

Working Paper

Anticipatory Action in Communities Hosting Refugees and Internally Displaced Persons: An Assessment of Current Approaches

Alexandra Schindler, Radhika Singh, Andrew Adam-Bradford, Merel Laauwen and Sandra Ruckstuhl

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Project

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Contents

Acronyms and Abbreviations	vi
Executive Summary	vii
Introduction	1
Background	3
Anticipatory Action	3
Forcibly Displaced Persons and Host Communities	4
Developing an Integrated Host Community Vulnerability Framework	5
Food, Land, and Water-Related Stresses in Host Communities	7
Extreme Weather Events, Cyclones, Storms and Floods: Rohingya Refugees in Cox's Bazar, Bangladesh	7
Flooding: Internally Displaced Persons in Northeastern Nigeria	8
Droughts: Conflict and Displacement in the Sahel (Chad, Burkina Faso and Niger)	9
Conclusion	10
References	11
Annex. Glossary	15

Acronyms and Abbreviations

CERF	Central Emergency Response Fund	
FAO	Food and Agriculture Organization of the United Nations	
ICRC	International Committee of the Red Cross	
IDP	Internally displaced person	
IFRC	International Federation of Red Cross and Red Crescent Societies	
IHCVF	Integrated Host Community Vulnerability Framework	
IOM	International Organization for Migration	
OCHA	A United Nations Office for the Coordination of Humanitarian Affairs	
UNHCR	United Nations High Commissioner for Refugees	
WFP	World Food Programme	

Executive Summary

Context

Anticipatory action, i.e., the set of actions taken to prevent or mitigate a potential disaster before acute impacts are felt, is increasingly a part of any strategy for humanitarian and development organizations and governments. This approach demands integrative and proactive solutions that prioritize resilience, long-term development goals, and inclusivity. While anticipatory action is widely recognized as an essential measure, along with long-term resilience, climate-smart recovery and reconstruction to reduce the impacts of climate change and extreme weather events, it has proven challenging to incorporate this approach into host community contexts for several reasons.

Host communities can be complex environments as they include both displaced persons and community members and residents living in the area before the arrival of displaced persons. When host communities are located in or near fragile and conflict-affected areas, that also makes them more vulnerable to climate change and extreme weather events. They may also face stresses such as rapid population growth, demographic pressure, increased demand on limited resources, environmental degradation, legal difficulties for displaced persons, and conflict between hosts and displaced persons. While host communities are usually defined as the community that hosts large populations of refugees or internally displaced persons (IDPs) (in camps, integrated into households or independently), this literature review expands the definition to include all community members, both hosts and forcibly displaced persons who are being hosted. These groups can experience similar and different social, economic and environmental challenges from one another.

More data are needed on water- and climate-related vulnerabilities in host communities to inform and strengthen anticipatory action approaches and climate adaptation initiatives. This paper aims to provide baseline information on the available data on this topic for future research, aiming to support the development of a replicable and scalable mixed-methods model called the Integrated Host Community Vulnerability Framework.

Findings

The project is titled Anticipatory Approaches in Host Communities for Emergency Preparedness and Disaster Mitigation (AHEAD), and is part of the CGIAR Initiative on Fragility, Conflict, and Migration, which aims to address challenges in livelihood, food and climate security for vulnerable populations in fragile and conflict-affected areas. The countries included in the first phase of this study are Jordan, Pakistan, Nigeria and Ethiopia.

A review of the literature shows that host communities have a specific set of vulnerabilities that must be understood across a diverse range of contexts if we are to inform sustainable and inclusive anticipatory action approaches. These vulnerabilities compound existing risks that host communities face in fragile and conflict-affected areas and during extreme weather events. If anticipatory action within host communities is to support long-term development goals, formal and informal institutions must consider incorporating these indicators into their near and long-term strategies and policies.

Because anticipatory action is a relatively new field, there is a general lack of literature on host communities. More research on water- and climate-related vulnerabilities is needed. More specifically, there is a need for data that includes all types of hosting contexts, including rural and urban, as well as refugees and IDPs, and a range of emergencies including slow onset, rapid onset and complex.

Next Steps

It is clear that anticipatory action approaches that take into account the long-term needs of communities, resilience building and sustainable livelihoods can mitigate the impact of climate change and extreme weather events. It is also clear that populations will continue to be displaced in large numbers in the coming years, due to conflict and climate change. For this reason, specific research on water- and climate-related vulnerabilities is needed to develop and implement anticipatory action strategies that take into account the needs of host communities, especially in fragile and conflict-affected areas. This will help organizations and governments prioritize resilience building and adaptation as part of their anticipatory action approaches to improve long-term outcomes.

Challenges in gathering this data include the difficulty of doing research in fragile and conflict-affected areas, the unpredictability of migratory movements, and the difficulty of accurate impact-based forecasting for slow-onset, rapid-onset and complex emergencies.

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Introduction

The purpose of this literature review is threefold: (i) to outline how anticipatory action approaches in communities hosting forcibly displaced persons have been designed and researched; (ii) to examine the main issues through three case studies covering water- and climate-related vulnerabilities in host communities: and (iii) to provide a foundation for a global synthesis paper highlighting the challenges arising from the governance of food, land and water systems in host communities, along with approaches and policies to resolve these issues, and methods for strengthening the management and adaptation of anticipatory action. The following section provides an overview of the research plan, highlights the significance of anticipatory action and the specific need for these practices in host communities, and addresses the challenges associated with implementing anticipatory action and designing interventions tailored to the unique vulnerability context of host communities.

The Anticipatory Approaches in Host Communities for Emergency Preparedness and Disaster Mitigation (AHEAD) project, under the CGIAR Initiative on Fragility, Conflict, and Migration (FCM), is currently conducting research on water- and climate-related vulnerabilities in communities that host refugees and internally displaced persons (IDPs) to identify risk and resilience building pathways which can be used to strengthen anticipatory action, disaster risk management and climate adaptation initiatives.

A rapid global literature review of academic and gray literature is the first research activity for the AHEAD project, and its objective is to establish a baseline understanding of water- and climate-related vulnerabilities in host communities. The literature review examines (i) the effect of migration on host communities located in fragile and conflict- affected situations; (ii) the impact of migration on sustaining food, land and water systems in host communities; and (iii) host community responses to increased stress on food, land and water systems.

This global literature review will inform case study models and a scalable analytical framework being developed through a selection of case studies, beginning in Jordan (Irbid), Ethiopia (Somali Region), Pakistan (Punjab Province), and Nigeria (Adamawa State).¹ Research is being conducted in collaboration with demand and uptake partners, including national and local authorities, humanitarian and development agencies and nongovernmental organizations (NGOs). This research will contribute to the development of a replicable and scalable mixed-methods model referred to as the Integrated Host Community Vulnerability Framework (IHCVF).

Anticipatory action is a proactive approach to disaster management and plays a vital role in mitigating the most damaging impacts of disasters and expediting recovery. By taking actions before a disaster occurs, it aims to protect hard-won development gains and promote resilience (Kurdi and Ruckstuhl 2023). This means responding to forecasts and complementing regular disaster risk reduction and seasonal preparedness activities. An emerging priority in the humanitarian sector draws on decades of disaster risk reduction experience, thus building connections and contributing to the humanitarian-development-peace nexus. In disaster risk reduction, measures are taken to minimize vulnerabilities and disaster risks throughout a society and to avoid or limit the adverse impacts of hazards within the context of sustainable development (Pichon 2019). These measures are often referred to as the predisaster phase (Alexander 2000). Likewise, anticipatory action follows a similar trajectory by mobilizing resources and taking action before a disaster or an extreme climate event (Figure 1). Consequently, anticipatory action should mitigate the impacts and reduce the cost of a crisis onset.

Under this approach, anticipatory action prioritizes both early response and long-term adaptation investments which systematically and holistically promote resilience. Given that this is an area of work with growing popularity, there are many definitions for anticipatory action, early warning, early action and disaster risk reduction. While this paper acknowledges this complexity, it also suggests shared definitions for each concept to clearly frame the ongoing research (see Annex).

The need for anticipatory action for hydro-meteorological hazards in host communities is critical given the current displacement trends. Although often referred to as the 'refugee crisis,' in the media and literature, the term includes all forcibly displaced persons, including IDPs, asylum seekers and refugees. According to the United Nations High Commissioner for Refugees (UNHCR) (UNHCR 2023a),

¹ Somali Region is also known as Soomaali Galbeed (lit. 'Western Somalia') and officially the Somali Regional State.

