**JANUARY 2023** 

# **Rethinking Humanitarian** Assistance

Climate and Crisis in the Horn of Africa

AUTHORS Anastasia Strouboulis **Beza Tesfaye** Abigail Edwards **Erol** Yayboke

A Report of the CSIS Humanitarian Agenda and the CSIS Project on Fragility and Mobility

CSIS | CENTER FOR STRATEGIC &



# Rethinking Humanitarian Assistance

Climate and Crisis in the Horn of Africa

AUTHORS Anastasia Strouboulis Beza Tesfaye Abigail Edwards Erol Yayboke

A Report of the CSIS Humanitarian Agenda and the CSIS Project on Fragility and Mobility



CENTER FOR STRATEGIC & INTERNATIONAL STUDIES



## About CSIS

The Center for Strategic and International Studies (CSIS) is a bipartisan, nonprofit policy research organization dedicated to advancing practical ideas to address the world's greatest challenges.

Thomas J. Pritzker was named chairman of the CSIS Board of Trustees in 2015, succeeding former U.S. senator Sam Nunn (D-GA). Founded in 1962, CSIS is led by John J. Hamre, who has served as president and chief executive officer since 2000.

CSIS's purpose is to define the future of national security. We are guided by a distinct set of values nonpartisanship, independent thought, innovative thinking, cross-disciplinary scholarship, integrity and professionalism, and talent development. CSIS's values work in concert toward the goal of making real-world impact.

CSIS scholars bring their policy expertise, judgment, and robust networks to their research, analysis, and recommendations. We organize conferences, publish, lecture, and make media appearances that aim to increase the knowledge, awareness, and salience of policy issues with relevant stakeholders and the interested public.

CSIS has impact when our research helps to inform the decisionmaking of key policymakers and the thinking of key influencers. We work toward a vision of a safer and more prosperous world.

CSIS does not take specific policy positions; accordingly, all views expressed herein should be understood to be solely those of the author(s).

#### © 2023 by the Center for Strategic and International Studies. All rights reserved.

Center for Strategic & International Studies 1616 Rhode Island Avenue, NW Washington, DC 20036 202-887-0200 | www.csis.org

## Acknowledgments

The authors would like to thank the myriad experts and reviewers for their contributions to this report, including, but not limited to, Amina Abdulla, Gabrielle Fox, Jon Kurtz, Dr. Almaz Tadesse, and Caitlin Welsh, as well as numerous colleagues from USAID's Bureau for Humanitarian Assistance.

This report was made possible through the generous support of the U.S. Agency for International Development (USAID). The contents of this report are the sole responsibility of CSIS and do not necessarily reflect the views of USAID or the U.S. government.

### Contents

Executive Summary	1
Climate and Crisis in the Horn of Africa	3
Regional Factors of Fragility	10
Gaps and Challenges	17
New Ways Forward	21
Annex: Definitions	26
About the Authors	28
Endnotes	30

# **Executive Summary**

he Horn of Africa is in the midst of the longest and most devastating drought it has ever experienced. Within that context, this report provides humanitarian actors—and their counterparts in the development and peacebuilding communities—with a reconceptualization of the intersections between climate change and conflict.

The factors contributing to fragility, coupled with the stubborn gaps and challenges people and institutions in the Horn face, require different ways of thinking about the region. International partners must be deliberate about understanding the complex linkages between climate and conflict; introspective in identifying limitations, shortfalls, challenges, and successes in programming; and forward leaning in anticipating future needs and responses to climate-related crises. These shifts are critical since the scale and frequency of climate shocks will have reverberating effects on displacement, violence, health, and livelihoods throughout the region. Given the range of impacts, the humanitarian, development, and peacebuilding sectors must coordinate and collaborate more closely with one another—for example, by appreciating how climate adaptation and peacebuilding programming can be sequenced with and complement lifesaving assistance. Although this report focuses on humanitarian action, the authors argue that sustainable responses to the complex crises in the Horn of Africa entail a more comprehensive view of the foreign assistance architecture, one where long-term prevention and resilience measures are thoroughly integrated among stakeholders.

Drawing on interdisciplinary research, expert interviews, and contextual analyses, this report elucidates the interactions between climate change and other areas of vulnerability within the region. It starts by outlining the impacts of the climate crisis and comparing how these manifest in Ethiopia, Somalia, and northern Kenya. It then explores ties between climate vulnerability and fragility in these countries. Based on four major regional factors of fragility—(1) exposure to increasingly frequent and severe

climate shocks, (2) resource-dependent livelihoods, (3) weak and exclusive governance, and (4) regional instability and conflict—this report then moves to consider major gaps and challenges in providing humanitarian aid. It concludes by outlining new ways forward in the (1) timing, (2) approach, (3) conflict sensitivity, (4) human mobility enhancement, and (5) innovation of humanitarian responses.

By contextualizing the region's current acute needs, the report underscores how humanitarian responses cannot be siloed from other forms of assistance, especially given challenges in scale, funding, and flexibility. As climate-related impacts continue to manifest in disparate and interconnected ways, the authors hope the report offers new opportunities for coherence among peace, development, and humanitarian stakeholders to mitigate and avert humanitarian crises in the Horn of Africa.

To achieve sustainable climate resilience, durable peace, and, ultimately, prosperity, the people of the Horn require international partners to conceive new ways forward. The climate will continue to change, but the impact of that change on human security need not be at the level of devastation seen over the past decade in the Horn of Africa.

The climate will continue to change, but the impact of that change on human security need not be at the level of devastation seen over the past decade in the Horn of Africa.

# Climate and Crisis in the Horn of Africa

s of November 2022, parts of the Horn of Africa had seen a record five consecutive failed rainy seasons. In fact, the 2022 March-April-May season in Somalia, Ethiopia, and Kenya was the driest since records began in 1949.<sup>1</sup> Droughts in the region are becoming increasingly frequent: whereas rains used to fail approximately once every ten years, the latest drought has lasted for two consecutive years. The shortened drought cycle has made it more difficult for communities in the Horn to recover from previous drought periods, much less implement the necessary adaptive strategies to a changed climatic environment.

While ongoing droughts have affected the entire Horn, Ethiopia, Somalia, and northern Kenya show the most critical humanitarian need. The effects of drought in these places are compounded by conflict, price shocks (particularly because of Russia's war in Ukraine), the continued fallout of the Covid-19 pandemic, and a recent locust upsurge. Most critically, Ethiopia, Somalia, and northern Kenya, to different extents, all face an interconnected set of challenges to overcoming these compounding crises: climate vulnerability, low adaptive capacity, and state fragility. These crises have driven acute food insecurity, massive displacement, additional burdens placed on overstretched government institutions, and negative impacts on long-term development.

### **Food Insecurity**

Ethiopia, Somalia, and northern Kenya are particularly vulnerable to increasing drought patterns, in part due to their significant pastoral populations. In the case of Somalia, pastoralists constitute over half of the population.<sup>2</sup> The pastoral livestock and meat trade from the greater Horn is a vulnerable yet core part of the economy, valued at around \$1 billion a year.<sup>3</sup> High international demand for

livestock and meat exports has translated into a growth in pastoralism, while competition for access to water and grazing land has increased due, in part, to successive droughts and population growth.<sup>4</sup> With growing land and water insecurity, migration patterns of pastoralists—nomadic herders and semi-settled livestock farmers—are shifting, putting pastoral groups in contact with new communities "where customary agreements may not exist or where the local population may be unable to cope with rising pressures on resources."<sup>5</sup> A lack of clarity around land tenure and a failure of state and customary institutions to effectively adjudicate disputes contribute to more frequent and expanding intercommunal conflicts.

The impacts of prolonged drought have been broadly devastating across livelihood groups and communities, contributing to acute food insecurity. In August 2022, the World Health Organization (WHO) declared the greater Horn region—including Djibouti, Somalia, Sudan, South Sudan, Ethiopia, Uganda, and Kenya—to be experiencing "one of the worst hunger crises of the last 70 years."<sup>6</sup> In the coming months, over 37 million people in the region—including nearly half the population in Somalia—are expected to be at the crisis level or worse on the International Food Security Phase Classification (IPC) scale.<sup>7</sup> Across Ethiopia, Somalia, and northern Kenya, where food insecurity has been most pronounced, an estimated 9.2 million livestock had died as of July 2022 due to the ongoing drought.<sup>8</sup>

While major losses of livestock due to drought and ongoing economic instability in the region remain the primary sources of this humanitarian crisis, reduced major crop yields related to the drought compound these factors. For example, maize is sensitive to climatic shocks, and the Ministry of Foreign Affairs of the Netherlands predicts a "nationwide production decline of 90,000 metric tons" by 2055.<sup>9</sup> Although this represents a decrease of only 2.5–3 percent of Kenya's current maize yield, it is significant from economic and food insecurity perspectives given how central the crop is to the Kenyan agricultural economy. Similarly, while teff, a major crop in Ethiopia, is relatively drought resistant, other crops such as barley and wheat are already seeing declining yields as temperatures and droughts increase. In agropastoral areas, failed crop production has also limited crop residue, used for livestock feed in the dry season.<sup>10</sup> Notably, due to the widespread death of livestock, these countries are also facing a milk crisis, making it very difficult for children to get the necessary nutrition and leading to increasing levels of wasting in the communities most affected by drought.<sup>11</sup>

#### **Forced Displacement**

As a result of these overlapping crises, there continues to be significant internal displacement within Ethiopia, Somalia, and South Sudan as people leave their homes to seek safety and access to food, water, health services, and pastureland.<sup>12</sup> The United Nations High Commissioner for Refugees (UNHCR) estimated there were approximately 12.83 million internally displaced people (IDPs) across the Horn as of June 2022.<sup>13</sup> The United Nations Children's Fund (UNICEF) estimated Ethiopia and Somalia had approximately 4.2 and 3.7 million IDPs, respectively.<sup>14</sup> This displacement, along with lack of access to clean water, has exacerbated other issues, including hygiene and sanitation, leading to increased instances of diarrhea as well as disease outbreaks such as cholera, hepatitis A, typhoid, and polio.<sup>15</sup>

Issues of food insecurity and forced displacement—entangled in ongoing climate and political crises—have stretched state institutions in Ethiopia, Somalia, and northern Kenya past capacity, limiting the provision of public goods and services that could prevent drought-driven food insecurity from developing into famine. For example, hostilities in northern Ethiopia may come to an end

thanks to a November 2022 truce, though the durability of the agreement between conflict actors is questionable.<sup>16</sup> Even if peace lasts, the nearly two-year armed conflict has caused environmental degradation and poor humanitarian and commercial access to the Tigray region for much of 2021 and 2022.<sup>17</sup> Across the region, the Covid-19 pandemic has affected state capacities: at the onset of the pandemic, 50 percent of East African citizens had inadequate access to healthcare and 90 percent lacked social protection services from the state.<sup>18</sup>

#### The Impact of Russia's Invasion of Ukraine

The Horn of Africa is highly dependent on agricultural commodities imported from Russia and Ukraine. Shock waves emanating from Russia's invasion of Ukraine have affected the Horn in particular, compounding supply chain issues brought on by the Covid-19 pandemic. Disruptions to global supply chains and worldwide inflationary pressures are making staple resources such as wheat, oil, and fertilizer increasingly expensive.<sup>19</sup> Specifically, the conflict has reduced supply and raised prices of wheat and cooking oil from the Black Sea. Reduced supply of wheat, in turn, has increased the price of animal feed, making it more expensive to rear animals. Moreover, energy price increases have driven up food prices globally. Finally, the high price of fertilizer will affect food security in the region as farmers use less fertilizer, thus decreasing yields.

East African countries import up to 90 percent of their wheat from Russia and Ukraine.<sup>20</sup> Somalia has seen wheat and petrol prices rise by 300 percent.<sup>21</sup> In northern Kenya, Marsabit County experienced a 20 percent increase in the price of maize compared to the previous year, while the prices of livestock, critical to Marsabit County's economy, declined to extreme lows.<sup>22</sup> As of April 2022, the sale of a goat in Marsabit could purchase only 40 kilograms of maize, compared to 70 kilograms in April 2021.<sup>23</sup> FEWS NET projects that these prices will likely increase in the short term due to the failed rainy season, global inflation, and disruption in crop production and international travel because of Russia's invasion of Ukraine.<sup>24</sup>

### Conflict

Interlocking conflicts and climate crises have had long-term developmental impacts in Ethiopia, Somalia, and northern Kenya. In late August 2022, UNICEF reported an estimated 15 million children in the Horn were out of school due to ongoing drought and displacement, with 3.3 million more at risk.<sup>25</sup> Ongoing crises have widened many societal inequalities—educational and other—especially along gender lines. According to the UN Office for the Coordination of Humanitarian Affairs (OCHA), gender-based violence has risen due to the ongoing drought in the Horn and the lingering economic effects of the Covid-19 pandemic.<sup>26</sup> In the Galmudug, Puntland, and Benadir regions of Somalia, in particular, the International Rescue Committee (IRC) documented increased violence toward young girls.<sup>27</sup>

### **Subregional Variability**

While Ethiopia, Somalia, and northern Kenya share high levels of climate vulnerability, large pastoral populations, acute food insecurity, and ongoing price shocks, each is distinct in its state capacity and institutional strength, as well as the conflict dynamics specific to its context. Both Ethiopia and Kenya have stronger institutional capacity than Somalia, which faces ongoing political and violent conflict that has severely challenged state legitimacy for over three decades.<sup>28</sup> Ethiopia and Kenya

have employed large-scale government safety-net programs in the past decade to combat the effects of drought.<sup>29</sup> Ethiopia uses a mix of cash and food transfers, while in Kenya, transfers are largely cash. In both countries, international donors mostly fund transfer programs.

