national anticipatory action communities to engage in the process and push for this balance.

## 3.2 New evidence, methods and research

### Evidence

Start Network contributed new evidence about the effectiveness of anticipatory action through evaluations of initiatives in Pakistan and Sudan. In Sibi, Pakistan, people who visited cooling facilities at bus stops during a heat wave reported several benefits, such as saving money through access to free, clean water, and having a place to rest and protect themselves from heat-related illness (**Guyatt and Khan 2022** ⧉). Communities in Sudan who received anticipatory support to mitigate the impacts of floods reported less damage to their houses, infrastructure and livelihoods, alongside better health outcomes (**Save The Children 2022** ⧉). Meanwhile, in an evaluation in Somalia, 90 per cent of respondents mentioned that anticipatory assistance came at the right time, allowing them to prepare and cope with a drought, while 80 per cent reported at least some quality-of-life improvements thanks to the assistance provided (**60 Decibels 2022** ⧉).

---

9 This is an international forum dedicated to tackling global climate change. See **bit.ly/3KaZ214**

**Methods**

Welthungerhilfe developed step-by-step guidance for identifying anticipatory actions and developing EAPs, specifically adapted to support NGOs and other civil society actors to engage in anticipatory action (**Welthungerhilfe 2022**). Start Network published the qualitative methodology it used to track, over time, the experiences of Senegalese households in the African Risk Capacity's (ARC) Replica programme (**Njambi-Szlapka and Jones 2022**), providing a new monitoring, evaluation, accountability and learning (MEAL) tool for practitioners. The Academic Alliance for Anticipatory Action (4As) conducted a review of anticipatory action since 2020 (**Poole et al. 2022**), which summarizes progress in MEAL systems and makes recommendations for how to move forwards.

WFP developed guidance on how to plan and monitor country-level capacity-strengthening efforts within anticipatory action initiatives, applicable to the diverse stakeholders – governmental and non-governmental, and local, national and international – working to institutionalize this approach in different countries (**WFP 2022a**). Also published in 2022 was an FAO position paper that argued for phased anticipatory action for slow-onset hazards (**FAO 2022a**).

**Research**

Several important studies published in 2022 explore how anticipatory action can integrate with and complement existing humanitarian and disaster-management systems. Despite the advantages of integrating anticipatory action systems with nationally owned government systems, a case study by Mwangi et al. (**2022**) reinforced the challenges to producing effective joint systems. Several papers highlighted the potential to link anticipatory action to social protection systems, including a review of efforts in Lesotho and Mozambique (**Easton-Calabria et al. 2022**), an FAO evaluation of programmes in Cambodia, Myanmar, the Philippines and Viet Nam (**FAO 2022b**), and WFP's two-page briefing on this theme (**WFP 2022b**).

The 4As, a collaboration between seven universities in Africa, Asia and North America, supports research on, and the evaluation of, anticipatory action. See **bit.ly/3nqkSoF**

The MEAL Practitioners Group examines what works and what doesn't in anticipatory action – and ways to establish this. See **bit.ly/3TO1z4v**

New research contributed to discussions about how anticipatory action can expand to address new hazards and crisis settings. Easton-Calabria, Jaime and Shenouda (**2022**) used case studies of displacement in northwest Syria and Cox's Bazar, Bangladesh, to highlight considerations for anticipatory action in these contexts, such as the importance of trauma-informed programmes. Thalheimer, Simperingham and Jjemba (**2022**) explored how anticipatory action initiatives already address disaster displacement and how they can be better considered in the future. Focusing on the Red Cross Red Crescent Movement's anticipatory action systems, Tozier de la Poterie et al. (**2022**) explored how greater flexibility supports efforts to adapt anticipatory action to multihazard contexts.

Lastly, Chavez-Gonzalez et al. (**2022**) drew lessons from OCHA's CERF pilots to call for the use of existing funding mechanisms, rather than creating new systems for anticipatory action. They also argued for using phased triggers to manage uncertainty, exploring and expanding preparedness funding, and overcoming funding delays.

## 3.3 Highlights from the regions

**Africa**

There were major policy initiatives towards strengthening anticipatory action in Africa during 2022. Notable among these was the African Union adopting its *Institutional and Operational Framework for Multi-Hazard Early Warnings and Early Action Systems for Africa* (**African Union 2022**), a seven-year programme to improve early warning systems and develop national-level multihazard early action plans.

At the regional level, a milestone was reached in September when ministers from across southern Africa stated their commitment to expanding early warning systems, formalized through the *Maputo Declaration on Bridging the Gap between Early Warning and Early Action* (**Anticipation Hub 2022**). There were also efforts to develop regional roadmaps: in East Africa, this is led by the Intergovernmental Authority on Development, with the support from its Climate Prediction and Applications Centre; in West Africa, the Permanent Interstate Committee for Drought Control in the Sahel is developing a strategy to scale up and institutionalize anticipatory action for food crises; and the *Southern Africa Regional Anticipatory Action Roadmap* (**RAAWG 2022**), launched in August, will steer initiatives in this region. A continent-wide anticipatory action roadmap was collectively developed at the 5th Africa Dialogue Platform on Anticipatory Humanitarian Action in June; this will be published soon.

A Welthungerhilfe employee monitors the impacts of anticipatory cash for people affected by impending drought in Madagascar. © Haddad/Welthungerhilfe

Several countries developed further protocols that set out their planned actions ahead of different hazards (see Tables A1 and A3). These included the first Simplified EAP to be approved, in Nigeria for floods in October (**IFRC 2022** ⧉), soon followed by a Simplified EAP for the same hazard in Djibouti. In the Democratic Republic of the Congo, the first collective anticipatory action framework for cholera was developed (**OCHA 2022a** ⧉). There were also several national dialogue platforms held during the year, including in Ethiopia, Kenya, Malawi, Mali and Uganda, with many developing national-level roadmaps.

### Latin America and the Caribbean

The anticipatory action community in Latin America and the Caribbean drew closer together in 2022, reflected in greater interagency coordination and through several joint programmes (**German Red Cross 2023** ⧉). For example, FAO, OCHA, WFP and National Red Cross Societies started to hold regular coordination activities beyond the regional dialogue platforms, with the goal of exploring gaps and opportunities to improve and scale up anticipatory action. There are also ongoing discussions between the Caribbean Disaster Emergency Management Agency and the Centro de Coordinación para la Prevención de los Desastres Naturales en América Central to strengthen early warning systems.

One early outcome of this closer engagement was a partnership between FAO and the IFRC to address drought in El Salvador, Guatemala, Honduras and Nicaragua, within the context the Humanitarian Implementation Plan. Another is the ambition to develop a coordinated framework for anticipatory action for Guatemala's Chiquimula province. Given the high vulnerability of this province to food insecurity, there is agreement on the need to coordinate activities and financing mechanisms, and to scale up – and thus increase the impact of – anticipatory action. These are important developments, especially as the risk of drought in Central America has increased for 2024 with the formation of El Niño.

Anticipatory action in the region continued to increase in scale in 2022. Notable initiatives included: a simulation of anticipatory action ahead of floods in Costa Rica (January); a regional workshop to explore ways to anticipate extreme drought (February); a workshop in Colombia (June) to explore the feasibility of applying anticipatory approaches for non-hydrometeorological hazards, such as health and complex crises in violent contexts; and an interagency dialogue in El Salvador (September), which led to the decision to focus on floods and drought.

### Asia-Pacific

At the Global Platform for Disaster Risk Reduction, held in Indonesia in May, the Association of Southeast Asian Nations (ASEAN) published the *ASEAN Framework on Anticipatory Action in Disaster Management* (**ASEAN 2022** ⧉), which sets the standard for the anticipatory action approach in South-East Asia. This plan of action, up to 2025, sets out specific activities to achieve ASEAN's vision for anticipatory action. Members of the Regional Technical Working Group on Anticipatory Action are actively supporting ASEAN in fulfilling these activities, either through existing workstreams or new cooperations. Another significant policy initiative was the Nadi Declaration, in which 17 Pacific countries and territories committed to "strengthening anticipatory action and disaster preparedness measures including through regional and subregional pre-positioning of approved goods and pooling of resources" (page 2, **Pacific Ministers for Disaster Risk Reduction 2022** ⧉).