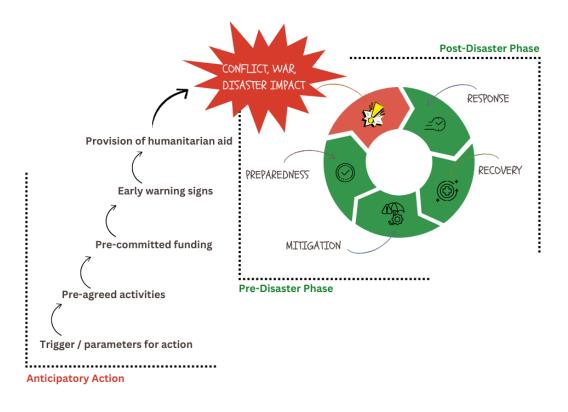


Figure 1. Pre-disaster similarities between anticipatory action and the disaster management cycle. *Source:* Adapted from Alexander 2000 and OCHA n.d.

over 110 million people are currently forcibly displaced worldwide due to persecution, conflict, violence and human rights violations. According to the International Organization for Migration (IOM 2023), another 36.2 million people were internally displaced by disasters in 2022, which is 41% higher than the annual average of the past 10 years. Until now, there has been no universal definition of 'internally displaced person' and no core global data source to provide these numbers. The World Bank's Groundswell report (Clement et al. 2021) predicts that climate change could force 216 million people to be displaced within their countries by 2050. Displaced individuals are more likely to be secondarily displaced by disasters compared to those who have never experienced displacement, placing further strain on host communities during times of crisis (UNHCR 2022). More than 80% of forcibly displaced people are hosted by countries in the Global South.

Anticipatory action faces several challenges during design and implementation. Understanding vulnerability, identifying secondary hazards, conducting realistic risk analysis, ensuring sustainable funding, and establishing national policy and governance frameworks are among the most significant bottlenecks (Peters et al. 2022; de la Poterie et al. 2023). Furthermore, gaining a better understanding of the complex nature of different types of emergencies (e.g., conflicts, disease outbreaks, economic crisis, climate-related events, and long-term environmental degradation) is crucial for developing anticipatory action strategies. The use of multiple data sources for forecasting, understanding the specific effects of such emergencies on water and food security, and comprehending the interdependencies and potential trade-offs are significant challenges that require comprehensive analysis to support effective interventions (Coughlan de Perez et al. 2022; Adam-Bradford and Drechsel 2023). Moreover, the design and implementation of anticipatory action interventions necessitate an understanding of the unique vulnerability context these people face.

The term 'host community' refers to the context, institutions and structures within which forcibly displaced persons and their hosts live. Host communities often face multiple, often compounding, vulnerabilities due to factors such as:

- i. livelihood competition;
- ii. limited assets and social networks;
- iii. environmental degradation and pollution;
- iv. insufficient or overburdened public services and infrastructure;
- v. rapid population growth, demographic pressure and unpredictable population movements;
- vi. proximity to fragile infrastructure and ecosystems (including informal settlements);
- vii. legal difficulties for refugees that lead to restricted mobility and lack of access to livelihood opportunities;
- viii. operational delays faced by humanitarian and development organizations due to rapid change or instability; and

ix. grievances and conflicts between hosts and displaced persons due to limited resources and the ways in which support is targeted.

Consequently, vulnerability contexts in different types of host communities, such as refugee camps for example, require tailored institutional and governance responses (Easton-Calabria et al. 2022, Jayakody et al. 2022). While anticipatory action policies and programs are being developed at the regional or national level in many countries, few integrate the specific needs of forcibly displaced persons and their host communities. There is a significant lack of data on anticipatory action in refugee hosting communities and a significant demand from governments, humanitarian and development actors, the private sector and communities for research to inform anticipatory action. Implementing anticipatory action and other disaster risk reduction activities is essential to protect the well-being of both hosts and forcibly displaced persons and promote sustainability and resilience.

Development institutions recognize that participatory planning interventions need to include hosts and forcibly displaced persons, given the connections and relationships between the two, from resource flows to local market opportunities (UNHCR 2022). However, intervening is complex due to inequalities between hosts and forcibly displaced persons, differential impacts of interventions within the host community, the need for a combination of blanket and targeted approaches to reach the most vulnerable households, and the importance of collaborative planning. Moreover, it is important to recognize that interventions for refugees and IDPs are often not well integrated into country development strategies, sector policies, disaster risk management plans or climate strategies, particularly in the early years of a displacement crisis.

Refugee and IDP settlements are often regarded as temporary situations that do not need infrastructure such as drainage systems and durable housing and are not planned using a systems approach, and thus do not promote the principles of sustainability. Given the unpredictability of forcibly displaced people's movements, host countries often prefer to invest in the needs of legal residents and citizens. The question of who should be included in a needs assessment is complicated by demographic diversity. For example, IDPs who plan to return home may not be included in the same way as refugees who are permanently settled in urban host communities. Acknowledging these complexities, the design and implementation of anticipatory action interventions necessitate consensus-building, agreement on analytical frameworks and methodologies, and the inclusion of diverse perspectives (Mabiso et al. 2014).

To address these gaps, this literature review will highlight water- and climate-related vulnerabilities in host communities, and anticipatory action approaches that prioritize early response and long-term adaptation investments that promote resilience. The review is divided into three sections:

- i. Some background on anticipatory action, forcibly displaced persons and host communities and the IHCVF.
- ii. Three examples (Bangladesh, Nigeria and Sahel) examining existing water and climate stresses in host communities, the way these stresses are altered during extreme weather events, and the implications for anticipatory action to promote water and climate security.
- iii. A conclusion with a summary of the need for further research on water- and climate-related vulnerabilities for implementing anticipatory action in refugee hosting communities during protracted compound crises.

Background

Anticipatory Action

The World Humanitarian Summit (2016) declared that for humanitarian action to be more effective, several shifts are needed. The first is "a shift to a more anticipatory approach from a responsive one" (World Humanitarian Summit 2016). While the term was already being used in 2015, the World Humanitarian Summit marked a turning point in the widespread use of the term among humanitarian and development agencies. Since then, research and development of anticipatory action approaches and strategies, sometimes referred to as forecast-based early action, forecast-based financing and early warning/early action, have become increasingly common as humanitarian aid organizations develop disaster preparedness and response mechanisms that reduce impacts, prioritize efficiency and promote long-term resilience.

Anticipatory action refers to actions initiated before a disaster to mitigate damage and increase the chances of a speedy recovery. The key with anticipatory action is that it triggers pre-financed action based on forecasts and early warning information before exposure to the hazard. This is what distinguishes anticipatory action from

disaster risk reduction. As early warning systems improve and forecasts for hazards and emergencies can be predicted sooner, pre-arranged funding can be released more quickly and action plans carried out immediately. Anticipatory action may include many approaches, such as pre-positioning supplies, shock-responsive social protection, improved impact-based forecasts, preassessments or faster needs assessments, livelihood support, early detection of epidemics and promoting behavior change (Pichon 2019).

Organizations such as the World Food Programme (WFP), United Nations Office for the Coordination of Humanitarian Affairs (OCHA), Food and Agriculture Organization of the United Nations (FAO), the Start Network of NGOs, and the Red Cross Red Crescent network, including the German Red Cross, International Federation of Red Cross and Red Crescent Societies (IFRC) and the Red Cross Red Crescent Climate Centre, have been early leaders in the anticipatory action field, developing program strategies that prioritize anticipatory approaches to emergencies and disasters. All these organizations have released reports and strategies that indicate that anticipatory action will be central to institutional planning and strategy in the coming years. For example:

- i. IFRC (2021) developed an operational strategy for anticipatory action, the IFRC Operational Framework for Anticipatory Action 2021–2025, that aims to scale up and mainstream anticipatory action as an approach across disaster risk management and climate change adaptation frameworks, plans and approaches.
- ii. WFP (2022) released a report titled *Scaling Up Anticipatory Actions for Food Security* detailing the organization's plans to continue mainstreaming anticipatory action within its corporate emergency response frameworks and within the broader humanitarian system, including inter-agency and national partners.
- iii. OCHA has developed a three-year strategy (2023–2026) committed to "supporting and facilitating a systemic shift to coherent and embedded anticipatory approaches, including anticipatory action. OCHA will use its own financing tools to generate evidence for and scale up collective anticipatory action" (OCHA 2023, 27). OCHA highlights three aspects of anticipatory action: (i) a forecast-based trigger embedded in a clear decisionmaking process (the model); (ii) pre-agreed action plans that can mitigate the impact of the emergency and the need for humanitarian relief (the delivery); and (iii) pre-arranged finance (the money).
- iv. FAO and WFP (2023) also released a three-year strategy recognizing that to scale up anticipatory action to mitigate the effects of climate shocks on food security, organizations need to co-develop strategies enabling the expansion of both the geographical coverage beyond the current 30 countries they work in across Africa, Asia and the

Pacific, and Latin America and the Caribbean; anticipating different types of shocks; and advocating for mainstreaming anticipatory action within existing institutions and policies to increase sustainability. The FAO and WFP strategies show how anticipatory action leverages long-term investments in disaster risk reduction, resilience building, social protection and vulnerability to disaster risk.

