2021

GLOBAL HUNGER INDEX

HUNGER AND FOOD SYSTEMS IN CONFLICT SETTINGS

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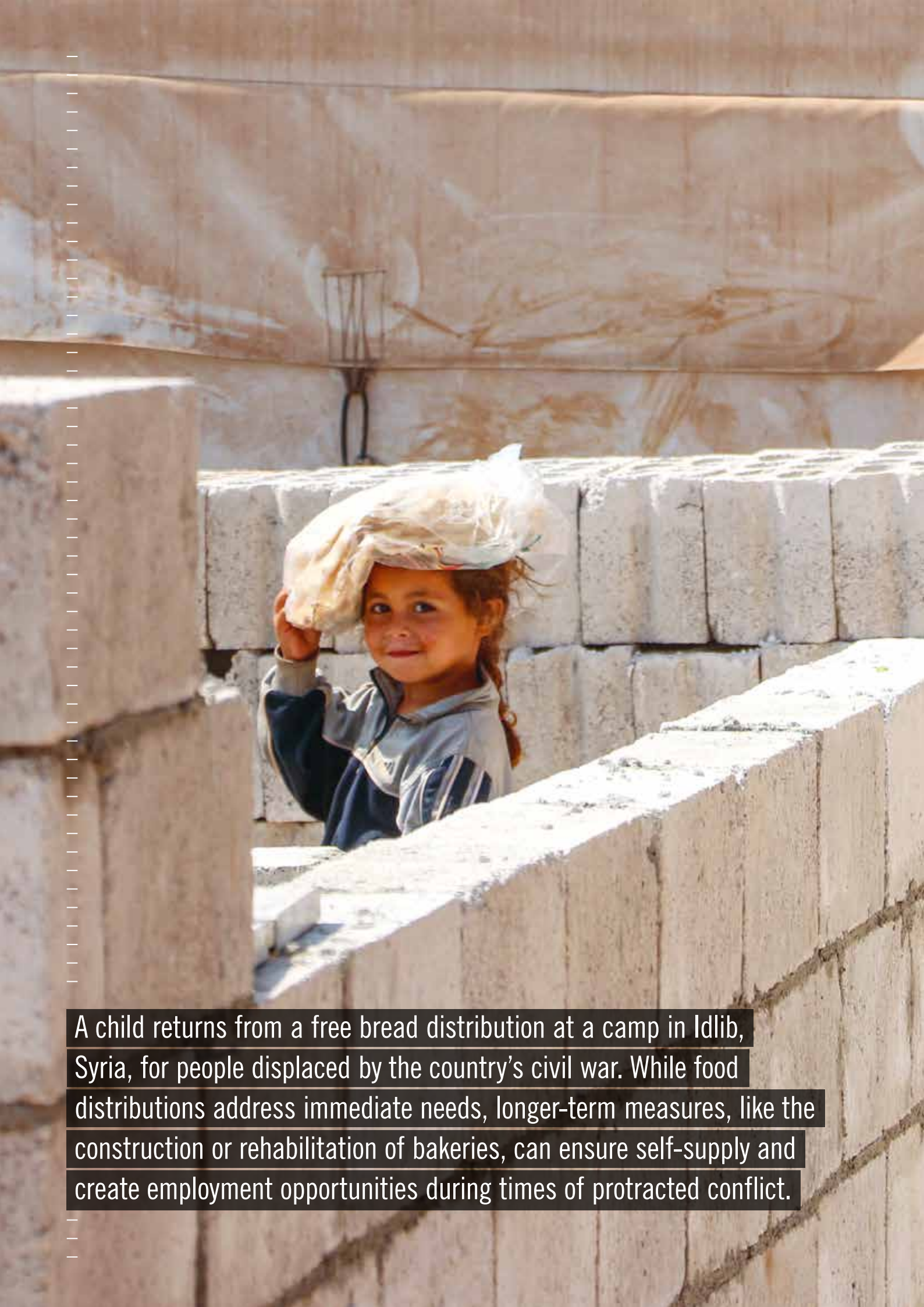
Bonn / Dublin
October 2021

A Peer-Reviewed Publication



A child returns from a free bread distribution at a camp in Idlib, Syria, for people displaced by the country's civil war. While food distributions address immediate needs, longer-term measures, like the construction or rehabilitation of bakeries, can ensure self-supply and create employment opportunities during times of protracted conflict.

FOREWORD

As the year 2030 draws closer, achievement of the world's commitment to Zero Hunger is tragically distant. Current projections based on the Global Hunger Index (GHI) show that the world as a whole—and 47 countries in particular—will fail to achieve even *low* hunger by 2030.

Recent reports have already sounded the alarm. *The State of Food Security and Nutrition in the World 2021* emphasizes that undernourishment was on the rise even before the COVID-19 pandemic, which has only exacerbated food insecurity. The *Global Report on Food Crises 2021* points to the growing magnitude and severity of food crises in 2020 and the grim outlook for 2021. The World Food Programme warns that 41 million people are "teetering on the very edge of famine."

The 2021 GHI now adds to this analysis. It tracks key indicators used to measure progress toward Zero Hunger at national, regional, and global levels, reflecting multiple dimensions of hunger over time. It points to a dire hunger situation, a result of the toxic cocktail of the climate crisis, the COVID-19 pandemic, and increasingly severe and protracted violent conflicts. These forces have slowed or reversed previous progress in the fight against hunger.