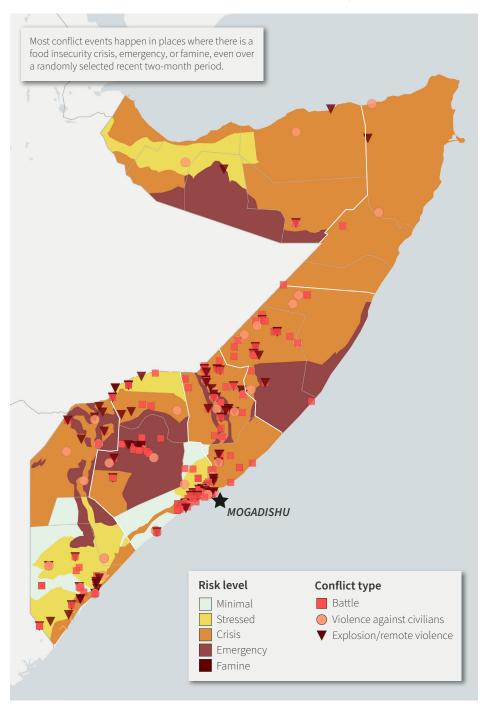


Figure 1: Conflict and Food Insecurity Overlap in Somalia, August 1–September 30, 2022

Source: "Somalia Projected Food Security Outcomes: August 2022 - September 2022," Famine Early Warning Systems Network, September 12, 2022, https://fews.net/content/somalia-food-security-classification-august-2022-january-2023; Armed Conflict Location & Event Data Project (ACLED), www.acleddata.com.

Ethiopia and Kenya have also created "national and regional strategies and policies" aiming to combat the growing challenges presented by climate change. <sup>30</sup> In 2010, the Ethiopian government unveiled the Ethiopian Programme of Adaptation to Climate Change, which has been supplemented by later policies, including the Climate-Resilient Green Economy strategy and sector-specific strategies.<sup>31</sup> Kenya similarly released its National Climate Change Response Strategy in 2010, as well as a National Climate Change Action Plan in 2013 and a later National Adaptation Plan.<sup>32</sup> Moreover, the Intergovernmental Authority on Development (IGAD), a trade bloc in the Horn, has spurred collaborative drought resilience and sustainable livelihood programming across the region.<sup>33</sup> For instance, the Building Opportunities for Resilience in the Horn of Africa (BORESHA) project, led by the Danish Refugee Council and funded by the EU Emergency Trust Fund for Africa, worked to improve economic resilience to drought for vulnerable populations across Ethiopia, Kenya, and Somalia.<sup>34</sup> In this way, organizations are actively working to supplement government actions to build resilience among their populations.

While Ethiopia, Somalia, and northern Kenya face high levels of instability, the source and dynamics are different in each country and often within subnational regions. While at the national level, conflict can manifest as ideological differences between political groups, at the local level conflict often revolves around socioeconomic grievances like lack of access to natural resources. Ethiopia's conflict in its northern regions has been characterized as a political dispute over the nature of federalism, but intercommunal clashes are growing in several regions including Oromia; the Southern Nations, Nationalities, and Peoples' Region (SNNPR); Somali; Afar; and Benishangul Gumuz. Conflict in Kenya is increasingly related to "issues around marginalisation and political representation."<sup>35</sup> While election violence in Kenya has declined since peaking in 2007, there was a marked increase in "hate speech aimed at influencing voters" in the months leading up to the August 2022 elections.<sup>36</sup> While all three states have also seen a rise in extremism in the past few decades, Somalia faces acute security challenges from the al Shabaab extremist group as well as intercommunal violence resulting from clashes between subnational authorities.<sup>37</sup>

#### **ETHIOPIA**

Ethiopia faces compounding and, at times, intersecting humanitarian crises due to conflict in the north and drought in the lowlands. As of early 2022, an estimated 29 million people—up from 8.4 million in early 2020—required humanitarian assistance.<sup>38</sup> Some are affected by conflict, others by successive droughts, and some by both. In the north of Ethiopia, including the Tigray, Amhara, and Afar regions, an estimated 13 million people need food assistance.<sup>39</sup> Security concerns in these regions have hindered humanitarian operations, including distribution of fertilizer and other aid supplies.<sup>40</sup> In Afar, humanitarian needs stem from "the combined effects of drought and conflict, ensuing displacement, lack of market access, and high food prices."<sup>41</sup> While many people require food assistance, access issues, destruction of public facilities, and looting of aid supplies hinder aid distribution in these northern regions.<sup>42</sup>

In regions to the south, such as Somali and Oromia, ongoing drought is compounding existing displacement issues: many people in conflict-affected regions in the north have fled south, along with an estimated 246,000 refugees from Somalia.<sup>43</sup> In southern Oromia, ongoing drought is affecting an estimated 3.5 million people, compounded by ongoing conflicts between unidentified armed groups, particularly in Guji.<sup>44</sup> Over 740,000 people are believed to be internally displaced in western Oromia.<sup>45</sup> Approximately three-fourths of those in need of humanitarian assistance are women and

children. By March 2022, "admission of children under five with severe acute malnutrition . . . has increased by more than 30 per cent compared to the average of the same period in the last five years (2017–2021)."<sup>46</sup> With the death and emaciation of millions of livestock in the lowlands, there is a critical shortage of milk, depriving many children of a major source of nutrition.<sup>47</sup> Relatedly, the OCHA documented that "the number of child marriage cases has increased by 264 per cent in Somali, by 69 per cent in Oromia and by 38 per cent in SNNP–all regions severely affected by drought–compared to the same period (January–April) last year."<sup>48</sup>

The Ethiopian government launched the Productive Safety Net Programme (PSNP) in 2005 as a means of providing aid to vulnerable groups throughout the country.<sup>49</sup> Since its launch, the program has provided cash and food transfers to approximately 8 million people throughout the country, or about 7 percent of the population.<sup>50</sup> Other government support has included emergency support, including animal feed, fertilizer, grain, and new seeds, provided by the National Disaster and Risk Management Commission.<sup>51</sup> However, Ethiopia's ability to provide aid via PSNP diminished over the course of 2022 as aid dollars became more scarce and the government's focus turned toward the conflict in the north.<sup>52</sup> Ethiopia's government has also experienced a policy-planning disconnect, namely because its planning models are "inconsistent with pastoralist production and marketing patterns that vary according to pre-drought, drought, and herd recovery phases."<sup>53</sup> These phases have been disrupted by prolonged drought over the past four failed rainy seasons, exacerbating planning challenges for both pastoral groups and policymakers.

#### SOMALIA

An estimated 6.7 million people in Somalia are likely to require emergency food assistance between October and December 2022 alone.<sup>54</sup> Somalia is more vulnerable than Ethiopia and northern Kenya to the ongoing drought and humanitarian crisis due to its arid and semiarid climate. Moreover, its lack of a functioning state, the dependency of its national gross domestic product (GDP) and livelihoods on livestock sales, and the entrenchment of violent extremist groups also play critical roles in Somalia's vulnerability.

While all three countries have large pastoral populations, 75 percent of Somalia's GDP and 93 percent of its exports are derived from livestock.<sup>55</sup> Moreover, due to the country's arid and semiarid landscape, compounded by the ongoing drought, the population faces widespread water shortages and difficulties accessing safe drinking water and proper sanitation facilities, contributing to an increase in cholera and measles.<sup>56</sup> As in Ethiopia, conflict and drought have contributed to significant levels of displacement, with an estimated 3.7 million people internally displaced (at least 1.1 million of whom have been displaced due to drought since January 2021).<sup>57</sup> While many Somalis have fled to Ethiopia from violence instigated by extremist groups such as al Shabaab, many others remain internally displaced throughout the country. Moreover, attacks by extremist groups pose a critical challenge to humanitarian aid providers.<sup>58</sup> During the 2011 drought, for instance, militant leaders charged humanitarian actors for access to certain areas, prevented some agencies from providing aid, set fire to food and medicine, and brutally murdered humanitarian workers.<sup>59</sup>

Somalia also faces ongoing political tensions and weak drought response due to lack of a functioning government. Political tensions in Somalia increased from late 2020 through May 2022 with the postponement of the presidential election.<sup>60</sup> After the new government was elected

in May 2022, tensions rose between the federal and regional governments over disbursement of external drought-related aid.<sup>61</sup> In late September 2022, five Somali ministers accused the federal government of withholding \$9.6 million in aid given by the United Arab Emirates to fund humanitarian operations.

As in Ethiopia and northern Kenya, the humanitarian crisis in Somalia disproportionately affects women and girls. From 2019 to 2021, there was an 80 percent increase in reports of rape and other forms of sexual violence, largely committed by al Shabaab and clan militias against girls.<sup>62</sup>

#### **NORTHERN KENYA**

While the ongoing drought has strongly affected northern Kenya, the region is relatively better off than both Ethiopia and Somalia due to a stronger central government (and an actual government response to drought); devolution of policy and budget authority to the subnational level, which allows for tailored responses; a history of community-based peacebuilding initiatives that have mediated the increase in intercommunal conflicts due to drought; and the presence of conflict early warning systems.

Nonetheless, the drought in northern Kenya has left 3.5 million people in need of humanitarian assistance.<sup>63</sup> Worsening droughts have increased tensions and raiding between different pastoral groups. There has been a series of conflicts at the border between Kenya, Uganda, and South Sudan over shared resources, with many raids occurring at water points.<sup>64</sup> These fights over increasingly scarce resources are compounded by "the growing prevalence of automatic weapons."<sup>65</sup> In one region of northern Kenya, annual fatalities from pastoral conflict "spiked from 500 to more than 3,000 over the past decade."<sup>66</sup>

Other notable trends include "wealth differentiation as a result of recurrent livestock losses; greater sedentarisation; increasing demand for education and livelihood diversification; and changing gender roles."<sup>67</sup> As in Ethiopia and Somalia, women and girls in northern Kenya are particularly affected by the socioeconomic shifts brought on by ongoing drought. One study showed that women in the Turkana region were at higher risk of experiencing sexual violence during a drought compared to non-drought periods.<sup>68</sup>

However, community-based peacebuilding initiatives and conflict early warning systems have somewhat mediated the rise in tensions between pastoral groups and related border conflicts due to drought. Organizations such as Interpeace have worked with the National Cohesion and Integration Commission to facilitate local peacebuilding structures, for instance, by creating dialogue spaces for communities to work together to mediate conflict.<sup>69</sup> In addition, the Kenyan government has worked with early warning groups such as the Conflict Early Warning and Response Mechanism (CEWARN) to prevent, detect, and mediate conflict threats throughout Kenya and the rest of the region.<sup>70</sup>

# **Regional Factors** of Fragility

A lthough climate change is a global phenomenon, certain places are disproportionately exposed to—and thus affected by—climate threats. Socioeconomic and political factors such as food insecurity, forced displacement, and conflict elevate the risk of impacts from climate change, reducing communities' adaptive capacity and eroding resilience to increasingly frequent and intense climate change-related environmental shocks.

Fragility in the Horn of Africa is thus characterized by four interrelated phenomena:

- 1. exposure to increasingly frequent and severe climate shocks;
- 2. resource-dependent livelihoods;
- 3. weak and exclusive governance; and
- 4. regional instability and conflict.