These current organizational strategies demonstrate the significant resources and focus that anticipatory action is now attracting as it is increasingly understood as the most sustainable, efficient and long-term approach to climate emergencies and disasters. For example, the humanitarian-development-peace nexus approach can advance the implementation of anticipatory action by improving the coherence between humanitarian action, long-term development approaches and contributions to prevent conflict and promote peace building. With this attention on anticipatory action approaches and strategies, it is especially important to research the vulnerabilities of specific communities experiencing climate disasters and shocks. While there has been more research on anticipatory action generally, there is still little research on how it can take into account the vulnerabilities of specific refugee-hosting landscapes.

Forcibly Displaced Persons and Host Communities

Migration, i.e., the movement of people over some distance from their usual place of residence to another, is a universal process that can affect socioeconomic development in many ways. People migrate for many reasons; for work (due to spatial wage differentials), structural underdevelopment in their local economies, disease outbreaks, conflicts and climate change impacts. Migration may be caused by dangerous and insecure circumstances. It also has the potential to benefit both sending and receiving communities. Ideally, migrants would contribute to increased resilience in their home communities through remittances and newly acquired skills, while also playing positive development roles in their host communities. Of course, even if there are economic benefits associated with migration, migrants are still vulnerable as they leave behind their assets and social networks, need to learn how to live in a new environment, and must secure a source of income. In contexts where migration is forced, not planned and happens suddenly, such as in the case of conflict and disasters, it can put intense pressure on forced migrants. These pressures may include loss of livelihoods, difficulty coping with traumatic experiences during displacement, increased exposure to violence, lack of access to health services and separation from family. It also puts additional pressure on food, land and water systems in host communities, potentially leading to tensions. Likewise, influxes of refugees and IDPs may strain local infrastructure and services and increase competition for jobs. Tensions can also arise

due to differences in resource consumption behaviors, service provision, public safety, culture and language, and even disagreements about the effect migration has on the community's cultural practices and social norms. This influx can increase the vulnerabilities of both the forcibly displaced population and the already vulnerable populations within the hosting community.

In many cases, national governments have found it difficult to balance serving the needs of their communities and ensuring the rights of refugees, as outlined in international law (e.g., The 1951 Refugee Convention). According to UNHCR (2022), 76% of refugees are hosted in low- or middle-income countries, where host communities often struggle to provide enough employment opportunities, ensure environmental protection, and support sustainable development for the existing residents. Women and children tend to be disproportionately affected by forced displacement across a wide range of indicators, including education, health, employment, food security and income. The effects of climate change on host communities make it even more difficult to absorb large numbers of displaced persons, particularly in areas where changing weather patterns increase exposure to hazards and affect people's access to sufficient quantities and quality of natural resources. Displaced households need access to natural resources and public services to support their livelihoods, health and well-being. This puts additional stress on food, land and water systems (e.g., access to water for domestic use, which affects displaced people's health and access to safe water, sanitation and hygiene [WASH] services). These trends often intersect with political, economic, administrative, social and development processes that exacerbate the depletion and degradation of natural resources. In short, host communities can struggle to provide fair and sustainable livelihood opportunities for all.

'Host community' is a term that refers to the context, institutions and structures within which forcibly displaced persons live, and encompasses both the hosts and the displaced, as explained above. Host communities represent a diverse set of geographic and infrastructural formulations. Just as people are forced to migrate for a complex set of reasons, the locations where displaced people settle, whether permanently or temporarily, are also complex. These complexities contribute to stress, exposure and vulnerability for both the displaced people and the host community. Host communities can include a diverse range of infrastructure settings in different locations. These can include the following:

- i. Urban: family hosting, house/flat leasing, occupation of conflict-damaged buildings and informal tented settlements, camps.
- ii. Peri-urban: camps and informal tented settlements.
- Rural: camps, informal tented settlements, lowdensity refugee and IDP settlements, and low-density integrated settlements with forcibly displaced persons and host communities

For anticipatory action approaches to work, strategies must take into account the type of emergency or hazard and the people living in the area under threat, the existing stresses on the food, land and water systems, the specific vulnerabilities that members of the community experience in this context, and the capacity of people and communities to adapt to risks. "Anticipatory early warning systems, more rapid needs assessments, budgetary provisions for response agencies ahead of the displacements, and more understanding of the demographics of displaced people may help reduce the negative impacts of forced displacements on food security" (George and Adelaja 2022, 10).

Developing an Integrated Host Community Vulnerability Framework

While there has been much research on the vulnerability and exposure indicators for anticipatory action approaches, there has been relatively little on how anticipatory action or disaster risk reduction research can take into account forcibly displaced populations (Easton-Calabria 2022; Gallant 2022; Thalheimer et al. 2022). The Global Compact on Refugees emphasizes the importance of preparedness measures that consider global, regional, subregional and national early warning and early action mechanisms (UNHCR 2018).

Anticipatory action and disaster risk reduction depend on a nuanced understanding of a community's risk perceptions, adaptation capacities, knowledge, experiences, risk exposure and vulnerabilities. A host community's existing vulnerabilities can be increased, changed or complicated by the presence of refugees and IDPs. The lack of research on the vulnerabilities of displaced people within a specific host community in which they live can compromise the success of an anticipatory action strategy when a climate disaster strikes.

Developing the Framework

To start the development of a framework, the following three steps are covered. First, we review operational issues that anticipatory action systems face and which need to be improved to prevent increased exposure for already vulnerable populations. Second, we introduce potential vulnerabilities in host communities and the need to develop a framework to assess community needs and inform anticipatory action guidelines and strategies. Third, we address the current gaps in the way anticipatory action is being implemented in host communities and what we might learn from them.

Operational Issues

There are several priorities in hosting communities that must be improved to strengthen systems, build capacity and decrease the exposure of vulnerable populations. Operational needs include, "appropriate community training, evacuation planning, vulnerability assessments, and integrating indigenous knowledge" (Ahmed et al. 2020). It is essential that protection be systematically integrated into anticipatory action and Early Warning Early Action approaches (Cotroneo and Pawlak 2016) and that local stakeholder needs are prioritized (Sample 2021). The operational issues facing anticipatory action are often related to the specific environment, for example, fragile cities with large slum populations often struggle to put preparation and response plans into practice (de Boer 2015). Recent studies indicate that disaster governance is transitioning to more complex humanitarian emergencies, and institutions are prioritizing the development of a "locally-led disaster management philosophy, pushing disaster governance toward shared and inclusive governance" (Cook and Foo 2019).

Vulnerabilities

Vulnerability, as defined in our Glossary (see Annex), is a condition brought about by physical, social, economic, environmental and political factors or processes that increase the susceptibility of a community or individuals to shocks or hazards (IPCC 2022). Host community vulnerabilities are complex because they include the existing vulnerabilities in addition to those associated with hosting forcibly displaced people in the community. As a result of systemic challenges, exposure to hazards and lack of capacity to respond, these existing vulnerabilities play a role in disaster preparedness and response and overall ability to adapt to climate change. Vulnerabilities may be:

- environmental (e.g., proximity to fragile infrastructure and ecosystems or environmental degradation and pollution);
- economic (e.g., livelihood opportunities, competition or limited assets);
- iii. institutional (e.g., lack of access to information and finance or legal difficulties for refugees); or
- iv. psycho-social (e.g., conflict between hosts and displaced persons).

In the case of such systematic vulnerabilities, any climateor conflict-related stress or shock increases the risk to the host community and all its inhabitants. These could be:

- i. floods;
- ii. droughts;
- iii. population influx;
- iv. border insecurity;
- v. disease outbreaks;
- vi. land use changes; or
- vii. environmental degradation.

Systematic vulnerabilities also amplify the risk to forcibly displaced people and their hosts, including:

- i. food and water insecurity;
- ii. loss of life, livelihoods and assets;
- iii. loss of agency and dignity; and
- iv. chronic illness and poor health.

There are other vulnerabilities that displaced populations face that anticipatory action plans must take into account:

- i. unidentified health conditions;
- ii. not speaking the local language;
- iii. higher rates of post-traumatic stress disorder and trauma;
- iv. fear of further displacement or family separation;
- v. lack of trust in the institutions conveying information and services; and
- vi. a disproportionate number of women-led households with young children and dependents (Easton-Calabria 2022).