Against the backdrop of the 2021 United Nations Food Systems Summit, this year's GHI report delves into one of the biggest policy challenges of 2021: how to deliver meaningful change for the 155 million people considered acutely food insecure and the 10 countries classified by the GHI as *alarming* or *extremely alarming*, 8 of which are affected by conflict.

Violent conflict is the leading cause of food crises. It affects virtually every aspect of food systems, from production, harvesting, processing, and transport to input supply, financing, marketing, and consumption. Furthermore, in many cases the effects of violent conflict and climate change intersect with each other to exacerbate communities' risks and vulnerabilities. The focus of this year's essay by Caroline Delgado and Dan Smith of the Stockholm International Peace Research Institute is on the intersection of conflict and hunger, and the steps we must take to break the links between the two in order to contribute to a more peaceful and food-secure planet.

The authors argue for the integration of a peace-building lens into the creation of resilient food systems and a food and nutrition security lens into peace building. They assert that progress on peace and food security is possible even in the most unfavorable circumstances, and even small-scale interventions by humanitarian, development, and peace actors can go a long way in contributing to peace building. They identify four priorities for making effective progress: a flexible and agile approach based on a thorough understanding of local contexts; a commitment to working in partnerships that bring together local actors, national governments, and international organizations; integrative ways of working along the humanitarian-development-peace nexus that include relevant stakeholders; and flexible, need-based, cross-sectoral, and multiyear financing.

Given the complex mix of challenges before us, it is imperative that we tackle all three major drivers of hunger—conflict, climate change, and the economic devastation brought on by COVID-19—at once, going beyond empty promises, half measures, and temporary fixes. Ultimately, conflicts must be resolved through political solutions and societal change, and international law must be strengthened to ensure accountability for violations to the right to food, including in conflict situations. International actors should use their leverage to push states toward good governance. We must build resilience into our food systems, including through climate adaptation and mitigation. Most critically, we urgently need greater global solidarity to respond to and overcome the current pandemic, which will surely not be the last.

We have learned in the past few years that human progress is not inevitable. The combination of climate change, COVID-19, and conflict is taking us back to a world we thought we had left behind. Extreme poverty has risen for the first time in 20 years, and the number of people affected by, and at risk of, famine is increasing once more.

But the narrative can still be changed. There is no shortage of ambition, as expressed in a multiplicity of international agreements and summits: not only the UN Food Systems Summit, the Sustainable Development Goals, the Paris Agreement on climate change, and United Nations Security Council Resolution 2417 on conflict and hunger, but also the upcoming 2021 Tokyo Nutrition for Growth Summit and the 26th UN Climate Change Conference. It is time to make good on these aspirations to realize the right to food for all and leave no one behind.

Mathias Mogge
Secretary General
Welthungerhilfe

Dominic MacSorley
Chief Executive Officer
Concern Worldwide

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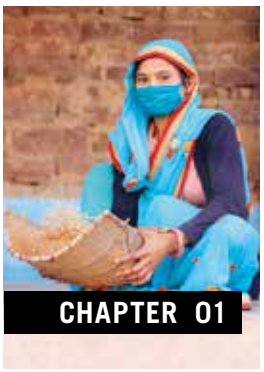

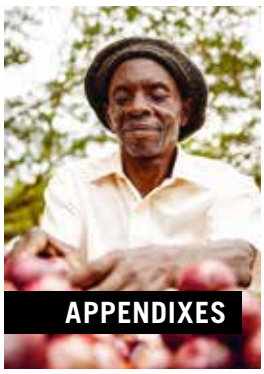

SUMMARY

The 2021 Global Hunger Index (GHI) points to a dire hunger situation in a world coping with multiple crises. Progress toward Zero Hunger by 2030, already far too slow, is showing signs of stagnating or even being reversed.

The Fight against Hunger Is Dangerously Off Track

Based on current GHI projections, the world as a whole—and 47 countries in particular—will fail to achieve a *low* level of hunger by 2030. Conflict, climate change, and the COVID-19 pandemic—three of the most powerful and toxic forces driving hunger—threaten to wipe out any progress that has been made against hunger in recent years. Violent conflict, which is deeply intertwined with hunger, shows no signs of abating. The consequences of climate change are becoming ever more apparent and costly, but the world has developed no fully effective mechanism to mitigate, much less reverse, it. And the COVID-19 pandemic, which has spiked in different parts of the world throughout 2020 and 2021, has shown just how vulnerable we are to global contagion and the associated health and economic consequences.

Global Progress Is Slowing, and Hunger Remains Stubbornly High in Some Regions

Evidence shows current setbacks against hunger and suggests trouble ahead. Although GHI scores show that global hunger has been on the decline since 2000, progress is slowing. While the GHI score for the world fell 4.7 points, from 25.1 to 20.4, between 2006 and 2012, it has fallen just 2.5 points since 2012. After decades of decline, the global prevalence of undernourishment—one of the four indicators used to calculate GHI scores—is increasing. This shift may be a harbinger of reversals in other measures of hunger. In both Africa South of the Sahara and South Asia, hunger is considered *serious*. Africa South of the Sahara has the highest rates of undernourishment, child stunting, and child mortality of any region of the world. South Asia's high hunger level is driven largely by child undernutrition, particularly as measured by child wasting. In the regions of Europe and Central Asia, Latin America and the Caribbean, East and Southeast Asia, and West Asia and North Africa, hunger levels are *low* or *moderate*.