### **Increasingly Frequent and Severe Climate Shocks**

The Horn of Africa typically has two rainy seasons per year: March–May and October–December. Multiple reports document increased variability in rainfall patterns and an overall increase in extreme weather events, creating a critical challenge for resilience-building activities.<sup>71</sup> Since late 2020, the region has seen a record five consecutive below-average rainy seasons and an early forecast for a sixth in March–May 2023, contributing to devastating prolonged drought in Ethiopia's lowlands, Somalia, and northern Kenya.<sup>72</sup>

Droughts have become more frequent and extreme across the Horn of Africa over the last half century due, in part, to climate change. Drought frequency has doubled from once every six years to once every

three years since 2005, with droughts becoming more severe during the long and summer rainfall seasons than during the short rainfall season.<sup>73</sup> The current drought crisis is linked to the occurrence of La Niña—the large-scale cooling of ocean surface temperatures in the central and eastern equatorial Pacific Ocean—which affects rainfall patterns in different parts of the world, usually with drier conditions in the Horn of Africa.<sup>74</sup> Scientists predict that La Niña, which started in 2020, could continue into 2023.<sup>75</sup> Concerningly, La Niña events may also increase in frequency if greenhouse gas emissions remain high.

In the coming decades, scientists project increases in annual rainfall in northern Kenya, Somalia, and parts of Ethiopia. In Ethiopia, increased rains in highland areas have already resulted in extreme flooding, paradoxically affecting drought-affected riverine areas downstream from highland rains. Despite this phenomenon, scientists also project that rainfall increases will be offset by increased temperatures and instances of extreme drought.<sup>76</sup> Unpredictability will increase as trends move more toward the extremes.<sup>77</sup> With an already significant increase in temperature since the early 1980s, it is estimated that by 2050, the region will experience increases in temperature ranging from 0.4 to 3.2 degrees Celsius.<sup>78</sup> Kenya, for instance, will experience a 17–45 percent increase in the number of hot days and a 32–75 percent increase in the number of hot nights. Ethiopia—home to both the highest elevation in the region (the Ethiopian highlands) and the hottest place on earth (the Danakil Depression)—will likely see an increase in overall rainfall offset by a decrease in spring rains and a significant rise in temperatures.

The frequency and intensity of these climate change-related shocks are projected to increase, and the shocks will compound the region's existing vulnerabilities and complex social, economic, and political challenges.<sup>79</sup> The shocks will also have sub- and transnational impacts, including rising forced displacement and migration levels, increased political tensions, and intensified violent conflict within and between countries. Cyclical climate-related shocks are fast constituting a new normal in the Horn of Africa.

#### **Resource Dependence**

The Horn's commodity-based economies rely on small-scale agriculture and pastoralism, sectors that are underdeveloped and lack resilience in this region. Many farmers do not have access to, nor have they adopted, modern methods and technologies that could offset some of the production risks posed by climate-related environmental change. Cereal production (maize, sorghum, millet, teff), for example, will diminish due to poor and erratic rainfall. Farmers' limited access to a more diverse and adapted set of cereal varieties further compromises cereal yields. Any inputs received often show suboptimal yields due to poor agronomic management and pest outbreaks.<sup>80</sup> Nevertheless, there are early indications of climate-smart agricultural practices: recognizing and promoting crop and varietal diversity; facilitating farmer access to varieties tolerant to drought, disease, and pests; and using climate information services and irrigation to improve output while mitigating risks to smallholder farmers. Many of these potential adaptations are not yet at scale, in part because most emergency seed aid responses in the region focus on procuring and disseminating seeds at scale instead of recognizing and supporting local seed systems and building their resilience.

#### **Agriculture and Livestock Are of Critical Importance**

Livestock herding and agricultural production, both resource-dependent sectors, are the backbone of the Horn's economies. In Ethiopia, agriculture, forestry, and fishing account for nearly 40 percent of GDP, nearly 80 percent of merchandise exports, and over 65 percent of employment.<sup>81</sup> In Somalia, agriculture, forestry, and fishing account for 63 percent of GDP, nearly 95 percent of merchandise exports are food exports, and 80 percent of people are employed in agriculture.<sup>82</sup> In Kenya, agriculture, forestry, and fishing account for nearly 25 percent of GDP, 48 percent of merchandise exports, and about 54 percent of the total population's employment, climbing to around 70 percent among the rural population.<sup>83</sup>

Pastoralists also make up a significant portion of the Horn's rural economy. In the region's arid and semiarid areas—about 60 percent of the region's total surface area—pastoral populations number an estimated 12–22 million people.<sup>84</sup> Adaptation to climate change has proven especially challenging in pastoral areas, in part because existing solutions trend toward short-term survival rather than longer-term adaptation to changing environmental conditions.

Facing shifting and increasingly variable weather patterns, many pastoralists have been displaced from their typical migration patterns.<sup>85</sup> With droughts exacerbating recent overgrazing and land management issues, fertile pastures are increasingly scarce and livelihood conditions have worsened. Many cope by moving to areas where more resources are available. While migration may be a viable strategy, it also creates new challenges. For example, access to traditional pastoral routes is usually negotiated and regulated through customary law; however, pastoralists are forced to travel farther during droughts, putting them into contact (or conflict) with new groups without such agreements in place. Communities see increases in raiding and other types of intercommunal violence as competition over shared resources becomes more intense.<sup>86</sup>

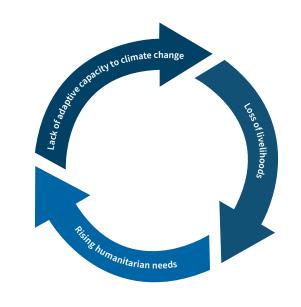


Figure 2: The Climate Cycle in Need of Breaking

Source: CSIS.

Some pastoralists cope by selling more livestock during drought periods. When done in deliberate ways, selling livestock—for example, selling a few goats, cows, or even camels early in a drought to pay for relocation to an area with more livestock fodder—can be a productive coping mechanism. However, the path to diminishing returns is rapid: a surplus of livestock on the market can lead to decreases in livestock prices and, derivatively, economic decline. Research connects this decline in economic wellbeing to an increase in cases of raiding as well as pastoralists joining armed groups.<sup>87</sup>

Country Risk Profiles				
	Overall risk class	Hazard and exposure*	Vulnerability*	Lack of coping capacity*
Ethiopia	Very high	#17	#13	#26
Somalia	Very high	#2	#3	#4
Kenya	Very high	#4	#23	#49

\*Note: Numbers shown refer to the specified country's ranking out of 191 countries worldwide. Source: Disaster Risk Management Knowledge Centre - INFORM Risk, "Country Risk Profile," European Commission,

https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Country-Risk-Profile.

Still others have responded to drought and rainfall variability by turning toward agricultural production.<sup>88</sup> Some have become "urban-based" pastoralists, with small plots of land for crop growing and livestock grazing, while "settled" pastoralists combine livestock husbandry with farming. However, cases of extreme drought—like the current situation—have wiped out both livestock and crops, thus lessening the viability of this strategy.<sup>89</sup>

According to regional experts interviewed for this report, it takes pastoralists in the Horn approximately five to eight years to recover from each drought. However, droughts are now happening in two-to-three-year cycles, never letting pastoralists fully recover. Given that most of the population relies on land- and water-dependent agropastoral activities, climate-related weather variability and resource availability have a disproportionate impact on lives and livelihoods.

### **Weak and Exclusive Institutions**

While farmers and agropastoralists have developed a range of adaptation and coping strategies at the community and household levels, they often lack the skills, labor, and capital to find sustainable livelihood alternatives.<sup>90</sup> The informal strategies they deploy become progressively inadequate as the frequency and scale of climate variability and shocks increases. Vulnerability and scarcity due to environmental change are not apolitical phenomena: institutional capacity and political inclusion can moderate the negative effects of climate-related environmental change. Governments can help communities cope in times of drought via efforts like bolstered subnational agricultural extension services, strengthened local agro-economies, and other efforts to build inclusive resilience at the local level. However, weak and exclusive institutions can create or prolong the need for humanitarian assistance in areas of acute climate sensitivity.

Ethiopia, Somalia, and northern Kenya have had varying levels of state capacity at times of severe drought. For example, Somalia, embroiled in conflict, was a nonfunctioning state between 1992 and 2012. Since 2012, the transitional government has built a fragile administration in Mogadishu but has been unable to establish a countrywide monopoly over the use of force and public service provision. Public services have been co-opted by al Shabaab, privatized to a subset of the population, or made entirely inaccessible. According to the World Bank's Government Effectiveness indicator, a proxy for institutional capacity to deliver public services, Somalia's percentile rank has not exceeded 4 percent since 1996, the first year of the data set, and between 2004 and 2016 was 0 percent. Similarly, the 2022 INFORM Risk index ranked Somalia as the number one country at risk of humanitarian crises

and disasters overwhelming its national response capacity.<sup>91</sup> For the index's Lack of Coping Capacity dimension, Somalia's institutional risk was 9.2 out of 10, and its infrastructure risk was 8.4 out of 10.<sup>92</sup> Alongside systemic institutional weakness, Somalis have had consistently poor access to external assistance.<sup>93</sup> For example, during the 2010–11 drought, al Shabaab blocked aid flowing into Somalia, and foreign governments imposed counterterrorism-related constraints on humanitarian funding and operations. These and other factors culminated in the 2010–12 famine, which ultimately caused about 258,000 deaths.<sup>94</sup>

Despite its authoritarian tendencies, the Ethiopian People's Revolutionary Democratic Front party significantly increased state capacity after seizing power in 1991. The Government Effectiveness indicator showed a positive trend from 1996 to 2008, reaching 42.23 percent, though since then this trend has stagnated and slightly declined.<sup>95</sup> The 2022 INFORM Risk Index's Lack of Coping Capacity dimension placed Ethiopia's institutional risk at 4.6 out of 10 and its infrastructure risk at 8.3 out of 10.<sup>96</sup> Ethiopia has a history of disaster management institutions. It established the PSNP in 2005 and has supported 7–8 million rural Ethiopians for six months of every year with cash or food transfers.<sup>97</sup> The PSNP, alongside other government policies to promote food security and agricultural development, helped Ethiopia mitigate the risk of famine during the 2015–16 drought. More recent efforts show promise, like encouraging cluster farming and the government's Green Legacy Initiative.<sup>98</sup> However, the conflict between the Ethiopian government and the Tigray People's Liberation Front in 2021 and 2022 hindered public services and social protection measures alongside regional violence, inadequate rural infrastructure, and limited administrative capacity in peripheral areas of the country.

The Kenyan state, for its part, has been viewed as legitimate and relatively stable since its independence in 1963.<sup>99</sup> Climate governance has also become a national priority, as demonstrated by the adoption of the Climate Change Act in 2016, which established a national council, funding mechanism, and agency to lead on climate change policy. The National Climate Change Action Plan 2018–22 also establishes priorities for achieving low-carbon, climate-resilient development. However, there are still gaps in mainstreaming the national climate adaptation mechanism at the subnational level, hindered by lack of shared information, funding, and accessibility.<sup>100</sup> Decentralization will be key to Kenya's resilience to climate change since most of its extreme vulnerability is found in its northern areas. Additional structural challenges affecting Kenya's resilience include youth unemployment, ethnic and political tensions over the devolution of public administration, regional spillover conflicts, and entrenched corruption, particularly in the north and northeast of the country.<sup>101</sup>

#### **Climate Vulnerability, Fragility, and Conflict**

While climate change is not inherently a trigger of conflict, it can aggravate economic, social, and political factors of fragility that might lead to conflict.<sup>102</sup> Mobjörk and van Baalen of the Stockholm International Peace Research Institute offer five explanations for why, how, and when climate-related environmental change can lead to violent conflict in Africa:<sup>103</sup>

- 1. worsening livelihood conditions;
- 2. increasing migration;
- 3. changing pastoral mobility patterns;

- 4. tactical considerations; and
- 5. exploitation by elites.

Places experiencing fragility face greater challenges adapting to climate change and are thus often considered extremely climate vulnerable.<sup>104</sup> Due to an overall lack of state capacity, these states struggle to create and execute institutional strategies to plan for climate change and variability. They also may be unable to provide basic public services to aid those facing temporary and ongoing climate disasters, further contributing to fragility.

#### **Regional Instability and Conflict**

There is growing consensus among experts about the existence of a "climate-conflict nexus," whereby, under certain conditions, climate change exacerbates existing tensions and increases the risk of violent conflict. In turn, violent conflict degrades the environment and limits resilience, creating a wicked cycle. In the Horn of Africa, the prevalence of climate change, including severe droughts, unpredictable rainfall, shifts in resource availability, and other factors, interacts with the economic, political, and social factors discussed previously to heighten the possibility of violence.

With devastating conflicts and simmering tensions already present throughout the region, environmental change may contribute to chronic insecurity. In Kenya's Laikipia County, for example, clashes between rival pastoralist communities and between pastoralist and farming communities have led to at least 35 deaths since September 2021.<sup>105</sup> In northern Ethiopia and Somalia, conflicts have diverted efforts and resources, created obstacles for humanitarian access, and caused displacement—all of which undermine humanitarian goals and create opportunities for bad actors.