Existing vulnerabilities in a host community may include:

- i. gender inequality;
- ii. chronic health issues;
- iii. lack of financial inclusion;
- iv. challenges to livelihoods;
- v. reduced access to information; and
- vi. tension between groups divided by language, ethnicity, religion or nationality.

Common food, land and water stresses in a host community can include:

- i. scarcity of natural resources;
- ii. degradation of cultivatable land;
- iii. pollution from liquid or solid waste;
- iv. scarce or contaminated water supply; and
- v. droughts, floods, landslides and rainfall variation.

Both the existing social, political and economic vulnerabilities and the stresses on food, land and water systems within the host community are often exacerbated by an influx of forcibly displaced people, especially when that influx is sudden or unexpected. When an emergency or disaster occurs, existing stresses on the food, land and water systems within the host community are compounded, and without anticipatory action strategies already in place and financed, vulnerable populations are often the first to suffer loss of livelihoods, health issues or further displacement, and are the least likely to survive (Easton-Calabria et al. 2022; Thalheimer et al. 2022).

Current Gaps

For anticipatory action approaches to be more sustainable, efficient and support long-term development goals, there is a need for strengthened, reformed and new institutions (both formal and informal, including regulations, legislation and policies). Given that anticipatory action is a relatively new field within the humanitarian space, there is little literature on situations where forcibly displaced people are hosted. Therefore, there is a need for further research on host community vulnerabilities and forcibly displaced people to inform future anticipatory action approaches for host country governments and local and international humanitarian and development organizations. Future research should cover urban, rural, refugees and IDPs in diverse slow-onset, rapidonset and complex emergencies.

Food, Land and Water-related Stresses in Host Communities

"Changing patterns of movement and settlement are expected to fundamentally alter the distribution of climate exposure and vulnerability, reducing risk in some places while exacerbating or introducing new risks in others" (OSCDS and UNHCR 2022).

Here we analyze the types of water- and climate-related stresses in host communities, and the anticipatory action approaches that organizations are undertaking in those communities, especially those that prioritize early response and long-term adaptation investments which promote resilience. The documents considered in this rapid review include case studies of extreme weatherrelated events in host communities and provide some analysis of responses, identifying how existing stresses were altered by disasters. The reviewed literature featured descriptions of 32 crises, most of which were complex emergencies (Table 1). Bangladesh, Nigeria and Sahel were frequently mentioned.

Table 1. Types of crises by category.

Emergency	Count
Slow onset	1
Rapid onset	8
Complex	20
Slow onset/complex	2
Rapid onset/complex	1
Total	32

These case studies illustrate the impacts of migration and how host community vulnerabilities and food, land and water-related stresses are altered by extreme weather events and compound disasters such as conflict, disease outbreaks and food insecurity for both the hosts and forcibly displaced people.

Extreme Weather Events, Cyclones, Storms and Floods: Rohingya Refugees in Cox's Bazar, Bangladesh

Bangladesh is one of the most disaster-vulnerable countries in the world according to the INFORM Index (DRKMC 2022) and is recognized as a leader in Early Warning Early Action. Bangladesh has implemented more early action initiatives than any other country, including four efforts by the Bangladesh Red Crescent Society, three by the Start Network, and two by WFP (Anticipation Hub 2023a). Still, more inclusive anticipatory action approaches that consider the needs of host communities and refugees could be incorporated into existing humanitarian program infrastructure (Easton-Calabria et al. 2022). For example, Kamal et al. (2022, 7) recommended the development of a "scientifically valid and end-to-end landslide early warning system for the Kutupalong Rohingya camps and surrounding host communities in Cox's Bazar." Such a development would be well suited to an anticipatory action approach. Actors in anticipatory action in Cox's Bazar include the United Nations Central Emergency Response Fund (CERF), Red Cross Red Crescent, and World Food Programme, who have responded to a variety of hazards including flooding, heatwaves and cyclones. Bangladesh is also a pilot country for an OCHA-facilitated anticipatory action system, first triggered in 2020, to reach 220,000 people before flooding peaked in vulnerable areas across the country (Anticipation Hub 2023a). Within four hours of the severe flooding forecast, CERF funding was released for humanitarian organizations to reach people before the peak of the flood (Moser 2021).

Cox's Bazar District in southeastern Bangladesh hosts one of the largest refugee settlements in the world, the Kutupalong Refugee Settlement, with almost one million Rohingya refugees from Myanmar in 33 overcrowded subcamps about an hour's drive inland. The Rohingya refugees started entering Bangladesh in 2017 to escape genocide and crimes against humanity perpetrated by the Myanmar Army. Rohingyas were initially accommodated in camps next to overcrowded and urbanized hilly communities, where predominantly poor and landless people were already settled in the foothill areas. Areas allocated for refugee camps were quickly prepared by deforestation and hill cutting. Consequently, refugees living in the camps and the surrounding host communities were highly vulnerable to landslides, cyclones, flashflooding and communicable disease outbreaks (Ahmed et al. 2020). In the 2021 monsoon season, 30 of the 34 camps in Cox's Bazar District were affected by flooding, with over 11,000 shelters damaged or destroyed and 24,000 residents displaced to another location within the camp. Other vulnerabilities in the camps include the lack of livelihood opportunities due to limited freedom of movement and access to labor markets, high levels of physical and mental health challenges due to past trauma, and the poor condition of the shelters due to policy restrictions on construction materials (Easton-Calabria et al. 2022). Several studies have been conducted to better understand the existing early warning systems and why they did not function properly during recent coastal storms, and how to improve or redesign them to be more effective (Ahmed et al. 2020; Kamal et al. 2022; Zaman et al. 2020).

One example of a climate disaster was Cyclone Amphan in 2020, which caused widespread damage throughout Bangladesh. The Bangladesh Meteorological Department operates both a Cyclone Early Warning and Early Action System and a pre-alert phase that has been added to the cyclone response strategies, all of which were triggered for this event. When the pre-alert was activated, the Inter-Sectoral Coordination Group and all humanitarian actors were notified to activate their preparedness and early action protocols. These included the Rohingya Cyclone Preparedness Programme (CPP) with volunteers providing early warning to their communities with time to strengthen their shelters, receive emergency food supplies, move health teams to safe locations, and prepare the emergency evacuation of Covid-19 patients as needed (Easton-Calabria et al. 2022).

For an exposed and vulnerable community to receive early warning messages about an impending disaster in a timely manner requires access to information. For example, research shows that Rohingya refugees who got access to and were able to interpret early warning messages were more likely to use shelter tie-down kits to increase the survival rate of their shelters (Zaman et al. 2020). Being able to understand an early warning message means understanding the severity of the pending disaster and being confident about how to respond in the safest way.

Another challenge for anticipatory action is issues with forecast literacy. To deal with this challenge, an integrated forecast dissemination portal known as INSTANT was developed specifically for Cox's Bazar by the United Nations Development Programme (UNDP) with financial support from humanitarian donors and technical support from the Regional Integrated Multi-Hazard Early Warning System (RIMES) in collaboration with the Bangladesh Meteorological Department. This portal offers "five-day weather forecasts, seasonal forecasts, a hazard calendar and other tools to help inform humanitarian and development actors" (Easton-Calabria et al. 2022, 11).

Gender issues are a significant concern in Cox's Bazar. Gender inequality and violence lead to women being excluded from early warning information systems or to be distrustful of the warnings they receive and thus unable to respond appropriately, putting them at greater risk of physical harm during a climate emergency (Okai 2022). A report on joint responses by the International Organizaton for Migration (IOM), United Nations Children's Fund (UNICEF), and UNHCR (Sida and Schenkenberg 2019) found that sufficient measures were not in place to prevent gender-based violence, risk of trafficking, or the intimidation of women refugee volunteers. The report found that the risk of abuse and exploitation was extremely high because of the poverty in the camp and the inexperience of program staff in camp settings, which suggests poor humanitarian coordination and management coupled with weak monitoring systems. Needs assessments are recommended even in the context of a response to a sudden crisis or an ongoing planning effort during a protracted crisis and are instrumental in identifying the protection risks and needs of vulnerable groups (UNHCR 2017). Had a protection needs assessment with a gender component been conducted when refugees first arrived in large numbers in 2017, this could have improved effectiveness and inclusion in the anticipatory action systems developed afterwards.