Hunger Remains *Serious*, *Alarming*, or *Extremely Alarming* in Nearly 50 Countries

According to the 2021 GHI, one country, Somalia, suffers from an *extremely alarming* level of hunger. Hunger is at *alarming* levels in 5 countries—Central African Republic, Chad, Democratic Republic of the Congo, Madagascar, and Yemen—and is provisionally categorized as *alarming* in 4 additional countries—Burundi, Comoros, South Sudan, and Syria. Hunger has been identified as *serious* in 31 countries and is provisionally categorized as *serious* in 6 additional countries. Since 2012, hunger has increased in 10 countries with *moderate*, *serious*, or *alarming* hunger levels, in some cases reflecting a stagnation of progress and in others signaling an intensification of an already precarious situation. Fourteen countries have achieved significant improvements in hunger, with a reduction of 25 percent or more between their 2012 and 2021 GHI scores. However, wide variations in children's nutritional status, even within countries' borders, are pervasive and can be obscured by national averages.

Violent Conflict Drives Hunger

The two-way links between hunger and conflict are well established. Violent conflict is destructive to virtually every aspect of a food system, from production, harvesting, processing, and transport to input supply, financing, marketing, and consumption. At the same time, heightened food insecurity can contribute to violent conflict. Without resolving food insecurity, it is difficult to build sustainable peace, and without peace the likelihood of ending global hunger is minimal.

Breaking the Links between Conflict and Hunger Can Advance Both Food Security and Peace

It is possible to begin to break the destructive links between conflict and hunger and to build resilience, even amid conflict and extreme vulnerability. Working together, actors such as states, community groups, local and international nongovernmental organizations (NGOs), and United Nations agencies can create conditions for food security and sustainable peace. Effectively integrating a peace-building lens into the creation of resilient food systems and a food security lens into peace building will require that external actors have a well-grounded knowledge of the context and act with sensitivity to the realities of ongoing conflicts. It is important to strengthen locally led action and reflect local concerns and aspirations while working through partnerships that bring together diverse actors and their respective knowledge. Funding should be flexible, long term, and adaptable to fluid fragile and conflict-affected contexts. Finally, it is crucial to address conflict on a political level and prosecute those who use starvation as a weapon of war.

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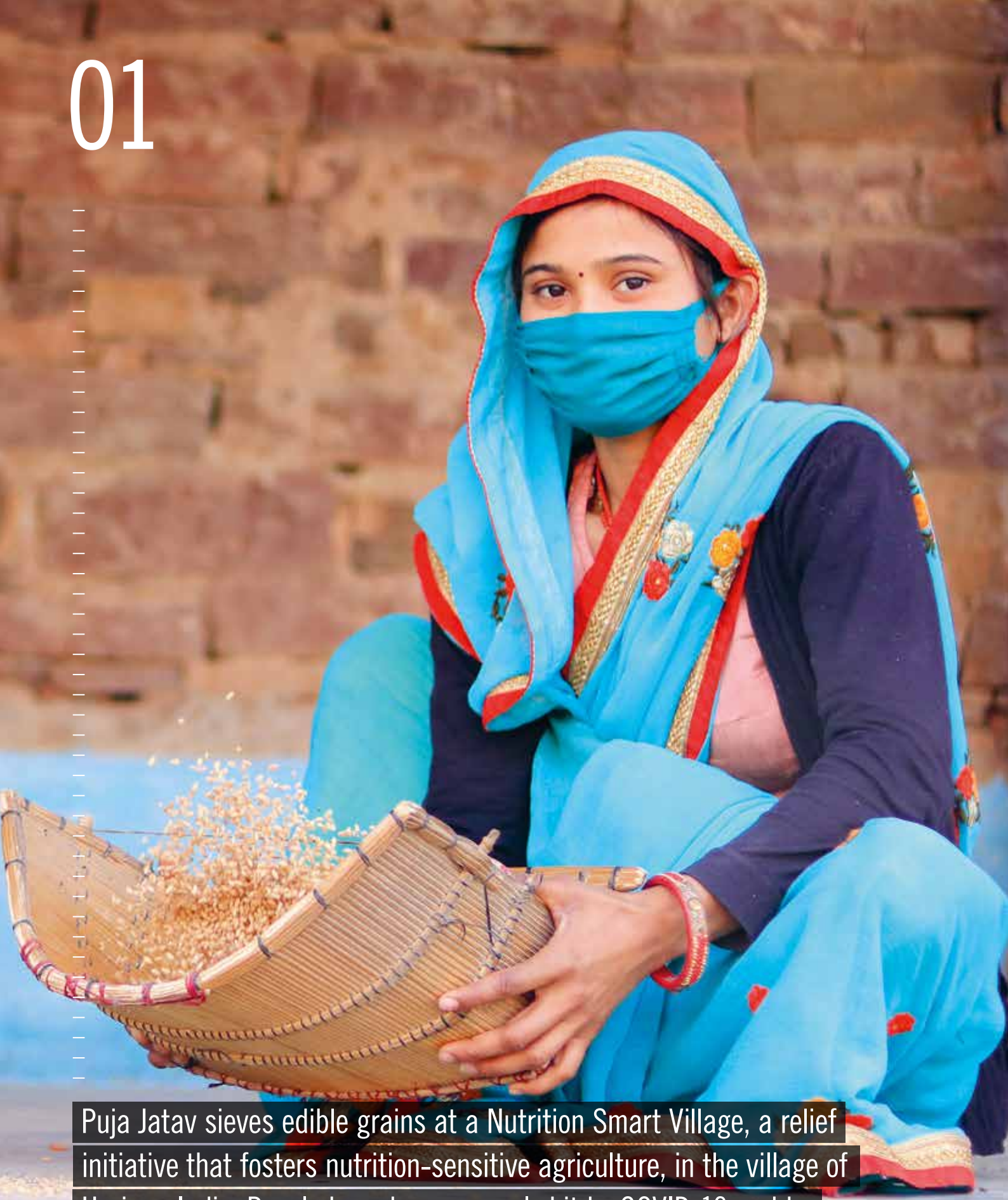


