Famine Prevention:
A Landscape Report

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Daniel Maxwell, Paul Howe, and Merry Fitzpatrick

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Cover photo *Hands holding edung, wild food in Turkana, Kenya* by Joyce Maxwell

Corresponding author: Daniel Maxwell

Corresponding author email: daniel.maxwell@tufts.edu

Feinstein International Center

75 Kneeland Street, 8th Floor
Boston, MA 02111 USA
Tel: +1 617.627.3423
Twitter: @FeinsteinIntCen
fic.tufts.edu

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Acronyms

CERF	Central Emergency Response Fund
FAM	Famine Early Action Mechanism
FAO	Food and Agriculture Organization
FbF	Forecast-based financing
FCDO	Foreign Commonwealth and Development Office
FEWS NET	Famine Early Warning System Network
G7	Group of Seven
HLTF	High-Level Task Force
HRP	Humanitarian Response Plan
HSNP	Hunger Safety Net Programme
IAC	International Armed Conflict
ICC	International Criminal Court
ICL	International Criminal Law
ICRC	International Committee of the Red Cross
IDP	Internally displaced person
IFRR	Integrated Famine Risk Reduction
IHL	International Humanitarian Law
IPC	Integrated Food Security Phase Classification
NGO	Non-governmental organization
NIAC	Non-International Armed Conflict
OCHA	Office for the Coordination of Humanitarian Affairs
PIN	Population in need
PSNP	Productive Safety Net Programme
RTM	Real-time monitoring
TPLF	Tigray People's Liberation Front
UN	United Nations
UNSC	United Nations Security Council
UNSCR	United Nations Security Council Resolution
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WFP	World Food Programme

Introduction

Problem Statement

Preventing famine and the most severe food insecurity and malnutrition outcomes in humanitarian crises is a particularly urgent priority in contemporary humanitarian action. Famine had diminished somewhat as a concern before 2011, and for a while it wasn't clear if the Somalia famine that year was just a rare outlier. But by 2023, it is clear that famine, mass starvation, and the use of starvation as a weapon of war have once again become major risks to populations and require renewed policy and program responses. In 2016–17, there were four countries on the famine-risk list, and at least two instances of actual famine were noted. Regions currently on the famine-risk watch include Yemen, South Sudan, Northeastern Nigeria, and Northern Ethiopia (Tigray), as well as the Eastern Horn of Africa, including Somalia and parts of Southern Ethiopia and Northern Kenya. The Famine Review Committee for Integrated Food Security Phase classification (IPC) was mobilized three times between late 2020 and late 2021 (for Yemen, South Sudan, and Tigray) and three more times between late 2021 and late 2022 (Yemen again and twice for Somalia). Famine had been projected for Somalia by April–June 2023, but then the projection was downgraded, without the famine thresholds having been crossed.

Moreover, the number of people caught in extreme acute food insecurity continues to climb every year, with the latest estimate being over 200 million in need of food assistance, and the number of people in Phase 4 according to IPC analysis reaching an all-time high of nearly 45 million in 37 countries, or over 20% of all people requiring immediate emergency food assistance globally. Nearly a million are in IPC Phase 5 (WFP and FAO 2022). While the causal factors are numerous, including conflict, climate change, and the longer-term impacts of the COVID-19 pandemic, the result is that the need for famine prevention has never been greater.

Recognizing this need, in recent years numerous initiatives have arisen in the policy arena to counter the risk of famine, ranging from the Group of Seven's (G7) famine prevention and humanitarian crises compact (FCDO 2021); Security Council discussions of the rising global food insecurity in relation to the war in Ukraine (WFP and FAO 2022); and the UN Secretary-General's "High-Level Task Force on Preventing Famine." There has also been an increased focus on accountability measures, including the passage of United Nations (UN) Security Council Resolution (UNSCR) 2417 in May 2018, noting the strong link between violent conflict and famine, and condemning the use of hunger as a weapon; a Global Rights Compliance Initiative project on Accountability for Mass Starvation (Global Rights Compliance n.d.); and the publication of several important academic works such as *Mass Starvation* (de Waal 2018b) and *Accountability for Mass Starvation* (Conley et al. 2022).

Major changes have also been introduced in the way the humanitarian community responds to acute food insecurity and acute malnutrition in emergencies, most notably the introduction of cash programming and the use of ready-to-use therapeutic foods and community-managed malnutrition approaches. But humanitarian response, while critical to slowing the processes driving the famine, is not enough. It is frequently late to arrive, and humanitarian access to at-risk populations is increasingly difficult—and frequently deliberately blocked by government, armed groups, or other political actors, including donors (Maxwell and Hailey 2020a).

However, we currently do not have a widely agreed and integrated approach to famine prevention that draws on these various developments and insights.

Objectives

The overall research objective is therefore to review what we have learned regarding policies and interventions to prevent famine, and how these can be scaled up more rapidly. The research objective can be considered in two parts. The first is about our changed technical understanding of famine dynamics and causal pathways, and the corresponding anticipatory actions that can be undertaken based on early warning information to prevent or mitigate the slide into famine.

The second part of the objective is about the politics of famine, the clear link between violent conflict and famine, and the range of accountability mechanisms and diplomatic approaches now available, such as UN Security Council Resolution 2417, international humanitarian law, humanitarian diplomacy, and conflict prevention. It is important to explore to what extent these mechanisms and approaches are effective and how they might be incorporated into a famine prevention strategy.

Methods

This study was based on two major methods of information collection and analysis. The first was a desk review of existing evidence—found in both peer-reviewed and "gray" literature—on famine and famine prevention. The second was a series of key informant interviews with a variety of stakeholders working on some aspect of famine prevention. Each of these is briefly described below.

Literature review. Literature reviewed was derived from two different searches: the Web of Science (only for peer-reviewed articles) and Google Scholar (which includes "gray" literature). The general term "famine prevention" was searched, with an emphasis on literature published since 2011. Then specific categories explored below were also searched. The resulting articles were ranked by relevance, and abstracts were reviewed. Finally, a select, limited

number of articles were reviewed in depth for inclusion and citation below. Overall, a total of about 250 articles, papers, and reports were quickly scanned for relevance and duplication, and a total of about 140 were reviewed in detail for inclusion here.[1] In the end, 109 are cited in this review. The themes selected for in-depth review are laid out below and helped to inform the key informant interview questions as well.

Key informant interviews. A total of 59 key informant interviews were conducted, with a total of 71 individuals interviewed. These were selected from a number of different professional fields, including academics and researchers (5), advocacy and accountability initiatives (5), donors (11 interviews, 31 individuals), early warning and information systems (11 interviews, 12 individuals), and practitioners (27 interviews, 28 individuals). Practitioners were drawn from UN agencies, non-governmental organizations (NGOs), other humanitarian or disaster risk reduction (DRR) agencies, and local or national government. Both traditional humanitarians as well as practitioners from the peace-building community were included. These informants were also selected by geographic area of expertise, including global overviews and specific expertise in East Africa (South Sudan, Somalia, Kenya, and Ethiopia), West Africa (Nigeria and the Sahel), and Middle East/Asia (Yemen and Afghanistan). The major current areas of famine risk were therefore covered.

Interviews were not recorded, but detailed notes were taken during the interview, and interview transcripts were entered into NVivo (V.12.7.0) for computer-assisted coding and analysis. For triangulation purposes, interviews were also coded by hand using the same codes and coding tree as the NVivo analysis. Analysis of technical/programmatic interventions and accountability/diplomacy interventions were conducted separately before the analyses were merged below. Two internal reviews were then conducted prior to finalizing the report. The coding tree used for analysis is in Annex 1.

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[1] With a team of several research assistants, keeping track of the total number of articles scanned or reviewed was difficult.

Informal famine database. A total of 28 recent and historic famine and near-famine events were analyzed in detail and consolidated into an informal database consisting of two parts. The first part was summarized in an Excel spreadsheet and involved detailed coding of the famine and near-famine events for eight broad categories (i.e., classification of crisis, magnitude, severity, sectoral dimensions, spatial dimensions, temporal dimensions, context, and dynamics) broken down into over 150 individual variables. A code book was developed, training was provided to the research assistants involved in the coding process, and checks were built in for quality control. The second part consisted of accompanying narratives for each event that provided a complementary description of the evolution of the crises and the famine prevention measures employed. For the purposes of this study,[2] the database has been used to: 1) test the applicability of the famine systems model across a range of events as a means to understand trajectories into famine; 2) provide insight into the political challenges, especially the competing priorities, that have been involved in famine and near-famine events; and 3) identify (and triangulate key informant views on) famine prevention strategies.

Definition of famine

Adopting a widely recognized definition of famine is central to preventing, responding to, and generating accountability for famine. As noted by Howe and Devereux, "Disagreements over terminology and concepts have made it difficult for observers—governments, donors, and the media—to identify whether a famine is occurring, or is likely to occur, creating uncertainty about the appropriate nature, timing and sale of response" (Howe and Devereux 2006, 28). But there are numerous definitions of famine. The most commonly used definition is that of the IPC. Over the past decades, scholars and practitioners have worked to develop definitions that might more adequately help trigger early action, response, and/or accountability for famine.

These can be found in Annex 2. The definitions adopted for this study are below.

IPC definition. The Integrated Food Security Phase Classification (IPC) defines famine as "an extreme deprivation of food. Starvation, death, destitution, and extremely critical levels of acute malnutrition are or will likely be evident" (IPC n.d.). Though used to classify famines, the IPC scale itself measures food insecurity through five increasingly severe phases, 1 being none/minimal and 5 being catastrophe/famine. Famine or IPC Phase 5, being the most severe classification, is defined (for an area with at least a population of 10,000) as having "at least 20% of households facing an extreme lack of food, at least 30% of children suffering from acute malnutrition (wasting), and a minimum of two people for every 10,000 die each day due to outright starvation or to the interaction of malnutrition and disease" (IPC n.d.)

Definition adopted for this paper. For crises since the establishment of the IPC in 2004, this paper adopts this widely accepted technical definition of famine. However, acknowledging some of the IPC definition's limitations, it will also attempt to note not only the dimension of severity but also the differences in magnitude (Howe and Devereux 2006) and durations of the crises—whether or not IPC thresholds are breached (Maxwell et al. 2020a)—as well as the spatial dimensions of the crisis and the likelihood of subpopulations whose conditions may be "lost in aggregation"[3] (Seal et al. 2021). In terms of historical famines where information on crude death *rates* or the prevalence of malnutrition is not readily available, this study follows the established convention of identifying famine by total mortality or by an abrupt spike in mortality related to food and nutrition causes.

In this context "famine prevention" takes on something of a double meaning. On one hand, famine prevention refers to the interventions that arrest the process of famine before it reaches the level of high levels of severe malnutrition and excess mortality (humanitarian response). But it also means the

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interventions that prevent or mitigate the shocks and stressors that lead to that level of suffering. And in the longer term, it refers to interventions that reduce vulnerability to famine in the first place—which is more about resilience and development programming. This report focuses on humanitarian interventions and includes resilience programming. The report also attempts to tackle some of the political causes of famine. A comprehensive famine prevention strategy would embrace all these strategies.

Structure of the report

The next section briefly reviews recent advances in our understanding of famine and famine theory, including typologies of famine and trajectories into famine. The third section contains the main analysis of famine prevention strategies, beginning with the technical and programmatic interventions and issues arising from the key informant interviews related to these; and then the more political approaches to famine prevention, including accountability mechanisms and humanitarian diplomacy initiatives. The fourth section is the discussion and conclusions from the combined literature review and interviews. The final section is discussion and recommendations.

Recent advances in understanding famine and famine theory

Typologies of famine

Various typologies of crisis have been suggested. Regarding food insecurity and famine, the most famous typologies have been based on either severity—specifically IPC or the Howe-Devereux scales (see below)—or on primary causation—specifically those caused by "natural disasters" (or at least triggered by natural hazards such as drought or flooding) and those caused by conflict or political failures. These have sometimes been referred to more graphically as "biblical" famines (i.e., "acts of god") versus complex emergencies (i.e., human-caused famines).

Most of the thinking about famine was heavily influenced by Malthus (Malthus 1993),[4] which attributed famine to growth in population outstripping the ability of agricultural production systems to keep pace or what Sen (Sen 1981) called "food availability decline" (FAD). Sen's famous contribution to both the theory and typology of famine was to demonstrate that famines are caused by the collapse of people's access to adequate food (which Sen labeled as "entitlements"), making the distinction between availability decline and entitlement decline the central thesis of his groundbreaking work.

Devereux built on this substantively (Devereux 2006) by describing our understanding of famines as a typology of "old famines" (climatic, environmental, and disease-related crises) in contrast to "new famines," (caused by market crashes and conflict, but also deliberate human decision making regarding the causation of famine or at least by ignoring the faminogenic aspects of other policy choices). This interpretation suggested a typology that consisted of "production failure" to "entitlement failure" (and given the widespread dependence on markets for food access in the 21st century, "market failure") to "response failure," a point echoed by

Maxwell and Majid (2016). In elaborating this understanding, Howe (2006) argues that crises occur because of competing priorities in a complex and globalized world. While the technical capability to prevent famines exists, it may not happen in practice because of the choices and trade-offs that various actors make in relation to other goals in a given situation. Work by de Waal built on this notion by emphasizing the accountability failure where it is not just a matter of technical capacity that fails, but also political capacity or will (de Waal 2018b).

Other work by de Waal and Whiteside (de Waal and Whiteside 2003) introduced "new variant" famines, highlighting the impact of Human Immuno-Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) both on underlying vulnerability to food insecurity during the AIDS epidemic as well as the way in which the epidemic undermined prevention and response capacity. This notion has fallen out of usage but may well return to help explain both the public health impacts and the knock-on effects of the COVID-19 pandemic. Numerous authors—for example Deng (1999)—highlight differences between localized crises and the impact of globalization and climate change; a difference suddenly magnified by the invasion of Ukraine in 2022 and the global impact of this war on food prices, as well as on energy and fertilizer prices (FAO 2022). And finally, the use of hunger or denial of access to food and water as a weapon of war has received additional attention in recent times (de Waal 1997; de Waal 2018b; Anei, de Waal, and Conley 2019; World Peace Foundation 2021).

This study did not adopt any particular typology, but in terms of prevention and mitigation interventions, there is a big difference between conflict-related famines and famines primarily caused by climatic or other natural hazards. But the truth is that almost without exception, contemporary famine or near-famine conditions are caused by the convergence of numerous factors, including all of the above.

4 Originally published in 1798.

Trajectories into famine

A major objective of the study of famine prevention is to discern common patterns across recent and historical cases regarding the trajectory into famine, and the means of disrupting those trajectories (and hence preventing or mitigating famine). Two recent articles shed some light on this issue but present somewhat different but complementary views. Both imply the need for mortality data to interpret trajectories, which is frequently a major problem in terms of data availability.