Flooding: Internally Displaced Persons in Northeastern Nigeria

Regional conflict and instability, including the ongoing Boko Haram insurgency, farmer-herder conflicts, ethnic, communal and religious violence, compounded by disasters and increasing desertification, have all contributed to internal displacement and refugee arrivals in Nigeria in recent years. Consequently, pressure on Nigeria's natural resources is increasing. This includes the country's northeastern region, where over three million IDPs are hosted (UNHCR 2023b). This region is also highly vulnerable to climate hazards, such as torrential rains and flash floods, further compounding the fragility stemming from forced displacement. Displaced populations and host communities have been impacted in several ways. High numbers of primary and secondary displacement have caused severe disruption to agricultural production as a result of farmers abandoning their land, the loss of agricultural labor, disruption to markets and security concerns, all of which reduce domestic trade. An influx of IDPs has put additional pressure on already limited natural resources resulting in resource depletion in host areas, and deforestation and depletion of soil nutrients (George and Adelaja 2022).

Flooding is the most highly-ranked environmental risk and causes severe damage to property and loss of lives annually (IFRC 2022). Floods also damage public infrastructure, prevent livelihood activities, cause loss of agricultural land, contribute to further displacement, and affect people's physical and mental health (IFRC 2022).

Recently, the frequency of flooding in the northeastern states of Nigeria, including Adamawa, Borno and Yobe, has increased significantly, causing loss of life, injuries and damage to infrastructure, property and agricultural land (Balana et al. 2023). Anticipatory action can help host communities and forcibly displaced people to better prepare for extreme climate-related events to protect livelihoods and save lives. In the past, anticipatory action for flood events has not been a priority for the Nigerian government or humanitarian organizations. Consequently, those affected by seasonal flooding have had little support. Marking a change, more recent examples include anticipatory actions for riverine floods, epidemics and multi-hazard shocks developed by the Nigeria Red Cross Society (NRCS).

NRCS has developed a simplified early action protocol (EAP) to respond to flooding and its impacts in cooperation with the International Federation of Red Cross and Red Crescent Societies (Anticipation Hub 2023b). An EAP was developed for states particularly vulnerable to floods, including the northeastern states of Adamawa, Yobe and Taraba, which also host the highest number of IDPs. This intervention is coordinated through IFRC along with the Nigerian National Emergency Management Agency, Nigerian Meteorological Agency, Nigerian Hydrological Services Agency, the Federal Ministry of Humanitarian Affairs, Disaster Management and Social Development, and the National Orientation Agency. The EAP includes flood risk monitoring, community preparedness, and flood sensitization and awareness (IFRC 2022). More specifically, the International Rescue Committee (IRC) along with the International Food Policy Research Institute (IFPRI) piloted a climate risk reduction payment program in 2022 in Adamawa State in northeast Nigeria with smallholder farmers and livestock owners. The program took a systems approach, working with existing information and communication technology (ICT) systems and agricultural extension providers, and other government and community stakeholders. The project transferred a lump sum of anticipatory cash payments to a sample of 725 flood-prone households, a response that was triggered by an early warning climate data risk threshold system. Households also received early warning messages before the flood. The findings were compared with a control group receiving an equal amount of cash post-flooding and found that a large, one-time anticipatory cash transfer can improve the climate adaptive and resilience capacity of a household (Balana et al. 2023).

The main conclusion of the IRC/IFPRI pilot program on anticipatory action is that "when climate vulnerable communities have timely access to information and the financial and social resources to act on that information, they are less prone to negative coping strategies and can build more diversified and climate resilient livelihoods" (Balana et al. 2023, 25). The final report recommended anticipatory action when suitable and suggested gathering more granular, high frequency data to understand how anticipatory cash interventions might influence food security and other well-being indicators throughout the flood season (Balana et al. 2023). While this program focused on climate-vulnerable communities and not host communities specifically, the example is relevant because the project targeted the humanitarian sector and promotes an anticipatory action model that could be adapted to host community contexts.

Research on anticipatory action in Nigeria indicates there is a need for greater preparedness for conflict-based displacement, including anticipatory early warning systems and more rapid needs assessments, available financing for response before displacement, and a better understanding of the vulnerabilities of displaced people and their host communities (George and Adelaja 2022). In addition, the National Emergency Agency, the organization responsible for managing IDPs, could improve its data collection and sharing mechanisms for IDPs in northeast Nigeria to improve the dependability of available statistics and determine needs prior to response (Nnadi et al. 2020).

Droughts: Conflict and Displacement in the Sahel (Chad, Burkina Faso and Niger)

The Sahel Region forms a natural border between the Sahara Desert to the north and the tropical savannas to the south. It spans 5,900 km from the Atlantic Ocean in the west to the Red Sea in the east. Sahel countries are connected historically through cultural and political ties. The economies in this region are highly reliant on farming and pastoralism, thus making food security and livelihoods dependent on environmental conditions and vulnerable to extreme weather events. The Sahel Region is one of the most insecure areas in Africa due to legacy conflicts, demographic dynamics and socioeconomic factors, poor governance, societal vulnerability to climate extremes and other shocks, political crises and violent extremism. The region has always had highly mobile populations, including seasonal and circular migration to find work and cope with variable weather conditions.

There are over 6.5 million Sahelians who are internally displaced in the region and over 1.5 million refugees who have been forced to cross country borders looking for livelihoods or shelter (OSCDS and UNHCR 2022). Chad, Burkina Faso and Niger have some of the highest numbers of IDPs in the region. Rising temperatures, drought, unpredictable rainfall and declining water availability are all increasing the region's exposure to climate change and extreme weather events (OSCDS and UNHCR 2022).

A report from the United Nations Office of the Special Coordinator for Development in the Sahel (OSCDS) and UNHCR (UNHCR 2022, 24) makes the case that it is imperative for all stakeholders to move toward a "forward-looking, evidence-based and risk-informed development pathway, along the humanitariandevelopment-peace nexus, that is able to address the growing multi-causal risks in the region". In other words, there is a need for an anticipatory action approach that uses predictive modeling to identify risk hotspots likely to appear, paying special attention to climate change and disasters that may create new risks, exacerbate existing risks and multiply existing vulnerabilities.

The United Nations Office for the Coordination of Humanitarian Affairs (OCHA) has facilitated the development of anticipatory action frameworks in the Sahel, primarily in Burkina Faso, Chad and Niger. All three countries have semi-arid climates characterized by high temperatures and low precipitation, populations vulnerable to climate risk because of high poverty rates, and a dependency on agriculture, which employs over 60% of the population. OCHA has tried to expand anticipatory action frameworks more quickly and sustainably (OCHA 2023). OCHA identified four major risks as vulnerability drivers in the Sahel: climate change, food security, conflict, and migration and displacement. The trigger mechanisms for the three countries are multi-stage because of the slow-onset nature of drought. To mitigate the risks, anticipatory actions in Chad include seed distribution, rehabilitation of water points for animals and offseason harvests, and cash transfers for seed protection and pastoralists. Anticipatory actions in Burkina Faso include cash-for-work, food assistance, information and awareness and early warning campaigns, unconditional cash transfers through social protection systems, water point rehabilitation and construction, and community water management training. In Niger, anticipatory actions include improving infrastructure for collecting runoff water, provision of drought-resistant crops, safeguarding market garden production through innovative water management and drought-resistant seeds, and rehabilitation and strengthening household water supply, hygiene promotion and the provision of WASH kits (water storage tanks, home water treatment products). These are a few examples of the extensive anticipatory actions endorsed by OCHA and implemented by United Nations agencies and their partners when the trigger thresholds were met and funding distributed in the Sahel Region.

Conclusion

The literature and the specific case studies show the importance of well-planned and financed anticipatory action protocols in a range of host communities. There is clearly a need for timely and accurate data to improve the effectiveness of protocols and programs and to strengthen forecast-based financing based on scientific forecasts and risk analysis and mitigate climate impacts (IFRC and RCCC 2020; Lewis and Herwanger 2022). As the WFP report (Evidence Base on Anticipatory Action) concludes, "evidence helps to ensure accountability in humanitarian action and...greater investment is needed in robust monitoring, evaluation and learning on anticipatory action. Without this, and a clear agenda for enhancing the evidence base to improve future policy and programming, the humanitarian system will continue to struggle to meet needs" (Weingärtner et. al. 2020, 37). To develop this evidence, the report articulates a clear need for i) further implementation and evaluation; ii) a common analytical framework and principles; and iii) an improvement in decision-support models.

A notably missing element here is the need for anticipatory action strategies that prioritize long-term outcomes like resilience building and adaptation. Another gap in the literature is lessons and guidance on how to better implement anticipatory action and forecast-based humanitarian action in conflict situations (Wagner and Jaime 2020).