The Regional Technical Working Group expanded further during 2022 and currently comprises more than 20 organizations. Besides its coordination and alignment roles, it initiated several new activities during the year. These included work on new technical standards that will establish broad guidelines for anticipatory action in the Asia-Pacific region, and guidelines on anticipatory cash for rapid-onset hazards (**Asia-Pacific Technical Working Group on Anticipatory Action and Asia-Pacific Regional Cash Working Group 2022** ⧉). The group also hosted a booth at the Asia-Pacific Ministerial Conference on Disaster Risk Reduction, held in Australia in September, where it presented members' collective work on anticipatory action.

## 3.4 Highlights from thematic areas

### Conflict

Current discussions about expanding anticipatory action to conflict situations focus on two lines of inquiry: (1) how to act in anticipation of weather- and climate-related hazards (e.g., floods, droughts) in situations of conflict; and (2) how to predict and act early to minimize the humanitarian impacts of a conflict

(i.e., food security, displacement). Both saw significant progress in 2022, building on an increasing number of studies and practical lessons from pilot projects. These included an article by Jaime et al. (**2022** ↗) reviewing the performance of weather forecasts for food availability in conflict-affected countries. This concluded that – contrary to conventional wisdom – global forecast models accurately predicted major events and, thus, could be used for early warnings.

Discussions on conflict prediction were advanced by a paper on the technical feasibility of doing this (**OCHA Centre for Humanitarian Data 2022a** ↗) and related technical sessions within the Anticipatory Action in Conflict Practitioners Group. These concluded that current models underperform in terms of predicting the onset of a conflict, and that ongoing conflict is a key predictor for future events. This means that shifts in the intensity of ongoing conflicts can be more accurately predicted than the outbreak of new conflicts in peaceful settings. Also in this area, a project by Uppsala University and the Peace Research Institute Oslo received funding to further develop its violence-prediction model to include humanitarian impacts.[10]

### Linking risk financing to anticipatory action

Mobilizing additional finance is fundamental to scaling up anticipatory action but, as of 2022, only five humanitarian funds explicitly fund and report on this: CERF, DREF, the Start Fund, FAO's Special Fund for Emergency and Rehabilitation Activities (SFERA) and the WFP Trust Fund. As these are supported by a small group of donors, the available resources are neither appropriate nor particularly diversified. Broadening the donor base, securing greater national- and local-level resources, bridging funding silos and tapping into opportunities with climate finance and disaster risk finance are needed for a meaningful scale up. There was progress and innovation in 2022, however, with the launch of the Global Shield, among others (see Section 3.1), offering hope that the coming years may see more funding available for anticipatory action.

In the meantime, several strategic and technical questions need to be addressed and political barriers overcome. The Sectoral Community on Linking Risk Financing to Anticipatory Action contributes to discussions on how to do so and during 2022, it produced a compendium (**InsuResilience Global Partnership, REAP and Anticipation Hub 2023** ↗) which contains more than 20 think pieces from experts in the humanitarian, climate and development sectors, each exploring how to link anticipatory action and risk financing. The Risk-informed Early Action Partnership's *Finance*

*for Early Action* report (**REAP 2022** ↗) provided a comprehensive analysis of the financing gaps for anticipatory action and, based on this report, it has been working to bring together informal coalitions of donors and other actors around how to scale up this finance. REAP is currently developing a roadmap to ensure concrete steps are taken towards this.

And 2022 saw the first cross-sectoral innovations for risk financing. For example, ARC is modifying its existing products to pilot the concept of 'anticipatory insurance', working with OCHA in Malawi and Zambia to explore if its insurance payouts for drought could be made earlier by moving its trigger ahead in time. Moreover, Start Network's Start Ready mechanism,[11] which went live in 2022, uses insurance to cover action plans for extreme events.

### Earth observation

Earth observation has the potential to play a critical role in anticipatory action, for example by using satellite data to bridge gaps in forecasts (e.g., from poor or failing weather stations) or improving forecast validation and thus reducing uncertainty. In 2022, members of the Earth Observation for Anticipatory Action Working Group produced an initial assessment of the needs and opportunities for Earth observation in anticipatory action (**Dall and Huyck 2022** ↗). This found that there is potential to use Earth observation data to improve all phases of the anticipatory action cycle, from initial risk assessments and risk modelling through to the evaluation of triggers, actions and impacts.



A Red Cross volunteer educates vulnerable community members, including elderly people, on the importance of early warnings for floods. These messages provide crucial time for early evacuations and safeguarding assets such as properties, livestock and crops. © Danish Red Cross

---

10 See **bit.ly/40CPwt5**
11 See **bit.ly/40CjbT9**

Start Network members provide hygiene kits in anticipation of a disease outbreak in the Philippines.
© Humanity & Inclusion

Monitoring and evaluating for anticipatory action are crucial, but also usually resource intensive. An article by Enenkel and Dall (**2022** ⧉) advances the proposition that satellite-based Earth observation can complement and enhance existing monitoring and evaluation for anticipatory action in a cost-effective way. For example, it can provide higher-resolution data for monitoring hazards, or identify types of housing prone to cyclones. And, to help measure impact, Earth observation could, for example, assess agricultural production in areas where households received drought-tolerant seeds.

**Food insecurity**

Acute food insecurity has reached extremely worrying levels globally: 222 million people experienced acute hunger in 45 countries in 2022 (**WFP and FAO 2022** ⧉), the highest number recorded in the last seven years. Driven by factors including conflict and insecurity, weather extremes, and global and national economic shocks – often occurring in parallel – this has resulted in global humanitarian needs that are at an all-time high and continuing to grow.

Anticipatory action can help break this vicious cycle. In 2022, actions taken to protect livelihoods – and taken ahead of predictable shocks – reduced the impacts on agricultural production, animal mortality and productivity, and productive assets. This in turn had positive effects on food security and nutrition. Anticipatory action is also more dignified, as it provides people with the means to continue producing food when and where it is most needed.

Anticipating food crises at scale can only be achieved through proactive collaboration, seeking and actively promoting a multilateral consensus on parameters, standards and best practices. In November 2022, FAO and WFP, in collaboration with the Global Network Against Food Crises, convened a technical consultation on scaling up anticipatory action in food crises contexts. Priorities identified include:

- agreeing on minimum technical standards for generating evidence on the effectiveness of anticipatory action for curbing food insecurity
- more flexible and frequent updates about acute food insecurity, which can – in combination with other risk indicators – trigger anticipatory action
- further integration of anticipatory action in the humanitarian programme cycle, especially in the context of protracted crises
- the need to systematically incorporate this approach into processes that convene humanitarian, development and peace actors – including governments, bilateral actors, the private sector, civil society and multilateral systems – to reach a shared understanding of risks and vulnerabilities.

**Health**

While many anticipatory action initiatives to date have focused on extreme climate and weather events, there are increasing opportunities to act ahead of other types of hazard. These include disease outbreaks and epidemics, which are drivers of immense human suffering and loss, and have major socio-economic impacts. The Covid-19 pandemic also amplified the need to consider the compounding and exacerbating impacts on vulnerabilities that occur when multiple hazards coincide.

Technological progress in scientific modelling and forecasting systems are enabling better predictions of who, how, when and where people might be affected by disease outbreaks and epidemics. These advances, along with more proactive approaches using existing health surveillance data, are providing increased opportunities to develop, implement and expand anticipatory action approaches for health, for example to anticipate cholera epidemics or dengue outbreaks. Two initiatives were started in 2022 to explore these opportunities and advance this theme further: the Red Cross Red Crescent's Working Group on Anticipatory Action and Health, and a multiagency working group on anticipatory action and health, led by the Red Cross Red Crescent Climate Centre, Médecins Sans Frontières and OCHA.

**Protection, gender and inclusion**

Anticipatory action has gained real prominence in the humanitarian sector, but acting early is no guarantee that everyone will benefit equally. Since anticipatory action is based on assessments of risk, rather than post-emergency needs, it offers a powerful opportunity to address protection outcomes, including the mitigation of gender-based violence and child-protection risks.