In his paper on "famine systems," Howe presents a theoretical model with five identifiable components or steps in the process leading into and out of famine (Howe 2018). In Howe's model, the initial *"pressure"* (causal factors combined with underlying vulnerabilities) puts a particular population in some degree of food insecurity and/or malnutrition, which would not lead to famine unless some *other* factor, labeled the *"hold,"* keeps that pressure or causal factor in place long enough for it to begin to force negative feedback loops between food consumption, livelihoods, malnutrition, and disease. Howe notes that these *"self-reinforcing dynamics"* (the third element) represent a "a pattern of accelerated and interrelated changes in key factors driving food insecurity and undernutrition," that may lead to the *"famine system"* itself—a notable spike in excess mortality (2018, 145). Finally, there is some *"rebalancing,"* which may be in the form of humanitarian assistance or when the removal of the "pressure" or "hold" leads to a reduction in mortality (Figure 1).

Figure 1. Howe's "Famine System" model.

Source: Howe 2018, 149
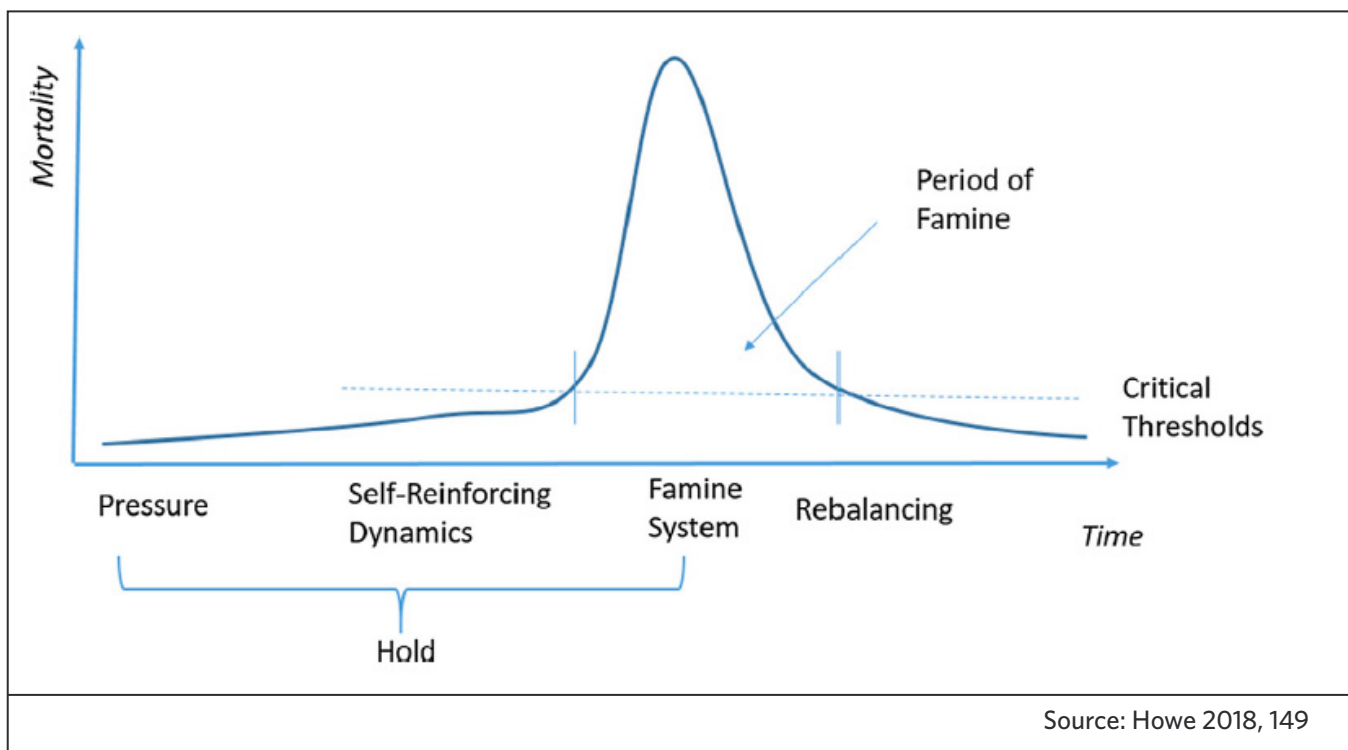
Maxwell et al. (Maxwell et al. 2020a) suggest another view that is partly compatible with Howe's model. While not attempting to specify a causal model, they noted three different "pathways" depicting the nature of observed descent into famine or near famine across several recent cases (Figure 2).

Figure 2. "Pathways" to famine.

IPC Phase 3
IPC Phase 4
IPC Phase 5

Famine Threshold

Time →

— "Cliff-edge"   — "Steady Deterioration"   — "Arrested Deterioration"

Source: Adapted from Maxwell et al. 2020
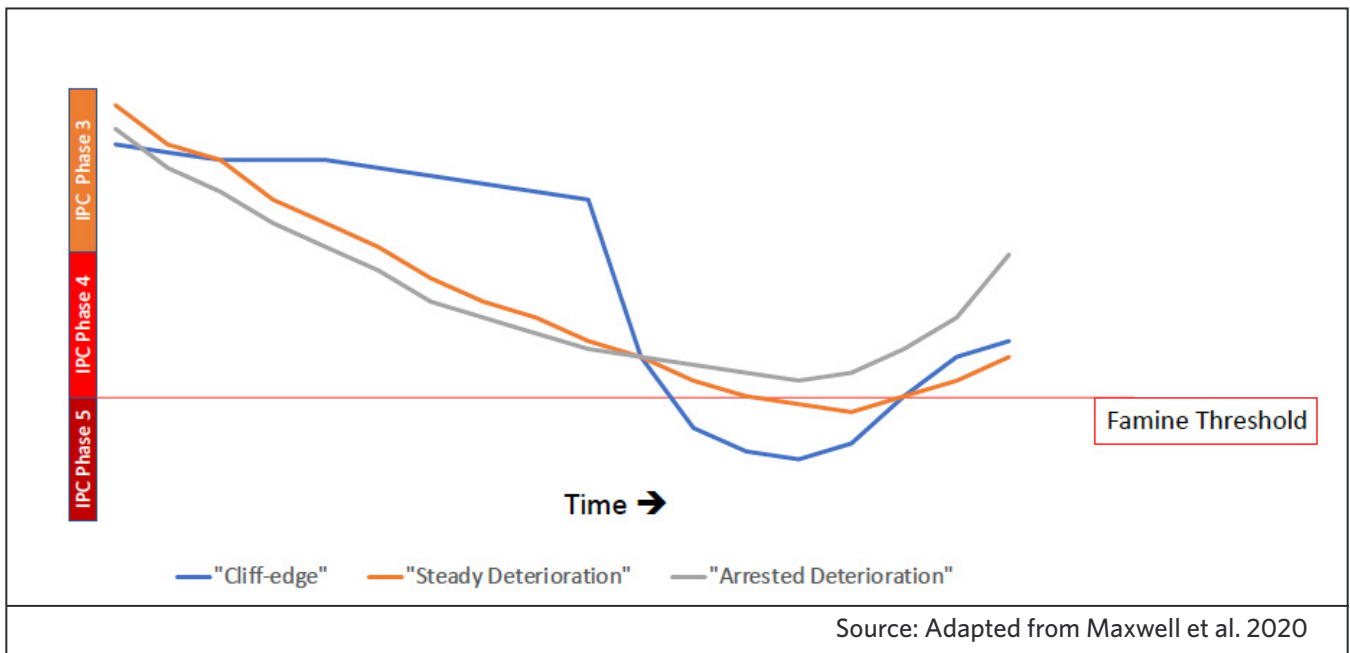
The "cliff-edge" pathway is what one might expect from a reading of Howe's model, in that it implies a pronounced spike in mortality and is based on the observation of the Somalia famine of 2011 (Figure 3). Indeed Somalia 2011 was one of the empirical cases on which Howe's model is based. Howe and Devereux (2004) noted a similar trajectory into famine in Bahr al-Ghazal in Sudan in 1998.

Figure 3. Excess deaths/month: Somalia 2010-2012.

Likely period of "famine system"

Period of declared famine

| 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 |
| 2010 | 2010 | 2010 | 2010 | 2011 | 2011 | 2011 | 2011 | 2011 | 2011 | 2011 | 2011 | 2011 | 2011 | 2011 | 2011 | 2012 | 2012 | 2012 |

Source: Author's graph, based on Maxwell and Majid 2016
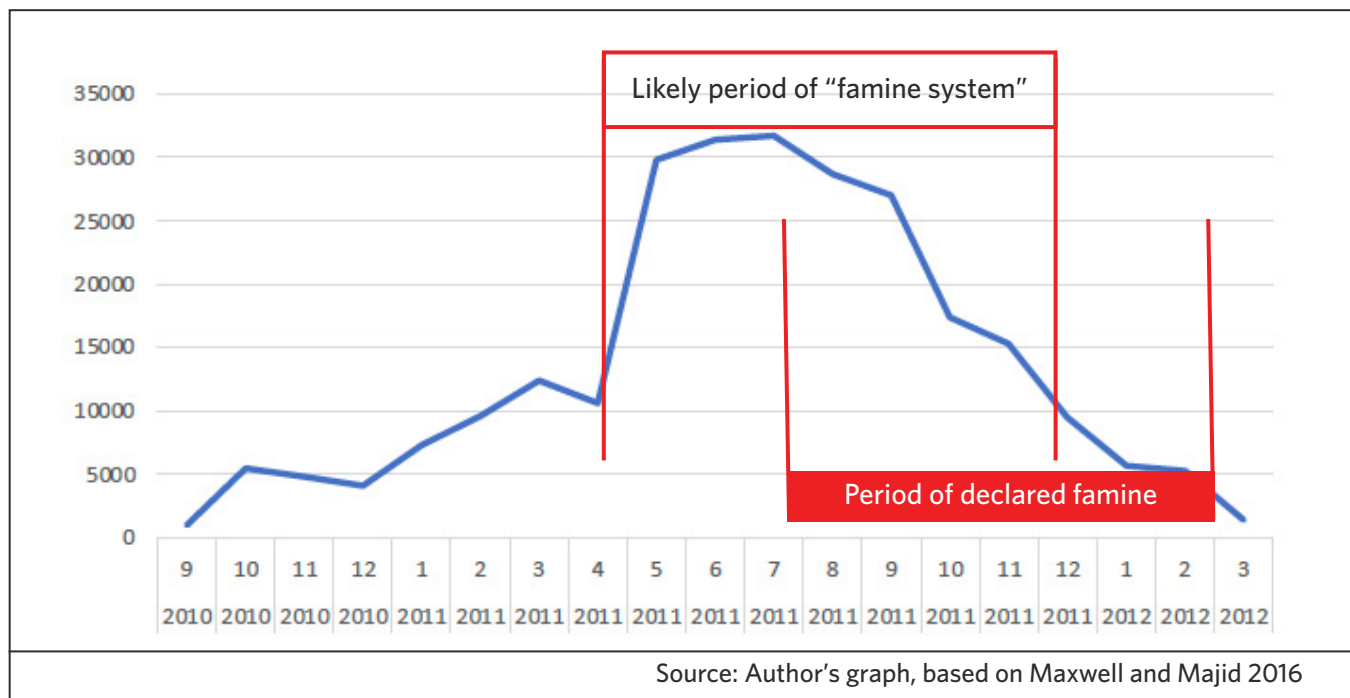
Other pathways suggest a more gradual deterioration into famine without the notable "cliff-edge" effect and a trajectory of "arrested deterioration" in which the worsening humanitarian conditions are reversed—either by factors occurring in the environment or through swift humanitarian action—before famine conditions are reached. In the famines or near-famine emergencies that have occurred since Somalia, the trajectories have appeared to be less of the "cliff edge" type and more like the other two—likely because whereas large-scale assistance was very late in reaching the most affected populations in 2011, more recent crises have seen somewhat earlier and more robust responses that either slowed or prevented the slide into famine.

A deeper reading of Howe's model could explain any of these trajectories, depending on the way in which the "hold" occurs or the point at which "rebalancing" intervenes. The paper (Howe 2018, 145) indicates: "[T]he emphasis is on explaining the pattern of elements that come together dynamically to generate these crises of various levels. In some cases, they will only create a 'crisis;' in others, if conditions are right and sustained, they will generate a 'famine.'" The trajectories in these less-clear-cut cases suggest that there is an interaction of factors that are both generating and suppressing the development of a famine. It is important to analyze what is happening in each of these cases. The analysis of 28 recent and historical famines and near famines suggests that their development was consistent with the model.