Economic instability and personal insecurity are fruitful grounds for recruitment into armed groups, including terrorist organizations and self-defense groups, as in the case of Somalia.<sup>106</sup> Spillover from conflict in Ethiopia is also a concern, even with ongoing peace processes, particularly with the conflict-affected Tigray and Afar regions bordering Eritrea and the historically tempestuous Oromia region bordering northeastern Kenya.<sup>107</sup> Internal and regional displacement from ongoing conflict can also lead to increased competition over depleted natural resources and inadequate social services.

Elites may escalate low-level community-based conflicts into civil war and chronic insecurity in order to grow and consolidate power. Tensions over resources may be linked to broader political grievances, which elites may fuel to divert attention from their own shortcomings, undermine opponents, and maintain support from their constituencies. For example, the destruction of the Syrian oil industry led people to refine their own crude oil, producing rivers of oil waste across northeast Syria and aggravating intercommunal tensions.<sup>108</sup> Closer to the Horn, some consider the 2003 conflict in Darfur a prime example of environmental trends like desertification contributing to violence that further degraded the environment.<sup>109</sup> There, government officials used "incendiary race-baiting political rhetoric" to fuel a power struggle between groups over ethnic and tribal land claims.<sup>110</sup> Although climate change does not intrinsically lead to conflict, it does interact with existing factors of fragility, exacerbating tensions and conflicts and escalating the risk of violence.

As shown, the increased frequency and scale of weather and climate extremes such as drought, floods, and heat waves—combined with unsustainable practices that contribute to land and water degradation—have an adverse impact on the natural capital farmers and pastoralists rely on for their livelihoods. Climate shocks can reduce the quality and availability of natural resources, while additional social, political, and economic factors undermine communities' adaptive capacity. This adverse relationship has led, and will continue to lead, to rising humanitarian needs within the Horn of Africa and other regions that depend on natural resources for their livelihoods.

Although climate change does not intrinsically lead to conflict, it does interact with existing factors of fragility, exacerbating tensions and conflicts and escalating the risk of violence.

# **Gaps and Challenges**

umanitarian actors are on the front lines of witnessing and responding to the intensifying effects of climate change. With climate-related disasters forecasted to be more frequent and severe in the future, humanitarian needs, ranging from displacement to food insecurity to public health emergencies, will continue to increase. While the literature provides ideas on how to mitigate and help communities adapt to both slow- and rapid-onset impacts of climate change, humanitarian actors face unique gaps and challenges in responding to humanitarian needs in climate-vulnerable fragile contexts where the challenges of climate change and instability collide.

#### **The Nature of Aid**

An initial barrier to effective humanitarian policy and programming is that most assistance is unidirectional and narrow. Scientists, security professionals, civil society organizations, humanitarian actors, and the UN Security Council rightly frame climate change as a "threat multiplier," asserting that climate change indirectly aggravates the drivers of insecurity to threaten peace and security.<sup>111</sup> However, the threat multiplier paradigm narrowly defines a "oneway effect" of climate change driving insecurity, overlooking the impact of conflict itself on the environment.<sup>112</sup> More broadly, this paradigm narrowly views climate as a threat to security without due consideration of how conflict and climate change independently and concurrently impact infrastructure, public health, food insecurity, and other vulnerabilities.

Humanitarian assistance is often late. Because responses are often informed by needs on the ground, they miss opportunities to get ahead of disasters. Nonetheless, efforts to improve forecast-based anticipatory actions and early responses are growing. Mechanisms such as the Central Emergency Response Fund

(CERF) are designed to activate early humanitarian response, as in the case of CERF distributing \$40 million in aid for Ethiopia and Somalia in early 2021 before drought conditions peaked. Although the funding "enabled swift procurement of critical nutrition supplies, medicines and vaccines"<sup>113</sup> and was meant to encourage other donors to mobilize resources for the crisis, additional funding trickled in slowly. By April 2022, the funding gap had grown, and humanitarian actors called for more than \$4.4 billion in funding to provide lifesaving aid and protection for close to 30 million people affected in Kenya, Ethiopia, and Somalia in 2022. According to one NGO leader, "not getting much needed international attention and additional resources at a time of historic need in the Horn of Africa would result in the loss of thousands of lives that could have been saved by a timely and at-scale response."<sup>114</sup>



Photo: Erol Yayboke.

### **Funding at Scale**

Another critical gap in humanitarian programming is meeting the scale, location, and range of needs. The United Nations estimates that in 2022 over 200 million people worldwide required humanitarian assistance, but only one-third of the record \$48.7 billion needed to respond had been pledged.<sup>115</sup> This is the largest-ever shortfall in global humanitarian finance, a gap that has gradually increased as needs increase faster than funding levels. By November 2022, an estimated 20.9 million people faced high levels of acute food insecurity across the Horn, compared to approximately 13 million in 2011 and in 2017.<sup>116</sup> In addition to funding, security and bureaucratic constraints can also limit the ability to reach those most in need. While some organizations can negotiate access, they face persistent limitations in how they operate within the conflict zone, as in the case of Tigray.

Meeting the scale of the challenge in the Horn is complicated by the unprecedented nature of climate impacts, particularly in fragile contexts. A 2021 World Bank study showed that the frequency of droughts in sub-Saharan Africa nearly tripled between 1970–79 and 2010–19.<sup>117</sup> The current drought in the Horn is one of three in the past 10 years alone.<sup>118</sup> Unprecedented challenges require unprecedented types and levels of response, but donors have fallen short of meeting their commitments to avert greater impacts of climate change through mitigation efforts. Donors have also fallen short of funding adaptation efforts in countries that are already feeling the impacts. Climatevulnerable fragile contexts are the least prepared to adapt and typically receive the least amount of climate finance, in part due to risk aversion and bureaucratic challenges with accessing funds. On average, extremely fragile states receive \$2.10 per person in adaptation financing compared to \$161.70 per person for nonfragile states.<sup>119</sup> The 27th UN Climate Change Conference of the Parties (COP27) in Egypt in November 2022 saw increased interest in providing aid for climate adaptation in fragile states, with Germany pledging €40 million to climate-vulnerable countries in Africa.<sup>120</sup> However, despite their disproportionate need. African countries receive only 4 percent of global climate adaptation funds.<sup>121</sup> Without robust climate action-starting with climate finance for adaptation that goes beyond humanitarian and development aid contributions-humanitarian needs will continue to grow in fragile contexts like the Horn of Africa.

#### **Response Incoherence**

Given the interrelated nature of these issues, humanitarian, peacebuilding, and development practitioners can no longer address climate and conflict as separate issue sets. Nor should the climate and conflict relationship be seen as divisible from other dynamics of fragility. Several complex, protracted crises—including the situation in Somalia, where there has been an active UN humanitarian appeal for 20 consecutive years<sup>122</sup>—have led to a growing gap between need and available resources for humanitarian action. Development and humanitarian actors agree that addressing factors of fragility, particularly in situations of protracted crises, is necessary to reduce the burden on humanitarian agencies to respond to growing needs. Organizations and donors are being forced to bring greater coherence to efforts addressing systemic climate and conflict-related challenges.<sup>123</sup> These efforts seldom go beyond informal coordination or participation in cluster systems that offer forums for discussion but not coherent, coordinated, cross-cutting solutions.

Two critical barriers exist in operationalizing coherence within complex crises driven by climate change and conflict: coordination architecture and funding structures (the latter is distinguished from funding levels, discussed previously). Humanitarian organizations and the architecture meant to coordinate their efforts are often structured by geography and technical sector, such as water, sanitation, and hygiene (WASH), shelter, or protection. While there is some collaboration between groups and some technical experts are housed within geographic teams, the traditionally siloed structure does not adequately encompass the range of expertise and capacity needed to address climate-conflict issues. Efforts to change this include Mercy Corps and CARE International implementing a collaborating, learning, and adapting (CLA) framework in response to a seasonal flooding disaster in Ethiopia in 2020.<sup>124</sup> Coordination at the regional level also promises opportunities for more impactful responses and is recognized by strategies such as the IGAD Regional Climate Change Strategy and Action Plan for 2023–30.<sup>125</sup> In areas where climate impacts are most acute, intra- and interorganizational learning, sharing, and strategizing can overcome silos in one country.

Nonetheless, typical organizational structures adapt either when lifesaving humanitarian assistance is needed, when agricultural resilience-building programming is needed, or when governance and institution-strengthening support is needed. Seldom can structures adapt quickly or simultaneously to the multifaceted challenges presented by climate change.

Funding structures are scarcely more coherent. Donor expectations and approaches heavily influence continuous knowledge building and coordination; where donors are flexible and adaptive, so are responses. Responding to the challenges of climate change impacts on different scales requires engaging with a broad set of partners, including local responders. However, several constraints limit the scope of their engagement. For example, an assessment of the Green Climate Fund showed that local organizations in the least developed countries were mostly accredited to implement low-risk micro and small projects, and they faced additional constraints in meeting accreditation standards, developing proposals, and complying with reporting requirements on restricted timelines and budgets.<sup>126</sup> These challenges also exist in the humanitarian sector, where donors have struggled to expand risk tolerances and have avoided investment in necessary long-term, larger-scale, flexible funding streams that span the climate-conflict nexus across borders.

### Sustainability

A final key constraint for humanitarian programming is the sustainability of interventions, particularly since there is a persistent gap in coordinating, deconflicting, and/or sequencing them with peacebuilding and development efforts. Humanitarian programs are typically resourced to facilitate survival, not to build resilience. These programs—for example, cash-for-work programs, food distributions, and direct cash assistance—by design offer short-term remedies to challenges requiring longer-term solutions. In Somalia, many long-term IDPs rely disproportionately on food aid and cash distribution and have not reengaged in ways to earn a sustainable living.<sup>127</sup> Humanitarian agencies in the Horn have focused primarily on addressing food insecurity at the community level, incorporating some livelihood assistance and climate-sensitive disaster risk reduction approaches. However, while these interventions are essential, they are relatively short term and not typically integrated within broader efforts to improve governance for conflict-sensitive climate change adaptation at the local, regional, and national levels.<sup>128</sup> Thus, when shocks recur and persist—as has been seen with drought, locusts, and Covid-19 in the Horn—communities remain trapped in a cycle of vulnerability.

# Humanitarian programs are typically resourced to facilitate survival, not to build resilience.

Climate impacts are both broad and deep. Climate change is indifferent to borders; this has certainly been the case in the Horn. The most sustainable responses appreciate and adapt to community-level needs and opportunities while also having the ability to scale up and out when needed.

# **New Ways Forward**

his report sheds light on the changing nature of humanitarian needs in the Horn of Africa. As climate change collides with existing factors of fragility, those attempting to respond face persistent gaps and challenges.

The report was developed via analysis of trends, significant desk research, and interviews with international, regional, and local stakeholders. Although many stakeholders were not aligned on the path forward, all were resigned to the fact that cyclical climate crises are here to stay and that the traditional response modus operandi is not working. The following recommendations are built on this common denominator.

Future climate change scenarios challenge humanitarian actors, including donors, to think differently in terms of how, when, and what actions can be effective. They also challenge development and peace actors to consider their critical role in breaking the cycle of humanitarian crisis in the Horn. Thus, the following recommendations target peace, development, and humanitarian stakeholders, highlighting opportunities for more innovative and impactful support to mitigate and avert humanitarian crises in the Horn of Africa. This support should be built around enhancements to the (1) timing, (2) approach, (3) conflict sensitivity, (4) mobility enhancement, and (5) innovation of responses.

### 1. Timing: Shift from Status Quo Short-Termism to Mainstreaming Disaster Preparedness, Early Response, and Preventative Action

Needs usually outpace available humanitarian resources. While it has long been recognized that investing in preventative action can help save both lives and resources, early action is still relatively limited in the aid community, though data and predictive capabilities are more available and reliable than ever.

Seasonal predictions for rainfall are particularly reliable during phenomena like La Niña, according to an expert interviewed for this study, who argued simply that "the problem is not more data."

To leverage existing data and early warning systems to prompt early action, donors must be willing to act, even in situations of uncertainty. A lesson from CERF, detailed in the previous section, and past failures to respond early indicate that in addition to clear processes, structures, and dedicated resources for early action, donors must muster the necessary political will to prioritize such efforts, even in the face of competing crises. Without this political will, aid actors will continue to miss key windows of opportunity to avert the most devastating and preventable outcomes of drought and conflict, such as famine and mass displacement. When they get around to responding, the human and financial cost is much higher.