Puja Jatav sieves edible grains at a Nutrition Smart Village, a relief initiative that fosters nutrition-sensitive agriculture, in the village of Haripur, India. People have been severely hit by COVID-19 and by pandemic-related restrictions in India, the country with the highest child wasting rate worldwide.

GLOBAL, REGIONAL, AND NATIONAL TRENDS

Key Messages

→ **The fight against hunger is dangerously off track.** Based on current GHI projections, the world as a whole—and 47 countries in particular—will fail to achieve a *low* level of hunger by 2030.

→ **Food security is under assault on multiple fronts.** Worsening conflict, weather extremes associated with global climate change, and the economic and health challenges associated with the COVID-19 pandemic are all driving hunger.

→ **After decades of decline, the global prevalence of undernourishment—a component of the Global Hunger Index—is increasing.** This shift may be a leading indicator of reversals in other measures of hunger.

→ **Africa South of the Sahara and South Asia are the world regions where hunger levels are highest.** Hunger in both regions is considered *serious.*

→ **Dozens of countries suffer from severe hunger.** According to the 2021 GHI scores and provisional designations, drawing on data from 2016–2020, hunger is considered *extremely alarming* in one country (Somalia), *alarming* in 9 countries, and *serious* in 37 countries.

→ **Inequality—between regions, countries, districts, and communities—is pervasive and, left unchecked, will keep the world from achieving the Sustainable Development Goal (SDG) mandate to "leave no one behind."**

It is difficult to be optimistic about hunger in 2021. The forces now driving hunger are overpowering good intentions and lofty goals. Among the most powerful and toxic of these forces are conflict, climate change, and COVID-19—three Cs that threaten to wipe out any progress that has been made against hunger in recent years. Violent conflict, which is deeply intertwined with hunger, shows no signs of abating. The consequences of climate change are becoming ever more apparent (Masson-Delmotte et al. 2021) and costly, but the world has developed no fully effective mechanism to slow, much less

BOX 1.1 ABOUT THE GLOBAL HUNGER INDEX SCORES

The Global Hunger Index (GHI) is a tool for comprehensively measuring and tracking hunger at global, regional, and national levels. GHI scores are based on the values of four component indicators:

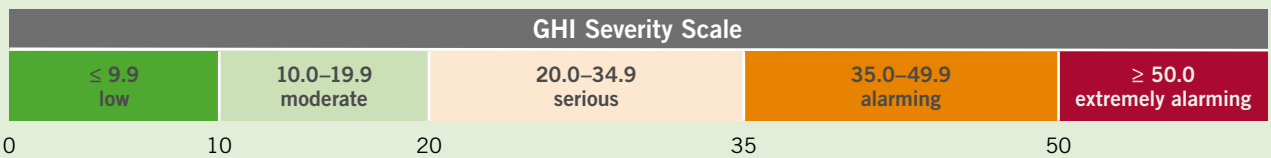
→ undernourishment—the share of the population with insufficient caloric intake (data are from the UN Food and Agriculture Organization)

→ child wasting—the share of children under age five who have low weight for their height, reflecting acute undernutrition

→ child stunting—the share of children under age five who have low height for their age, reflecting chronic undernutrition (child wasting and child stunting data are from UNICEF, the World Health Organization, the World Bank, and the Demographic and Health Surveys Program)

→ child mortality—the mortality rate of children under age five, partly reflecting the fatal mix of inadequate nutrition and unhealthy environments (data are from the United Nations Inter-agency Group for Child Mortality Estimation).

Based on the values of the four indicators, the GHI determines hunger on a 100-point scale, where 0 is the best possible score (no hunger) and 100 is the worst. Each country's GHI score is classified by severity, from *low* to *extremely alarming*. The 2021 GHI scores include data from 2016–2020.



Note: GHI scores are comparable only within each year's report, not between different years' reports. To allow for tracking of a country's or region's GHI performance over time, this report provides GHI scores for 2000, 2006, and 2012, which can be compared with 2021 GHI scores. For a detailed explanation of the concept of the GHI, the date ranges and calculation of the scores, and the interpretation of results, see Appendixes A and B.