Equally, considering inclusion within planning processes can ensure spaces for women and girls, and men and boys, in all their

diversity, to voice their priorities and ensure that anticipatory action responds to their specific needs and strengthens their capacities to act themselves. Yet although there is increasing recognition of the importance of protective, gender-transformative and inclusive approaches, these are not yet consistently applied. Typically, this is due to a lack of capacity and gaps in resources and monitoring mechanisms, which mean that such approaches are not prioritized or implemented.

Collaboration and partnerships between anticipatory action practitioners and cross-sectoral experts are crucial for driving this agenda forward. These can only be achieved by strengthening coordination, carrying out intersectional gender and diversity analysis, and ensuring the meaningful participation of, as well as accountability to, all affected individuals. Complementary roles and responsibilities between the involved stakeholders must be understood and clearly defined to maximize efficiency and impact. On this basis, the Working Group on Protection, Gender and Inclusion in Anticipatory Action continued to accelerate the mainstreaming and integration of these approaches in anticipatory action during 2022.

More information about these themes, and the working groups driving them forwards, is available on the Anticipation Hub. See **bit.ly/3Ke2sR2** and **bit.ly/40qShyc**

These working groups are co-led by organizations from different sectors, including the Australian Red Cross, the German Red Cross, the IFRC, the InsuResilience Global Partnership, the NASA Disasters program, Plan International, REAP, the Red Cross Red Crescent Climate Centre and Start Network.

Other prominent networks, working groups and communities of practice in this sector include REAP's working groups, each dedicated to one of its four targets, Start Network's Forecast-based, Warning, Analysis, and Response Network (FOREWARN) and the Future Leaders Network on Early Warning Early Action. See **bit.ly/3zcijJg**, **bit.ly/3KbIrdB** and **bit.ly/40m48MS**

# 4. Progress, gaps and recommendations

In 2021, the Anticipatory Action Task Force (AATF) put forward five key asks for scaling up anticipatory action, to inform policy processes and set out principles for collaboration **(AATF 2021** ☒**)**. There was steady progress towards these during 2022, but some gaps persist.

## 1. Flexible, coordinated and predictable financing for anticipatory action

There is growing interest in anticipatory action among donors (**REAP 2022** ☒), with a corresponding increase in investment; financing for active frameworks in 2022 reached 138 million US dollars, with CERF being the largest source. However, this growing interest has not yet led to a systemic shift in funding.

There were positive signs of more financing for anticipatory action in 2022. Germany had already committed to spending 5 per cent of its humanitarian budget for 2023 on anticipatory action, and other G7 Members also promised to significantly increase their financing. The IFRC aims to allocate 25 per cent of its DREF funding to anticipatory action, and introduced Simplified EAPs to make this more accessible. Start Network's Start Ready mechanisms use different approaches and resources, including risk pooling to stretch funds further and make funds more accessible. OCHA is committed to scaling up and mainstreaming anticipatory action, including by using its existing financing tools (**OCHA 2022b** ☒). WFP reviewed its Immediate Response Account to allow country offices to access financing for anticipatory action, representing a major milestone in its commitment to a more sustainable and scalable approach to anticipatory action. FAO has committed to allocate the equivalent of 20 per cent of emergency resources to anticipatory action by 2025. There are also signs that other sectors are beginning to consider and support anticipatory approaches. The Global Shield Against Climate Risks serves as a case in point, as do the World Bank's Food Security Crisis Preparedness Plans.

## 2. Investment in early warning and preparedness capacities, especially at local levels

As Box 3 highlights, the number of locally led anticipatory action initiatives is growing. Another positive milestone in 2022 was the EW4ALL initiative to ensure everyone is protected by early warning systems within five years; encouragingly, this identifies locally led action as a cross-cutting enabler for reaching communities.

There was further good news with respect to the availability and quality of forecast data, which is improving in many countries, and evidence that humanitarian actors are increasingly aware of the opportunities that anticipatory action provides (**OCHA Centre for Humdata 2022b** ☒). However, tracking pledged investments for anticipatory action remains challenging (**REAP 2022** ☒).

## 3. Applying anticipatory action to a wider variety of hazards

In 2022, there were anticipatory action frameworks in place for 11 different types of hazards (Figures 1 and 2) and, as Section 3.4 reports, growing technical developments to apply anticipatory action to more hazards (e.g., health) and in new contexts (e.g., conflict settings, compound and cascading risks). In particular, there has been an increased focus on how this approach can be applied in the context of mass population movements, for example to better understand the specific needs of refugees and displaced populations (**Easton-Calabria, Jaime and Shenouda 2022** ☒) and the role of anticipatory action to address disaster displacement (**Thalheimer, Simperingham and Ijemba 2022** ☒).

## 4. Collective learning, coordination and partnerships

As Box 2 and Box 4 demonstrate, better coordination is enabling anticipatory action to be implemented at larger operational scales. These include OCHA-facilitated efforts around collective frameworks, which bring together relevant actors around common triggers, actions and coordinated prearranged financing to adopt anticipatory approaches across more hazards and sectors.

In 2022 there was also new evidence and collaborative research to advance learning, as Section 3.2 demonstrates. With respect to learning and partnerships, the Anticipation Hub – with the support of more than 100 partners – made considerable progress in 2022. Its in-person and virtual exchange and learning activities were attended by more than 3,000 participants from at least 140 countries. Importantly, these efforts reached new audiences: at the 10th Global Dialogue Platform on Anticipatory Humanitarian Action, it is estimated that 500 participants – 50 per cent of the total – were taking part for the first time, reflecting the growing global interest in anticipatory action.

## 5. Mainstreaming anticipatory action into national disaster management systems

The development of several regional frameworks and roadmaps during 2022 (see Section 3.3 and **Wagner 2023** ☐) is a good indication that regional organizations are giving anticipatory action a higher priority when planning for disaster risk management and climate change adaptation. Efforts are under way by national governments in Africa, the Asia-Pacific region and the Americas to integrate anticipatory action into disaster risk management systems (e.g., in policies or frameworks); this represents an area to focus on in 2023.

## Recommendations

As this report shows, in 2022 there were 70 anticipatory action frameworks in place in 35 countries, with 97 more under development. Alongside the methodological, thematic and regional progress presented, this provides evidence of the current scale of practical implementation, the ongoing research and innovation to expand this approach, and initial efforts towards greater collaboration between different humanitarian organizations. Overall, these trends indicate that the anticipatory action community is on the right course.

At the same time, anticipatory action is not yet being implemented at a scale commensurate with the opportunities it presents, or being applied to all the hazards that can be anticipated. Even for those where it is being applied, there is often much more that can – and must – be done (**Montier, Weingärtner and Klassen 2022** ☐).

Going forward, doing 'more of the same' will not be sufficient. More efforts are needed, which must be informed by the lessons learned from implementations to date, alongside increased advocacy to ensure that financing and frameworks are in place to support these ambitions. There are several ways to achieve this.

**1** **More learning and evidence to inform investments.** Develop learning and tracking mechanisms to ensure the balance between funding for building systems and fuelling implementation. Research efforts should focus on the impact of different timing of interventions, return on investments, and documenting challenges and opportunities, while also demonstrating the benefits to attract diverse funding streams.

**2** **A more coordinated approach to developing anticipatory action frameworks.** There is a need to improve collaboration between projects that focus on the same hazard in a country to reach operational scale and integration into the humanitarian system. This would be in line with the Inter-Agency Standing Committee Deputies Group's call for better integrated anticipatory action (**IASC 2023** ☐). Flexible financing should be increased and coordinated within humanitarian structures, and – where possible – aligned with government systems, while leaving room for further innovation and improvements over time.

**3** **Involve more local actors in anticipatory action planning, learning and development.** This will not only add new expertise to the process, but also help implementing organizations to engage with existing local networks and platforms, which in turn will support ambitions to apply anticipatory action to more hazards and in new contexts. New initiatives must be designed to give local actors better access to risk information and financing for anticipatory action. Starting points include the various national and regional working groups on anticipatory action and multistakeholder working groups (see Section 3.4).