Figure 4. Under-five mortality in Somalia: 2016-2018

Source: Seal et al. 2021, e1289
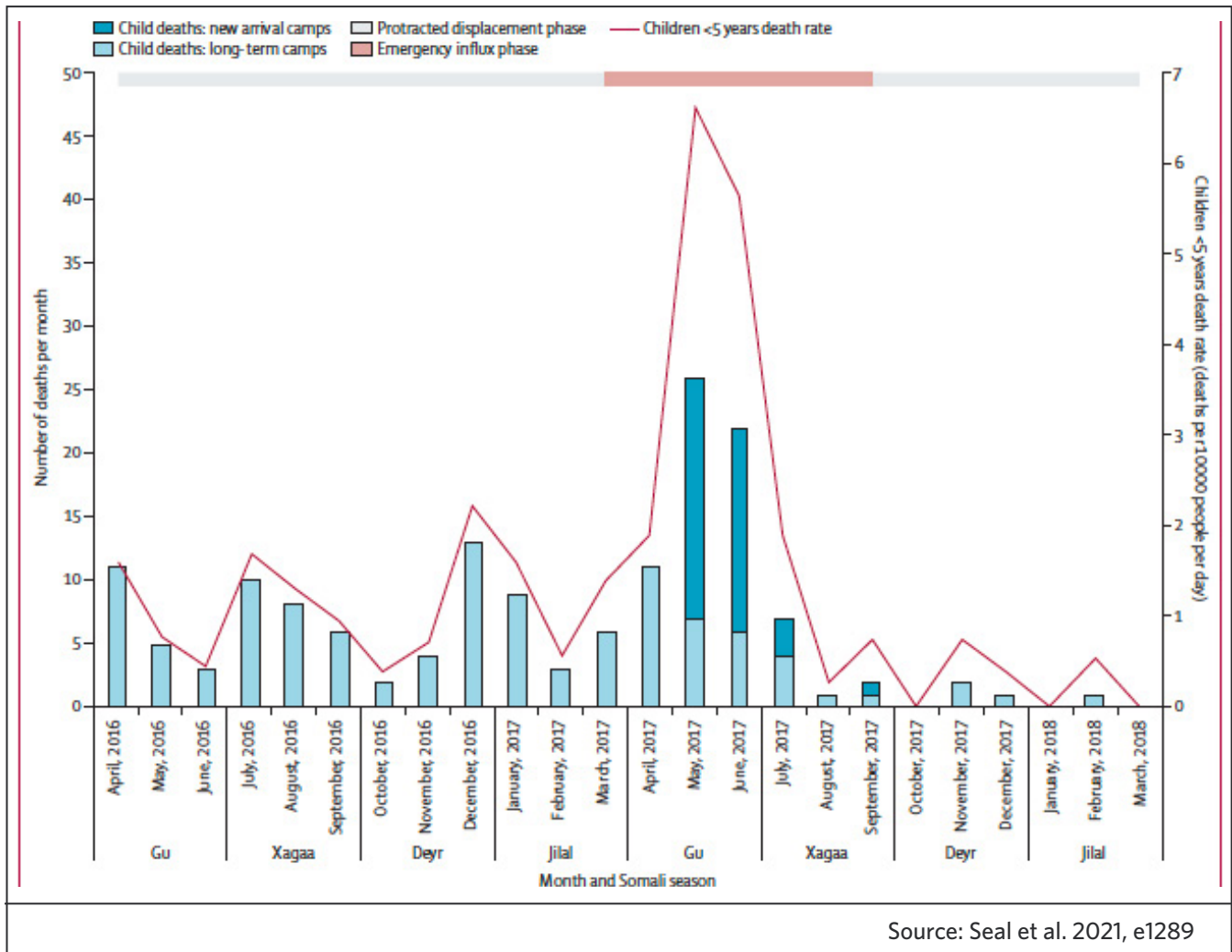
However, there are still many questions to be further explored. For example, work by Seal et al. (2021) notes that famine conditions (which surpass IPC thresholds) may be affecting specific subgroups, even if overall conditions in the population as a whole do not surpass the thresholds. Figure 4 shows the number and rate of children under the age of five dying in internally displaced people (IDP) camps in Somalia in the 2017 emergency there, which did not officially breach IPC famine thresholds. For the group of recently arrived IDPs, under-five mortality clearly was well in excess of IPC thresholds. That study did not collect information on food insecurity, so no firm judgment could be made about famine, but the point is that famine monitoring needs to take into account particularly at-risk subpopulations in addition to overall figures (IPC specifies a minimum population of 10,000 but doesn't specify the geographic concentration or dispersal of that population).

Part of the key informant interviews in this study focused on the question of trajectories into famine and the strategies that disrupt these trajectories—including for particularly marginalized or vulnerable groups.

Famine prevention strategies

Various means can be used to categorize interventions and strategies for famine prevention. This report breaks them out into two broad categories: technical/programmatic interventions and political accountability and humanitarian diplomacy mechanisms. The first section below reviews the technical/programmatic interventions. The second section below assesses the legal and political accountability mechanisms.

The technical/programmatic interventions include famine early warning, a number of different interventions that are broadly categorized as early or anticipatory action, and resilience programming or longer-term interventions that reduce the risk of famine. While important and relatively more straightforward to implement, it is also clear that technical interventions alone are insufficient to prevent famine, particularly in the context of violent conflict. Political interventions are reviewed in the second section below related to accountability and humanitarian diplomacy.

Technical responses and programmatic interventions to prevent famine

Context

Technical interventions to prevent or reduce the risk of famine are set in a long historical context. Traditionally, the primary means of responding to a food insecurity crisis was with food aid, which rarely arrived in time to prevent a crisis, although it sometimes could arrive in time to prevent mass mortality associated with famine. The Indian Famine Codes not only included some judicious use of food assistance, they also set up the first famine classification scheme and allowed for other measures such as price controls, freeing up controls on labor migration, and public employment schemes (Dreze and Sen 1989). These measures are in some ways still utilized, in terms of famine early warning, early or rapid response, resilience programming and risk reduction to prevent or reduce the shocks that lead to famine, and more recently, anticipatory action to mitigate a shock before it becomes a humanitarian crisis—let alone a famine (Maxwell, Lentz, Simmons et al. 2021).

This review primarily addresses interventions to prevent extreme food insecurity and malnutrition before they reach the famine thresholds, and therefore it does not delve deeply into the question of food assistance modalities such as in-kind food aid, cash, or other market-based forms of food assistance programming—except insofar as they are part of prevention and mitigation rather than response. However, it is clear—specifically with regard to cash transfer programs—that there is no clear dividing line between prevention, mitigation, and response. Cash transfers are an integral component of each of these. While this review does not delve deeply into the sectoral divides between specific interventions to improve food consumption and the details of nutrition, health, or water, sanitation and hygiene (WASH)—or other sectors that may be relevant to famine prevention in specific contexts (including protection, shelter, and camp management)—it is abundantly clear that interventions in all these areas are necessary to protect human life in famine or near-famine crises (Food Security, Health, Nutrition, and WASH Clusters 2021). This review focuses primarily on the intervention type, though sectors and modalities are touched upon. The focus here is on early warning and information systems; early and anticipatory action, including crisis modifiers, flexible funding measures including forecast-based financing, "no regrets" programming, the use of early action "triggers," and index-based insurance; shock-responsive social protection programs; and resilience programming. The following subsections are briefly devoted to each of these topics.

Early warning and information systems

Preventing famine relies on being able to detect, predict, and act before famine occurs. In other words, it is entirely reliant on good early warning. Famine early warning traces its roots to the Indian Famine Codes but its modern incarnation was begun mostly in follow-up to the Sahel drought emergency of the mid-1970s (Walker 1990).

When in-kind food aid was the predominant form of famine response, early warning was critical to provide enough advance warning of a pending disaster to enable the purchase, packaging, shipment, in-country transportation, and final delivery of food aid, a process that on average took about five months (Barrett and Maxwell 2005). The United States Agency for International Development (USAID)-funded Famine Early Warning System (FEWS, or FEWS NET, as it was later branded) was

begun in 1985, and has grown into a global network of reporting offices and partnerships that regularly monitors famine risk in some 38 countries. FEWS NET monitors global trends more broadly than just those countries (FEWS NET n.d.). FEWS NET relies on an eight-step "scenario-development" process that defines current status and reviews possible immediate causal factors to develop its early warning forecasts and projects the most likely future status in the countries it closely monitors (Hillbruner and Speca 2018).

In addition to FEWS NET, the other primary global source for food security and nutrition analysis is the Integrated Food Security Phase Classification (IPC) system, a global partnership hosted by the UN Food and Agriculture Organization (FAO), that coordinates integrated analyses of acute food insecurity and malnutrition (IPC 2021). An analytically identical protocol, *Cadre Harmonisé*, is used in West Africa and the Sahel. Numerous other national and regional early warning systems exist as well.

In general, famine early warning has worked reasonably well. There has rarely been an emergency of even small scale or medium severity that has come as a complete surprise. Several rigorous reviews of FEWS NET's predictive skill have been conducted in recent years (Choularton and Krishnamurthy 2019; Backer and Billing 2021). FEWS NET's regular, formal forecasting combined with regular current-status updates enables a formal analysis of accuracy. Choularton and Krishnamurthy (2019) found FEWS NET predictions for Ethiopia over a period of seven years (2011–17) were accurate 78% of the time, though some geographic locations and some climatic conditions were less accurate. They note that overall, the frequency with which the forecasted levels of food insecurity are overestimated (i.e., forecast conditions were *worse* than what actually happened), which Choularton and Krishnamurthy label "false pessimism," occur at about the same frequency as "false optimism," in which the forecast is less severe than the actual status observed. False optimism may mean that a crisis is missed and therefore sufficient resources may not be allocated to it; false pessimism may mean that (scarce) resources are misallocated to populations with potentially less need than the resources allocated warrant or at the expense of other populations with greater need.

Backer and Billing (2021) conducted a similar analysis of 25 countries over a longer period of time and found FEWS NET's forecasts proved accurate 84% of the time, but that the accuracy drops off at the higher (more food-insecure) end of the IPC scale. The rare projections of famine (Phase 5) turn out to be correct only 29% of the time. But it should be stressed that the allocation of famine-prevention resources—including humanitarian food assistance but, critically, other interventions such as WASH, health, and nutrition—is precisely what early warning is for. In other words, if predictions of Phase 5 do not turn out to be accurate, it is *at least partly because early warning works the way it is intended to*, mobilizing resources for mitigation and response in time to prevent the worst outcomes. But the second and more important point is that early warning—when done properly—is not a static, one-off forecast that projects the next four to eight months that then closes down until the next forecast is due. Early warning is, by definition, a continuous activity between these formal forecasts, and can always issue special bulletins and updates as highly dynamic situations change. Analyzing the accuracy of early warning *solely* on the basis of these four-month or eight-month outlooks partially misses the point of early warning (Lentz et al. 2020b).

Several outstanding issues with early warning were highlighted by Maxwell and Hailey (2020a) and remain substantially unchanged since then. These included: First, there is plethora of information generated by early warning and humanitarian information systems but a lack of overall synthesis, often leaving decision makers confused about the appropriate actions to take. Second, a confusion remains between outcomes ("hard" numbers) and early warning (probabilistic forecasts). Third, while early warning is usually strongly connected to policy makers and humanitarian organizations, the link with local communities and networks is weak, and accountability mechanisms are not always built in. Fourth, early warning and information systems generally are frequently reluctant to share data, making for multiple overlapping data collection mechanisms and *gaps* in coverage in some systems. All these feed into the "early warning/response" gap (see discussion below).

Early warning and information issues arising from key informant interviews

While at the overall level early warning has worked reasonably well, key informant interviews nevertheless highlight several concerns with early warning and information systems more generally, which continue to impede famine prevention efforts. These are briefly reviewed below.

1. *There remains a distinct disconnect between early warning and early or timely action.* This was among the most frequently mentioned constraint by key informants (004, 007, 009, 011, 012, 013, 016, 017, 018, 021, 023, 025, 043, 045, 049, 054). The humanitarian and donor communities have known for at least three decades that good early warning frequently fails to trigger a response that is timely enough to prevent loss of assets and a deterioration in humanitarian conditions (Buchanan-Smith and Davies 1995). This seems to be a lesson that the humanitarian community relearns every five years or so (Hammond and Maxwell 2002; HPG 2006; Maxwell and Majid 2016; Save the Children and Oxfam 2012; Oxfam and Save the Children 2022). Somalia in 2011 was an especially good example (Hillbruner and Moloney 2012). Some informants (013, 016) noted that an additional missing link is response analysis: Early warning can forecast the impact of a shock but doesn't suggest the most appropriate way to prevent the resulting humanitarian impact, and this may be in part because of a limited analytical framework (004). In some cases, it is because crises of a lesser severity (less severe than famine) aren't considered urgent enough (012), while some key informants (045, 049) simply blame the dearth of resources for the gap. Some implementers were reported to have avoided the use of tools designed for early action (such as crisis modifiers) for fear of using up all their resources too soon (020). Finally, given the resource-constrained situation, some decision makers are worried about "crying wolf" (025) and adopt a "wait and see" perspective towards early warning (017), which points to another major concern: dealing with uncertainty.

2. *Decision makers have a hard time dealing with uncertainty.* This concern is closely related to the first observation and was mentioned by nearly as many key informants (004, 009, 010, 011, 013, 016, 017, 022, 025, 026, 033, 053). It frequently boils down to a preference on the part of decision makers for "hard" numbers rather than the probabilistic projections. Decision makers "can't tolerate uncertainty" (026). This in turn relates specifically to the difference between early warning (which is by nature probabilistic) and needs assessments (which measure already existing conditions) or, in the words of one key informant, the difference between "descriptive" information and "forward-looking" information (007). The connection between uncertainty and the poor timeliness of early action or even response is clear (013, 017), and much of this relates to financial resources (016, 020). But this is also about the very real question in the context of overall resource shortfalls about which to prioritize: addressing already existing humanitarian need or anticipating (and hopefully, preventing) future need (016, 020). Other respondents noted that early action can lower costs and reduce overall budget constraints (005, 011) but requires intervening under uncertain circumstances (025).

3. *Ironically, sometimes there is too much information, and some of it contradictory.* Key informants complained about information overload and redundant overlapping information systems (007, 011, 016, 026, 053). Sometimes this abundance of information just creates confusion, but sometimes it leads to directly contradicting information. A frequently cited case in 2022 was the conflicting seasonal forecasts for the March–April–May rainy season for the Greater Horn of Africa (016, 022, 024, 025) in which one early warning system forecast a significant rainfall deficit and another an average season. 2022 turned out to be one of the lowest March–April–May rainy seasons in recent memory, but the contradicting forecasts led to the "wait and see" attitude mentioned above (017). Others pointed to overlapping and competing information sys-

tems as wasteful, and often confusing because outputs are not comparable. At least eight separate information systems exist in Yemen (021), and there are as many as ten in Somalia (016).

4. *Data sharing in real time for informed decision making remains a significant constraint.* Despite ever-increasing quantities of data and information, data are all too often kept private, creating a serious constraint to decision making (010, 011, 021). This constraint is partly because information is power, and in the competition for resources, controlling the narrative is very useful (Lentz and Maxwell 2022), but there is also a perceived reputational risk in data sharing because, given time and resource constraints, data are often of poor quality, and making it public risks the reputation of the individuals or agencies collecting and analyzing it (021). Progress has been made in this area. Several informants cited the Humanitarian Data Exchange (HDX) but noted that by the time data are uploaded to a platform like that, the data are often of less value to real-time decision making (007).

5. *Concerns remain about the validity and reliability of information and especially about the comparability of information.* Lingering questions about data quality (007, 009, 039) and accuracy (001, 008, 010, 022, 026) constrain the attempts to compare and prioritize assistance across dissimilar contexts, or even within the same context (004, 007, 010, 011). While most agree that the quality of information has gotten better, the lack of standardized procedures and indicators makes cross-contextual comparisons difficult in most sectors, with food security and nutrition being the primary exception. However, this in turn leads directly to another issue raised by key informants. See the next point.

6. *Early warning and information have tended to focus mostly on a single sector.* Much of the focus in early warning and information systems more generally is on food security; more precisely, on short-term food consumption (010, 011, 019, 030, 038, 053, 054). The humanitarian community recognizes the intersectoral nature of needs and therefore the requirement for inter-

sectoral information and analysis. Much of the system has yet to catch up in terms of integrated information collection, however. And even when institutions do collect information across a range of sectors, it is often analyzed in "siloes" (012, 035).