In 2021, the Anticipatory Action Task Force recommended five suggestions for scaling up anticipatory action to inform policy processes and determine principles for collaboration. The following year, in their global overview on anticipatory action, they determined there had been some progress but there continued to be significant gaps, including (i) flexible, coordinated and predictable financing for anticipatory action; (ii) investment in early warning and preparedness capacities, especially at local levels; (iii) applying anticipatory action to a wider variety of hazards; (iv) collective learning, coordination and partnerships, and; (v) mainstreaming anticipatory action into national disaster management systems (Anticipatory Action Task Force, 2023, 24–25).

Anticipatory action initiatives and associated finance mechanisms are becoming increasingly common, and there is an effort to expand anticipatory action globally for all types of emergencies and disasters in different political, geographical and cultural contexts. However, due to the challenges of conducting research in fragile and conflict affected states, the unpredictable nature of migratory movements among refugees and IDPs and the challenges of impact-based forecasting of slow-onset, rapid-onset, and complex emergencies, there is still a considerable gap in the literature on anticipatory action in host communities.

This rapid literature review has revealed a significant gap in the data on how anticipatory action is being or could be implemented in the context of host communities. This highlights the need for data and research on vulnerabilities in different types of host communities (in terms of infrastructure, legal restrictions and integration) and among different types of socioeconomic groups, including all categories of forcibly displaced people (for example, refugees and IDPs). This gap clearly demonstrates the need for further research and practical guidance in this technical area and the need for a datainformed and field-tested Integrated Host Community Vulnerability Framework to guide programming.

References

Adam-Bradford, A.; Drechsel, P. 2023. *Urban agriculture during economic crisis: Lessons from Cuba, Sri Lanka and Ukraine*. Policy Brief. Colombo, Sri Lanka: International Water Management Institute (IWMI). 8p. https://hdl.handle. net/10568/130288

Ahmed, B.; Rahman, S.; Sammonds, P.; Islam, R.; Uddin, K. 2020. Application of geospatial technologies in developing a dynamic landslide early warning system in a humanitarian context: the Rohingya refugee crisis in Cox's Bazar, Bangladesh. *Geomatics, Natural Hazards and Risk* 11(1): 446–468. https://doi.org/10.1080/19475705.2020.1730988

Alcántara-Ayala, I.; Oliver-Smith, A. 2019. Early warning systems: Lost in translation or late by definition? A FORIN approach. *International Journal of Disaster Risk Science* 10: 317–331. https://doi.org/10.1007/s13753-019-00231-3

Alexander, D. 2000. Confronting catastrophe: *New perspectives on natural disasters*. Oxford, UK: Oxford University Press. 288p.

Anticipation Hub. 2021. Climate change, disaster displacement and (anticipatory) humanitarian action: Challenges ahead. Anticipation Hub, August 26, 2021. Available at https://www.anticipation-hub.org/news/climate-change-disaster-displacement-and-anticipatory-humanitarian-action-challenges-ahead (accessed on November 22, 2023).

Anticipation Hub. 2023a. *Bangladesh country profile*. Available at https://www.anticipation-hub.org/experience/ anticipatory-action-in-the-world/bangladesh (accessed on November 23, 2023).

Anticipation Hub. 2023b. *Nigeria country profile*. Available at https://www.anticipation-hub.org/experience/anticipatory-action-in-the-world/nigeria (accessed on November 23, 2023).

Anticipatory Action Task Force. 2023. *Anticipatory action in 2022: A global review*. The Anticipation Hub. Available at https://www.anticipation-hub.org/Documents/Reports/Overview-Report_2022_WEB.pdf (accessed on November 22, 2023).

Balana, B.; Adeyanju, D.; Clingain, C.; Andam, K.; de Brauw, A.; Yohanna, I.; Olarawaju, O.; Schneider, M. 2023. Anticipatory cash transfers for climate resilience: Findings from a randomized experiment in northeast Nigeria. NSSP Working Paper 69. Washington, DC: International Food Policy Research Institute (IFPRI). 44p. https://doi.org/10.2499/p15738coll2.136812

Balsari, S.; Dresser, C.; Leaning, J. 2020. Climate change, migration, and civil strife. *Current Environmental Health Reports* 7(4): 404–414. https://doi.org/10.1007/s40572-020-00291-4

Chaves-Gonzalez, J.; Milano, L.; Omtzigt, D-J.; Pfister, D; Poirier, J.; Pople, A.; Wittig, J.; Zommers, Z. 2022. Anticipatory action: Lessons for the future. *Frontiers in Climate* 4: 932336. https://doi.org/10.3389/fclim.2022.932336

Clement, V.; Rigaud, K.K.; de Sherbinin, A.; Jones, B.; Adamo, S.; Schewe, J.; Sadiq, N.; Shabahat, E. 2021. *Groundswell part 2: Acting on internal climate migration*. Washington, DC: World Bank. Available at http://hdl.handle.net/10986/36248 (accessed on November 22, 2023).

Cook, D.B.; Foo, Y.N. 2019. Towards 'shared' and 'complex' disaster governance in Bangladesh: The 2017 Rohingya exodus. *International Journal of Disaster Risk Reduction*. 39 (2). https://doi.org/10.1016/j.ijdrr.2019.101233

Cotroneo, A.; Pawlak, M. 2016. Community-based protection: the ICRC approach. *Forced Migration Review* 53. Available at https://www.fmreview.org/sites/fmr/files/FMRdownloads/en/community-protection/cotroneo-pawlak.pdf (accessed on November 22, 2023).

Coughlan de Perez, E.; Berse, K.; Depante, L.A.C.; Easton-Calabria, E.; Evidente, E.P.R.; Ezike, T.; Heinrich, D.; Jack, C.; Lagmay, A.M.F.A.; Lendelvo, S.; Marunye, J.; Maxwell, D.G.; Murshed, S.B.; Orach, C.G.; Pinto, M.; Poole, L.B.; Rathod, K.; Shampa.; Van Sant, C. 2022. Learning from the past in moving to the future: Invest in communication and response to weather early warnings to reduce death and damage. *Climate Risk Management* 38. https://doi.org/10.1016/j. crm.2022.100461

de Boer, J. 2015. Resilience and the fragile city. *Stability: International Journal of Security and Development* 4 (1):1–7. http://doi.org/10.5334/sta.fk

de la Poterie, A.T.; Castro, E.; Rahaman, H.; Heinrich, D.; Clatworthy, Y.; Mundorega, L. 2023. Anticipatory action to manage climate risks: Lessons from the Red Cross Red Crescent in Southern Africa, Bangladesh, and beyond. *Climate Risk Management* 39. https://doi.org/10.1016/j.crm.2023.100476

DRKMC (Disaster Risk Management Knowledge Centre). 2022. *INFORM Risk Index*. Brussels, Belgium: Joint Research Centre. Available at: https://drmkc.jrc.ec.europa.eu/inform-index/ INFORM-Risk/Results-and-data/ moduleId/1782/ id/433/controller/Admin/ action/Results (accessed on November 22, 2023).

Easton-Calabria, E. 2022. *Trauma-informed anticipatory action: Considerations for refugees and other displaced populations*. Tufts University, Medford MA: Feinstein International Center. Available at: https://fic.tufts.edu/wp-content/uploads/Trauma-Informed-AA-final2022-9-29.pdf (accessed on November 22, 2023).

Easton-Calabria, E., Jaime, C.; Shenouda, B. 2022. *Anticipatory action in refugee and IDP camps: Challenges, opportunities, and considerations*. Red Cross Red Crescent Climate Centre (RCCC) Brief. Available at https:// reliefweb. int/report/world/anticipatory-action-refugee-and-idp-camps-challenges-opportunities-and-considerations (accessed on November 22, 2023).

FAO (Food and Agriculture Organization of the United Nations); WFP (World Food Programme). 2023. FAO-WFP anticipatory action strategy scaling up anticipatory actions to prevent food crises. Rome, Italy: Food and Agriculture Organization of the United Nations (FAO). Available at https://www.fao.org/3/cc7635en/cc7635en.pdf (accessed on November 22, 2023).

Gallant, A. 2022. A note of warning blog 3: Warnings for displaced people. United College of London: Warning Research Centre. Available at https://blogs.ucl.ac.uk/warning-research-centre/2022/10/13/a-note-of-warning-blog-3-warnings-for-displaced-people/ (accessed on November 22, 2023).