**4** **Increase support for efforts to integrate anticipatory action across national and local policies, laws and frameworks.** This includes further advocacy – which draws on the lessons learned through MEAL and research – for integrating this approach within finance and delivery mechanisms for disaster risk management (including disaster risk finance), as well as those for climate change adaptation, social protection and others. Where they exist at national or regional levels, the existing anticipatory action working groups are well placed to facilitate collaboration with their government counterparts.

**5** **Incentivize greater collaboration between development, humanitarian and climate programmes.** Anticipatory action will not reach the scale required if it remains exclusively within the humanitarian system. When building systems and strengthening local actors' capacities to lead anticipatory action, development and climate actors must also be involved. Donors can incentivize this integration through the mechanisms they use to finance these programmes, for example encouraging stronger synergies between these sectors. New global initiatives such as the Global Shield and the EW4ALL initiative should encourage development, climate and humanitarian actors to combine their expertise when designing frameworks and projects. They should also remove any structural and administrative barriers that prevent local partners from accessing funds.

# Annex: Tables A1, A2 and A3

FAO's funding allocations under its Anticipatory Action Protocols are flexible and determined based on the expected hazard impact and available funding. Prearranged SFERA funds for anticipatory action currently amount to about 11 million US dollars. Considering the average cost per direct beneficiary from previous anticipatory action interventions, this could support approximately 785,000 people ahead of forecast shocks.

## Table A1. Active anticipatory action frameworks in 2022

This table lists countries with an active anticipatory action framework in place during 2022. This may include frameworks that were activated in 2022 and have since been revised, and those that are no longer active. It is likely that a higher number of NGOs are implementing anticipatory action than are included in these figures; see Box 2.

| Country | Hazard* | Organizational type | Coordinating organization(s) / funding organization | Implementing organization(s) and partners | Available budget per activation (US$)†* | People targeted* |
|---|---|---|---|---|---|---|
| **Bangladesh** | Cyclone/Typhoon/Hurricane | RCRC | IFRC | Bangladesh Red Crescent Society; German Red Cross; American Red Cross; Swiss Red Cross | 366,835 | 40,000 |
| | Riverine flood | RCRC | IFRC | Bangladesh Red Crescent Society; German Red Cross; American Red Cross; Swiss Red Cross | 366,751 | 50,000 |
| | Riverine flood | UN | OCHA | FAO; WFP; UNICEF; UNFPA; NGO partners | 7,500,000 | 389,956 |
| | Riverine flood | UN | WFP | WFP | 2,300,000 | 141,750 |
| | Flood | NGO | Start Network | CARE International; RDRS Bangladesh; MMS; DAM; Islamic Relief; World Vision International; NDP; SKS Foundation | 711,863 | 28,462 |
| | Cold wave | NGO | Start Network | ESDO; Humanity & Inclusion | 55,661 | 1,000 |
| **Burkina Faso** | Drought | UN | OCHA | UNHCR; FAO; WFP; UNICEF; UNFPA; NGO partners | 15,000,000 | 800,000 |
| **Burundi** | Riverine flood | UN | WFP | WFP; Burundi Red Cross | n/a | 5,880 |
| **Costa Rica** | Volcanic ash | RCRC | IFRC | Costa Rican Red Cross; German Red Cross | 401,530 | 10,000 |
| **Chad** | Drought | UN | OCHA | FAO; UNFPA; UNHCR; UNICEF; WFP; NGO partners | 10,000,000 | 100,000 |
| **Democratic Republic of the Congo** | Flood | NGO | Start Network | Christian Aid; MIDEFEHOPS; ALIMA; Caritas Kindu | 569,961 | 11,760 |
| **Djibouti** | Flood | RCRC | IFRC | Red Crescent Society of Djibouti; IFRC | 209,965 | 2,500 |
| **Dominican Republic** | Cyclone/Typhoon/Hurricane | UN | WFP | WFP | 101,538 | 11,000 |
| **Ecuador** | El Niño (extreme rainfall) | RCRC | IFRC | Ecuadorian Red Cross; German Red Cross | 252,958 | 5,000 |
| **Ethiopia** | Drought | UN | OCHA | FAO; UNFPA; UNHCR; UNICEF; WHO; NGO partners | 20,000,000 | 890,474 |
| | Drought | UN | WFP | WFP | 2,500,000 | 90,000 |
| | Riverine flood | RCRC | IFRC | Ethiopian Red Cross Society; The Netherlands Red Cross | 377,316 | 28,250 |
| **Guatemala** | Cyclone/Typhoon/Hurricane | RCRC | IFRC | Guatemalan Red Cross; German Red Cross | 501,815 | 15,000 |
| **Honduras** | Cyclone/Typhoon/Hurricane | RCRC | IFRC | Honduran Red Cross; German Red Cross | 378,185 | 13,500 |
| **Kazakhstan** | Cold wave | RCRC | IFRC | Red Crescent Society of the Republic of Kazakhstan; IFRC | 230,579 | 82,000 |
| **Kenya** | Riverine flood | RCRC | IFRC | Kenya Red Cross Society; The Netherlands Red Cross; British Red Cross; Danish Red Cross | 348,260 | 210,240 |
| | Drought | NGO | Start Network | Welthungerhilfe; PACIDA; Oxfam; MID-P; ACTED; SAPCONE; TUPADO | 700,000 | 100,000 |
| **Kyrgyzstan** | Heat wave | RCRC | IFRC | Red Crescent Society of Kyrgyzstan; German Red Cross | 366,825 | 13,850 |
| **Lesotho** | Drought | RCRC | IFRC | Lesotho Red Cross Society; German Red Cross | 576,445 | 20,560 |