Aid actors can and should strengthen communities' preparedness and anticipatory actions employed by communities themselves, in line with the U.S. Agency for International Development's (USAID) push toward greater localization.<sup>129</sup> For example, a case study from 2021 documented how Somali pastoralists and agropastoralists facing numerous climate-related crises calibrated early responses to anticipated anomalous weather patterns.<sup>130</sup> These responses included selling animals to generate resources to travel to better grazing areas; increasing grazing time to fatten animals so they would be more resilient when resources were less available; storing fodder ahead of drought; and harvesting crops earlier, before they reached full maturity, to avoid total losses during periods of poor rain. Despite these resourceful actions, pastoralists indicated they faced barriers to taking action at the ideal time, including lack of resources (e.g., for equipment needed) and lack of knowledge (e.g., not knowing about drought-resistant crop options). Aid actors can support and augment locally driven responses through greater commitments and flexible resources for anticipatory action; these actions should be supported by national and local governments and include robust private sector participation.

#### 2. Approach: Allow for Flexible, Adaptive, and Integrated Aid Funding

While humanitarian responses have focused mostly on short-term emergencies, climate change will likely create more chronic challenges for which traditional response mechanisms are maladapted.<sup>131</sup> This necessitates a new way of working, which interviewees noted requires focusing efforts on the short, medium, and long terms at the same time. While, conceptually, this has given rise to the humanitarian-development-peace nexus (also known as the "triple nexus"), putting this approach into practice has been slow and limited in scope and scale. For example, though Organization for Economic Cooperation and Development (OECD) Development Assistance Committee (DAC) donors have signed on to the Recommendation on the Humanitarian-Development-Peace Nexus, promising to "incentivise and implement more collaborative and complementary humanitarians note that funding is still stovepiped and that humanitarian needs are underresourced and lack flexibility, despite growing demands.<sup>132</sup> While coordination mechanisms exist among humanitarian actors during a crisis, there are major gaps in coordination across the nexus, with funding largely bifurcated for development or humanitarian purposes.<sup>133</sup> Triple nexus actors should move toward closer coordination and integrated cross-sectoral approaches that reflect the complex relationship between climate change and conflict.

Noting that in the current crisis the humanitarian infrastructure and resources are overstretched, the goal for averting similar challenges in the future is to build synergies with resilience, adaptation, and peacebuilding efforts. Risk aversion inhibits long-term investments in situations of protracted

crises, but donors can and should find ways to encourage scalable efforts that support the recovery and resilience of communities affected by conflict and climate change. One example is the Humanitarian Resilience Investing Initiative, launched by the World Economic Forum, which aims to bring together private sector actors and public institutions to invest capital to support 2 billion people living in fragile communities globally.<sup>134</sup> Similarly, addressing the imbalance in climate adaptation finance flows to fragile states by reducing bureaucratic barriers, creating innovative finance options, and engaging with local actors is critical for averting worsening humanitarian crises.<sup>135</sup> The agreement reached at COP27 in November 2022 to create a "loss and damage" fund is a significant step in the right direction.<sup>136</sup>

Donors should expand flexible, adaptive, and integrated funding opportunities. A promising example of this includes crisis modifiers that allow U.S. government funds to be quickly redirected from development programs when there is a humanitarian crisis and to extend emergency response into early recovery programs when certain conditions are met. Another promising practice is incorporating integrated analysis and assessment tools that look at how all interventions can contribute to resilience in the context of climate change.<sup>137</sup> Such flexibility and integration between development and humanitarian responses, and within humanitarian responses, can help address urgent needs in more sustainable ways. Indeed, market-based approaches in humanitarian contexts show promise. For example, during times of drought in Ethiopia's lowlands, pastoralists are forced to access fodder produced and transported from the highlands; in such cases, the cost of transport is often higher than that of the fodder itself. As a result, a resilience program focused on stimulating local production can give communities affected by drought greater access to fodder to sustain their animals at a lower cost.

### 3. Conflict Sensitivity: Anticipate, Understand, and Mitigate the Interaction between Climate Change and Conflict

The humanitarian crisis in the Horn of Africa, while stemming primarily from protracted drought, is exacerbated by instability and conflict. As research (including this report) and experiences on the ground highlight, the relationship between climate vulnerability and conflict risk is mutually reinforcing. As such, in the fragile political context of some Horn of Africa countries—particularly Somalia and Ethiopia—it is not possible to isolate the impacts of climate change on humanitarian needs from the interacting effects of conflicts.

At minimum, humanitarian and development actors have a responsibility to ensure efforts to address communities' needs do not exacerbate conflict. But they can also actively advance conflict mitigation and resolution through their work. Applying conflict sensitivity frameworks is critical, particularly in fragile contexts such as the Horn of Africa, including by adopting do-no-harm principles, assessing conflict dynamics prior to engagement, and ensuring two-way communication with communities.<sup>138</sup> These efforts will not only mitigate the risk of further conflict but also help humanitarian actors gain and maintain access to communities affected by drought in conflict-affected areas and contribute to a peace dividend by addressing underlying needs. Further, as climate change increasingly emerges as an indirect driver of conflict through its impact on food security, humanitarian efforts can also support conflict management.<sup>139</sup> For example, monitoring humanitarian needs and trends including drought, food insecurity, and displacement can also help identify when and where there may be rising tensions and potential for conflict. The bottom line is that emergency responses can and should incorporate active conflict prevention, management, and mitigation efforts. In the case of drought response, conflict considerations should take place not just during the response but also during the alert and alarm phases.

### The bottom line is that emergency responses can and should incorporate active conflict prevention, management, and mitigation efforts.

Policymakers and implementers should also consider ways in which preventing and managing conflict can help alleviate access constraints, limit conflict-inducing environmental degradation, and improve overall humanitarian action. Since conflicts tend to be driven primarily by governance failures and grievances, prioritizing development of and investment in responsive, accountable, and just governance institutions must be an overarching long-term strategy for engagement in the Horn of Africa. Although the increasing occurrence of drought may be an inevitable outcome of climate change, famine is caused by the failure of governments.<sup>140</sup>

In addition to supporting top-down improvements in governance, foreign assistance can be used to support peace and good governance at the local level. In particular, sustainable community-based resource management efforts and local dispute resolution mechanisms may be helpful in averting or mitigating conflicts over natural resources before they become violent. Research from Ethiopia indicates that peacebuilding can have a critical role in supporting food security goals in areas experiencing recurrent crises by helping to enhance social cohesion, security, and mobility, which are critical in times of crisis.<sup>141</sup>

#### 4. Mobility Enhancement: Prepare for Population Movements and the Changing Needs Landscape

While mobility has been an important part of life and a pressure valve for communities in the Horn of Africa facing environmental hardship, the protracted nature of recent disasters indicates the nature of mobility in the region is changing. Specifically, due to recurrent droughts and increasingly limited access to land and water, many are leaving agriculture and pastoralism altogether and moving to urban areas. In other instances, droughts have forced some pastoralists to go beyond their traditional grazing lands. Although these are two different manifestations of human mobility—semipermanent or permanent migration, on the one hand, and seasonal mobility, on the other—in both instances the ability to move offers a positive coping strategy to access resources or services where they are available. However, under certain circumstances, this mobility can lead to conflict if not managed.<sup>142</sup> During the 2011 drought, for example, researchers documented how pastoralist groups in the Somali-Oromia border who had greater freedom of movement and access to natural resources were less likely to rely on distressful coping mechanisms during extreme drought conditions than groups that did not have the ability to move.<sup>143</sup>

Recognizing the critical role of mobility requires ensuring communities are not constrained from moving when they need to—for example, due to violence or insecurity. The proclivity of development policies in the Horn of Africa toward agricultural expansion, in particular, is also hindering customary movements of pastoralist communities. Advocating for recognition of the rights of pastoralist communities to customary grazing lands and ensuring their interests are represented in the design of development policies are critical to protect the viability of pastoralism in the region and avert conflict. Further, as some inevitably decide to leave pastoralism and agriculture and settle in towns—consistent with rapid urbanization rates throughout Africa—foresight suggests the need to increase

support to communities where those displaced by recurrent drought and other climate impacts are settling. New patterns of human mobility raise critical considerations for aid actors about how to prepare for such movements and where to target resources to support those in need. Priorities should include supporting new arrivals, who often live in informal settlements, to access safe housing, income generating opportunities, and basic services including WASH. Social cohesion building will be important as communities interact and compete over resources or services, especially in areas experiencing an influx of migrants.

### 5. Innovation: Invest in New Technologies and Ways of Working, Building the Evidence Base for What Is Effective and Can Be Scaled

In the evolving context of climate change, challenges to achieving humanitarian and development goals require new ways of thinking and working. The deteriorating situation in the Horn of Africa demonstrates that greater risk tolerance is needed for experimenting with new programming approaches, modalities of delivering aid, and technologies. For example, donors should consider ways they can support and incentivize more integrated "nexus" programming among implementers. Importantly, donors should also prioritize research and evidence generation in all projects, especially those with a more integrated approach. Funding rigorous impact evaluations that shed light on the effectiveness of aid investments, particularly those focused on improving food security in the context of conflict, will reap benefits for the aid community in the long term by helping to guide future actions.

Technological innovation is important, though its deployment should be carefully and deliberately managed, as should be the case for all efforts in conflict-affected areas.<sup>144</sup> Such technological innovation, for example, could focus on predicting climate-related conflict and more effectively using satellite imagery for nature conservation, especially when coupled with enhancements to ground-level data collection methods.<sup>145</sup>

Climate-smart agriculture has showed initial promise in the region but has been limited in scale due to the focus of emergency seed responses on procuring and disseminating seed rather than building long-term resilience in agricultural systems. Where possible, donors should encourage climate-smart agricultural practices such as recognizing and promoting crop and varietal diversity; facilitating farmer access to varieties tolerant to drought, disease, and pests; use of climate information services; and irrigation to improve output while mitigating risks to smallholder farmers.

Although some sophisticated predictive data—like those produced by FEWS NET—exist and these efforts should be strengthened as needed, the humanitarian, development, and peacebuilding communities should always be looking for new ways to predict, analyze, and communicate future trends. Ultimately, process and technological innovation require greater tolerance for risk (including periodic failure), careful and conflict-aware deployment, and a fervent belief that people living in places particularly affected by climate change deserve secure, durable, and sustainable futures.

# **Annex: Definitions**

A s defined by the Intergovernmental Panel on Climate Change (IPCC), climate change "refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer."<sup>146</sup> This may be the result of natural or man-made interventions, including "persistent anthropogenic changes in the composition of the atmosphere or in land use."<sup>147</sup> Alternatively, the IPCC points to the UN Framework Convention on Climate Change (UNFCCC). Article 1 of the UNFCCC defines climate change as "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods."<sup>148</sup>

The IPCC defines climate variability as variations "of the climate on all spatial and temporal scales beyond that of individual weather events."<sup>149</sup> Van Balen and Mobjörk distinguish between types of shocks based on temporality: "An important distinction is whether the environmental condition examined constitutes a rapid-onset climate shock (e.g. an extreme weather event) or a slow-onset condition (e.g. decreasing annual rainfall)."<sup>150</sup>

The U.S. Environmental Protection Agency (EPA) defines adaptive capacity as "the ability of a human or natural system to adjust to climate change (including climate variability and extremes) by moderating potential damages, taking advantage of opportunities, or coping with the consequences."<sup>151</sup> Furthermore, the IPCC defines climate vulnerability as "the degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes."<sup>152</sup> This vulnerability reflects the degree of exposure to climate variations, sensitivity to climate change influences, and adaptive capacity. Finally, as defined by the Country Indicators for Foreign Policy (CIFP), "Fragile states lack the functional authority to provide basic security within their borders, the

institutional capacity to provide basic social needs for their populations, and/or the political legitimacy to effectively represent their citizens at home or abroad."<sup>153</sup> State fragility and climate vulnerability often intersect, as many fragile states lack the capacity to adequately respond to or provide social services in the face of climate crises.

### About the Authors

**Anastasia Strouboulis** is a former research assistant with the CSIS Project on Fragility and Mobility. She analyzes fragile contexts and provides recommendations on building resilience and aligning national security interests with human security-related frameworks. Before joining CSIS, she was a research assistant with the National Counterterrorism Innovation, Technology, and Education Center, a Department of Homeland Security (DHS) Center of Excellence, where she researched the organizational attributes of racially motivated violent extremist groups and emerging security threats in the U.S. maritime trade industry. She is currently a Presidential Management Fellowship finalist. She holds a BA in government and politics from the University of Maryland, College Park, and an MA in security policy studies from the George Washington University.

**Beza Tesfaye** is director of research and learning for migration and climate change at Mercy Corps and a nonresident senior associate with the CSIS Project on Fragility and Mobility. She has researched and written extensively on migration, conflict prevention, and governance in fragile and conflict-affected countries. Her work has been published in the *American Journal of Political Science* and *African Identities*, in addition to media outlets including the *Washington Post, Stanford Social Innovation Review*, and The New Humanitarian. Prior to Mercy Corps, she worked on international development, humanitarian, and peacebuilding issues in the United States and internationally for UNICEF, Freedom House, the IRC, and USAID. She serves on the advisory board of the University of San Diego's Master of Science in Humanitarian Action and the Better Evidence Project, an initiative to improve the evidence available to donors, policymakers, practitioners, and scholars in the peacebuilding community. She received an MA in public affairs and a BA from Princeton University.