7. *While the predictive analysis of climatic and market drivers has improved, conflict early warning has lagged behind.* Key informants as well as previous research (Maxwell and Hailey 2020a) emphasized the limited ability of early warning systems to forecast conflict, or even to forecast the humanitarian consequences of conflict (005, 011, 012, 013, 033, 043, 049, 050, 054). Key informants complained that people "talk the talk" of the humanitarian-development-peace "nexus," but the information and analysis to enable addressing conflict and its drivers remain underdeveloped, even though conflict was the primary driver of all the ten most serious humanitarian emergencies of 2022 (IRC 2022). Some conflict early warning systems exist—for example the CEWARN (Conflict Early Warning) system operating in Intergovernmental Authority on Development (IGAD) countries in East Africa—but don't really produce up-to-date information, let alone forecasts.

8. *Information and analysis are as subject to manipulation and politicization as ever.* Humanitarian decision making is intended to be based on technical evidence and neutral analysis (IPC Global Partners 2021), but previous research and key informant interviews still note a strong degree of manipulation of the evidence for either budgetary or political reasons (004, 025, 033, 047, 049, 053). Maxwell and Hailey (2020b) documented the politicization of humanitarian information across six different country cases, but much of it related to IPC analysis. Key informants in this study largely focused on similar issues related to either the severity of the crisis (035, 033) or the "population in need" (PIN) numbers resulting from an analysis. Severity classifications and the PIN numbers might be increased or decreased depending on the circumstances, with several informants noting the tendency to "overload" IPC Phase 4 populations and underestimate Phase 5 populations, undermining

the credibility of evidence (004, 033). Others suggest that PIN numbers may be deliberately manipulated for fund-raising purposes (031). One informant noted "because PINs are not reliable, decisions tend to be made on the basis of change from the last year" (010). In the context of informational uncertainty, political priorities may take precedence over evidence. Howe (2006; 2018) emphasizes "priority regimes" or the policy imperatives that take precedence in a crisis. In recent famines, the most cited example was the competing security and humanitarian priorities in Somalia in 2011. The trade-offs were obvious to everyone, but it took six months to resolve issues like the humanitarian exemptions to counterterrorism regulations (Maxwell and Majid 2016). There are clearly influences on decision making and resource allocation beyond strictly evidence-based analysis.

9. *Much of the necessary information for famine prevention remains missing or inadequately assessed.* In addition to the intersectoral concerns described above, several key informants pointed to specific kinds of information that are typically lacking in humanitarian emergencies, which can cripple analysis (011, 017, 019, 025, 026, 030, 033, 054). The main missing forms of information include accurate population estimates and the real-time tracking of displacement (which is available in some contexts but struggles to keep up in others); the identification of especially vulnerable groups beyond the standard categories; "hotspot" identification and information from hard-to-reach areas; social networks and social connectedness; and other forms of coping. Additionally, program information about the extent to which existing responses may be addressing threats is often difficult or impossible to obtain.

10. *Stronger real-time monitoring is needed to enable more flexible prioritization of humanitarian assistance.* Several informants advocate for greater investment in real-time monitoring (RTM) of both a descriptive and predictive nature (004, 009, 049). Given the greater difficulty of prediction of weather hazards in the era of climate change, as well as the emergence of two unpredicted global shocks in the last three years (the COVID-19 pandemic and the Russian invasion of

Ukraine), RTM fills an important gap in existing systems (Maxwell, Lentz, Wanjohi, et al. 2021). RTM systems are expanding but investment in RTM has been slow, and some systems do not produce useful information, or in many cases information is proprietary and not shared (021).

11. *New approaches to early warning and information systems are rapidly emerging.* Many informants noted new approaches to early warning involving predictive analytics, machine learning, and artificial intelligence (001, 053, 054). These range from the use of econometric analysis for forecasting both shocks and their outcomes to advanced geospatial information and machine learning and even the experimental use of artificial intelligence (Lentz et al. 2019; Andree et al. 2020). At the same time, there is some recognition of the need to do basic things better, including the use of qualitative information and improving human judgment (004, 009, 020, 050).

In conclusion, while information and evidence (whether of an early-warning nature or a more current-status, descriptive nature) is not the only constraint to famine prevention, many problems remain to be addressed in the information and evidence base of decision making. Recommendations are in the final section of this report.

Linking information and action: resilience and anticipatory action

Broadly speaking, early or anticipatory action is an attempt to link predictive or early warning information to financing and contingency plans, resulting in interventions that precede a crisis. The objective is to prevent or mitigate the impact of a shock, prevent human suffering, and reduce spending on humanitarian operations (Maxwell, Lentz, Simmons et al. 2021). The difference between "early" and "anticipatory" action is not always clear. Generally speaking, key informants in this study used "disaster risk reduction" and "resilience" to mean activities that reduced the likelihood of shocks or the exposure of human populations to shocks; "anticipatory action" was used to define mitigation based on a forecast,

whereas "early action" or "early response" were terms used more to define actions taken quickly as a shock begins to develop; and "humanitarian response" was used as a term for responses based on needs, not on risks or the likelihood of a shock or its impact. But all these definitions are mostly semantic. In practice, the terms are used nearly interchangeably, and many informants suggested that there wasn't that much difference in practical application.

Anticipatory action. There are a number of forms of anticipatory action, mostly linked to flexible funding mechanisms (Rohwerder 2017). Rohwerder noted that these mechanisms can lead to timely responses, but only if they are triggered early enough to have an impact. Some interventions still take too long to get up and running. Much of the success depends less on the funding mechanisms and more on implementation capacity on the ground, and political will. Given that the scale of funding is relatively limited, she suggests that flexible funding mechanisms may be more effective in smaller, localized crises than in large-scale regional crises (Rohwerder 2017).

Since the regional crises in the Horn of Africa in 2010–11 and in the Sahel in 2012, there have been major efforts at improving early or anticipatory action to prevent or mitigate crises, including but not limited to famine. Some of these preceded that time frame in their initial piloting, but the scale has been ramped up significantly since then. These efforts include the use of crisis modifiers, "no-regrets" programming, and other forms of rapid or flexible finance; index insurance and forecast-based financing; incorporating shock-responsiveness into existing social protection programs; and focusing overall development strategies on resilience; or building the capacity to better withstand and bounce back from shocks. These are not discrete categories (i.e., what one author calls a "crisis modifier," another might call "no regrets" programming, etc.), but they all fall under the notion of early or anticipatory action. They are briefly reviewed below.[5]

Crisis modifiers. Crisis modifiers are a category of interventions to respond to rapidly changing conditions: "[t]he term 'Crisis Modifier' is now used by various aid donors and programs in the Horn of Africa and more widely to encompass a range of mechanisms and relationships that aim to strengthen humanitarian programming within longer-term resilience programs" (Charters 2015, 1). Crisis modifiers are budget lines in longer-term programs that can be used quickly to implement new or modified program objectives or activities in the face of an oncoming crisis—reallocating resources from development or resilience programs to humanitarian or mitigation activities. The funding for crisis modifiers is limited but the intent is for this amount to serve as "bridge funding" until larger-scale humanitarian financing can be made available. Their usage has proven instrumental in several cases to enable a more rapid response (Charters 2015).

Uncertainty? "No regrets." One of the enduring worries about anticipatory action is uncertainty regarding the forecast, despite the anticipated negative outcomes in the absence of any action if the forecast turns out to be correct. Given the usually tight funding circumstances, a frequent question is whether scarce resources should be allocated to a predicted crisis in the form of anticipatory action or devoted to response to an existing crisis (to which the response is likely underfunded). Lentz et. al. (2020b) note: "Given a general fear of misallocating resources in an uncertain environment, a variation of anticipatory action is 'no regrets' programming—early interventions that will add value, even if an anticipated shock does not develop or if its impact is not as serious as forecast" (Lentz et al. 2020b, 11). "No regrets" programming frequently takes the form of cash transfers, which, if not used to mitigate the onset of a shock, can be invested in livelihoods activities or other basic needs and thus is not considered wasted (Maxwell and Hailey 2020a; Weingärtner, Pforr, and Wilkinson 2020). But "no regrets" programming can take various forms, and sometimes is scarcely distinguishable from other forms of anticipatory action (Gros et al. 2019).

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[5] There are a number of excellent reviews of early or anticipatory action that go into greater detail than can be afforded here. These include, among others, Charters 2015; FAO 2021; Levine et al. 2020; Poole, Clarke, and Swithern 2020; Rohwerder 2017; Weingärtner, Pforr, and Wilkinson 2020..

Forecast-based financing. Financing for anticipatory action is frequently a problem. Forecast-based financing, or FbF, is a financing mechanism pioneered by the International Federation of Red Cross and Red Crescent Societies (IFRC) "to release humanitarian funding based on forecast information for planned activities which reduce risks, enhance preparedness and response and make disaster risk management overall more effective" (Wilkinson et al. 2018, 37). FbF is used in settings prone to natural disasters such as floods, droughts, cyclones, or other disasters. The funding can be used to pre-position supplies ahead of a crisis and/or supply cash transfers to populations in need. FbF is informed by early warning systems that are assigned thresholds to "trigger" the release of funding to address a particular type of crisis before it actually happens (see more on triggers below). The World Bank's Famine Action Mechanism (FAM) is a recent and relevant example of FbF, which is in part dedicated to linking famine forecasting to financing via early warning.

Other flexible funding. Other forms of flexible funding include a "10% variance" option in USAID funding—which is similar to the crisis modifier except that it applies to longer-term development projects (Charters 2015). The United Nations Central Emergency Response Fund (CERF) has increasingly been used for early or anticipatory response in recent crises (Pichon 2019). The British Foreign, Commonwealth and Development Office (FCDO) has an "Internal Risk Facility," which is independent of any given program but can be triggered on an equally fast basis. Others include multiyear humanitarian funding, the World Food Programme's Rapid Response Mechanism, the Start fund (a network of NGOs collaborating on anticipatory action) and several others (Poole, Clarke, and Swithern 2020; Rohwerder 2017). The World Bank Famine Action Mechanism (FAM) attempted to bring various forms of flexible funding together with advanced early warning practices to improve anticipatory action (Andree et al. 2020).

Triggers or scenarios. The timing of the intervention is a major concern. Given the delays in response to the crisis in the Horn of Africa in 2010–11, much experimentation was made with the use of auto-mated or semi-automated "triggers" and trigger indicators—a specific threshold in a specific indicator that would trigger or set in motion a specific action, which could be a more in-depth assessment or an actual response (Maunder 2013; Coughlan de Perez et al. 2015; Wilkinson et al. 2018). The alternative approach to triggers relies on scenarios (FEWS NET 2018), which are a more in-depth assessment of the situation, encompassing multiple drivers and potentially multiple outcomes. Triggers seem to work the best with specific shocks and specific outcomes—and particularly with climate-related hazards that can be measured in real time. Scenarios are more helpful for an overall response, rather than an individual response (Lentz et al. 2020b). Triggers have been incorporated into various forms of early action, including monitoring drought and rainfall, river levels and flooding, and other specific hazards (Chantarat et al. 2009; Gros et al. 2019). Scenarios continue to be the main format of projections based on current status information and "contributing factors" (IPC Global Partners 2021; FEWS NET 2018).

Index-based insurance. Triggers are often used with specific forms of interventions, and one of these is index-based insurance (Barnett, Barrett, and Skees 2008; Chantarat et al. 2009; Mahul and Skees 2007). These are likewise usually a single hazard linked to a specific shock that triggers a predetermined payout, with drought being the most common shock and linked with crop failure or loss of livestock (Oxfam 2009). The FAM program of the World Bank used both index insurance and other, private sector financing measures such as disaster bonds, in addition to more traditional donor funds, to finance early action (World Bank 2017).

Shock-responsive social protection programs. Social protection programs are typically designed to protect poor or vulnerable people during non-crisis times and are not necessarily associated with crises or shocks, but recent innovations have made social protection programs or social safety nets "scalable" to protect against not only chronic vulnerability but also exposure to acute shocks (Gentilini et al. 2020; Sabates-Wheeler and Devereux 2007)—and attempting to tackle the enduring problem of how to link acute emergency response to longer-term

poverty reduction.[6] The best known example of this is the Ethiopian Productive Safety Net Programme (PSNP) and other examples such as the Hunger Safety Net Programme in Kenya (HSNP) (Drechsler and Soer 2016). The use of existing social protection programs is frequently paired with trigger indicators to scale up the response to an impending shock or hazard (Kimetrica 2020).

Resilience programming. Although the concept of resilience has been integral to food security and livelihoods theory almost from the start, it gained its current impetus from the 2011 Somalia famine. Many donors and even implementers asked how, after 20 years of investment, could two failed rainy seasons following a bumper harvest lead to a famine? The answer many arrived at was that the population was simply not resilient to the shocks of the failed harvests, and that siloed aid and development had kept famine at bay but had not made them resilient (Hillier 2011; IRIN News 2011). The systems in which livelihoods operated had been slowly eroding, dragging down the resilience of the livelihoods for a large sector of the population. The bumper harvest simply served to partially cover accumulating deficits in cash, grain, and livestock reserves rather than to build the resilience of the population. To meet growing unmet cash needs, households partially shifted from staple grains to cash crops like sesame. While this was intended to increase profits, it also increased vulnerability to market fluctuations and reduced their typical grain reserves, a critical resilience strategy (Majid et al. 2016). Resilience programming is complex and has been reviewed in numerous other accounts (Dahal et al. 2018; Barrett and Constas 2014; Catley 2017; Maxwell et al. 2017). In general, respondents in this study used "resilience" language or "humanitarian/development nexus" language rather than "disaster risk reduction" language.

Early and anticipatory action issues arising from key informant interviews

Despite all the various tools, programs, and financing methods reviewed above, the situation regarding famine prevention on the ground is as precarious at the beginning of 2023 as it has ever been. The Greater Horn of Africa has now experienced its fifth failed harvest, and Somalia is projected to head into a famine in 2023 (IPC Somalia Technical Working Group 2022). South Sudan is nearly as badly off, and the situation in Ethiopia is likely as bad, but several forms of famine analysis have been banned by the government, so the situation is less known. Elsewhere, the situation is tenuous in Northern Nigeria and other parts of the Sahel, in Yemen and Afghanistan, and the Democratic Republic of the Congo may have the biggest single case load, even if the severity level is not as high. Even Kenya, a middle-income country with no major internal conflict and a capable government bureaucracy for managing disasters, is in IPC Phase 4 in several counties in the arid and semi-arid lands areas (FAO and WFP 2022). Much remains to be done to prevent famine in 2023 and beyond.

Many proponents of resilience programming point to the fact that it has taken four failed seasons to overwhelm the resilience capacities of the population in Somalia as a mark of success (IDEAL and USAID 2022), although it could equally be argued that it is the ramping up of a humanitarian response that has kept severity levels from reaching famine levels in 2022. And while famine may have been delayed, it still appears to be looming on the horizon (IPC Somalia Technical Working Group 2022). To date, resilience programming has focused primarily on reducing risks to specific covariate shocks, and resilience theory has focused primarily on the household or aggregates of households rather than the systems in which they function.