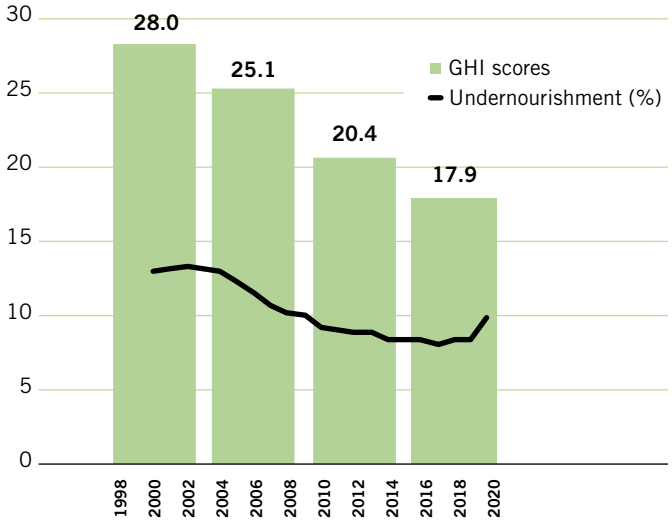
reverse, it (Raiser et al. 2020). And the COVID-19 pandemic, which has spiked in different parts of the world throughout 2020 and 2021, has shown just how vulnerable we are to global contagion and the associated health and economic consequences. As we struggle to contain the current pandemic, we must be realistic that this will not be the last. As a result of these forces—as well as a host of underlying factors such as poverty, inequality, unsustainable food systems, lack of investment in agriculture and rural development, inadequate safety nets, and poor governance—progress in the fight against hunger shows signs of stalling and even being reversed. It is in this dire context that the hunger situation is playing out in the world as a whole, in global regions, and in individual countries.

The World

The fight against hunger is dangerously off track. Based on current GHI projections, the world as a whole—and 47 countries in particular—will not achieve a *low* level of hunger by 2030.[1] Of these countries, 28 are located in Africa South of the Sahara, with the remaining countries spread between South Asia, West Asia and North Africa, East and Southeast Asia, and Latin America and the Caribbean. Recent projections by the Food and Agriculture Organization of the United Nations (FAO) support these findings: taking into account the effects of the COVID-19 pandemic, 657 million people (nearly 8 percent of the world population) are projected to be undernourished in 2030—approximately 30 million more than if the pandemic had not occurred (FAO, IFAD et al. 2021). Likewise, the world is not on track to meet the Sustainable Development Goals (SDGs) on child nutrition. Only 25 percent of all countries are on track to meet the goal of halving the number of children affected by stunting by 2030, and just 28 percent of countries are on track to meet the goal of reducing childhood wasting to less than 3 percent and maintaining it at this level (UNICEF, WHO, and World Bank 2021b). The latest projections on child mortality show that 53 countries need to accelerate progress if they are to achieve the SDG target of reducing under-five mortality rates to 2.5 percent or less by 2030 (UN IGME 2020b).

Evidence shows current setbacks against hunger and suggests trouble ahead. Although GHI scores show that global hunger has been on the decline since 2000, coinciding with a decline in extreme poverty in that period, progress is slowing. While the GHI score for the world fell 4.7 points, from 25.1 to 20.4, between 2006 and 2012, it has fallen just 2.5 points since 2012. The latest data on the prevalence of undernourishment—one of the four indicators used to calculate GHI scores—reveal a slight rise beginning in 2018 and a marked increase in 2020 (FAO, IFAD et al. 2021; Figure 1.1).[2] Data on undernourishment may be a leading indicator of a broader reversal of progress against hunger.

FIGURE 1.1 **WORLD GHI SCORES AND PREVALENCE OF UNDERNOURISHMENT IN RECENT DECADES**



Note: GHI scores for the year 2000 include data from 1998–2002; 2006 GHI scores include data from 2004–2008; 2012 GHI scores include data from 2010–2014; and 2021 GHI scores include data from 2016–2020. Data on undernourishment are from FAO (2021). The undernourishment values include data from high-income countries with low levels of hunger, which are excluded from the GHI. For a complete list of data sources for the calculation of GHI scores, see Appendix C.

Conflict continues to be a primary driver of hunger (see Box 1.4 and Chapter 2). More than half of the people facing undernourishment live in countries affected by conflict, violence, or fragility (FAO, IFAD et al. 2021). Of the 155 million people in a situation of acute food crisis, emergency, or catastrophe in 2020, conflict was the primary driver of hunger for 99.1 million people in 23 countries (FSIN and GNAFC 2021).[3] Conflict is a consistent predictor of child malnutrition, particularly as measured by child stunting (Brown et al. 2020). Conflict also increases child mortality directly through injuries and

[1] The 2030 projections are linear projections based on the existing 2000, 2006, 2012, and 2021 GHI scores for each country, and only countries with sufficient data for the calculation of these scores were included in the analysis. These projections are not comparable to projections from previous reports owing to changes in data availability and revisions of existing data. For example, last year's report had 2020 GHI scores for 107 countries, whereas this year's report has 2021 GHI scores for 116.

[2] Of the data used to calculate the GHI scores in this year's report, the effects of the COVID-19 pandemic are reflected only in the data on the prevalence of undernourishment, made possible by FAO's "nowcast" methodology. The data on child stunting and child wasting largely do not yet reflect the pandemic's effects because of obstacles to collecting household survey data in the context of physical distancing policies. At the time of this report's completion, the latest published data on child mortality from the UN Inter-agency Group for Child Mortality Estimation were from 2019.