| Country | Hazard* | Organizational type | Coordinating organization(s) / funding organization | Implementing organization(s) and partners | Available budget per activation (US$)†* | People targeted* |
|---|---|---|---|---|---|---|
| **Madagascar** | Drought | UN | FAO | FAO | n/a | n/a |
| | Cyclone/Typhoon/Hurricane | NGO | Start Network | Action Against Hunger; Doctors of the World; Welthungerhilfe; Medair; CRS; Save the Children; CARE International | 865,830 | 98,248 |
| | Drought | NGO | Start Network | Welthungerhilfe; CRS | 320,000 | 46,000 |
| | Drought | UN | WFP | WFP | 1,500,000 | 100,000 |
| **Malawi** | Dry spell | UN | OCHA | UNFPA; IOM; UNICEF; FAO; WFP; NGO partners | 7,000,000 | 377,115 |
| | Dry spell | UN | FAO | FAO | n/a | n/a |
| **Mali** | Riverine flood | RCRC | IFRC | Mali Red Cross; The Netherlands Red Cross; Danish Red Cross | 219,610 | 5,000 |
| **Mozambique** | Drought | UN | WFP | WFP | 1,500,000 | 230,000 |
| | Riverine flood | RCRC | IFRC | Mozambique Red Cross Society; German Red Cross; Belgian Red Cross | 261,319 | 5,000 |
| | Cyclone/Typhoon/Hurricane | RCRC | IFRC | Mozambique Red Cross Society; German Red Cross; Belgian Red Cross | 261,385 | 7,500 |
| **Nepal** | Riverine flood | UN | OCHA | UNFPA; UNICEF; UN Women; WFP; Nepal Red Cross Society; NGO partners | 7,500,000 | 74,346 |
| | Riverine flood | UN | WFP | WFP | 950,000 | 32,545 |
| | Landslide | NGO | Start Network | Cordaid; CRS | 43,292 | 1,500 |
| **Niger** | Drought | RCRC | IFRC | Niger Red Cross Society; French Red Cross; Belgian Red Cross; British Red Cross | 366,823 | 28,000 |
| | Drought | UN | OCHA | UNICEF; WHO; FAO; UNHCR; UNFPA; UNDP; WFP; NGO partners | 15,000,000 | 151,656 |
| | Drought | UN | WFP | WFP | 2,000,000 | 154,000 |
| | Riverine flood | RCRC | IFRC | Red Cross Society of Niger; Belgian Red Cross | 262,025 | 15,000 |
| **Nigeria** | Riverine flood | RCRC | IFRC | Nigerian Red Cross Society; IFRC | 230,582 | 7,500 |
| **Pakistan** | Heat wave | NGO | Start Network | HANDS; HelpAge International; Help Foundation; Bright Star Development Balochistan; ACTED | 325,773 | 200,000 |
| | Flood | NGO | Start Network | Tearfund; Mercy Corps; IDEA; HelpAge International; HANDS; Help Foundation; ACTED | 725,178 | 341,206 |
| | Drought | UN | FAO | FAO | n/a | n/a |
| | Drought | NGO | Start Network | Concern Worldwide | 647,683 | 37,800 |
| **Peru** | Cold wave; Heavy snowfall | RCRC | IFRC | Peruvian Red Cross; German Red Cross | 264,304 | 3,125 |
| | Riverine flood | RCRC | IFRC | Peruvian Red Cross; German Red Cross | 260,501 | 5,000 |
| **Philippines** | Cyclone/Typhoon/Hurricane | NGO | Start Network | Humanity & Inclusion; CARE International; AADC; LCDE; ACCORD; GMDFI; SPUP-CSC | 616,841 | 30,340 |
| | Riverine flood | RCRC | IFRC | Philippine Red Cross; German Red Cross; Finnish Red Cross | 262,098 | 7,500 |
| | Cyclone/Typhoon/Hurricane | RCRC | IFRC | Philippine Red Cross; German Red Cross; Finnish Red Cross | 261,542 | 9,750 |
| | Drought | UN | FAO | FAO | n/a | n/a |
| | Cyclone/Typhoon/Hurricane | UN | OCHA | IOM; FAO; WFP; UNICEF; UNFPA; Philippine Red Cross; NGO partners | 7,500,000 | 273,350 |
| | Disease outbreak | NGO | Start Network | Humanity & Inclusion | 371,070 | 38,965 |
| **Senegal** | Drought | NGO | Start Network | Action Against Hunger | 408,177 | 8,000 |
| **Somalia** | Drought | UN | WFP | WFP | 8,000,000 | 1,300,000 |
| **Sudan** | Drought | UN | FAO | FAO | n/a | n/a |
| **Tajikistan** | Heat wave | RCRC | IFRC | Red Crescent Society of Tajikistan; German Red Cross | 265,112 | 5,580 |
| **Timor-Leste** | Drought | UN | FAO | FAO | n/a | n/a |
| **Uganda** | Riverine flood | RCRC | IFRC | The Uganda Red Cross Society; The Netherlands Red Cross | 365,536 | 11,915 |
| **Viet Nam** | Heat wave | RCRC | IFRC | Viet Nam Red Cross Society; German Red Cross | 236,122 | 25,525 |
| | Drought | UN | FAO | FAO | 38,627 | n/a |
| | Flood | UN | FAO | FAO | n/a | n/a |

| Country | Hazard | Organizational type | Coordinating organization(s) / funding organization | Implementing organization(s) and partners | Available budget per activation (US$)†* | People targeted* |
|---|---|---|---|---|---|---|
| Zambia | Riverine flood | RCRC | IFRC | Zambia Red Cross Society; The Netherlands Red Cross | 261,977 | 6,000 |
| Zimbabwe | Drought | NGO | Start Network | ARC Replica; Action Against Hunger; CAFOD; Tearfund; Plan International; GOAL | 582,915 | 13,681 |
| | Drought | NGO | Start Network | Welthungerhilfe; Tsuro Trust; ACTED; Nutrition Action Zimbabwe; Trócaire; Caritas Bulawayo | 600,000 | 53,000 |
| | Drought | UN | WFP | WFP | 2,000,000 | n/a |
| | Drought | UN | FAO | FAO | n/a | n/a |
| | Flood | UN | FAO | FAO | n/a | n/a |
| | Drought | RCRC | IFRC | Zimbabwe Red Cross Society; British Red Cross | 549,318 | 21,000 |
| **Total** | | | | | **126,640,127** | **6,786,329** |
| **Total including FAO estimates** | | | | | **137,640,127** | **7,571,329** |

\* FAO entries are without targeted people and available budget.

† Figures in other currencies are converted using the average exchange rates for 2022: GBP 1: 1.2369 USD; CHF 1: 1.0481 USD. Source: www.exchangerates.org.uk

## Table A2. Anticipatory action frameworks activated in 2022

| Month | Country | Hazard | Coordinating organization(s) / funding organization | Implementing organization(s) | Funding (US$) * | People reached (targeted)** |
|---|---|---|---|---|---|---|
| January | Bangladesh | Cold wave | Start Network | ESDO; Humanity & Inclusion | 41,447 | 5,981 |
| | Mozambique | Riverine flood | IFRC | Mozambique Red Cross Society; German Red Cross; Belgian Red Cross | 267,952 | *7,500* |
| | Philippines | Disease outbreak | Start Network | Humanity & Inclusion | 403,050 | 38,965 |
| February | Madagascar | Cyclone/Typhoon/Hurricane | Start Network | Welthungerhilfe; CRS - United States Conference of Bishops; Medair | 222,947 | 220,188 |
| | Madagascar | Cyclone/Typhoon/Hurricane | Start Network | Medair; Welthungerhilfe; CRS; Action Against Hunger UK | 338,485 | 41,558 |
| | Somalia§ | Drought | WFP | WFP | 7,899,280 | 1,283,922 |
| March | El Savador | Wildfire | Start Network | Pro-Vida | 328,800 | 15,023 |
| | Sri Lanka | Economic crisis | FAO | FAO | 700,000 | *35,000* |
| April | Niger | Drought | IFRC | Red Cross Society of Niger; French Red Cross; Belgian Red Cross; British Red Cross | 331,314 | *28,000* |
| | South Sudan | Flood | OCHA | FAO; IOM; UNFPA; UNHCR; UNICEF; WFP; WHO | 14,990,010 | *313,543* |
| | Sri Lanka | Flood | Start Network | ACTED | 531,463 | 15,513 |
| | Tajikistan | Locust | FAO | FAO | 132,000 | *120,000* |
| May | Burkina Faso | Flood | FAO | FAO | 400,000 | *8,400* |
| | Niger | Flood | FAO | FAO | 400,000 | *181,706* |
| | Zimbabwe | Drought | Start Network | Plan International; CAFOD; Tearfund; GOAL; Action Against Hunger | 594,933 | 13,681 |
| | Zimbabwe | Drought | Start Network | Welthungerhilfe; Tsuro Trust; Action Against Hunger; Nutrition Action Zimbabwe; Trócaire; Caritas Bulawayo | 741,843 | 9,919 |
| June | Cape Verde | Economic crisis | FAO | FAO | 400,000 | *15,000* |
| | Guatemala | Flood | Start Network | CADENA | 364,800 | 24,648 |
| | Kenya | Drought | Start Network | Welthungerhilfe; PACIDA; ACTED; SAPCONE; TUPADO; Oxfam; MID-P | 656,788 | 7,560 |
| | Nepal | Flood | OCHA | UNFPA; UN Women; WFP | 3,186,691 | *154,000* |
| | Pakistan | Heat wave | Start Network | Care International | 68,846 | 82,750 |
| | Pakistan | Heat wave | Start Network | Help Foundation | 42,210 | 186,775 |
| July | Kenya | Electoral violence | Start Network | Christian Aid; Oxfam | 487,120 | 47,478 |
| | Kyrgyzstan | Heat wave | IFRC | Red Crescent Society of Kyrgyzstan; German Red Cross | 218,300 | 10,500 |
| | Pakistan | Heat wave | Start Network | HelpAge International | 43,841 | 16,040 |