**Abigail Edwards** is a research intern with the CSIS Project on Fragility and Mobility. Her interests lie at the intersection of atrocity prevention, post-conflict development and security policy, and human rights. Outside of CSIS, Abby is a second-year master of arts in international relations (MAIR) candidate at the Johns Hopkins University School of Advanced International Studies (SAIS), where she studies international relations with a focus on international development, climate, and sustainability. She holds a BA in human rights from Columbia University and a BA in politics and government from Sciences Po Paris.

**Erol Yayboke** is a senior fellow with the International Security Program and director of the Project on Fragility and Mobility at CSIS. His specific research interests include migration and forced displacement, violent conflict and global fragility, conflict-aware stabilization, violent extremism, climate change, civil-military cooperation, and disruptive technologies. Previously, he was a senior fellow and deputy director with the CSIS Project on Prosperity and Development. Prior to CSIS, Mr. Yayboke served on the Hillary Clinton presidential campaign as well as the Evidence for Policy Design team at the Center for International Development at Harvard University's Kennedy School of Government. Mr. Yayboke has long-term field experience working for organizations (Global Communities, Save the Children, and AECOM International Development) in Iraq, Afghanistan, South Sudan, and the Somali region of Ethiopia, serving in various senior management roles. Mr. Yayboke teaches a graduate-level course on global fragility and resilience at the Maxwell School of Citizenship and Public Affairs at Syracuse University and serves on the Editorial Advisory Committee of Migration Policy Practice, a journal of the Migration Research and Publications Division at the International Organization for Migration (IOM), the UN migration agency. He is also a member of the board of directors for the Andi Leadership Institute for Young Women, a Washington, D.C.-based nonprofit focused on developing the next generation of women peacebuilders. He holds an MPA from the Lyndon B. Johnson School of Public Affairs at the University of Texas at Austin and a BBA in international business, also from the University of Texas at Austin. He is fluent in Turkish and Spanish.

## Endnotes

- 1 Juliet Way-Henthorne, "Why CHC Is Confident the 2022 March-April-May Drought in Somalia, Ethiopia, and Kenya Was the Worst on Record," *Climate Hazards Center* (blog), University of California, Santa Barbara, September 7, 2022, https://blog.chc.ucsb.edu/?p=1233.
- 2 "Pastoralism and Conflict in the Horn of Africa and the Sahel," *Population and Development Review* 44, no. 4 (2018): 857–60, https://doi.org/10.1111/padr.12211.
- 3 Kate Wellard Dyer, "Pastoralism in the Horn of Africa: Diverse Livelihood Pathways," FAC CAADP Policy Brief 06, Technical Consortium, March 2012, https://www.technicalconsortium.org/wp-content/uploads/2014/05/ Pastoralism-in-the-HoA.pdf.
- 4 A. Catley, J. Lind, and I. Scoones, "The Futures of Pastoralism in the Horn of Africa: Pathways of Growth and Change," *Revue Scientifique et Technique* 35, no. 2 (August 2016): 389–403, https://doi.org/10.20506/rst.35.2.2524.
- 5 Malin Mobjörk, "I. Exploring the Climate–Conflict Link: The Case of East Africa," in *SIPRI Yearbook 2017* (Oxford, UK: Oxford University Press, 2017), 287–299, https://sipri.org/sites/default/files/SIPRIYB17c08sI.pdf.
- 6 "Horn of Africa Faces Most 'Catastrophic' Food Insecurity in Decades, Warns WHO," UN News, August 2, 2022, https://news.un.org/en/story/2022/08/1123812.
- 7 "WFP Scales Up Support for Millions Who 'Cannot Wait' for Food Aid amid Horn of Africa Drought," UN News, August 19, 2022, https://news.un.org/en/story/2022/08/1125082; "IPC Acute Food Insecurity Classification," IPC, November 28, 2022, https://www.ipcinfo.org/ipcinfo-website/ipc-overview-and-classification-system/ ipc-acute-food-insecurity-classification/en/.
- 8 "Drought and Food Insecurity in the Greater Horn of Africa," WHO, November 21, 2022, https://www.who.int/ emergencies/situations/drought-food-insecurity-greater-horn-of-africa; Food Security and Nutrition Working

Group, Special Report: Extremely High Levels of Food Insecurity Observed across Ethiopia, Kenya, and Somalia and Further Deteriorations Likely with between 23–26 Million People Becoming Highly Food Insecure Due to Drought by February 2023 (Nairobi, Kenya: FSNWG, July 29, 2022), https://reliefweb.int/attachments/19efda3c-e7f9-40af-a54d-71019e7e05b3/FSNWG\_Drought\_Special\_Report\_29\_July\_2022.pdf.

- 9 Ministry of Foreign Affairs of the Netherlands, *Climate Change Profile: Greater Horn of Africa* (The Hague: Ministry of Foreign Affairs of the Netherlands, April 2018), 9, https://reliefweb.int/attachments/1eea6572e1bd-3eef-b9d6-09242b0c9316/Greater%2BHorn%2Bof%2BAfrica.pdf.
- 10 Hannah Button, "Drought-Induced Loss of Livestock in Horn of Africa Will Impact Communities 'For Years to Come,'" Agrilinks, July 8, 2022, https://agrilinks.org/post/drought-induced-loss-livestock-horn-africa-will-impact-communities-years-come.
- 11 Catley, Lind, and Scoones, "Futures"; Samantha Power, "USAID Administrator Power on the State of Global Food Security and Nutrition," CSIS, March 25, 2022, https://www.csis.org/events/usaid-administrator-powerstate-global-food-security-and-nutrition.
- 12 "Africa Drought: Some Children Just 'One Disease Away from Catastrophe' UNICEF Warns," UN News, August 23, 2022, https://news.un.org/en/story/2022/08/1125192.
- 13 UNHCR, *East and Horn of Africa, and the Great Lakes Region, January–June 2022* (Geneva: UNHCR, August 2022), https://reliefweb.int/attachments/dde331a2-e7e1-40d1-830b-1c7f22b456ed/IDP%20regional%20 overview%20January%20-%20June%202022.pdf.
- 14 "Children Are Facing Deadly Drought in the Horn of Africa," UNICEF, August 23, 2022, https://www.unicef. org/stories/climate-drought-horn-of-africa.
- 15 Ibid.; "Drought and Food Insecurity."
- 16 Fred Harter, "Ethiopia's Truce Is a Step toward Ending Civil War, but There Are Reasons for Caution," NPR, November 3, 2022, https://www.npr.org/2022/11/03/1133848992/ethiopia-tigray-war-peace-deal-truceeritrea.
- 17 "Report: The War in Tigray Is Undermining Its Environmental Recovery," Conflict and Environment Observatory, April 27, 2022, https://ceobs.org/the-war-in-tigray-is-undermining-its-environmental-recovery/; Alex de Waal, "Strongmen, Coups, Corruption Drive Horn of Africa to the Brink," Responsible Statecraft, May 4, 2022, https://responsiblestatecraft.org/2022/05/04/strongmen-coups-corruption-drive-horn-of-africa-tothe-brink/.
- 18 "East Africa: Extreme Inequality in Numbers," Oxfam International, June 1, 2022, https://www.oxfam.org/en/east-africa-extreme-inequality-numbers.
- 19 Obi Anyadike, "A Country-by-Country Guide to Worsening Drought in the Horn of Africa," New Humanitarian, May 31, 2022, https://www.thenewhumanitarian.org/News/2022/31/05/A-country-by-country-guide-worsening-drought-in-the-Horn-of-Africa.
- 20 "Ukraine/Russia: As War Continues, Africa Food Crisis Looms," Human Rights Watch, April 28, 2022, https://www.hrw.org/news/2022/04/28/ukraine/russia-war-continues-africa-food-crisis-looms.
- 21 CARE, "Ukraine Conflict: Soaring Food and Fuel Prices Threaten Wellbeing of Millions in East, Central, and the Horn of Africa," Press release, March 22, 2022, https://reliefweb.int/report/somalia/ukraine-conflict-soaring-food-and-fuel-prices-threaten-wellbeing-millions-east.
- 22 "Famine Early Warning Systems Network," FEWS NET, https://fews.net/.
- 23 Ibid.

24 Ibid.

- 25 "Children Are Facing."
- 26 OCHA, *Horn of Africa Drought: Regional Humanitarian Overview & Call to Action* (New York: OCHA, July 4, 2022), https://reliefweb.int/attachments/8650a562-5c74-4cfb-8d23-b64a29310a95/ROSEA\_20220704\_ HornofAfricaDrought\_HumanitarianOverview%26CallForAction.pdf.
- 27 Ibid.
- 28 Andreas Waaben Thulstrup et al., "Uncovering the Challenges of Domestic Energy Access in the Context of Weather and Climate Extremes in Somalia," *Weather and Climate Extremes* 27 (2020): Article 100185, https:// doi.org/10.1016/j.wace.2018.09.002.
- 29 Kalle Hirvonen and John Hoddinott, "Beneficiary Views on Cash and In-Kind Payments" (Policy Research Working Paper 9125, World Bank, Washington, DC, January 2020), https://documents1.worldbank.org/ curated/en/568961580228524626/pdf/Beneficiary-Views-on-Cash-and-In-Kind-Payments-Evidence-from-Ethiopias-Productive-Safety.pdf.
- 30 Ministry of Foreign Affairs of the Netherlands, *Climate Change Profile*, 10.
- 31 "Ethiopian Programme of Adaptation to Climate Change (EPACC)," Climate Change Laws of the World, https://climate-laws.org/geographies/ethiopia/policies/ethiopian-programme-of-adaptation-to-climatechange-epacc; "Ethiopia's Climate-Resilient Green Economy," UN Sustainable Development Goals Knowledge Platform, https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=677&menu=865.
- 32 Government of Kenya, National Climate Change Response Strategy (Nairobi: Government of Kenya, April 2010), http://www.environment.go.ke/wp-content/documents/complete%20nccrs%20executive%20 brief.pdf; Government of Kenya, National Climate Change Action Plan (Nairobi: Government of Kenya, 2013), https://cdkn.org/sites/default/files/files/Kenya-National-Climate-Change-Action-Plan.pdf.; Kenya Ministry of Environment, Natural Resources and Regional Development Authorities, National Adaptation Plan (NAP) (Nairobi: Government of Kenya, November 2015), http://www.environment.go.ke/wp-content/uploads/2018/05/National-Adaptation-Plan-NAP.pdf.
- 33 "Flagship Projects," IGAD, https://resilience.igad.int/iddrsi-flagship-projects/.
- 34 "Building Opportunities for Resilience in the Horn of Africa (BORESHA)," IGAD, https://resilience.igad.int/ regional\_projects/boresha/.
- 35 Roz Price, *Climate Change, Vulnerability to Violent Extremism and Conflict in Kenya* (Brighton, UK: Institute of Development Studies, 2019), 2, https://assets.publishing.service.gov.uk/ media/5d9b4db740f0b607f3e67941/639\_Climate\_Change\_and\_Violence\_in\_Kenya.pdf.
- 36 Gabrielle Lynch, "Kenya's Elections Are Proof of Change since 2007 Violence, but More Reform Is Needed," The Conversation, September 6, 2022, https://theconversation.com/kenyas-elections-are-proof-of-changesince-2007-violence-but-more-reform-is-needed-190043; Mohammed Yusuf, "Mercy Corps Says Hate Speech Spreading Ahead of Kenya's Election," VOA News, July 26, 2022, https://www.voanews.com/a/mercy-corpssays-hate-speech-spreading-ahead-of-kenya-s-election-/6674611.html.
- 37 Price, *Climate Change*; "Paving the Way for Peace in Uncharted Territory in Somalia," United Nations, https://www.un.org/peacebuilding/es/stories/Somalia-stories.
- 38 OCHA, Ethiopia–Humanitarian Update: Situation Report (New York: OCHA, June 27, 2022), 3, https://reliefweb. int/attachments/78103605-8305-4db1-87b4-6e0fd7f4c7ad/Situation%20Report%20-%20%20Ethiopia%20 -%20Humanitarian%20Update%20-%2027%20Jun%202022.pdf.