[3] These data on food insecurity are based on the Integrated Food Security Phase Classification (IPC) system, as reported in the *Global Report on Food Crises* (FSIN and GNAFC 2021).

trauma and indirectly through diarrhea, measles, malaria, lower respiratory tract infections, and malnutrition associated with poor living conditions and damaged health care infrastructure (Kadir et al. 2018).

Climate change is already increasing food insecurity through higher temperatures, changing precipitation patterns, and more frequent extreme weather events, and the negative effects are widespread, rapid, and intensifying (Mbow et al. 2019; Masson-Delmotte et al. 2021). Hunger levels are significantly higher in countries that are most sensitive to the rainfall and temperature extremes characteristic of climate change, particularly in economies highly dependent on agriculture (FAO, IFAD et al. 2021). A recent analysis shows that climate change could increase the number of chronically hungry people in 2050 by 78 million relative to a situation without the current climate crisis. Investment in agricultural research and development, water management, and rural infrastructure could offset this increase in hunger, but this would require an additional US$25.5 billion a year beyond the currently anticipated funding levels (Sulser et al. 2021). Climate change mitigation and adaptation require strong political will and compliance with climate agreements.

The COVID-19 pandemic is worsening food security, with the full scope of the impacts still not fully known. The pandemic is increasing food insecurity in various ways, including through lost income caused by infection, quarantine, or government-imposed lockdowns or movement restrictions, disruptions to food systems or food supplies, and increases in food prices caused by these disruptions (Amare et al. 2021). The restrictions implemented to save lives and prevent the collapse of medical care resulted in a deep shock to the global economy. Owing in part to the economic impact of the pandemic, the number of people experiencing acute food insecurity increased by nearly 20 million in 2020 compared with the previous year, and economic shocks were a more significant driver of acute food insecurity in 2020 than in 2019 (FSIN and GNAFC 2021). Another

BOX 1.2 COVID-19 AND NUTRITION: WHAT WE KNOW SO FAR

The pandemic is worsening malnutrition not only through food insecurity but also through reductions in health care use, immunization, treatment of malnutrition, and antenatal care. A 2020 survey showed that pandemic-induced disruptions to health care services were widespread. Approximately half of the surveyed countries reported partial or severe disruptions to services designed to manage malnutrition. Sixty to 70 percent of countries reported disruptions to routine immunization services (WHO 2020). A survey of households in 25 countries found that at least one-third of respondents reported delaying, skipping, or being unable to complete essential health care visits since the start of the COVID-19 pandemic (Alliance2015 2021). Sickness and infection contribute to malnutrition, and while it is difficult to assess the impact of vaccination services on child stunting, wasting, and underweight, vaccination is considered an important component of malnutrition prevention (Prendergast 2015). Antenatal care was found to be at least partially disrupted in 56 percent of surveyed countries (WHO 2020). This disruption may have profound implications for children's nutritional status given that antenatal care has been shown to significantly decrease the probability of low birth weight, child stunting, and child underweight in low- and middle-income countries (Kuhnt and Vollmer 2017).

The effects of the pandemic on child malnutrition have not yet been comprehensively measured given barriers to collecting anthropometric data, but estimates suggest sizable impacts. An estimate of the pandemic's impact on economic, food, and health systems suggests that there could be an additional 9.3 million wasted children and 2.6 million stunted children in 2020–2022 in low- and middle-income countries compared with pre-pandemic expectations (Osendarp et al. 2021). The regions of the world expected to be most heavily impacted are those where child undernutrition is already most severe, including Africa South of the Sahara and South Asia (Ntambara and Chu 2021).

Child mortality is predicted to increase as a result of the pandemic, primarily due to the indirect effects of COVID-19. Disruptions to reproductive, maternal, newborn, child, and adolescent health services, which have occurred in most countries as a result of the pandemic, have been shown to increase mortality among children under age five (WHO 2020). Increases in child wasting and declines in nutrition intervention coverage associated with the pandemic could lead to between 47,000 and 283,000 additional child deaths between 2020 and 2022 in low- and middle-income countries (Osendarp et al. 2021). The wide range reflects the ongoing uncertainty of the situation, which is without precedent in modern times.