| Month | Country | Hazard | Coordinating organization(s) / funding organization | Implementing organization(s) | Funding (US$) * | People reached (targeted)** |
|---|---|---|---|---|---|---|
| **August** | Ethiopia | Drought | WFP | WFP | 2,175,381 | 137,151 |
| | Madagascar | Drought | WFP | WFP | 1,154,200 | 62,210 |
| | Nepal | Landslide | Start Network | CRS | 34,944 | 1,289 |
| | Niger | Drought | OCHA; FAO; WFP; UNFPA; UNHCR; WHO; UNDP | OCHA; FAO; WFP; UNFPA; UNHCR; WHO; UNDP | 9,500,000 | 151,656‡ |
| | Niger | Riverine flood | IFRC | Red Cross Society of Niger; Belgian Red Cross | 256,150 | 406 |
| | Nigeria | Flood | Start Network | Christian Aid | 349,440 | 19,948 |
| **September** | Iraq | Drought | FAO | FAO | 625,000 | 6,780 |
| | Madagascar | Drought | FAO | FAO | 900,000 | 20,000 |
| | Mali | Riverine flood | IFRC | Mali Red Cross; The Netherlands Red Cross; Danish Red Cross | 212,885 | 1,000 |
| | Nepal | Landslide | Start Network | Cordaid | 43,059 | 774 |
| | Viet Nam | Typhoon | FAO | FAO | 38,627 | 3,600 |
| **October** | Dominican Republic | Flood | WFP | WFP | 80,000 | 2,280 |
| | Guatemala | Cyclone/Typhoon/Hurricane | IFRC | Guatemalan Red Cross; German Red Cross | 478,557 | 15,000 |
| | Honduras | Cyclone/Typhoon/Hurricane | IFRC | Honduran Red Cross; German Red Cross | 360,650 | 13,500 |
| | Kenya | Drought | Kenya Red Cross Society | Kenya Red Cross Society; British Red Cross; The Netherlands Red Cross | 141,384 | 100,000 |
| | Mexico | Conflict | Start Network | CADENA | 230,300 | 18,415 |
| | Nepal | Flood | WFP | WFP | 2,713,972 | 86,677 |
| | Philippines | Cyclone/Typhoon/Hurricane | IFRC | Philippine Red Cross | 16,973 | 500 |
| | Rwanda | Drought | FAO | FAO | 500,000 | 14,000 |
| **November** | Uganda | Epidemic (Ebola) | Start Network | CAFOD; BRAC International | 316,861 | 37,657 |
| **December** | Senegal | Drought | Start Network | Action Against Hunger | 399,366 | 8,000 |
| | Syrian Arab Republic | Storm | Start Network | CAFOD; HelpAge International UK | 438,011 | 41,000 |
| | **Total** | | | | **53,772,705** | **3,625,493** |

\* Figures in other currencies are converted using the average exchange rates for 2022: GBP 1: 1.2369 USD; CHF 1: 1.0481 USD. Source: **www.exchangerates.org.uk**

\*\* When no data were available for people reached, the number of people targeted (given in italics) is used as an estimate.

‡ This figure includes the WFP activation mentioned in the case study (Box 2).

§ Under this activation in Somalia, two sets of actions were carried out, in February and in August.

## Table A3. Anticipatory action frameworks under development in 2022

| Country | Hazard | Organizational type | Coordinating organization(s) / funding organization | Implementing organization(s) and partners* | Starting year (FY) |
|---|---|---|---|---|---|
| **Afghanistan** | Drought | UN | FAO | FAO | n/a |
| **Argentina** | Riverine flood | RCRC | IFRC | Argentine Red Cross; German Red Cross | 2021 |
| **Bangladesh** | Heat wave | RCRC | IFRC | Bangladesh Red Crescent Society; German Red Cross; American Red Cross; Swiss Red Cross | 2021 |
| | Flash flood | UN | FAO | FAO | 2021 |
| | Cyclone/Typhoon/Hurricane | NGO | Start Network | Action Against Hunger; IRB; World Vision Bangladesh; Caritas Bangladesh; CNRS; DAM; Friendship; Nabolok; Shusilan; Uttaran; LEDARS; Nowabenki Gonomukhi Foundation; ActionAid Bangladesh; Christian Aid; Muslim Aid; Save the Children; AVAS; Jago Nari; NSS; Plan International Bangladesh | 2022 |
| **Burkina Faso** | Flood | RCRC | IFRC | Burkinabe Red Cross Society; IFRC; Red Cross Red Crecent Climate Centre | n/a |

| Country | Hazard | Organizational type | Coordinating organization(s) / funding organization | Implementing organization(s) and partners* | Starting year (FY) |
|---------|--------|---------------------|-----------------------------------------------------|---------------------------------------------|--------------------|
| **Burundi** | Drought | RCRC | IFRC | Burundi Red Cross | n/a |
| | Flood; Drought | UN | WFP | WFP | 2020 |
| **Cambodia** | Drought | UN | FAO | FAO | 2021 |
| | Flood | UN | WFP | WFP | 2022 |
| **Chad** | Riverine flood | RCRC | IFRC | Red Cross of Chad; French Red Cross | 2022 |
| | Rain flood | RCRC | IFRC | Red Cross of Chad; French Red Cross | 2022 |
| | Drought | RCRC | IFRC | Red Cross of Chad; French Red Cross | 2022 |
| | Flood | UN | OCHA | n/a | 2021 |
| **Colombia** | Flood | UN | FAO | FAO | 2022 |
| | Hurricane | UN | FAO | FAO | 2022 |
| | Cyclone/Typhoon/Hurricane | RCRC | IFRC | Colombian Red Cross; German Red Cross | 2022 |
| | Epidemic | RCRC | IFRC | Colombian Red Cross; German Red Cross | 2022 |
| | Conflict and violence | NGO | Start Network | ActionAid | 2022 |
| **Costa Rica** | Volcanic ash | RCRC | IFRC | Costa Rican Red Cross; German Red Cross | 2022 |
| | Cyclone/Typhoon/Hurricane | RCRC | IFRC | Costa Rican Red Cross; German Red Cross | 2021 |
| **Democratic Republic of the Congo** | Epidemic | RCRC | IFRC | Red Cross of the Democratic Republic of the Congo; French Red Cross | n/a |
| **Djibouti** | Riverine flood | RCRC | IFRC | Red Crescent Society of Djibouti; IFRC | 2022 |
| | Drought | UN | WFP | WFP | 2020 |
| **Dominican Republic** | Drought | UN | FAO | WFP | 2021 |
| **Ecuador** | Flash flood | RCRC | IFRC | Ecuadorian Red Cross; German Red Cross | 2021 |
| **El Salvador** | Drought | UN | FAO | FAO | 2022 |
| | Drought | RCRC | IFRC | Salvadorean Red Cross Society; German Red Cross | 2022 |
| | Drought | UN | WFP | WFP | 2022 |
| **Eswatini, Kingdom of** | Drought | RCRC | IFRC | Baphalali Eswatini Red Cross Society; British Red Cross | 2020 |
| **Ethiopia** | Epidemic | RCRC | IFRC | Ethiopian Red Cross Society; The Netherlands Red Cross; IFRC | n/a |
| | Drought | RCRC | IFRC | Ethiopian Red Cross Society; The Netherlands Red Cross | 2022 |
| **Guatemala** | Drought | RCRC | IFRC | Guatemalan Red Cross; German Red Cross | 2020 |
| | Cyclone | RCRC | IFRC | Guatemalan Red Cross; German Red Cross | 2021 |
| | Drought | UN | FAO | FAO | 2022 |
| | Drought | UN | WFP | WFP | 2022 |
| | Drought | UN | OCHA | n/a | 2021 |
| **Haiti** | Flood; Cyclone/Typhoon/Hurricane | UN | WFP | WFP | 2020 |