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[6] "Scalable" in this context means both "vertical" scaling—or increasing the value of the transfer if household needs increase or purchasing power declines; and "horizontal" scaling—or increasing the number of people or households covered by the safety net if covariate shocks put more households at risk.

Key informant interviews shed light on many of the remaining constraints to famine prevention relying on technical program intervention—whether it was early or anticipatory action, or humanitarian response to an already existing emergency that threatens famine-level severity. These are briefly summarized below.

1. *The major constraint to early or anticipatory continues to be financing.* Not surprisingly, most observers complained that inadequate resources were the major explanation for the lack of a strong link between early warning/information and early or anticipatory action in preventing famine (010, 011, 012, 015, 016, 020, 021, 027, 030, 031, 033, 047, 050, 054, 055). One respondent noted that humanitarian actors were simply "consumed by the lack of funding" (047). While funding is increasingly available for anticipatory action, it is often on a pilot basis and nowhere near the scale needed (012, 016).[7] One noted that $20 million was spent on anticipatory action in Somalia over a two-year period when the Humanitarian Response Plans (HRPs) for both years were more than $1 billion each and asked: "Are you going to head off a famine with that?" (031). Another noted that a major source of rapid flexible funding for anticipatory action is country-based pooled funds, but that the US was reluctant for accountability purposes to commit resources on a large scale to pooled funds (048). Others noted that the recent attention from the World Bank to this problem had the potential to add game-changing amounts of funding, but that World Bank modalities were slow (038, 041, 043). This in turn brings up the second major constraint.

2. *The timing of anticipatory action remains a constraint.* Even where resources are available, there is a "reluctance to go all in" (017) for early or anticipatory action (007, 017, 018, 020, 038, 039, 041). Responses are too slow, lack the capacity to move to scale within the required time frame, or even are not using the right interventions for achieving impact on preventing famine (011, 016).

This constraint in turn is closely related to a third set of concerns about anticipatory action.

3. *Information is not the major constraint, but sometimes is confusing, and uncertainty often delays action.* While the constraints of the information systems have been outlined above, it is worth reiterating here that information does sometime constitute a constraint, particularly if there are conflicting analyses or forecasts (025) or when levels of uncertainty are high (007, 016, 020, 022, 025, 031, 039, 053). Uncertainty—particularly related to probabilistic information—is manifested in what many respondents referred to as "waiting for a declaration" (038, 041) or the fear of "crying wolf." One noted, "We were so scared of using strong language about famine—and then not having a famine—that we were very worried until we got the point where we are now" (048).

4. *A related constraint is programmatic inertia and risk aversion.* Even if information is clear and even if funding is not a constraint (or at least not the binding constraint), in some famine-risk contexts, particularly if in violent conflict, there is strong aversion to rapid changes in programmatic emphasis or targeting simply because making rapid changes to programming or target populations is too difficult (004, 008, 041). As one respondent put it, "Everyone has their 'comfort zone' programming and call what they are doing either 'resilience-building' or 'nexus programming'… and they don't want to change what they are doing or where they are doing it. There is a lot of inertia. We just never learn anything about famine prevention" (020). Once a program has been established, staffed, and funded, with target populations identified, security arrangements made, etc. there is strong reluctance to change on short notice because of new information or a rapidly deteriorating situation that calls for a different response, or for a different population. There is also a fear that "resilience" programming may be called to a halt to facilitate a ramped-up humanitarian response (016, 020, 025).

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[7] In another Bureau for Humanitarian Assistance (BHA)-funded study at Feinstein International Center at Tufts University, we are examining anticipatory action in detail. Early results from famine-risk countries indicate precisely this: Anticipatory action is going on, but at small scale and for too short a time period to have a significant impact on food security and other humanitarian outcomes. More detail will be forthcoming in 2023.

5. *Is anticipatory action a "project" or is anticipation "a way of thinking?"* Most respondents viewed early or anticipatory action—or the various other mechanisms of famine prevention discussed here—as a specific programmatic action to be taken, usually in advance of the emergence of a shock, or at least in advance of the impact of the shock. Many noted that by early 2022, for example in Somalia, it was "too late" for anticipatory action (031), and the issue simply became scaling up humanitarian response as quickly as possible. Some framed it in terms of the humanitarian/development "nexus," but noted that this was not really the practice (012). However, some respondents noted that anticipation has to be "a way of thinking" not a "project" (031, 038). In other words, even if already in full humanitarian response mode, "anticipation" is not just rapid scaling up—it continues to be an awareness of what is likely to happen in the near- to medium-term future and taking action in the present time frame to prevent further shocks or lessen their impacts (038, 041).

6. *The constant trade-off that decision makers face is whether to respond to known needs now or address the risk of (perhaps more severe) needs later.* In the face of HRPs that are only funded to a current average of about 50%, the question is always about which to prioritize (016, 018, 022, 027, 031). All these first six points are interrelated and to some degree point out the inadequate level of funding for famine prevention generally, but they also point to some systemic issues within humanitarian decision making irrespective of funding.

7. *In 2020–2022, there were some unexpected problems with the use of "triggers" and "crisis modifiers."* 2020–2022 saw the emergence of several unexpected or rare hazards, all of which increased the risk of famine. These included desert locusts (in the Horn of Africa) and COVID-19 (everywhere) and the impacts of the war in Ukraine (particularly in food-importing countries). While triggers are in place to set in motion anticipatory action for an expected hazard, these unexpected hazards emerged, causing confusion and delay in getting anticipatory action up and running quickly (011, 016, 022, 038, 041, 048, 053). In Somalia, anticipatory action had been predicated on the presumption of drought as the major hazard or shock

to be mitigated (and of course, drought did eventually emerge) but anticipatory action in the face of locusts and COVID-19 had to be triggered by overriding the system of triggers put in place. One respondent noted the tendency to trigger based on outcomes rather than hazards (048) and questioned whether anticipatory action should be triggered by preset protocols or done manually. While triggers were designed to automate the response—taking politics and human dithering out of the equation—in reality this automation has often locked response to presumed hazards rather than real ones. One respondent asked why a response couldn't be set in motion "when the totality of the information suggests it, rather than being tied to these rigid frameworks and triggers" (041). Several respondents also noted that triggers tend to be set for single hazards, whereas the reality is multi-hazard crises require multisectoral analysis (016, 041, 053).

Also, to the consternation of donors who had funded them, there was a strange reluctance in 2021–2022 to actually make use of crisis modifiers in the Horn of Africa crisis (007, 020, 038, 041, 042), and respondents noted that examples of genuine "no regrets" programming were rare (004). A few respondents explained the reluctance to activate crisis modifiers was the fear that there would not be funding for sustained response once crisis modifier money was used up, and that it would simply use up available money more quickly (017). While a reasonable fear, given the woeful underfunding of HRPs—particularly at the time when crisis modifiers would have had to be used to have any effect—this fear did serve to undermine one of the few widely accepted means of rapidly funding early or anticipatory action, even if only as "bridge funding."

8. *Shock-responsive social protection programs did not respond at scale as expected in 2022.* Shock-responsive social protection programming was one of the most promising tools, not only for preventing famine, but also for linking acute emergency response to longer-term poverty reduction programs (Gentilini et al. 2020; Sabates-Wheeler and Devereux 2007). Two flagship programs have long existed in the Greater Horn of Africa in Ethiopia and Kenya, but both were unable to

cope with the worsening circumstances faced in 2022 (001, 003, 005, 016, 023, 056, 057, 058). Both were intended to scale both vertically and horizontally. Neither were able to scale up to the level needed to contain the rapidly worsening crisis in 2022 (001, 003, 005, 016, 023, 056, 057, 058). Both were intended to scale up horizontally (broadening the scope of coverage). But neither were able to scale up to the level needed to contain the rapidly worsening crisis in 2022. In the case of the Productive Safety Net Programme in Ethiopia, the war with Tigray and violent conflict in other parts of the country were primarily responsible for the breakdown (001, 003, 005, 056), with the response becoming primarily a humanitarian caseload. In the case of the Hunger Safety Net Programme in Kenya, it was primarily a question of finance for the scale-up and over-riding budgetary priorities that reduced the ability of the program to contain the crisis (005, 023, 057, 058). The December 2022 IPC maps for Kenya are among the most alarming in the history of IPC analysis in that country. IPC analysis has been banned in Ethiopia, and given the expansion of humanitarian assistance, the consequences in Ethiopia are not as evident as in Kenya. It should be noted that neither the PSNP nor the HSNP were designed to cope with the severity of the drought and other causal factors that converged in 2021–2022. Nevertheless, the failure to scale up was a significant disappointment for famine prevention efforts, and much more work remains to be done to fully understand the reasons behind the failure to scale up, and the consequences this failure had. And the scale-up issues were only one set of challenges—the longer-term interventions to reduce poverty and vulnerability to famine had only resulted in relatively low rates of "graduation," even prior to crisis of 2022 (023, 032, 057).

9. *Political restrictions and access constraints make it difficult to reach those most at risk.* While humanitarian workarounds for some of the constraints of the 2011 famine in Somalia have reduced political restrictions on famine prevention efforts, many still remain (008, 015, 025, 028, 040, 045, 048). The issue of access and so-called "hard-to-reach" and "inaccessible" areas and populations remains a core concern for famine

prevention. Access constraints can result from insecurity and political causes, as is the case in Al Shabaab-controlled areas of Somalia, and in most of Tigray during the recent conflict there. But access constraints can also result from climatic hazards and poor infrastructure, as is frequently the case in parts of South Sudan (though conflict can also be an access constraint in South Sudan). Means have been developed for getting some sense of what's happening in those areas (004, 009). Cash transfers—particularly secondary transfers (those passed along by the initial recipient to others)—mean that some assistance reaches those areas, in addition to the "responders of first resort" who are now receiving more attention, even though outside the formal humanitarian system (Majid et al. 2016). Populations in these areas remain perhaps the most at risk for breaching famine thresholds (IPC Somalia Technical Working Group 2022).

10. *Humanitarian response remains critical for famine prevention, but coordination and prioritization challenges have increased.* When the impacts of shocks cannot be entirely mitigated, humanitarian response is a vital tool to prevent the slide into famine. But frequently "humanitarian response" in the context of famine risk requires multisectoral responses, not just food assistance (001, 019, 020, 024, 030, 033, 038, 042, 046, 048, 053, 054, 055). The greater reliance on cash has improved access to a broader range of choices for affected populations, but cash alone remains insufficient. The consensus is that preventing famine requires, at a minimum, efforts in the sectors of food security, nutrition, health, and WASH; and in contexts that include violent conflict and displacement—which includes all contemporary cases of famine risk—protection and Camp Coordination and Camp Management (CCCM) as well. While the need for integrated programming is well recognized, there are still relatively few organized attempts to make it a reality for preventing the worst humanitarian outcomes in famine-risk contexts. The Integrated Famine Risk Reduction (IFRR) strategy in Yemen is one such example; it has struggled to gain traction—having first been attempted in 2018, and having been resurrected

more recently in 2022 (IFRR Coordination Group 2022).

But integrated approaches also require much more coordination and the appropriate prioritization of populations most at risk (010, 012, 025, 028, 033, 050). While the prevention of famine means prioritizing assistance to the worst off (050), too frequently that has come to mean something akin to "taking resources from the hungry to feed the starving" (033). Basing coordination efforts on geographic configurations rather than sectoral configurations ("area-based coordination," in the case of Somalia in 2022) is one promising development—with implications far beyond just famine prevention (020, 042).

11. *Resilience programming was supposed to bring humanitarian and development efforts together to prevent future famine.* Instead, according to many respondents, it has become its own "silo" (012, 016, 017, 020, 025, 035). The use of the term "resilience" as a label has grown dramatically (020) but in effect, it has been coopted in famine-risk contexts as a synonym for development programming. As such, the term has detracted from collaboration across the "humanitarian/development nexus" rather than facilitating it. Some humanitarians even go so far as to dismiss resilience as a "costly distraction" (016). The resulting confusion is a doubly unfortunate change: not only does it enhance the divide rather than bring together two related strands of work, it also significantly undermines a legitimate concept and approach that remains critical to famine prevention. Replacing "resilience" with "nexus" is just so much playing with words (016, 020). But even with all the tools, resilience or nexus programming remains a significant challenge (035).

12. *Anticipatory action seems most applicable to climatic hazards.* Across the board, respondents recognize the potential of early and anticipatory action and the related mechanisms explored here: triggers, crisis modifiers, no regrets programming, shock-responsive social protection, and resilience programming. But many questions remain regarding how applicable it is to the prevention or mitigation of other shocks—especially conflict (005, 011, 012, 015, 033, 034). Many

noted that they are trying, but the nature of the hazard is so different that significant rethinking is necessary, meaning that the application of anticipatory action in conflict is "very nascent" (012) and many are still trying to link anticipatory action in conflict to other forms of action (015). One significant way in which the *consequences* of conflict are anticipated is through the pre-positioning of resources necessary to address the humanitarian needs that will result (050, 053), although that may be more akin to emergency preparedness than to anticipatory action. The boundary between the two is significantly less clear in conflict, especially protracted conflict.

However, there have been significant developments regarding interventions in conflict-related crises and famine or starvation that are outside the "traditional" realm of anticipatory action. The next section addresses other means of acting preemptively on conflict.

13. *Accountability mechanisms are not necessarily built in.* Most contemporary analysts of famine note that they are likely to continue unless and until there are sufficient mechanisms put in place to hold human actors responsible for famine—either directly or indirectly—accountable for their actions (de Waal 2018a; Devereux 2006; Howe and Devereux 2004). But for all the progress noted here on technical interventions to prevent famine—anticipatory action, etc.—many respondents note that accountability mechanisms are not sufficiently built into these interventions (001, 003, 006, 041, 045, 046, 053). These may simply be technical accountability means to ensure that the interventions achieve what they are intended to achieve (046, 053). But they may also include observations such as the lack of accountability to affected populations (041) and the lack of adequate engagement with local leadership (045), highlighting the limited links between the famine prevention agenda and the broader agenda of localization or local humanitarian leadership.

However, there have been significant developments in accountability mechanisms for famine. These are also reviewed in the next section of the report.

Political accountability and diplomacy approaches to famine prevention

The literature and key informant interviews suggest that there are two broad political approaches to famine prevention: accountability mechanisms and humanitarian diplomacy. These approaches are interrelated and depend on each other for their effectiveness. For example, humanitarian diplomacy often relies on the implicit or explicit threat of referral to accountability mechanisms to achieve its aims. In each famine and near-famine event reviewed in the database, key actors had priorities other than alleviating suffering, and in a number of cases, they actively sought to inflict it. Both political approaches—accountability mechanisms and humanitarian diplomacy—can be seen as different ways to shift the priorities of relevant actors in the short or longer term (Howe 2006).