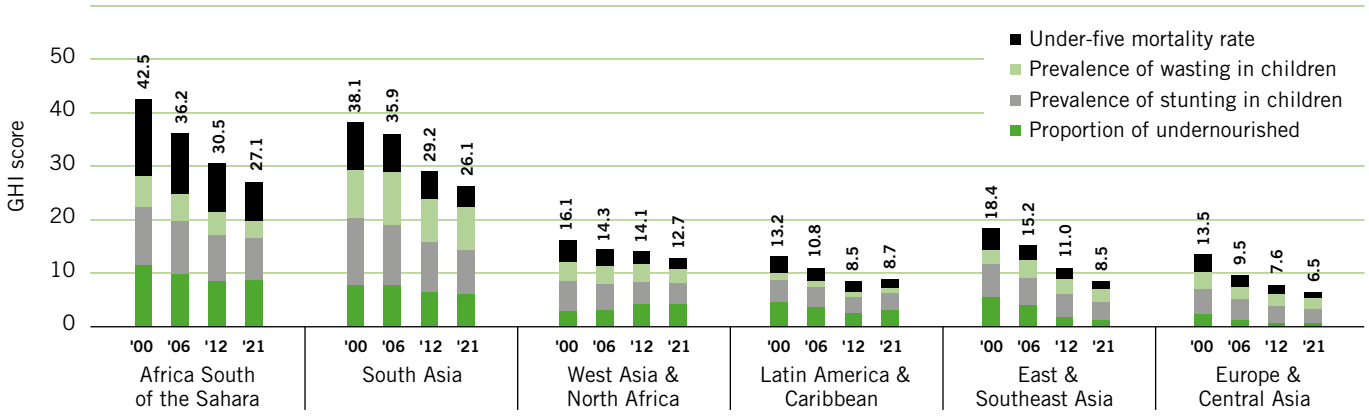
recent study found that the pandemic exacerbated food insecurity in many areas of the world, in part because reduced incomes led to decreased food affordability and ultimately reduced food choice and diversity (Béné et al. 2021). Projections and evidence to date also suggest that the pandemic worsened child mortality and various forms of malnutrition through multiple channels (see Box 1.2). Given the vast inequality in vaccine access between countries and regions, the poorest will likely continue to bear a disproportionate brunt of the pandemic into the future.

The Regions

Africa South of the Sahara and South Asia are the world regions with the highest hunger levels, with GHI scores of 27.1 and 26.1, respectively (Figure 1.2). These hunger levels are considered *serious*, and contrast with those of Europe and Central Asia, Latin America and the Caribbean, East and Southeast Asia, and West Asia and North Africa, each of which has a GHI score in the *low* or *moderate* range. Africa South of the Sahara's 2000 GHI score was substantially higher than South Asia's, and at that time six out of the seven countries in the world with *extremely alarming* hunger levels were in Africa South of the Sahara. However, between 2000 and 2006, Africa South of the Sahara achieved improvements in each of the GHI indicators, while in South Asia the prevalence of undernourishment stagnated and the child wasting rate rose, putting these two regions on a similar footing. The 2006, 2012, and 2021 GHI scores for the two regions, and their rate of decrease since 2006, are comparable.

Africa South of the Sahara has the highest rates of undernourishment, child stunting, and child mortality of any region of the world. Of major concern is its rising undernourishment rate, which increased from 19.6 percent in 2014–2016 to 21.8 percent in 2018–2020 (FAO 2021). While available data suggest child stunting is still declining slowly in the region, from 34.8 percent in 2015 to 32.4 in 2020, nearly one-third of children are still stunted, or too short for their age, indicating chronic undernutrition (UNICEF, WHO, and World Bank 2021a). Perhaps most troubling, Africa is the one world region predicted to experience an increase in the number of undernourished people between now and 2030, when its undernourished population is expected to be on par with that of Asia (FAO, IFAD et al. 2021). Each of the major drivers of hunger is imposing extraordinary challenges on the region. As mentioned, climate change is projected to push an additional 78 million people globally into hunger in 2030 relative to projections without the climate crisis, and more than half of this burden is expected to be experienced in Africa South of the Sahara (Sulser et al. 2021). The long-term effects of the COVID-19 pandemic are expected to include 30 million more people undernourished globally in 2030 than would otherwise be the case, again with more than half of these expected in Africa South of the Sahara (FAO, IFAD et al. 2021). And while projections of the impact of conflict on hunger in 2030 are not available, the level of conflict in the region is high and the situation is not improving: as of 2019 Africa had the highest number of children living in a conflict zone of any region, and it was the only region in the world that did not experience a decrease in political violence between 2019 and 2020 (Save the Children 2020; ACLED 2021a).

FIGURE 1.2 **REGIONAL 2000, 2006, 2012, AND 2021 GLOBAL HUNGER INDEX SCORES, WITH CONTRIBUTION OF COMPONENTS**



Source: Authors.

Note: See Appendix C for data sources. The regional GHI scores are calculated using regional aggregates for each indicator and the formula described in Appendix B. The regional aggregates for each indicator are calculated as population-weighted averages, using the indicator values reported in Appendix D. For countries lacking undernourishment data, provisional estimates provided by the Food and Agriculture Organization of the United Nations (FAO) were used in the calculation of aggregates only, but are not reported in Appendix D. Appendix F indicates which countries are included in each region.

South Asia's high regional hunger level is driven largely by child undernutrition, particularly as measured by child wasting. At 14.7 percent, South Asia's child wasting rate as of 2020 is the highest of any world region. The next-highest values belong to Africa South of the Sahara, with 6.2 percent, and West Asia and North Africa, with 6.3 percent—these rates are problematic but dramatically lower than that of South Asia. Meanwhile, South Asia's child stunting rate, at 31.8 percent, is nearly as high as that of Africa South of the Sahara. More than half of the children in the world who experience wasting and more than one-third of the children who experience stunting are located in South Asia (UNICEF, WHO, and World Bank 2021a). A recent analysis found that South Asian mothers with no education and those with short stature were most likely to have stunted children (Wali, Agho, and Renzaho 2020). This hints at a deeper explanation of South Asia's persistent undernutrition—gender inequality. Women in South Asia face inequality in multiple realms, including social structures, the workplace, health and nutrition, and overall safety. These disadvantages in turn contribute to food and nutrition insecurity not only for women but also for their children (Rao 2020).