Garritty, C.; Gartlehner, G.; Nussbaumer-Streit, B.; King, V.J.; Hamel, C.; Kamel, C.; Affengruber, L.; Stevens, A. 2021. Cochrane Rapid Reviews Methods Group offers evidence-informed guidance to conduct rapid reviews. *Journal of Clinical Epidemiology* 130: 13–22. https://doi.org/10.1016/j.jclinepi.2020.10.007

George, J.; Adelaja, A. 2022. Armed conflicts, forced displacement and food security in host communities. *World Development* 158. https://doi.org/10.1016/j.worlddev.2022.105991

Grayson, C.L.; Cotroneo, A. 2018. *Displaced in cities: Experiencing and responding to urban internal displacement outside camps*. Geneva Switzerland: International Committee of the Red Cross. Available at https://www.icrc.org/en/publication/4344-displaced-cities-experiencing-and-responding-urban-internal-displacement-outside. Available at https://www.icrc.org/en/publication/4344-displaced-cities-experiencing-and-responding-urban-internal-displacement-outside (accessed on November 22, 2023).

IFRC (International Federation of the Red Cross). 2020. *Come heat or high water: Tackling the humanitarian impacts of climate crisis together*. World Disasters Report. Geneva, Switzerland: International Federation of the Red Cross. Available at: https://www.ifrc.org/world-disasters-report-2020 (accessed on November 23, 2023).

IFRC. 2021. *IFRC operational framework for anticipatory action 2021-2025*. Geneva, Switzerland: International Federation of the Red Cross. Available at: https://www.ifrc.org/document/operational-framework-anticipatory-action-2021-2025 (accessed on November 23, 2023).

IFRC. 2022. Simplified early action protocol for floods in Nigeria. Geneva, Switzerland: International Federation of the Red Cross. Available at: https://www.anticipation-hub.org/Documents/EAPs/EAP2022NG01-simplified-early-action-protocol-nigeria-floods.pdf (accessed on November 23, 2023).

IFRC; RCCC (Red Cross Red Crescent Climate Centre). 2020. *Forecast-based financing and disaster displacement: Acting early to reduce the humanitarian impacts of displacement*. Geneva, Switzerland: International Federation of the Red Cross. Available at https://www.forecast-based-financing.org/wp-content/uploads/2020/10/RCRC_IFRC-FbF-and-Displacement-Issue-Brief.pdf (accessed on November 22, 2023).

IPCC (Intergovernmental Panel on Climate Change). 2022. Climate change 2022: *Impacts, adaptation and vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, (eds.) Pörtner, H.-O.; Roberts, D.C.; Tignor, M.; Poloczanska, E.S.; Mintenbeck, K.; Alegría, A.; Craig, M.; Langsdorf, S.; Löschke, S.; Möller, V.; Okem, A.; Rama, B. Cambridge, UK, and New York, USA: Cambridge University Press. 3056p. https://doi.org/10.1017/9781009325844

IOM (International Organization for Migration). 2019. *Glossary on migration*. International Migration Law 34. Geneva, Switzerland: International Organization for Migration. Available at: https://publications.iom.int/system/files/pdf/iml_34_glossary.pdf (accessed on November 23, 2023).

IOM. 2023. Record number of 60.9 million internal displacements in 2022. IDMC Report. Geneva, Switzerland: International Organization for Migration. Available at: https://www.iom.int/news/record-number-609-million-internaldisplacements-2022-idmc-report (accessed November 23, 2023).

Jayakody, C.; Malalgoda, C.; Amaratunga, D.; Haigh, R.; Liyanage, C.; Witt, E.; Hamza, M.; Fernando, N. 2022. Approaches to strengthen the social cohesion between displaced and host communities. *Sustainability* 14. https://doi.org/10.3390/su14063413 Kamal, M.A.S.M.; Hossain, F.; Ahmed, B.; Sammonds, P. 2022. Analyzing the 27 July 2021 rainfall-induced catastrophic landslide event in the Kutupalong Rohingya Camp in Cox's Bazar, Bangladesh. *Geoenvironmental Disasters* 9(17). https://doi.org/10.1186/s40677-022-00219-0

Kurdi, S.; Ruckstuhl, S. 2023. Crisis resilience: Humanitarian response and anticipatory action. In: International Food Policy Research Institute (ed.) *Global food policy report 2023: Rethinking food crisis responses*. Washington, DC: International Food Policy Research Institute (IFPRI). pp.36–43. https://doi.org/10.2499/9780896294417

Lewis, N.; Herwanger, N. (2022). Quantifying displacement in urban disaster contexts. *Forced Migration Review* 69. Available at https://www.fmreview.org/sites/fmr/files/FMRdownloads/en/climate-crisis/lewis-herwanger.pdf (accessed on November 22, 2023).

Mabiso, A.; Maystadt, J-F.; Vandercasteelen, J.; Hirvonen, K. 2014. Resilience for food security in refugee-hosting communities. In: Shenggen, F.; Pandya-Lorch, R.; Yosef, S. (eds.) *Resilience for food and nutrition security*. Washington, DC: International Food Policy Research Institute (IFPRI). http://dx.doi.org/10.2499/9780896296787

Mendola, D.; Pera, A. 2022. Vulnerability of refugees: Some reflections on definitions and measurement practices. *International Migration* 60: 108–121. https://doi.org/10.1111/imig.12942

Moser, P. 2021. Acting before the flood. An anticipatory humanitarian action pilot in Bangladesh. Geneva, Switzerland: United Nations Office for the Coordination of Humanitarian Affairs (OCHA). Available at https://reliefweb.int/report/ bangladesh/acting-flood-anticipatory-humanitarian-action-pilot-bangladesh-march-2021 (accessed on November 22, 2023).

Nnadi, G. O.; Ezeani, P.; Emmanuel, O.; Nnadi; Chinedu, H. 2020. The National Emergency Management Agency (NEMA) and the challenge of effective management of internally displaced persons in North Eastern Nigeria. *IOSR Journal of Humanities and Social Science* (IOSR-JHSS) 25(5): 14-27. DOI: 10.9790/0837-2505071427

OCHA (United Nations Office for the Coordination of Humanitarian Affairs). 2023. OCHA's strategic plan 2023–2026: transforming humanitarian coordination. Geneva, Switzerland: UN Office for the Coordination of Humanitarian Affairs. Available at https://www.unocha.org/publications/report/world/ochas-strategic-plan-2023-2026-transforminghumanitarian-coordination (accessed on November 22, 2023).

OCHA. n.d. *What are the first steps*? Geneva, Switzerland: UN Office for the Coordination of Humanitarian Affairs Services. Available at https://anticipatory-action-toolkit.unocha.org/first-steps/ (accessed on November 22, 2023).

OECD (Organisation for Economic Co-operation and Development). 2022. *States of fragility 2022*. Available at https://www.oecd-ilibrary.org/sites/c7fedf5e-en/index.html?itemId=/content/publication/c7fedf5e-en (accessed on November 23, 2023).

Okai, A. 2022. Women are hit hardest in disasters, so why are responses to often gender-blind? New York: United Nations Development Programme. Available at https://www.undp.org/blog/women-are-hit-hardest-disasters-so-why-are-responses-too-often-gender-blind (accessed on November 22, 2023).

OSCDS (Office of the Special Coordinator for Development in the Sahel); UNHCR (United Nations High Commissioner for Refugees). 2022. *Moving from reaction to action: Anticipating vulnerability hotspots in the Sahel. A synthesis report from the Sahel predictive analytics project in support of the United Nations integrated strategy for the Sahel.* Dakar, Senegal: Office of the Special Coordinator for Development in the Sahel (OSCDS). Available at https://unis-sahel.org/2022/11/02/ sahel-predictive-analytics-report-moving-from-reaction-to-action-anticipating-vulnerability-hotspots-in-the-sahel-in-support-of-uniss/ (accessed on November 22, 2023).

Peters, K.; Weingärtner, L.; Mall, P.; Balcou, C. 2022. *Anticipatory action in the MENA region: State of play and accelerating action*. Rome, Italy: World Food Programme. Available at https://www.wfp.org/publications/anticipatory-action-mena-region-state-play-and-accelerating-action (accessed on November 22, 2023).

Pichon, F. 2019. Anticipatory humanitarian action: What role for the CERF? Moving from rapid response to early action. London, United Kingdom: Overseas Development Institute. 44p. (ODI Working Paper 551). Available at https://cerf. un.org/sites/default/files/resources/ODI_Early_Action_Study.pdf (accessed on November 22, 2023).

Sample, E. 2021. An assessment of the risk of mass atrocities in Uganda. International Order and Conflict. Washington, DC: The Stimpson Center. Available at https://www.stimson.org/wp-content/uploads/2021/10/An-Assessment-of-the-Risk-of-Mass-Atrocities-in-Uganda.pdf (accessed on November 22, 2023).