| Country | Hazard | Organizational type | Coordinating organization(s) / funding organization | Implementing organization(s) and partners* | Starting year (FY) |
|---|---|---|---|---|---|
| Honduras | Population movement | RCRC | IFRC | Honduran Red Cross; German Red Cross | 2022 |
| | Cyclone/Typhoon/Hurricane | RCRC | IFRC | Honduran Red Cross; German Red Cross | 2021 |
| | Drought | UN | FAO | FAO; German Red Cross | 2022 |
| | Drought | UN | WFP | WFP | 2022 |
| India | Riverine flood | RCRC | IFRC | Indian Red Cross Society | n/a |
| | Flood | NGO | Start Network | Save the Children | 2022 |
| | Cyclone/Typhoon/Hurricane | NGO | Start Network | SEEDS | 2022 |
| Indonesia | Riverine flood | RCRC | IFRC | Indonesian Red Cross Society; Australian Red Cross; British Red Cross; IFRC | 2019 |
| | Flood | UN | WFP | WFP | 2022 |
| Kazakhstan | Cold wave | RCRC | IFRC | Red Crescent Society of the Republic of Kazakhstan; IFRC | 2022 |
| Kenya | Drought | RCRC | IFRC | Kenya Red Cross Society; The Netherlands Red Cross; British Red Cross; Danish Red Cross | 2018 |
| | Drought | UN | WFP | WFP | 2020 |
| Kyrgyzstan | Mudflow | RCRC | IFRC | Red Crescent Society of Kyrgyzstan; German Red Cross | 2022 |
| | Drought | UN | WFP | WFP | 2022 |
| | Flood | UN | WFP | WFP | 2022 |
| Lao People's Democratic Republic | Flood | UN | WFP | WFP | 2022 |
| | Flood | UN | FAO | FAO | 2021 |
| | Drought | UN | FAO | FAO | 2021 |
| Lebanon | Winter storm | RCRC | IFRC | Lebanese Red Cross; German Red Cross | 2021 |
| Lesotho | Drought | UN | WFP | WFP | 2020 |
| Madagascar | TBD | RCRC | IFRC | Malagasy Red Cross Society; German Red Cross | 2022 |
| | Epidemic | UN | OCHA | n/a | 2021 |
| Malawi | Riverine flood | RCRC | IFRC | Malawi Red Cross Society; Danish Red Cross; WFP | 2021 |
| Mauritania | Drought | RCRC | IFRC | Mauritanian Red Crescent; French Red Cross; British Red Cross | 2022 |
| Mongolia | Epidemic | RCRC | IFRC | Mongolian Red Cross Society; Australian Red Cross | 2022 |
| Morocco | Cold wave | RCRC | IFRC | Moroccan Red Crescent; German Red Cross | 2021 |
| Mozambique | Epidemic | UN | OCHA | n/a | n/a |
| | Drought | RCRC | IFRC | Mozambique Red Cross Society; German Red Cross; Belgian Red Cross | 2019 |
| Myanmar | Heat wave | RCRC | IFRC | Myanmar Red Cross Society; Finnish Red Cross; German Red Cross; American Red Cross | 2022 |
| | Riverine flood | RCRC | IFRC | Myanmar Red Cross Society; Finnish Red Cross; German Red Cross; American Red Cross | 2022 |
| Namibia | Drought | RCRC | IFRC | Namibia Red Cross; German Red Cross; British Red Cross | 2019 |
| Nepal | Riverine flood | RCRC | IFRC | Nepal Red Cross Society; Danish Red Cross | 2018 |
| | Cold wave | NGO | Start Network | CARE International | 2022 |

| Country | Hazard | Organizational type | Coordinating organization(s) / funding organization | Implementing organization(s) and partners* | Starting year (FY) |
|---|---|---|---|---|---|
| Nicaragua | Drought | UN | WFP | WFP | 2022 |
| | Drought | UN | FAO | FAO | 2022 |
| | Tropical storm | RCRC | IFRC | Nicaraguan Red Cross; German Red Cross | 2022 |
| | Drought | RCRC | IFRC | Nicaraguan Red Cross; German Red Cross | 2022 |
| Niger | Flood | UN | OCHA | n/a | 2022 |
| Pakistan | Flood | RCRC | IFRC | Pakistan Red Crescent; German Red Cross | 2022 |
| | Flood | UN | FAO | FAO | 2022 |
| Palestine | Cold wave | RCRC | IFRC | The Palestine Red Cresecent Society; Danish Red Cross | 2019 |
| Philippines | Drought | RCRC | IFRC | Philippine Red Cross; German Red Cross; Finnish Red Cross | 2022 |
| Somalia | Drought | RCRC | IFRC | Somali Red Crescent Society; German Red Cross | 2022 |
| South Sudan | Flood | UN | FAO | FAO | 2022 |
| Sudan | Riverine flood | RCRC | IFRC | The Sudanese Red Crescent; Danish Red Cross; German Red Cross | 2021 |
| | Riverine flood | UN | WFP | WFP | 2021 |
| Tajikistan | Cold wave | RCRC | IFRC | Red Crescent Society of Tajikistan; German Red Cross | n/a |
| | Mudflow | RCRC | IFRC | Red Crescent Society of Tajikistan; German Red Cross | 2022 |
| Tanzania, United Republic of | Flood | RCRC | IFRC | Tanzania Red Cross National Society; German Red Cross | 2022 |
| Uganda | Drought | UN | WFP | WFP | 2020 |
| | Flood | UN | WFP | WFP | 2020 |
| | Drought | RCRC | IFRC | The Uganda Red Cross Society; The Netherlands Red Cross | 2021 |
| Uzbekistan | Mudflow | RCRC | IFRC | Red Crescent Society of Uzbekistan; German Red Cross | 2022 |
| Viet Nam | Cyclone/Typhoon/Hurricane | RCRC | IFRC | Viet Nam Red Cross Society; German Red Cross | 2021 |
| | Cyclone/Typhoon/Hurricane | UN | FAO | FAO | 2021 |
| Yemen | TBD | RCRC | IFRC | Yemen Red Crescent Society; IFRC; British Red Cross | 2021 |
| | Drought | UN | FAO | FAO | 2022 |
| | Flood | UN | OCHA | n/a | 2022 |
| Zambia | Drought | RCRC | IFRC | Zambia Red Cross Society; The Netherlands Red Cross | 2022 |
| **Total number of frameworks under development** | | | | | **97** |
| **Frameworks under development since January 2022** | | | | | **51** |

# References

60 Decibels. *Assessment of Drought & Anticipatory Action on Targeted Populations: Somalia.* London/ Nairobi/New York/ Bengaluru: 60 Decibels, 2022. **bit.ly/3lL3hXW** ⧉

AATF. *Enabling Anticipatory Action at Scale: Policy Brief for Donor Governments.* Geneva/Rome/Rome/New York/London: IFRC/ FAO/WFP/OCHA/Start Network, 2021. **bit.ly/3Zuf4I3** ⧉

African Union. *Institutional and Operational Framework for Multi-Hazard Early Warning and Early Action Systems for Africa.* Addis Ababa: African Union Commission, 2022. **bit.ly/3Kd4lgO** ⧉

Anticipation Hub. 'A commitment to expand early warning systems in southern Africa', Anticipation Hub, 28 September 2022. **bit.ly/3ZlPCnM** ⧉

ASEAN. *ASEAN Framework on Anticipatory Action in Disaster Management.* Jakarta: ASEAN Secretariat, 2022. **bit.ly/3LUydQm** ⧉

Asia-Pacific Technical Working Group on Anticipatory Action and Asia-Pacific Regional Cash Working Group. *Anticipatory Action and Cash Transfers for Rapid-Onset Hazards: Practitioners' Note for Field Testing.* Bangkok: Asia-Pacific Technical Working Group on Anticipatory Action and Asia-Pacific Regional Cash Working Group, 2022. **bit.ly/3z8zj31** ⧉

BMZ. *Global Shield Against Climate Risks: German G7 Presidency and V20 Concept for Consultation.* Berlin/Accra: BMZ, 2022. **bit.ly/3LVlUTQ** ⧉

Chaves-Gonzalez, J., Milano, L., Omtzigt, D-J., Pfister, D., Poirier, J., Pople, A., Wittig, J. and Zommers, Z. 'Anticipatory Action: Lessons for the Future' in *Frontiers in Climate*, Vol. 4, 2022. **bit.ly/3JVcWU2** ⧉

Council of the European Union. *Outcome of Proceedings: Disaster Risk Reduction in EU External Action - Council Conclusions, 28 November 2022.* Brussels: Council of the European Union, 2022. **bit.ly/3zawAWR** ⧉

CRED. *2021 Disasters in Numbers.* Brussels: CRED, 2022. **bit.ly/3nd3zXR** ⧉

Dall, K. and Huyck, C. 'Identifying needs and opportunities for Earth observations in anticipatory action', Anticipation Hub, 1 April 2022. **bit.ly/3LTRAJ2** ⧉