Accountability mechanisms

Scholars studying famine agree that generating accountability for mass starvation is a critical factor in preventing future famines (Devereux 2006; de Waal 2018a). This section reviews the various approaches that have been used or proposed at both the international and national levels.

International legal frameworks. The international community has made strides toward building a normative legal environment within which starvation is rendered unacceptable, though recent and ongoing crises have proven that these tools fall short in their ability to prompt a timely response (de Waal 2021). Such tools fall primarily under International Humanitarian Law (IHL) and International Criminal Law (ICL).

Under IHL, the starvation of civilians as a method of warfare is prohibited according to the Additional Protocols to the Geneva Conventions of 1977 as well as under customary international law, applying to both International Armed Conflicts (IACs) and Non-International Armed Conflicts (NIACs). Article 54(1) of Additional Protocol I prohibits the starvation of civilians as a method of warfare in IACs, while Article 54(2) prohibits the attack or destruction of objects indispensable to the survival of the civilian population "for the specific purpose of denying them for their sustenance value to the civilian population or to the adverse party" in an IAC (International Committee of the Red Cross 1977a). Article 14 of Additional Protocol II provides similar protection of objects indispensable to the survival of civilians in NIACs (International Committee of the Red Cross 1977b).

Furthermore, ICL criminalizes the intentional use of "starvation of civilians as a method of warfare by depriving them of objects indispensable to their survival, including willfully impeding relief supplies" in both IACs and NIACs, according to the Rome Statute (arts. 8(2)(b)(xxv) and 8(2)(e)(xix)) (International Criminal Court 1998). In addition to being considered a war crime, the Rome Statute also provides grounds upon which starvation conduct could be tried as a crime against humanity or act of genocide (Lander and Richards 2019). Until December 2019, starvation had not been considered a war crime in a NIAC until the Assembly of State Parties to the International Criminal Court (ICC) unanimously amended article 8 of the Rome Statute to include it as such. In practice, there have been few cases of prosecution, but the case of Darfur, Sudan represents an initial attempt to apply these mechanisms (de Waal 2018b).

Global Rights Compliance highlights factors which they argue "might explain (albeit not justify) the ongoing neglect and the lack of effective criminal

accountability for man-made starvation" (Global Rights Compliance and World Peace Foundation 2019, 1). One is a "lack of clarity" around the crime of starvation. Another is ambiguity surrounding what types of behavior suggest the crime of starvation or suggest evidence of criminal intent. Coco et al. (2019) argue that the multicausal nature of starvation makes legal engagement on the topic challenging. They also note the legal tension between military necessity and the imperative to deliver or allow humanitarian assistance in an armed conflict, noting that there are circumstances under which it may be justifiable to deny humanitarian assistance to a population. Finally, these reports note that starvation is a relatively cheap means of warfare, making many of today's tools for its prevention ineffective.

UN Security Council efforts. A notable achievement in recent years was the unanimous passage of UN Security Council Resolution 2417 in May of 2018. The resolution condemns the starvation of civilians as a method of warfare and the denial of humanitarian access to civilian populations, calling upon parties to armed conflict to comply with IHL (Global Rights Compliance and World Peace Foundation 2019). Its passage was deemed a victory for advocates seeking accountability for starvation, but literature to date does not point to significant progress in deterring starvation as a method of warfare. But there is concern that "while the normative framework has been strengthened, compliance has deteriorated" (Global Rights Compliance 2020, 1). In an assessment of progress made since the adoption of 2417, Gillard (2021) notes divergences in opinion among Security Council members as a challenge to the implementation. At the country level, Gillard notes that reporting mechanisms supporting 2417—including the Secretary General's country-specific protection of civilians and early warning reports—have been completed inconsistently (Gillard 2021). Other advocates for effective implementation of 2417 have supported the need to adopt a standardized reporting mechanism rather than carrying it out on an ad hoc basis (Global Rights Compliance 2021).

The Security Council also has a role in relation to the promotion of IHL compliance more broadly. It has pursued criminal accountability, established investigative bodies, and imposed sanctions (Gillard 2021). The Security Council holds the ability to refer cases to the ICC in which the war crime of starvation is perpetrated, and has done so in both Darfur and Libya (Gillard 2021). The Security Council can also set up commissions of inquiry and fact-finding missions and has done so in examples like the former Yugoslavia and Rwanda. However, crimes of starvation were not prosecuted in these particular cases, especially as the Rome Statute only went into force in 2002 and did not include NIACs until 2019 (Conley et al. 2022). The Security Council is also capable of imposing sanctions and has supported sanctions in locations specifically where humanitarian access has been cut off (i.e., Somalia, Democratic Republic of the Congo, Central African Republic, South Sudan, Yemen, and Mali). Conversely, some research finds sanctions are counterproductive in facilitating humanitarian access and in ensuring food gets into the hands of those who need it (Gillard 2021; Afesorgbor 2021).

National mechanisms. In his 1996 article, de Waal developed the idea of a "social contract" held between people and political institutions, making "freedom from famine … a right, upon which political legitimacy [is] founded" (de Waal 1996, 194). He later evolves this idea into the "anti-famine political contract," which involves both a political commitment from the government and lines of accountability to enforce this commitment (de Waal 1997).

He compares cases of famine in India and on the continent of Africa, arguing that famine prevention is only seen in states that can be held domestically accountable and where the right to avoiding famine is established. But he also suggests that successful prevention is also context specific. The development of India's Famine Codes in the 1880s—one of the first scales developed to measure food insecurity conditions—was a direct result of the political concern that the Indian government would face social unrest if famine occurred. But a catastrophic failure in the Bengal famine of 1943 provided a further wave of support for the nationalist movement and pushed India toward its 1947 independence. de Waal argues that what has followed Indian independence is a government that has made famine a "political scandal," and that "because the Indian national movement chose famine as an issue with which to discredit the British imperial government, it follows that the

legitimacy of the post-colonial government depends on preventing it" (de Waal 1996, 197).

In the case of the continent of Africa, anti-famine policies came about in the 1920s, but were mostly ineffective. In the 1970s, means for famine prevention were developed by a range of actors throughout the continent (Sudanese Commission of Refugees, Ethiopian Relief and Rehabilitation Commissions (RRC), Somali emergency health units, Tanzanian early warning system, Zimbabwean national food reserve, and Botswanan drought-relief program), but none other than Botswana's remains. de Waal (1996) argues that this is mostly because avoiding famine was not considered a right and had not become as politicized as it had in India, with the exceptions of Botswana and the Tigray People's Liberation Front (TPLF), who "made a clear commitment to make famine prevention its strategic priority" and recognized that the TPLF's success was reliant on Tigrayans' survival (de Waal 1996, 200).

Transitional justice mechanisms can also be used as a means of redress for victims of starvation. Global Rights Compliance's (GRC's) three case studies on accountability for starvation in Syria, Yemen, and South Sudan list a few different mechanisms through which redress could be achieved: truth telling, by acknowledging that starvation is a crime and documenting its nature and extent, and those responsible, while also providing for the recognition and memorialization of its victims; reparations and restitution, by the individuals or institutions responsible; and guarantees of non-repetition, in the form of public naming and shaming of those responsible, along with public education about the responsibilities for starvation crimes (which might be domestic or international). South Sudan has a Commission for Truth, Healing and Reconciliation (CTHR) as well as a Compensation and Reparations Authority (CRA) following the Agreement on the Resolution of the Conflict in the Republic of South Sudan (ARCSS) (peace) agreement. Some commentaries demonstrate some skepticism around the ability of these courts to generate accountability (Ding-Akoi 2021).

Other frameworks. Howe and Devereux's "Famine Intensity and Magnitude Scales" (Howe and Devereux 2004) outlines a new way to define famine based on intensity, "the severity of the crisis at a point in time, which varies by place over its duration" and magnitude, or the "aggregate impact of a crisis on affected populations" (Howe and Devereux 2004, 360). The purpose of the scales is to allow for more appropriate responses to famine events but also greater levels of accountability. Without an internationally agreed upon definition of famine (which has subsequently been developed through the Integrated Phase Classification process), assigning accountability to perpetrators of starvation is impossible. In addition to the need for clear measures for the intensity and magnitude of famines, there is the need for an understanding of proportionate accountability, which is not just informed by magnitude and intensity but also by whether famine conditions were deliberately created (acts of commission) and whether there was a failure to prevent them (acts of omission).

Howe and Devereux (2004) proposed an "accountability matrix" for the purpose of famine prevention. Haan, Devereux, and Maxwell (2012) applied it to the Somalia 2011 famine. They argue that an accountability matrix analysis points to both inappropriate policies and responses to the famine, placing primary responsibility for famine-related deaths on Al-Shabaab, but also pointing to a delayed humanitarian response due to the action (or inaction) of the Somalia Transitional Federal Government, the United Nations, western donors including the United States government, and other international donors (Haan, Devereux, and Maxwell 2012).

Accountability issues arising from key informant interviews

While most acknowledged the potential importance of accountability mechanisms for famine prevention, key informants had widely divergent views of how they have worked in practice and what are the right approaches moving forward.

1. *Accountability mechanisms have the potential to serve as a deterrent to the use of starvation as a weapon of war and can be leveraged in humanitarian diplomacy (015, 029, 034, 036, 044, 051, 053).* Key informants suggested that these normative tools can be an effective deterrent

because they signal that the wider international community is concerned and watching (029), and provide an incentive for potential perpetrators to behave differently (034, 040, 051). The idea behind UNSCR 2417 was to prioritize conflict-induced hunger within the Security Council given its ability to undertake commissions of inquiry and make referrals to the ICC (051). As one interviewee mentioned, "You can't hide things like 30 years ago" (034). Some key informants suggested that they were already observing changes on the ground. One said that most armed actors fear these mechanisms, and the top leaders are especially cautious because they do not want to end up on [accountability-related] lists (040).

It was also pointed out that invoking UNSCR 2417 can change the dynamics of negotiations in countries at risk of famine, because governments worry about reputational damage from even being named in reports as well as the potential legal implications of being accused of using starvation as a weapon of war (027, 047). This concern had been leveraged in negotiations for access and aid worker security (034, 040), and the wording used by officials seemed to reflect an awareness of the legal frameworks (034).

2. *However, there has been limited success so far in altering behavior and achieving humanitarian goals on the ground (001, 008, 015, 018, 029, 034, 041, 044).* Despite these anecdotal examples, even the most enthusiastic supporters suggested that there had been at best "incremental gains" (002, 044). Other key informants expressed greater skepticism, arguing that the mechanisms did not have teeth, were largely ignored at the country level, or simply have not been heard of or used (001, 018, 035, 041, 046, 049). Even when they have been applied as leverage in negotiations, they have not achieved meaningful changes in key locations such as Afghanistan or Ethiopia. Some expressed frustration with accountability efforts in general and explained that they have given up on them entirely (050) or have not seen progress in accountability's use as a deterrent (001, 003, 046).

3. *One challenge is that engaging in accountability mechanisms can be highly sensitive for humanitarian agencies on the ground, may put operations and personnel at risk, and force trade-offs between short-term and long-term efforts to prevent famine (002, 003, 012, 027, 029, 051, 055).* Many operational agencies depend on perceptions of their neutrality and impartiality to achieve access to populations in need, especially in conflict settings (002). Once states or other parties to the conflict believe that agencies are collecting data or information that could be used for accountability purposes or are involved in other ways in efforts related to application of UNSCR 2417 and IHL, this belief can create distrust and lead to limits on their access, put staff at risk (051), or lead to their expulsion from the country (006, 029), as was perceived to be the case in Ethiopia. Agencies often feel forced to make a trade-off between supporting accountability mechanisms, which might help famine prevention in the long run, and reaching those in most need, who require urgent assistance in the short run. It is necessary to manage the process very carefully to make the use of these tools (e.g., UNSCR 2417 white papers) positive rather than negative for the populations in need (027). Operational agencies are especially wary of taking these risks if there is no follow-up action.

4. *The situation is exacerbated by the disconnect between the field and the UN Security Council in the implementation of accountability mechanisms (002, 003, 005, 006, 008, 018, 027, 029, 034, 037, 046, 050, 051).* One manifestation was the Security Council's perceived lack of action when it was provided with information that could lead to accountability (003, 006, 046). The passage of UNSCR 2417 was intended to facilitate the Security Council's use of its menu of options for follow up, including commissions of inquiry and referrals to the ICC (044). But key informants understood that other political considerations affected Council members' engagement on these issues, that the Security Council was often presented with a wide number of issues (006), and that starvation was not viewed as being as significant as, say, ethnic cleansing (050). As a result, as one key informant on the ground

lamented, there was no follow-up after providing information, "so we got hammered and nothing happened" (050).

Another manifestation was that the decisions taken at the Security Council do not filter down in useful ways to the field. Several key informants explained that they were not aware of mechanisms such as UNSCR 2417 or did not feel that they were relevant for their work. According to several key informants, part of the problem is that the current system is missing a middle layer (014, 044). It was argued that regional organizations such as the African Union could play a greater role in creating a culture of accountability by ensuring that there is follow-up and punitive measures among member states where appropriate. It was also felt that ambassadors could be more engaged in these sensitive issues and serve as political point people.

5. *As a result of some of these shortcomings, potential perpetrators may not be concerned about accountability mechanisms or may even have perverse incentives to limit humanitarian assistance (035, 036, 041, 046, 047).* Seeing that violations are not actively prosecuted, some potential perpetrators may actually be emboldened to use starvation as a weapon of war. One key informant argued that "impunity is winning over the concern of a negative sanction" (046). For leaders, winning the conflict is more important than the loss of human life (035) or an unlikely future punishment. But where there is concern, the lack of a robust enforcement mechanism may create perverse incentives for potential perpetrators. To prevent the collection of evidence that could be used against them, governments may limit access for humanitarian workers or expel them from the country (006, 029), which is how some interpreted recent events in Ethiopia. As one key informant argued, "The fear of having a case reported to the UNSC makes governments less willing to deal openly with the issue or makes them want to sweep the numbers under the carpet" (041).

6. *Against this short-term frustration, others emphasized the need to take a long-term perspective (008, 036, 044, 051).* Several key informants suggested

that the project of achieving accountability will take decades and that while there may seem to be little progress, we have seen significant developments over the past twenty years, from the Rome Statutes to the passage of UNSCR 2417. One (012) referred to colleagues suggesting that "You have to see it as a grain of sand … You only change the norms very slowly." Another (051) argued that it is a "long-term project, really, really long-term." Others have indicated that there is an ebb and flow to interests, and there was a feeling that more active measures are needed urgently to change the global culture.