Sida, L.; Schenkenberg, E. 2019. Synthesis of Rohingya response evaluations of IOM, UNICEF and UNHCR. New York: UNHCR; Grand-Saconnex, Switzerland: IOM and New York: United Nations Children's Fund (UNICEF). Available at https://www.unhcr.org/sites/default/files/legacy-pdf/5e453ea64.pdf (accessed on November 22, 2023).

Thalheimer, L.; Simperingham, E.; Jjemba, E.W. 2022. The role of anticipatory humanitarian action to reduce disaster displacement. *Environmental Research Letters* 17(1). 11p. https://doi.org/10.1088/1748-9326/ac4292

UN (United Nations). 2001. *Report on the world social situation, social and human rights questions: Social development*. New York: United Nations Division of Social Policy and Affairs. Available at https://www.un.org/development/desa/dspd/world-social-report/2001-report-on-the-world-social-situation.html (accessed on November 22, 2023).

UNDRR (United Nations Office for Disaster Risk Reduction). 2016. *Sendai framework terminology on disaster risk reduction*. Geneva, Switzerland: United Nations Office for Disaster Risk Reduction (UNDRR). Available at https://www.undrr.org/terminology (accessed on November 23, 2023).

UNDRR. 2020. *Hazard definition and classification review: Technical report*. Geneva, Switzerland: United Nations Office for Disaster Risk Reduction. Available at https://www.undrr.org/publication/hazard-definition-and-classification-review-technical-report (accessed on November 23, 2023).

UNHCR (United Nations High Commissioner for Refugees). n.d. *UNHCR master glossary of terms*. Geneva, Switzerland: United Nations High Commissioner for Refugees. Available at https://www.unhcr.org/glossary#:~:text=A%20refugee%20 is%20defined%20as,to%20the%20Status%20of%20Refugees) (accessed on November 23, 2023).

UNHCR. 2017. *Needs assessment handbook*. Geneva, Switzerland: United Nations High Commissioner for Refugees. Available at: https://emergency.unhcr.org/sites/default/files/UNHCR%20Needs%20Assessment%20Handbook.pdf (accessed on November 22, 2023).

UNHCR. 2018. *Global compact on refugees*. Geneva Switzerland: United Nations High Commissioner for Refugees. Available at: https://www.unhcr.org/media/global-compact-refugees-booklet (accessed on November 23, 2023).

UNHCR. 2022. *Global trends in forced displacement* 2022. Geneva, Switzerland: United Nations High Commissioner for Refugees. Available at: https://www.unhcr.org/global-trends-report-2022 (accessed on November 23, 2023).

UNHCR. 2023a. *Refugee data finder*. Geneva, Switzerland: United Nations High Commissioner for Refugees. Available at: https://www.unhcr.org/refugee-statistics/#:~:text=At%20the%20end%200f%202022,below%2018%20years%20 of%20age.&text=Between%202018%20and%202022%2C%20an,born%20as%20refugees%20per%20year (accessed on November 23, 2023).

UNHCR. 2023b. *Nigerian refugees in Chad, Cameroon and Niger*. Geneva, Switzerland: United Nations High Commissioner for Refugees. Available at: https://data.unhcr.org/en/situations/nigeriasituation (accessed on November 23, 2023).

Wagner, M.; Jaime, C. 2020. An agenda for expanding forecast-based action to situations of conflict. Berlin, Germany: Global Public Policy Institute and The Hague, Netherlands: Red Cross Red Crescent Climate Centre. Available at https://www.gppi.net/media/Wagner_Jaime_2020_Forecast-Based-Action-in-Conflicts.pdf (accessed on November 22, 2023).

Weingärtner, L.; Pforr, T.; Wilkinson, E. 2020. *The evidence base on anticipatory action*. Rome, Italy: World Food Programme. Available at https://www.wfp.org/publications/evidence-base-anticipatory-action (accessed on November 22, 2023).

WFP (World Food Programme). 2022. *Scaling up anticipatory actions for food security: Anticipatory action year in focus 2022*. Rome, Italy: World Food Programme. Available at https://www.wfp.org/publications/scaling-anticipatory-actions-food-security-anticipatory-action-year-focus-2022#:~:text=11%20April%202023-,Scaling%20up%20anticipatory%20 actions%20for%20food%20security,Action%20Year%20in%20Focus%202022&text=This%20report%20describes%20 how%20WFP,it%20came%20to%20weather%20shocks (accessed on November 22, 2023).

World Humanitarian Summit. 2016. *Commitments to action*. May 23-24, 2016. Istanbul: World Humanitarian Summit. Available at https://agendaforhumanity.org/sites/default/files/resources/2017/Jul/WHS_commitment_to_Action_8September2016.pdf (accessed on November 22, 2023).

Zaman, S.; Sammonds, P.; Ahmed, B.; Rahman, T. 2020, Disaster risk reduction in conflict contexts: Lessons learned from the lived experiences of Rohingya refugees in Cox's Bazar, Bangladesh. *International Journal of Disaster Risk Reduction* 50. https://doi.org/10.1016/j.ijdrr.2020.101694

Annex. Glossary.

Since 2016, the concept of the humanitarian-development nexus has been used in an effort to increase collaboration between organizations working in short-term humanitarian relief and long-term international development. These two fields are laden with context-specific terms. This glossary provides definitions for terms relevant across the humanitarian-development-nexus space. While in some cases there are multiple definitions in use in this community of practice, these are the definitions we choose to use in this paper. The authors welcome continued discussion about the merits of these definitions as practices continue to evolve and improve.

Anticipatory Action: Actions taken to prevent or mitigate potential disaster impacts before a shock or before acute impacts are felt. These actions are carried out in anticipation of a hazard impact and based on a prediction of how the event will unfold. It is increasingly recognized as part of the solution to reducing the impacts of climate change and extreme weather events (IFRC 2020).

Disaster: The manifestation of hazards in the form of "a serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic or environmental losses and impacts" (UNDRR 2020).

Disaster Risk Reduction: The policy objective of disaster risk management which is aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development (UNDRR 2016).

Disaster Risk Management: The application of disaster risk reduction policies and strategies to prevent new disaster risk, reduce existing disaster risk, manage residual risk and strengthen resilience and reduction of disaster losses (UNDRR 2016).

Early Action: Actions taken in response to a trigger or threshold but before an emergency fully materializes. They are intended to mitigate the impact of a crisis or improve the response (Pichon 2019).

Early Warning: The provision of timely and effective information through identified institutions that allow individuals, responders and decision-makers exposed to a hazard to take action to avoid or reduce risks and prepare for an effective response (Pichon 2019).

Fragility: The combination of exposure to risk and insufficient coping capacities of the state, system or communities to manage, absorb or mitigate those risks (OECD 2022).

Forced Displacement: The movement of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular, as a result of or to avoid the effects of armed conflict, situations of generalized violence, violations of human rights, natural hazards or human-made disasters (IOM 2019).

Hazard: A process, phenomenon or human activity that may cause loss of life, injury or health impacts, property damage, social and economic disruption or environmental degradation. Hazard clusters may be (i) meteorological and hydrological, (iii) geohazards, (iv) environmental, (v) chemical, (vi) biological, (vii) technological, and (viii) societal (UNDRR 2020).

Host Community: The country of asylum or the local, regional and national governmental, social and economic structures and physical space within which refugees or internally displaced persons live. Host communities include displaced persons, community members and residents who preceded the arrival of displaced persons. Host communities can be urban, peri-urban or rural.

Internally Displaced Persons: Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular, as a result of or to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized border (UNHCR n.d.).

Migrant: An umbrella term, not defined under international law, reflecting the common lay understanding of a person who moves away from his or her place of usual residence, whether within a country or across an international border, temporarily or permanently, and for a variety of reasons. The term includes a number of well-defined legal categories of people, such as migrant workers; persons whose particular types of movements are legally defined, such as smuggled migrants; as well as those whose status or means of movement are not specifically defined under international law, such as international students (IOM 2019).

Migration: The movement of persons away from their place of usual residence, either across an international border or within a state (IOM 2019).

Refugee: A person who has fled war, violence, conflict, persecution or a natural or human-made disaster and has crossed an international border to find safety in another country (UNHCR n.d.).

Vulnerability: A condition brought about by physical, social, economic, environmental and political factors or processes that increase the susceptibility of a community or individuals to shocks or hazards. The term describes a person or group's inability to anticipate, cope with, resist and recover from the impact of natural or human-made shocks or hazards. Vulnerability is defined in relation to a specific hazard or shock (IPCC 2022).

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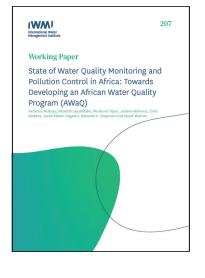
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