- 39 Ibid.
- 40 Ibid.
- 41 Ibid.
- 42 "U.S. Agency Says Tigrayan Forces Looted Aid Warehouses in Ethiopia's Amhara Region," Reuters, September 1, 2021, https://www.reuters.com/world/us-agency-says-tigrayan-forces-looted-aid-warehouses-ethiopias-amhara-region-2021-08-31/.
- 43 Eugene Sibomana, "Ethiopian Families Struggle to Survive amid Record Drought," UNHCR, June 28, 2022, https://www.unhcr.org/en-us/news/stories/2022/6/62bb2d014/ethiopian-families-struggle-survive-amidrecord-drought.html.
- 44 "Conflict, Drought Inflict Heavy Humanitarian Crises in Southern and Western Oromia Region: UN," AllAfrica, November 14, 2022, https://allafrica.com/stories/202211150048.html.
- 45 Ibid.
- 46 OCHA, Ethiopia–Humanitarian Update.
- 47 Button, "Drought-Induced Loss."
- 48 OCHA, Ethiopia–Humanitarian Update.
- 49 "Towards an Inclusive and Empowered Ethiopia: Improving Social Safety Nets to Reduce Urban Poverty," World Bank, January 14, 2021, https://www.worldbank.org/en/results/2021/01/14/towards-an-inclusive-andempowered-ethiopia-improving-social-safety-nets-to-reduce-urban-poverty.
- 50 Sara Creta, "Ethiopia's Worsening Drought Sees Hunger Numbers Soar," New Humanitarian, August 17, 2022, https://www.thenewhumanitarian.org/news-feature/2022/08/17/drought-Ethiopia-hunger-pastoralismclimate-change.
- 51 "Drought in East Africa: How Farmers and Pastoralists Can Cope," Barza Wire, September 1, 2022, https://wire.farmradio.fm/farmer-stories/drought-in-east-africa-how-farmers-and-pastoralists-can-cope-the-new-humanitarian-interpress-news/.
- 52 Creta, "Ethiopia's Worsening Drought."
- 53 Peter D. Little, Dejene Negassa Debsu, and Waktole Tiki, "How Pastoralists Perceive and Respond to Market Opportunities: The Case of the Horn of Africa," *Food Policy* 49, no. 2 (December 2014): 389–97, https://doi.org/10.1016/j.foodpol.2014.10.004.
- 54 "Somalia: Acute Food Insecurity Situation July–September 2022 and Projection for October–December 2022," IPC, September 12, 2022, https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1155883/?iso3=SOM.
- 55 World Bank, "Agriculture Remains Key to Somalia's Economic Growth and Poverty Reduction," Press release 2018/103/AFR, March 29, 2018, https://www.worldbank.org/en/news/press-release/2018/03/28/agriculture-remains-key-to-somalias-economic-growth-and-poverty-reduction.
- 56 "Responding to Devastating Drought in Somalia," UNICEF, March 11, 2022, https://www.unicef.org/stories/ responding-devastating-drought-somalia.
- 57 "Children Are Facing."; "Drought Displacement Monitoring Dashboard (August 2022)—Somalia," ReliefWeb, September 20, 2022, https://reliefweb.int/report/somalia/drought-displacement-monitoring-dashboard-august-2022.

- 58 Jeff Drumtra, *Internal Displacement in Somalia* (Washington, DC: Brookings, December 2014), https://www. brookings.edu/wp-content/uploads/2016/06/Brookings-IDP-Study-Somalia-December-2014.pdf.
- 59 Barry Malone, "Somalia Rebels Main Block to Aid: UN Report," Reuters, July 28, 2011, https://www.reuters. com/article/ozatp-somalis-rebels-report-20110728-idAFJOE76R0FO20110728.
- 60 Mohamed Odowa, "Somalia Finally Holds Long-Delayed Election," Deutsche Welle, May 13, 2022, https://www.dw.com/en/somalia-finally-holds-long-delayed-election/a-61779263.
- 61 Mohammed Dhaaysane, "Somali Government Accused of Failing to Release \$9.6M in Drought Funds," Anadolu Agency, September 14, 2022, https://www.aa.com.tr/en/africa/somali-government-accused-of-failing-to-release-96m-in-drought-funds/2685364.
- 62 "Somalia: Call for Urgent Action Following 'Alarming' 80 Per Cent Rise in Sexual Violence," UN News, August 5, 2021, https://news.un.org/en/story/2021/08/1097142.
- 63 "Drought in Kenya: UN Humanitarian Urges Attention to the Crisis," Bloomberg, May 13, 2022, https://www. bloomberg.com/news/articles/2022-05-13/un-humanitarian-official-urges-attention-to-drought-in-kenya.
- 64 Georgina Smith, "'Heading into the Worst': How Drought Drives Conflict in Kenya," Al Jazeera, December 22, 2021, https://www.aljazeera.com/features/2021/12/22/how-drought-drives-conflict-in-kenya.
- 65 Jack Hewson and Georgina Smith, "Kenya's Worst Drought in Decades Creates Humanitarian Crisis," PBS News Hour, January 14, 2022, https://www.pbs.org/newshour/show/kenyas-worst-drought-in-decades-createshumanitarian-crisis.
- 66 Ibid.
- 67 Price, Climate Change, 2.
- 68 Ibid.
- 69 "Building Peace through Local Spaces in Kenya," Interpeace, November 3, 2021, https://www.interpeace. org/2021/11/building-peace-through-local-spaces-in-kenya/.
- 70 "IGAD's Conflict Early Warning and Response Mechanism," CEWARN, https://www.cewarn.org/index. php/reports/early-warning-reports/2021-national-and-regional-conflict-profiling-and-scenario-buildingreports/185-igad-cewarn-conflict-scenario-building-kenya/file.
- 71 Linda Ajuang Ogallo et al., "Climate Change Projections and the Associated Potential Impacts for Somalia," *American Journal of Climate Change* 7, no. 2 (June 2018): 153–70, https://doi.org/10.4236/ajcc.2018.72011.
- 72 Michael Singer, Katerina Michaelides, and Markus Adloff, "The Horn of Africa Has Had Years of Drought, Yet Groundwater Supplies Are Increasing—Why?" PreventionWeb, November 1, 2022, https://www. preventionweb.net/news/horn-africa-has-had-years-drought-yet-groundwater-supplies-are-increasing-why.
- 73 Gebremedhin Gebremeskel Haile et al., "Droughts in East Africa: Causes, Impacts, and Resilience," *Earth-Science Reviews* 193 (June 2019): 146–61, https://doi.org/10.1016/j.earscirev.2019.04.015.
- 74 "Another La Niña Impacts Temperatures and Precipitation—but Not Climate Change," World Meteorological Organization, November 30, 2021, https://public.wmo.int/en/media/press-release/another-la-ni%C3%B1aimpacts-temperatures-and-precipitation-%E2%80%93-not-climate-change.
- 75 Lisa Schlein "Prolonged La Niña Likely to Worsen Drought in Horn of Africa," VOA News, June 11, 2022, https://www.voanews.com/a/prolonged-la-ni%C3%B1a-likely-to-worsen-drought-in-horn-of-africa/6614144. html.

- 76 Ministry of Foreign Affairs of the Netherlands, Climate Change Profile.
- 77 Ogallo et al., "Climate Change Projections."
- 78 Ministry of Foreign Affairs of the Netherlands, Climate Change Profile.
- 79 Tamara White, "Increasing Droughts and Floods on the African Continent," Brookings, October 8, 2021, https://www.brookings.edu/blog/africa-in-focus/2021/10/08/increasing-droughts-and-floods-on-the-africancontinent/.
- 80 Inga Jacobs-Mata and Evan Girvetz, "Ukama Ustawi: Diversification for Resilient Agribusiness Ecosystems in East and Southern Africa (ESA)," CGIAR, September 28, 2021, https://storage.googleapis.com/ cgiarorg/2021/10/INIT21-Ukama-Ustawi-Diversification-for-resilient-agribusiness-ecosystems-in-East-and-Southern-Africa-ESA-.pdf.
- 81 "Agriculture, Forestry, and Fishing, Value Added (% of GDP)—Ethiopia," World Bank Open Data, https://data. worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=ET.; "Ethiopia," USAID IDEA, https://idea.usaid.gov/cd/ ethiopia/hunger-and-food-security.; "Ethiopia: Economy," Michigan State University International Business Center, https://globaledge.msu.edu/countries/ethiopia/economy.
- 82 "Somalia," USAID IDEA, https://idea.usaid.gov/cd/somalia/hunger-and-food-security.
- 83 "Agriculture, Forestry, and Fishing, Value Added (% of GDP)—Kenya," World Bank Open Data, https://data. worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=KE.; "Kenya," USAID IDEA, https://idea.usaid.gov/cd/ kenya/hunger-and-food-security.; Ibid.; "Kenya: Agriculture and Food Security," USAID, https://www.usaid. gov/kenya/agriculture-and-food-security.
- 84 World Bank, "World Bank Boosts Support for Pastoralists in Horn of Africa," Press release, March 18, 2014, https://www.worldbank.org/en/news/press-release/2014/03/18/world-bank-pastoralists-horn-africa.
- 85 Catley, Lind, and Scoones, "Futures."
- 86 Hewson and Smith, "Kenya's Worst Drought."
- 87 Malin Mobjörk, "Exploring the Climate-Conflict Link."
- 88 "Pastoralism and Conflict."
- 89 "Quick Facts: Severe Drought in the Horn of Africa," Mercy Corps, April 15, 2022, https://www.mercycorps. org/en-gb/blog/facts-drought-horn-of-africa.
- 90 Francis Opiyo et al., "Drought Adaptation and Coping Strategies among the Turkana Pastoralists of Northern Kenya," International Journal of Disaster Risk Science 6 (September 2015): 295–309, https://doi.org/10.1007/ s13753-015-0063-4.; Siri Iriksen, Karen O'Brien, and Lynn Rosentrater, Climate Change in Eastern and Southern Africa: Impacts, Vulnerability and Adaptation, GECHS Report 2008:2 (Oslo, Norway: University of Oslo, 2008), https://www.ipcc.ch/apps/njlite/srex/njlite\_download.php?id=5977.
- 91 Daniel Kaufmann, Aart Kraay, and Massimo Mastruzzi, "The Worldwide Governance Indicators: Methodology and Analytical Issues" (Policy Research Working Paper 5430, World Bank, Washington, DC, September 2010), https://ssrn.com/abstract=1682130.; "Worldwide Governance Indicators," World Bank, https://info. worldbank.org/governance/wgi/Home/Reports.; "INFORM Risk: Results and Data," EU Commission, https:// drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Results-and-data/moduleId/1782/id/433/controller/ Admin/action/Results.
- 92 Ibid.
- 93 Daniel Maxwell, Jeeyon Janet Kim, and Nisar Majid, Planning from the Future: Component 2. The Contemporary

Humanitarian Landscape: Malaise, Blockages and Game Changers—Case Study: The Somalia Famine of 2011–12 (Medford, MA: Feinstein International Center, Tufts University, August 2015), https://reliefweb.int/ attachments/a1a9ea21-75d5-3c5e-8c76-a932780700df/somalia\_case\_study\_jan\_6\_2016.pdf.

- 94 FSNAU and FEWS NET, "Study Suggests 258,000 Somalis Died Due to Severe Food Insecurity and Famine," Press release, May 2, 2013, https://fews.net/sites/default/files/documents/reports/FSNAU\_FEWSNET\_ PR\_050113\_FINAL.pdf.
- 95 "Worldwide Governance Indicators."
- 96 "INFORM Risk," EU Commission.
- 97 "Productive Safety Net Program (PSNP)," International Food Policy Research Institute (IFPRI), https://essp. ifpri.info/productive-safety-net-program-psnp/; Paul Dorosh and Shahidur Rashid, eds., *Food and Agriculture in Ethiopia: Progress and Challenges* (Philadelphia, PA: IFPRI, 2012), http://ebrary.ifpri.org/utils/getfile/collection/ p15738coll2/id/127347/filename/127558.pdf; "Ethiopia Productive Safety Net Programme," Institute for Development Studies, https://www.ids.ac.uk/projects/ethiopia-productive-safety-net-programme/.
- 98 Maya Misikir and Tsion Hailemichael, "In Hungry Horn of Africa, Ethiopia Bets the House on More Wheat," East African, October 13, 2022, https://www.theeastafrican.co.ke/tea/rest-of-africa/in-hungry-horn-of-africaethiopia-bets-the-house-on-more-wheat-3983726.; "Green Legacy Initiative," UN Department of Economic and Social Affairs, https://sdgs.un.org/partnerships/green-legacy-initiative.
- 99 "Kenya Country Report 2022," BTI Transformation Index, https://bti-project.org/en/reports/country-report/ KEN.
- 100 Moushumi Chaudhury, Tonya Summerlin, and Namrata Ginoya, "Mainstreaming Climate Change Adaptation in Kenya: Lessons from Makueni and Wajir Counties" (working paper, World Resources Institute, Washington, DC, September 2020), https://files.wri.org/d8/s3fs-public/mainstreaming-climate-change-adaptationkenya\_1.pdf.
- 101 "Kenya Country Report 2022," BTI Transformation Index.
- 102 Mercy Corps, Addressing the Climate-Conflict Nexus: Mercy Corps' Journey and Future Directions (Portland, OR: Mercy Corps, December 2021), https://www.mercycorps.org/sites/default/files/2022-01/Climate-Conflict-Brief-122121-digital.pdf.
- 103 Sebastian van Baalen and Malin Mobjörk, *A Coming Anarchy? Pathways from Climate Change to Violent Conflict in East Africa* (Stockholm: Department of Political Science, Stockholm University, 2016), https://www.statsvet.su.se/polopoly\_fs/1.282383.1464852768!/menu/standard/file/van%20Balen%20%26%20 Mobj%C3%B6rk%20160511.pdf.
- 104 Nicholas Bodanac, Daniel Hyslop, and Rodolpho Valente, *Understanding the Climate-Conflict Nexus from a Humanitarian Perspective* (New York: OCHA, May 2016), https://www.unocha.org/sites/unocha/files/ Understanding%20the%20climate-conflict%20nexus.pdf.
- 105 "Drought, Violence and Politics: Inside Laikipia's Cattle War," International Crisis Group, July 20, 2022, https://www.crisisgroup.org/africa/horn-africa/kenya/drought-violence-and-politics-inside-laikipias-cattlewar.
- 106 Giovanna Kuele and Ana Cristina Miola, "Climate Change Is Feeding Armed Conflict in Somalia," Institute for Security Studies, April 6, 2018, https://issafrica.org/iss-today/climate-change-is-feeding-armed-conflict-insomalia.
- 107 "Assessing the Relationship between Climate, Food Security, and Conflict in Ethiopia and in the Central American Dry Corridor," ReliefWeb, November 26, 2021, https://reliefweb.int/report/ethiopia/assessing-

relationship-between-climate-food-security-and-conflict-ethiopia-and.