7. *But for this longer-term cultural change to happen, there need to be deliberate investments in accountability.* It is important to reach a situation in which the use of starvation as a weapon of war is viewed as morally unacceptable (044). At the global level, possible efforts might include the appointment of a special rapporteur or envoy for 2417 or undertaking an international campaign (036) similar to the one to ban the use of landmines (044). Within international organizations, awareness and skills can be created through training for leaders within agencies that have typically focused on the technical and operational aspects of the responses (002, 036). At the regional levels, entities can enforce accountability mechanisms among their members. At the national level, states could legislate the right to food and update military manuals and guidelines (044) to better reflect IHL. Without these active measures, there is a danger that this moment for cultural change will pass (014, 044).

Humanitarian diplomacy

Humanitarian diplomacy is a relatively new term. While many definitions have been suggested (Régnier 2011), for the purposes of this landscape review we use the one proposed by Turunen (2020) based on an analysis of actual practices because it is slightly broader and more encompassing: "an instrument for humanitarian actors to create humanitarian space, to harvest resources needed for humanitarian action, to mediate between humanitarian principles and ideals and pragmatic realities on the ground and

to build necessary partnerships for humanitarian intervention" (Turunen 2020, 480). It includes advocacy efforts to mobilize resources and call attention to crises, negotiations, and partnerships. It also permits a wider interpretation of "humanitarian actors" to include not just UN and NGO workers but others who may be engaged in humanitarian-related practices, including donors and diplomats.

Advocacy. In recent years, several diplomacy initiatives aimed at famine prevention have been rolled out by the UN and multilateral actors. In September 2020, FCDO announced (on the day of its inauguration) that it would lead an initiative to "protect the world's poorest people from coronavirus and the increasing threat of famine" creating a new aid package of £119 million to address extreme hunger, and reduce malnutrition and child mortality in highly food insecure nations (FCDO 2020). It also designated Nick Dyer as its first Special Envoy for Famine Prevention and Humanitarian Affairs (Worley 2022).

The UN Secretary General's designation of a High-Level Task Force (HLTF) on Preventing Famine in March of 2021 demonstrates that famine has become a matter of priority on the UN agenda. The task force is led by the Emergency Relief Coordinator (ERC), with representation from World Food Programme (WFP) and FAO, and was tasked with the purpose of preventing "famine from occurring in the countries where we already see an extremely high risk – especially in the coming five to six months" (IASC 2021, 1). The HLTF identified Yemen, South Sudan, Nigeria, and potentially Burkina Faso as the areas at greatest risk of famine in 2021 (IASC 2021). The HLTF has worked to raise the profile of global famine risk by supporting a joint FAO-WFP "Call for Action to Avert Famine in 2021"; conducting briefings to the Group of Friends on Action on Hunger and Conflict; issuing a letter from the UN Secretary-General (UNSG) calling on Member States' action on famine prevention; conducting a high-level advocacy event on famine prevention; and coordinating advocacy efforts with partners outside the HLTF (OCHA 2021). The extent to which these advocacy efforts have translated into tangible relief for affected populations since the task force's establishment is unclear.

Shortly after the formation of the HLTF, the G7 adopted its Famine Prevention and Humanitarian Crises Compact during its Foreign and Development Ministers' Meeting in May 2021. The compact points to the need for both funding and diplomatic action to bring about more effective response to risk of famine, particularly pointing to high levels of food insecurity resulting from conflict, climate change, and COVID-19 in Yemen, South Sudan, Nigeria, Ethiopia, Afghanistan, Burkina Faso (and Central Sahel), and the Democratic Republic of the Congo. The compact commits to "address critical funding gaps; promote humanitarian access; respect for International Humanitarian Law and protection of civilians; scale-up anticipatory action; partner with the World Bank Group to enhance crisis preparedness and response; and strengthen our data and analysis to facilitate early action" (FCDO 2021).

Negotiations and partnerships. In many definitions of humanitarian diplomacy, the focus is on efforts to achieve humanitarian access or address bureaucratic impediments through negotiations. Minear and Smith (2007, 12) make a distinction between two types of diplomacy: "Whereas 'capital D' Diplomacy tends to be high-level and formal; 'small D' diplomacy is more terrestrial—even pedestrian. It covers a host of humanitarian functions of a more day-to-day sort. It functions in the middle range of activities between, on the one hand, arranging for the safe passage of humanitarian materiel and personnel past a given roadblock and, on the other, locating and contracting for aid agency office and warehouse space or setting up bank accounts to allow for agency transactions." They argue that while most of the humanitarian diplomacy revolves around "small D" diplomacy, it can also involve both when humanitarians are engaged in negotiating the terms of their engagement in a conflict or post-conflict setting or need more formal diplomatic efforts to negotiation the terms of basic agreements for their presence in a country. International Committee of the Red Cross (ICRC) clarifies that the distinguishing feature of its approach is its focus on humanitarian ends: "a strategy of influence implying interaction with a wide variety of players for an exclusively humanitarian purpose" (Harrof-Tavel 2006, 2). These efforts include negotiations, support for operations and programs, and partnership building to achieve those ends (Régnier 2011).

For some, the discussion of partnership building has been expanded and sometimes complicated by the focus in recent years on the humanitarian-development-peace nexus, which suggests the need for coordination not only among humanitarian actors but also with development and peace and security actors in order to achieve broader goals and have a more lasting impact. The possibilities and challenges of the approach have been increasingly discussed (Howe 2019), and some broad recommendations, including the creation of country-level forums that bring together these different pillars, have been put forward as possible ways to enhance coordination (Fitzpatrick et al. 2021).

Humanitarian diplomacy issues arising from key informant interviews

While most key informants did not explicitly use the term "humanitarian diplomacy," they did speak of efforts related to advocacy, negotiation, and partnership, and the complex issues that were involved. The principal issues raised are captured below.

1. *Humanitarian diplomacy has a mixed record in achieving its goals (010, 011, 012, 015, 016, 020, 027, 030, 031, 033, 047, 050, 054, 055).* Advocacy has been used to draw attention to the risk of famine and mobilize interest and resources and was seen as particularly successful in 2017 in rallying support to address the "four famines" (015, 048). But in many other instances, as noted earlier, efforts have fallen short in mobilizing resources, even when there was adequate early warning of an impending crisis (010, 011, 012, 015, 016, 020, 027, 030, 031, 033, 047, 050, 054, 055). In terms of negotiations, key informants noted some successes—for example, the humanitarian carve-out in Afghanistan and progress on access and staff safety issues in South Sudan (040)—especially when used in tandem with accountability mechanisms. But others expressed concern that in practice very little has been achieved (015, 018, 027, 029, 034, 035, 041, 044, 046, 049), despite significant efforts at the highest levels, and that the

humanitarian diplomacy has often led to negative consequences (027).

2. *Part of the challenge is that humanitarian diplomacy requires a balancing of a complex interplay of interests (008, 027, 052) and may require the use of levers that go beyond accountability mechanisms (008).* One key informant spoke of a "hierarchy of interests" (008) that must be considered. These interests may relate to economic, geopolitical, or strategic concerns that do not directly have to do with the negotiations or advocacy efforts but may play a role in determining the positions that are taken and the degree to which different stakeholders engage. In navigating these interests and engaging in humanitarian diplomacy, it may be necessary to draw on other levers, including development assistance or security cooperation (008). There are also different forms of accountability, including political, social, and criminal forms (003).

3. *There is a tension between humanitarianism and engagement in political processes (014, 027).* This tension can arise at several levels. At least one respondent expressed the fear that in countries affected by crises, assistance could be instrumentalized by being used as a negotiating tool for larger objectives (e.g., serving as a confidence builder in broader peace efforts), undermining the humanitarian principles of humanity, impartiality, neutrality, and independence (027). At the international level, the merger that placed the humanitarian assistance department within the foreign office in the UK was intended to promote more strategic alignment of priorities but risked subsuming assistance into larger foreign policy goals, not giving sufficient attention to humanitarian concerns in their own right (014), and even leading to the politicization of assistance.

4. *Humanitarian diplomacy needs to use both private and public approaches (002, 003, 051).* Some have emphasized the effectiveness of closed-door or informal "Track II" negotiations and have pointed to the success of ICRC (002). But others lamented that the pendulum has swung back to an emphasis on closed-door efforts and worry that an unwillingness to use more public

approaches to name and shame will ultimately undermine efforts to prevent famine: "Closed door only works with the implicit threat of going public" (003). In instances where issues were referred to the Security Council, it caused concern for governments who resisted the linkages and the implications of having violated international laws, and led to some progress on the ground (059). Finding the right balance can mean working carefully on the wording of documents, including on the tone and phrases used to make sure the outcomes are, on balance, positive (027).

5. *Given these complexities, skilled engagement is critical, but there are many gaps in the system (002, 006).* At the most senior levels, success often depends on the innate skills and experience and risk appetite of leaders. Recent Emergency Response Coordinators and the leader of WFP have worked comfortably and effectively on these issues (002,006). But as with accountability mechanisms, there appears to be a "missing middle" for humanitarian diplomacy (014, 044). This missing middle refers to both the lack of engagement of regional bodies such as the African Union Peace and Security Council and of ambassadors at the country level. It was noted that some ambassadors, if well briefed, will assist with access and bureaucratic impediments, but they are not focused on famine prevention per se (047). At humanitarian agencies, country directors for UN and NGO agencies often do not have training on these issues (002) and cannot be expected to call out actors without sufficient "cover" (003) if the actions lead to political and other difficulties on the ground.

6. *Measures for famine prevention need to go beyond humanitarian diplomacy, but doing so requires more joined-up approaches (011, 012, 040, 041,0 50).* There was a strong sentiment that it is not possible to continue with the emphasis on humanitarian responses (40, 41). It is important to shift to measures that work towards longer-term conflict prevention. Several key informants emphasized what can be done at the local level to incentivize peace and prevent local conflict (002, 012). But it would require a greater focus on humanitarian-development-peace nexus programming. Currently, these efforts are viewed as too siloed (011, 012, 050), both in terms of funding (011, 037, 050) and programming (019, 050). Key informants suggested that there is a need for platforms that bring together actors with different perspectives (044) and for efforts to be made for different actors to become "trilingual"—that is, conversant in humanitarian, development, and peace languages and perspectives (029).

7. *To prevent famine, it is essential to use both the technical and political approaches together (002, 008, 044).* While there was greater familiarity and comfort with technical approaches to famine prevention and more divergent views and confusion about political approaches, most key informants implicitly or explicitly acknowledged that both were necessary (002, 008) and that political approaches had a greater chance of preventing famine in the long run (044). There were calls for a new set of leaders at the country level who have the ability to combine both a technical understanding of issues with the political skills and maturity to navigate these complex challenges (002, 059).

Conclusions

Based on the literature review, key informant interviews, and the informal database, most modern-day famines or "near-famine" emergencies are the result of multiple causes that come together at once to create the emergency. Although typologies suggest other causes or in some cases, a single cause, for the most part, the observation of multiple drivers holds true. Typically, these may consist of the combination of climatic causes (or other natural hazards), conflict, market drivers, and the failure of response (often caused by blocked or extremely difficult access but also sometimes by inadequate funding, or both). Understanding causal factors is critical to prevention, but prevention efforts often focus on only *some* of the drivers of famine, limiting their success or the success of overall famine-prevention efforts. Though they could provide few concrete examples, key informants were broadly in agreement that prevention measures needed to work in coordination— taking a "systems view" that incorporates individual drivers but also the interactions among drivers and proximate outcomes—to have the desired impact of preventing famine[8] in today's multicausal crises. Informants suggested that it is therefore important to employ a combination of technical and political approaches.

Discussion and recommendations: What can a donor agency do?

For both technical and political approaches, the study has identified key constraints but can also offer some suggestions for how donors can address them and support a broader shift toward famine prevention.

Although there remain many issues with early warning and information systems, most observers and respondents agree that lack of information is not the problem. The problem is that information does not lead to action. Nevertheless, there are many problems with current information systems.

Information constraints. Uncertainty and unwillingness to act on probabilistic information remains a fear of many respondents, and any kind of predictive information is, by definition, probabilistic. Practitioners report fearing that they will misuse money if they jump too fast, and express a fear of "crying wolf," resulting in a "wait and see" attitude with regard to predicted outcomes. Information can be both too much and overwhelming, and too little and provide insufficient guidance at the same time. Information and forecasts about conflict and the humanitarian impact of conflict remains an underdeveloped component of information systems. Information about displacement and population movement may also be missing. Many previous studies by this team (Fitzpatrick et al. 2021), and many of the respondents to this study, note that information of various types—both diagnostic and programmatic—is not shared in a timely fashion by those who have it. This lack of information sharing seriously constrains the ability of implementing agencies and donors alike to respond in an anticipatory manner to crises that can lead to famine. And finally, as also noted previously by this team, information about famine and near-famine conditions is frequently manipulated and politicized by actors involved in assessment and information system (Maxwell and Hailey 2021).

Potential donor responses to information constraints. These are all things that donors can do something about, but some more than others. Organisation for Economic Co-operation and Development (OECD) donors fund many of the existing humanitarian information systems currently in use. Coordinated donor efforts could address several of these constraints. First, with regard to uncertainty about probabilistic information, donors could make it clear that "no regrets" programming is a priority and make a point of not "punishing" an agency in

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[8] For the remainder of this report, "famine" will be used as short-hand for "famine and near-famine" emergencies—noting that actual declarations of famine are relatively rare, but crises that are close to famine seem to be occurring at a rate of about three per year in recent times.

terms of future funding if the agency commits early to anticipatory action on the basis of a forecasted shock that eventually does not materialize or isn't as severe as predicted. Donors could in other ways encourage the use of crisis modifiers and other early interventions. Additionally, donors could prioritize efforts in real-time monitoring to help guide more-flexible approaches to rapidly developing crises. Second, coordinated donor efforts could certainly make data sharing a quid pro quo for information systems funded. To be clear, it is not information-generating agencies that are reluctant to share data. In fact, they are usually ones complaining. It is most frequently agencies that are both data and information producers and users—i.e., implementing agencies—who have the most incentive to keep information private until such a time as it is no longer particularly useful for planning and funding purposes (Lentz et al. 2020). Finally, although there is some evidence that donors themselves contribute to the politicization of information, there is little doubt that concerted efforts by donors can also contribute to the depoliticization of information systems—as was seen in the (donor-led) external assessment of IPC procedures in South Sudan in 2021, following a very fraught famine analysis in late 2020 (Buchanan-Smith, Cocking, and Sharp 2021).