De Berry, J. 'Madagascar and the social impacts of drought', World Bank, 3 March 2023. **bit.ly/3nnAcSV** ⧉

Easton-Calabria, E., Jaime, C. and Shenouda, B. *Anticipatory Action in Refugee and IDP Camps: Challenges, Opportunities, and Considerations.* The Hague: Red Cross Red Crescent Climate Centre, 2022. **bit.ly/3TONCDJ** ⧉

Easton-Calabria, E., Poole, L.B., Lendelvo, S.M., Van Rooy, G., Pinto, M., Litwayi, T.K., Artur, L., Sitole, R., Shampa and Salehin, M. *How Can Social Protection Systems Be Leveraged for Anticipatory Action?* Boston: Feinstein International Center, 2022. **bit.ly/3TOjQyB** ⧉

Enenkel, M. and Dall, K. 'Monitoring, evaluation, accountability and learning in anticipatory action: Earth observation as a game changer', Anticipation Hub, 24 August 2022. **bit.ly/40BtJ5c** ⧉

FAO. *Striking Before Disasters Do: Promoting Phased Anticipatory Action for Slow-Onset Hazards.* Rome: FAO, 2022a. **bit.ly/3JPlGe2** ⧉

FAO. *Adopting Anticipatory Action and Shock Responsive Social Protection to Strengthen Disaster Preparedness and Resilience: Learning from the ASEAN Region.* Bangkok: FAO, 2022b. **bit.ly/3zaKYPa** ⧉

German Red Cross. *Success Stories 2022.* Tegucigalpa: German Red Cross, 2023. **bit.ly/3TUb9TK** ⧉

GFFO. 'G7 Foreign Ministers' statement on strengthening anticipatory action in humanitarian assistance', GFFO, 13 May 2022. **bit.ly/3ZksyWw** ⧉

Guyatt, H. and Khan, S.U. *Evaluating Locally-Led Early Action Against Heatwaves in Sibi, Pakistan.* London: Start Network, 2022. **bit.ly/3K8Tww8** ⧉

IASC. *Background Note: Strengthening the IASC Approach to Early Warning and Anticipatory Action.* Geneva: IASC, 2023. **bit.ly/40quAWp** ⧉

IFRC. *Simplified Early Action Protocol. Nigeria: Floods.* Geneva: IFRC, 2022. **bit.ly/3JLnrsJ** ⧉

IFRC. *World Disasters Report 2020: Come Heat or High Water - Tackling the Humanitarian Impacts of the Climate Crisis Together.* Geneva: IFRC, 2020. **bit.ly/3ZlzNxE** ⧉

InsuResilience Global Partnership, REAP and Anticipation Hub. *Linking Anticipatory Action to Risk Financing: Compendium of Think Pieces by Members.* Bonn/Geneva/Berlin: InsuResilience Global Partnership/REAP/Anticipation Hub, 2023. **bit.ly/40fiDTw**

Jaime, C., Coughlan de Perez, E., van Aalst, M., Raju, E. and Sheaffer, A. 'What Was Known: Weather Forecast Availability and Communication in Conflict-Affected Countries' in *International Journal of Disaster Risk Reduction*, Vol. 83: 103421, 2022. **bit.ly/40yzvUU**

Montier, E., Weingärtner, L. and Klassen, S. *The Potential for Anticipatory Action and Disaster Risk Finance.* London: Overseas Development Institute and Start Network, 2022. **bit.ly/43CJSta**

Mwangi, E., Taylor, O., Todd, M.C., Visman, E., Kniveton, D., Kilavi, M., Ndegwa, W., Otieno, G., Waruru, S., Mwangi, J., Ambani, M., Abdillahi, H., MacLeod, D., Rowhani, P., Graham, R. and Colman, A. 'Mainstreaming Forecast Based Action into National Disaster Risk Management Systems: Experience from Drought Risk Management in Kenya' in *Climate and Development* Vol. 14:8, pp. 741–756, 2022. **bit.ly/3nd7HXR**

Njambi-Szlapka, S. and Jones, A. 'Integrating community voices in anticipatory action: a synthesis of complex qualitative data', Anticipation Hub, 4 July 2022. **bit.ly/3lMFWFa**

OCHA. *Cadre d'action anticipatoire Pilote au république démocratique du Congo: choléra.* New York: OCHA, 2022a. **bit.ly/3LUEJq1**

OCHA. *OCHA's Strategic Plan 2023-2026: Transforming Humanitarian Coordination.* New York: OCHA, 2022b. **bit.ly/3LZOX8z**

OCHA Centre for Humanitarian Data. *Assessing the Technical Feasibility of Conflict Prediction for Anticipatory Action.* The Hague: OCHA Centre for Humanitarian Data, 2022a. **bit.ly/3LUQVqR**

OCHA Centre for Humanitarian Data. 'Data requirements for anticipatory action', OCHA Centre for Humanitarian Data, 17 Feburary 2022b. **bit.ly/3KEEdKK**

Pacific Ministers for Disaster Risk Reduction. *Declaration by the Pacific Ministers for Disaster Risk Reduction, Denarau Island, Nadi, Fiji.* Nadi: Pacific Ministers for Disaster Risk Reduction, 2022. **bit.ly/40kpKKy**

Poole, L.B., Coughlan de Perez, E., Shampa, Easton-Calabria, E., Nyachwo, E.B., Odonga, H.A., Artur, L. and Mojaki, R.A. *Anticipatory Action in Motion: Recapping the Most Recent Evidence and Illuminating a Pathway Forward.* Boston: Feinstein International Centre, 2022. **bit.ly/3KcW4Jq**

RAAWG. *Southern Africa Regional Anticipatory Action Roadmap.* Rome/Rome/Geneva: FAO/WFP/IFRC, 2022. **bit.ly/3KdPliM**

REAP. *Finance for Early Action: Tracking Commitments, Trends, Challenges and Opportunities.* Geneva: REAP, 2022. **bit.ly/3UFqNT5**

Save the Children. *Impact Assessment of Anticipatory Action on Flooding in Sudan.* London: Start Network, 2022. **bit.ly/3Zf7X5X**

Thalheimer, L., Simperingham, E. and Jjemba, E.W. 'The Role of Anticipatory Humanitarian Action to Reduce Disaster Displacement' in *Environmental Research Letters* Vol. 17, 014043, 2022. **bit.ly/40frzIy**

Tozier de la Poterie, A., Clatworthy, Y., Easton-Calabria, E., Coughlan de Perez, E., Lux, S. and van Aalst, M. 'Managing Multiple Hazards: Lessons from Anticipatory Humanitarian Action for Climate Disasters During Covid-19' in *Climate and Development* Vol. 14, pp. 374–388, 2022. **bit.ly/3FV2CKo**

Wagner, M. *Early Action: The State of Play 2022.* Geneva: REAP, 2023. **bit.ly/3LZhk6P**

Welthungerhilfe. *Early Action Identification and EAP Development: Step-by-Step Guidance.* Bonn: Welthungerhilfe, 2022. **bit.ly/3ZjuEGc**

WFP. *Planning and Monitoring Country Capacity Strengthening for Anticipatory Action: Short Guidance for WFP Practitioners (Addendum to the AA M&E Guide).* Rome: WFP, 2022a. **bit.ly/3LOVmn8**

WFP. *Integrating Anticipatory Action and Social Protection.* Rome: WFP, 2022b. **bit.ly/3K8W79m**

WFP and FAO. *Hunger Hotspots. FAO-WFP Early Warnings on Acute Food Insecurity: October 2022 to January 2023 Outlook.* Rome: WFP and FAO, 2022. **bit.ly/3nmJwX6**

WMO. 'Early Warnings for All Initiative scaled up into action on the ground', WMO, 21 March 2023. **bit.ly/3nfJaBs**

WMO. *Early Warnings for All. Executive Action Plan 2023-2027.* Geneva: WMO, 2022. **bit.ly/3KblWFJ**

The figures in this report, as well as the source data, can be downloaded from the Anticipation Hub:
**bit.ly/3muTAOl** ↗