- 108 Hanna-Mari Tarvonen, "Beyond the Debris—The Environment Is a Major Victim of the Syrian Conflict," Crisis & Environment, November 24, 2018, https://crisisandenvironment.com/beyond-the-debris-the-environmentis-a-major-victim-of-the-syrian-conflict/.
- 109 Chase Sova, "The First Climate Change Conflict," World Food Program USA, November 30, 2017, https://www.wfpusa.org/articles/the-first-climate-change-conflict/.
- 110 Sydney Komen, "The World's First Climate Change Conflict Continues," Think Global Health, December 10, 2021, https://www.thinkglobalhealth.org/article/worlds-first-climate-change-conflict-continues.
- 111 "Climate Change Recognized as 'Threat Multiplier' UN Security Council Debates Its Impact on Peace," UN News, January 25, 2019, https://news.un.org/en/story/2019/01/1031322.
- 112 Daniel Abrahams, "Conflict in Abundance and Peacebuilding in Scarcity: Challenges and Opportunities in Addressing Climate Change and Conflict," *World Development* 132 (August 2020): 104998, https://doi.org/10.1016/j.worlddev.2020.104998.
- 113 "Somalia: Drought, 26 Apr 2021," CERF, https://cerf.un.org/what-we-do/allocation/2021/summary/21-RR-SOM-47081.
- 114 "Global Donors Urged to Move Quickly to Prevent Starvation and Death for Millions in Somalia, Ethiopia and Kenya," Save the Children, April 25, 2022, https://www.savethechildren.net/news/global-donors-urged-move-quickly-prevent-starvation-and-death-millions-somalia-ethiopia-and.
- 115 "UN Says Humanitarian Agencies Face 'Biggest Funding Gap Ever,'" Al Jazeera, August 12, 2022, https://www. aljazeera.com/news/2022/8/12/un-humanitarian-agencies-face-biggest-funding-gap-ever.
- 116 FEWS NET, "Unprecedented Sixth Consecutive Season of Drought Forecast in Horn of Africa: Hunger Surges As Humanitarian Efforts Remain Underfunded," Press release, November 7, 2022, https://fews.net/sites/ default/files/Press%20Release%20-%20HoA%202023%20MAM%20Rains.pdf; Concern Worldwide, "Concern Calls for Urgent International Funding to Avert Major Humanitarian Crisis in the Horn of Africa," Press release, June 28, 2022, https://reliefweb.int/report/ethiopia/concern-calls-urgent-international-fundingavert-major-humanitarian-crisis-horn-africa; "Horn of Africa: A Call for Action," ReliefWeb, February 17, 2017, https://reliefweb.int/report/ethiopia/concern-february-2017-enar.
- 117 Office of the Chief Economist for the Africa Region, "Climate Change Adaptation and Economic Transformation in Sub-Saharan Africa," *Africa's Pulse* 24 (October 2021): 1–102, https://openknowledge.worldbank.org/bitstream/handle/10986/36332/9781464818059.pdf?sequence=10.
- 118 OCHA, Horn of Africa Drought.
- 119 Yue Cao and Tilly Alcayna, *Breaking the Cycle: Practical Solutions to Unlock Climate Finance for Fragile States* (Portland, OR: Mercy Corps, November 2022), https://europe.mercycorps.org/sites/default/files/2022-11/MC-Breaking-the-cycle\_web\_Final.pdf.
- 120 "COP27: Germany Commits €40 Million to African Development Bank Group's Climate Action Window Initiative for Fragile African States," Maravi Post, November 16, 2022, https://www.maravipost.com/cop27germany-commits-e40-million-to-african-development-bank-groups-climate-action-window-initiative-forfragile-african-states/.
- 121 "COP27: Horn of Africa's People Need Climate Money Now," OCHA, November 15, 2022, https://www.unocha. org/story/cop27-horn-africa%E2%80%99s-people-need-climate-money-now.
- 122 "Global Humanitarian Overview 2022," OCHA, https://gho.unocha.org/.

- 123 Mercy Corps, Addressing the Climate-Conflict Nexus.
- 124 William Baron, *Learning from Disaster: How CLA Helped to Mitigate Disaster in Ethiopia* (Washington, DC: USAID Learning Lab, August 2022), https://usaidlearninglab.org/sites/default/files/2022-08/41\_ripa\_north\_-\_mercy\_ corps\_-\_william\_baron\_ce.pdf.
- 125 "IGAD Regional Climate Change Strategy and Action Plan (2023–2030)," IGAD, August 26, 2022, https://www. icpac.net/publications/igad-regional-climate-change-strategy-and-action-plan-2023-2030/.
- 126 Independent Evaluation Unit, Independent Evaluation of the Relevance and Effectiveness of the Green Climate Fund's Investments in the Least Developed Countries, Evaluation Report No. 12 (Songdo, South Korea: Independent Evaluation Unit, Green Climate Fund, January 2022), https://ieu.greenclimate.fund/sites/ default/files/document/220117-ldcs-final-report-vol-i-top-web.pdf.
- 127 Hussein Haji and Mohamed Farah Shirdon, *Somalia's Agriculture and Livestock Sectors: A Baseline Study and a Human Capital Development Strategy* (Mogadishu, Somalia: Heritage Institute for Policy Studies, City University of Mogadishu, July 2020), https://www.humancapital.so/wp-content/uploads/2020/11/ Agricutlure-HCDM-REPORT.pdf.
- 128 Lisa Jene and Beza Tesfaye, *Addressing the Climate-Conflict Nexus in Fragile States: Understanding the Role of Governance* (Portland, OR: Mercy Corps, November 2020), https://www.mercycorps.org/sites/default/files/2020-11/Addressing-the-Climate-Conflict-Nexus\_Research-Brief\_11.6.pdf.
- 129 USAID, *Policy for Localization of Humanitarian Assistance* (Washington, DC: USAID, October 2022), https://www.usaid.gov/sites/default/files/documents/DRAFT-USAID-Policy-Localization-of-HA-10242022.pdf.
- 130 Lena Weingärtner et al., *Obstacles to and Opportunities for Anticipatory Action in Somalia* (London: Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises, May 2022), https://www.sparc-knowledge.org/sites/default/files/documents/resources/Obstacles%20to%20and%20opportunities%20for%20 anticipatory%20action%20in%20Somalia%20Final.pdf.
- 131 Véronique de Geoffroy et al., *Adapting Humanitarian Action to the Effects of Climate Change* (London: ALNAP, October 2021), https://www.alnap.org/help-library/alnap-lessons-paper-adapting-humanitarian-action-to-the-effects-of-climate-change.
- 132 Louise Redvers and Ben Parker, "Searching for the Nexus: It's All about the Money," New Humanitarian, December 3, 2019, https://www.thenewhumanitarian.org/special-report/2019/12/3/triple-nexus-aid-development-humanitarian-donors-cooperation.
- 133 Lydia Poole and Vance Culbert, "Financing the Nexus Gaps and Opportunities from a Field Perspective," Norwegian Refugee Council, June 24, 2019, https://www.nrc.no/resources/reports/financing-the-nexus-gapsand-opportunities-from-a-field-perspective/.
- 134 "All about the Humanitarian and Resilience Investment Initiative," DGBM Taylor Family Foundation, https://www.dylantaylorfoundation.org/blogposts/all-about-the-humanitarian-and-resilience-investment-initiative.
- 135 Mercy Corps, Addressing the Climate-Conflict Nexus.
- 136 "COP27 Reaches Breakthrough Agreement on New 'Loss and Damage' Fund for Vulnerable Countries," UN Climate Change, November 20, 2022, https://unfccc.int/news/cop27-reaches-breakthrough-agreement-onnew-loss-and-damage-fund-for-vulnerable-countries.
- 137 Geoffroy et al., Adapting Humanitarian Action.
- 138 Ted Holmquist, *Advancing Peace in Complex Crises* (Portland, OR: Mercy Corps, July 2021), https://www. mercycorps.org/sites/default/files/2021-08/AdvancingPeaceinComplexCrisesBrief.pdf.

- 139 Daniel Kangogo, Peter Läderach, and Grazia Pacillo, *How Does Climate Exacerbate Root Causes of Conflict in Mali*? (Montpellier, France: CGIAR FOCUS Climate Security, 2021), https://cgspace.cgiar.org/bitstream/handle/10568/116312/EA\_MALI.pdf?sequence=6&isAllowed=y.
- 140 Michael Massing, "Does Democracy Avert Famine?" *New York Times*, March 1, 2003, https://www.nytimes. com/2003/03/01/arts/does-democracy-avert-famine.html.
- 141 Jon Kurtz and Greg Scarborough, From Conflict to Coping: Evidence from Southern Ethiopia on the Contributions of Peacebuilding to Drought Resilience among Pastoralist Groups (Portland, OR: Mercy Corps, February 2012), https://www.mercycorps.org/sites/default/files/2020-02/from\_conflict\_to\_coping\_final%20report.pdf.
- 142 Eoin F. McGuirk and Nathan Nunn, "Transhumant Pastoralism, Climate Change and Conflict in Africa" (Harvard University, Cambridge, MA, December 14, 2021), https://scholar.harvard.edu/files/nunn/files/ pastoralism\_conflict\_12\_9.pdf.
- 143 Kurtz and Scarborough, From Conflict to Coping.
- 144 Erol Yayboke, Catherine Nzuki, and Anastasia Strouboulis, "Going Green While Building Peace: Technology, Climate, and Peacebuilding," CSIS, *Commentary*, March 3, 2022, https://www.csis.org/analysis/going-greenwhile-building-peace-technology-climate-and-peacebuilding.
- 145 "Home," Cross-Border Conflict Evidence / Policy / Trends, https://xcept-research.org/; "Home," Timby, https://timby.org/.
- 146 Intergovernmental Panel on Climate Change, "Annex 1: Glossary," in *Global Warming of 1.5°C*. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (Cambridge: Cambridge University Press, 2022), doi:10.1017/9781009157940.008.

147 Ibid.

148 "United Nations Framework Convention on Climate Change: Article 1: Definitions," UNFCCC, https://unfccc. int/resource/ccsites/zimbab/conven/text/art01.htm

149 Ibid.

- 150 Sebastian van Baalen and Malin Mobjörk, A Coming Anarchy? Pathways from Climate Change to Violent Conflict in East Africa.
- 151 "Climate Adaption and EPA's Role," U.S. Environmental Protection Agency, last updated September 19, 2022, https://www.epa.gov/climate-adaptation/climate-adaptation-and-epas-role.
- 152 IPCC, Global Warming of 1.5°C.
- 153 "Transition Fragile States: Fletcher Forum," June 21, 2013, https://carleton.ca/cifp/2013/transition-fragilestates-fletcher-forum/.

#### COVER PHOTO EROL YAYBOKE

### CSIS CENTER FOR STRATEGIC & INTERNATIONAL STUDIES

1616 Rhode Island Avenue NW Washington, DC 20036 202 887 0200 | **www.csis.org**