Constraints to early or anticipatory action. This report assessed the current practices around crisis modifiers, "no regrets" programming, forecast-based financing, index-based insurance, the use of triggers, shock-responsive social protection programs, and resilience programs. The main constraints to anticipatory action include finance (which paradoxically has led in the past year to a reluctance to trigger crisis modifiers—and relatedly, the timing of anticipatory action) and a reluctance to go "all in" to prevent or mitigate a crisis. Information constraints have already been discussed. Inertia and risk aversion is a major constraint. Operating in nearly all the contexts that are currently at risk of famine means operating in extremely fraught environments, in which inflexibility and inability to rapidly adapt to changing conditions is a significant constraint. Anticipatory action has been mainly focused on climatic hazards, but so far has not been applied at scale or with notable success in conflict settings, apart from the pre-positioning of response resources. Many

respondents noted that, given the circumstances, there is a constant trade-off between addressing known, assessed needs in the current time frame versus investing to reduce risk in the future. There is neither the finance nor the human resource capacity to do both at once. Responses remain "siloed" (to invoke a very overused word). Unfortunately, even initiatives such as resilience programming or the humanitarian/ development/peace "nexus" have become "siloes" in and of themselves. Finally, one of the most promising famine prevention mechanisms, shock-responsive social protection programs, suffered significant setbacks in the face of famine or near-famine circumstances in 2022.

Potential donor responses to early or anticipatory action. Again, many of these constraints can be addressed by donor action. Much of the constraint boils down to issues of finance. The two big puzzles from the past year are the reluctance of implementers to trigger crisis modifiers and the failure of shock-responsive social protection programs. In both cases, lack of finance (or the fear of the lack of finance in the case of crisis modifiers) played a big role. Agencies were afraid that if they used up crisis modifier funding early in the crisis in the Horn of Africa, they would run the risk of actually running out of funding altogether, so they held that money back, rather than using it as intended. In the end, at least with regard to some donor funding, this fear turned out to be somewhat validated (for the most part, not Bureau for Humanitarian Assistance (BHA)-funded programs). Likewise, many respondents spoke of the choice between using limited funding to address real, known needs in the current time frame versus the risk of increased need in the future. Given that donor funding is going to be limited for the foreseeable future, donors *and* implementers will need to work together to make these hard choices—which relates back to the information constraints and the ability to prioritize in real time. Finally, donor funding windows are at least partly to blame for ongoing "silozation."

Constraints to a multisectoral approach. A recurrent theme throughout this research has been the observation that famines are more than just food crises, and more than a food response is needed to prevent the worst humanitarian outcomes in famine. While food security typically has the largest budget of any sector in these crises, much of this assistance is now

in the form of cash, so by definition has multisectoral applications even if it is labeled "food security" in budget terms. But a multisectoral response goes well beyond just the use of cash, particularly where provision of services is concerned (which may or may not be available for purchase, even with cash). A multi-sectoral response includes health, nutrition, and WASH—and it includes these not only in acute emergency response but also in longer-term famine prevention and resilience programming. As this report has noted, there have been attempts to implement these approaches, but they remain somewhat novel.

Potential donor responses to the need for multisectoral approaches. Part of the issue has to do with the "mental model" that is prevalent in famine analysis, which traces the origins of malnutrition and mortality more or less solely to food insecurity. Donors can work together to fund (or even require) initiatives like IFRR in Yemen or other examples and can encourage the analysis of multisectoral outcomes in early warning and humanitarian information systems. But ultimately a broader understanding of the causation of famine—and the causation of excess mortality in particular—will be needed to ensure a more integrated approach to famine prevention.

Constraints to the use of accountability mechanisms. Many respondents suggested the strong potential role of accountability in famine prevention efforts, but they were concerned that the current system does not work in practice. Challenges included the perceived disconnect between actions at the field level and the UN Security Council and, relatedly, the "missing middle" layer of regional organizations and senior diplomats who might better engage, support, and follow up on these issues. As a result, potential perpetrators are not fully deterred and may undermine lifesaving humanitarian operations in order to preempt or retaliate for the collecting and sharing of information on the use of starvation as a weapon of war. Respondents indicated that they therefore often face a trade-off between safeguarding their operations to prevent famine in the short term and promoting accountability to deter famines in the long term.

Potential donor responses to accountability mechanism constraints. Donors could take several steps to address these constraints. The first would be to recognize accountability mechanisms as an important approach to famine prevention and identify them as a priority in their wider strategies. This would not only signal the relevance of the approach but would also permit the allocation of resources to take it forward. The second would be to engage in a series of consultations on how to address the challenges in the system in the short run, including strengthening the connection between the field and the UN Security Council, engaging the "missing middle," and finding ways (e.g., division of duties within the humanitarian system) to protect operations without undermining accountability efforts. The third would be to take a long-term perspective and collectively implement actions that may not have immediate benefits but would lead to a fundamental shift in attitude towards mass starvation over time. A widespread understanding that it is unacceptable would facilitate prosecutions and deter its use. Respondents suggested ideas such as supporting prosecutions at the ICC, appointing a special rapporteur for the UNSCR 2417, and organizing a campaign similar to the one to ban landmines. Such strategies have worked for other issues, but deliberate, concerted, and well-coordinated efforts are required.

Constraints to humanitarian diplomacy. In examining the use of humanitarian diplomacy for famine prevention, the report identified examples of success, but also a number of constraints that currently limit its effectiveness. One is its complexity, because it involves a range of competing interests, could potentially draw on a variety of levers including accountability, can take both private and public forms with one often leveraging the other, runs the risk of instrumentalizing humanitarian assistance, forces the weighing of one crisis versus another, and in all these respects, involves a difficult balancing of different priorities. Yet the system is not fully organized to support these complex efforts and suffers, in many cases, from a "missing middle" of regional and in-country diplomatic actors. Moreover, those who are expected to engage in humanitarian diplomacy—whether humanitarians or diplomats by background—have often not been trained or mentored in this combined field, and success currently depends

to a great extent on personal experience, skills, and risk appetite. Finally, respondents indicated that while humanitarian diplomacy can make important short-term gains (e.g., greater access) in urgent situations, famine prevention requires joined-up longer-term efforts that bring together humanitarian, development, and peace efforts.

Potential donor responses to humanitarian diplomacy constraints. To address these constraints to humanitarian diplomacy, donors have a few options. First, as with accountability mechanisms, it is helpful to acknowledge that humanitarian diplomacy is a critical part of famine prevention efforts, but one that is complex and requires deliberate attention. Second, donors can invest in improving the system. This might include a review of the current state of play, from advocacy to negotiations, and the identification of key improvements (e.g., empowering the missing middle). It would also likely involve support for training and career development in the area of humanitarian diplomacy. The training would be for those coming from humanitarian and diplomatic backgrounds and would cover an understanding of IHL and accountability instruments such as UNSCR 2417, the roles of different actors in the system, and approaches to effectively managing the complexities involved. Third, it would promote longer-term famine prevention efforts that go beyond humanitarian diplomacy to include triple nexus approaches (e.g., the establishment of humanitarian, development, and peace forums at the country level) and support for conflict mitigation and peacebuilding. This could

be incentivized through "rewards" (e.g., in the form of more resources) for more coordinated, joined-up, and thoughtful efforts.

Final thoughts

This study was undertaken in the context of growing humanitarian needs and a recent upturn in the risk of famine. Although the development of a global system of early warning and humanitarian action has contributed to the prevention of famines, there is a concern that as needs continue to increase, the current approach to addressing humanitarian crises will not be sustainable and will not achieve its goal of alleviating human suffering at the required scale. This study identifies three broad shifts that could be undertaken to improve these efforts. First, it suggests that it is helpful to view famines as complex systems in order to better understand their evolution and identify ways to prevent their occurrence. Second, it argues that political approaches should be considered in tandem with and as equally important as technical ones in addressing famine. Third, it suggests that the emphasis expand beyond short-term responses to embrace more anticipatory and preventive efforts. While numerous challenges have been highlighted, there are also promising approaches that, with a deliberate focus and a willingness to learn and navigate complexity, can be pursued to better prevent these crises in the future.

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Annex 1. Coding tree

Categorical information for each KII

1. Type of Respondent
    a. Academic
    b. EW/Info
    c. EW/EA
    d. Humanitarian practitioner
    e. Development practitioner
    f. Conflict/peace Practitioner
    g. Donor
    h. Advocacy/accountability focus
    i. Other?
2. Geographic area of expertise
    a. Global
    b. East Africa
    c. West Africa/Sahel
    d. Nigeria
    e. South Sudan
    f. Somalia
    g. Yemen
    h. Kenya
    i. Ethiopia
    j. Other? (Afghanistan? Sudan? Other)

Nodes

1. Famine definition
2. Famine pressure
    2.1 Drivers
        a. Conflict
        b. Climate
        c. Market failure
        d. Disease hazards (epidemic/ pandemic)
        e. Other natural hazards
        f. Multi-causal
        g. Other
    2.2 Underlying vulnerability
3. Famine trajectories
    a. "Hold" (again not sure if we want to list these out—access, risk etc. or put them all under one node)
    b. Resilience, coping, social networks
    c. Competing priorities
    d. Self-reinforcing dynamics (ditto)

4. Policy driven famine prevention mechanisms
   a. Information/ evidence/ analysis
      - Early warning
      - Needs Assessments
      - Real Time Monitoring
      - Other diagnostic info
      - Program information, targeting, integration of responses etc.
      - Information constraints (bias, noise, proprietary ownership, etc.)
   b. Technical famine prevention interventions (list separately or one category)
      - Humanitarian action
      - Scalable/shock responsive social protection,
      - Service provision
      - Anticipatory action
      - Crisis modifiers, no regrets programming
      - Technology, etc. (see categories in lit review)
      - Resilience programming
   c. Legal/diplomatic conflict mitigation prevention interventions (list separately or one category?
      - IHL
      - 2417
      - Other (humanitarian diplomacy?)
   d. Accountability measures
   e. Advocacy measures
   f. HDP Nexus
      - Impacts
      - Constraints
5. Prevention successes/ enabling factors and reasons
6. Prevention failures/constraints and reasons
   a. Funding priorities
   b. Political constraints
   c. No faith in EW
   d. Inertia—(inability of agencies to make changes)
   e. Other
7. Prevention actors
   a. Within humanitarian community
   b. External to humanitarian community
8. Recommendations

Annex 2. Definitions of famine and related concepts

Numerous definitions have been proposed for famine. Below are the main ones.

IPC definition. The Integrated Food Security Phase Classification (IPC) defines famine as "an extreme deprivation of food. Starvation, death, destitution, and extremely critical levels of acute malnutrition are or will likely be evident" (IPC Partners 2021, 8). Though used to classify crises as famines, the IPC scale itself measures food security through phases 1–5, 1 being none/minimal and 5 being catastrophe/famine. Famine or IPC Phase 5 is the most severe classification, with the definition (for an area with a population of at least 10,000) being at least 20% of households facing an extreme lack of food, at least 30% of children suffering from acute malnutrition (wasting), and a minimum of two people for every 10,000 die each day due to outright starvation or to the interaction of malnutrition and disease (IPC partners, 2021).

de Waal. In *Mass Starvation*, Alex de Waal (2018b) argues that definitions of famine must include forced mass starvation and regard it as a variant of mass atrocities. Mass starvation ranges from the outcome of recklessness (pursuing actions regardless of the known dangers) through persecution to murder and genocide. The World Peace Foundation definition is based on total mortality. A famine is defined as a food crisis that causes elevated mortality over a specific period of time. Using the criteria Howe and Devereux (2004) developed for "great famines" (100,000 or more excess deaths) and "catastrophic famines" (one million or more excess deaths), it includes any famine for which the upper estimate of excess deaths falls above 100,000. For episodes of the intentional use of starvation as a weapon, the number of deaths is 10,000 (Conley 2017).

Howe/Devereux. One of the major influences in the development of the IPC scale was the Howe/Devereux 2004 publication "Famine Intensity and Magnitude Scales: A Proposal for an Instrumental Definition of Famine." Howe and Devereux (2004) outlined a means of defining famine based on the intensity (or severity) and magnitude (or scale) of the crisis. The "Intensity and Magnitude" scales enable moving away from a binary conception of "famine/no famine," and they also differentiate crises by the number of people affected. IPC does this as well, but only in the population-in-need (PIN) figures, not in the classification of the crisis.

Definitions of related terms

Other definitions that appear in this report include the following.

Starvation. Noting that "to starve" is a transitive verb, Conley and de Waal suggest that starvation is both an outcome and a process (Conley and de Waal 2019). As an outcome, "starvation means deprivation of food unto death, and is very rare even during famines, where the proximate cause of death is usually infectious disease," although the underlying cause of death is reduced resistance to disease is due to malnutrition and food deprivation (Conley and de Waal 2019, 700).

Malnutrition. The World Health Organization (WHO) defines malnutrition as an "inadequate or excess intake of protein, energy, and micronutrients such as vitamins, and the frequent infections and disorders that result" (Titi-Lartey and Gupta 2022).

Mortality. Mortality is simply death; the more commonly used terms are crude mortality rate or excess mortality rate. The latter is the number of people dying, in a given population over a given period of time that is beyond the level of expected mortality, based on historical trend data that incorporate seasonal variations. For famine research, the typical rate is the number of people dying per ten thousand population per day, but there are other configurations of rates.

Critiques of famine definitions

In *Poverty and Famines*, Amartya Sen (1981) argued that it was not food shortages (an event) but an inability to access food through a breakdown of entitlements (a process) that led to famines and the breakdown of entitlements that could plunge a population into famine (Sen 1981). In a subsequent paper, Howe (2018) argues that at least three different perspectives describe a famine: an event, a process, or a combination of the two. The general consensus now revolves around the combined view: famines result from an identifiable process, but the actual experience of famine is an event with a beginning and an end.

Maxwell et al. (2020) note that the current technical (IPC) definition of famine revolves mostly around the single dimension of severity, whereas the Howe/Devereux scales incorporated both severity and magnitude (Maxwell et al. 2020b). The IPC includes both a population minimum of 10,000 for an area declaration of famine and an estimate of the total population in need (PIN number). For the purposes of defining and classifying famine, IPC treats a population of ten thousand no differently in terms of classification than a population of a million.

Particularly with regard to the question of excess mortality, Maxwell et al. point out that a larger population in extreme food and nutrition insecurity in a slightly lower category of severity (for example, IPC Phase 4) can result in substantially higher levels of excess mortality than a small population in Phase 5, but the former is not considered a famine. Likewise, the IPC scales do not consider the issue of the *duration* of the crisis—again Maxwell et al. (2020) note that a population in Phase 4 for a longer period of time can *also* result in substantially higher mortality than a brief episode of Phase 5. These points are both illustrated by one of the most recent cases of an IPC-declared famine, that of Central Unity State in South Sudan.

Work by Seal et al. (2021) note a similar issue in IDP camps in Somalia in 2017. While there was no declared famine in Somalia in 2017, Seal and his colleagues showed that certain populations—recent arrivals in the displaced camps—had clearly breached the IPC thresholds to be considered in famine, but population-level SMART surveys didn't distinguish the displaced as a specific subpopulation. The longer-term residents of the camps faced much less severe food insecurity and malnutrition and lower levels of mortality, so the overall population *average* did not breach famine thresholds; thus, there was no "area declaration" of famine.