West Asia and North Africa, with a *moderate* 2021 GHI score of 12.7, has yet to achieve a *low* level of hunger. The prevalence of undernourishment in the region has seen an upward trend from 8.0 percent in 2007–2009 to 10.9 percent in 2018–2020 (FAO 2021). The region's 2020 child stunting rate, at 15.6 percent, and its 2020 child wasting rate, at 6.3 percent, are considered to be of moderate public health concern/significance (UNICEF, WHO, and World Bank 2021a; de Onis et al. 2019). The GHI score for the region is driven up by Yemen, which has an *alarming* 2021 GHI score of 45.1, and Iraq, which has a *serious* 2021 GHI score of 22.8. The populations of these two countries, both of which are in the midst of or have been engaged in violent conflict in recent years, constitute roughly 15 percent of the population of the region as a whole.

Latin America and the Caribbean, whose 2021 GHI score is categorized as *low*, is the only region with an increase in its GHI score since 2012. This very small increase, from a 2012 GHI score of 8.5 to a 2021 GHI score of 8.7, can be traced back to a problematic trend of rising undernourishment. After years of decline, the region's prevalence of undernourishment increased from 5.7 percent in 2013–2015 to 7.7 percent in 2018–2020 (FAO 2021). Its child undernutrition and child mortality values are declining slowly, but without substantial, sustained efforts to support children's nutrition and health, the increased prevalence of undernourishment may translate into worse outcomes for children.

East and Southeast Asia's 2021 GHI score is *low* and declining over time, yet further dissection reveals worrying subregional inequality. The child nutrition situation in East Asia is much better than in Southeast Asia. For example, child wasting in 2020 was 8.2 percent in Southeast Asia and just 1.7 percent in East Asia. Likewise, child stunting was 27.4 percent in Southeast Asia compared with just 4.9 percent in East Asia (UNICEF, WHO, and World Bank 2021a). While regional groupings are useful for considering broad trends, this kind of disaggregation at the subregional level is also critical, as is disaggregation at the country and subnational levels.

Europe and Central Asia has the lowest 2021 GHI score of any region, at 6.5, down from 7.6 in 2012. While it fares relatively well on the GHI indicators, Europe and Central Asia is a transitional region, with a still tenuous food security status. Eastern Europe's prevalence of moderate or severe food insecurity—an alternative measure of food insecurity developed by FAO[4]—increased from 10.4 percent in 2019 to 14.8 percent in 2020. Meanwhile, Central Asia's prevalence of moderate or severe food insecurity rose from 13.2 to 18.0 percent in this period (FAO 2021). These increases reflect the pressure that the COVID-19 pandemic and associated lockdowns have put on these populations and show the need for strong safety net programs during downturns and crises, even in regions with relatively low hunger.

[4] The prevalence of moderate or severe food insecurity is based on the Food Insecurity Experience Scale, an experience-based food security scale used to produce a measure of access to food at different levels of severity that can be compared across contexts (FAO, IFAD et al. 2021).

The Countries

According to the 2021 GHI, of the 116 countries with sufficient data to calculate the latest GHI scores, one country, Somalia, suffers from an *extremely alarming* level of hunger, 5 have levels of hunger that are *alarming*—Central African Republic, Chad, Democratic Republic of the Congo, Madagascar, and Yemen—and 31 countries have *serious* levels of hunger. There are many more countries where the hunger situation may be just as concerning, but data gaps prevent calculation of their exact GHI scores. Of these, hunger is provisionally categorized as *alarming* in four additional countries—Burundi, Comoros, South Sudan, and Syria—and *serious* in six additional countries—Guinea, Guinea-Bissau, Niger, Uganda, Zambia, and Zimbabwe (Box 1.3).[5]

Somalia has the highest level of hunger according to the 2021 GHI ranking—its GHI score of 50.8 is considered *extremely alarming*. At 59.5 percent, Somalia's 2018–2020 prevalence of undernourishment was the highest of any country with available data. (The value for the next-highest country, Central African Republic, was more than 10 percentage points lower, at 48.2 percent.) In recent years, Somalia has faced multiple crises that have increased food insecurity, including droughts, floods, desert locusts, and the effects of the COVID-19 pandemic beginning in 2020 (Riddell 2020). The country has been in a state of conflict for the past 30 years, and though fighting has eased somewhat in recent years, it is considered a fragile state and is vulnerable to multiple militias vying for power (Day 2020). After enduring a devastating famine that killed approximately 260,000 people in 2011, Somalia faced the threat of famine again in 2017 and 2018, which was averted by an effective response by international organizations, the Somali government, and civil society (Clayton, Abdi Ibrahim, and Yusuf 2019; WFP 2021b).

Yemen, with the second-highest 2021 GHI score at 45.1, faces an *alarming* level of hunger and the threat of famine in 2021. All of Yemen's GHI indicators are concerning, with a prevalence of undernourishment of 45.4 percent, a child stunting rate estimated at 51.4 percent, a child wasting rate estimated at 15.1 percent, and a mortality rate for children under age five of 5.8 percent. Since 2014/2015 Yemen has been engulfed in a civil war characterized by escalating violence, restrictions on imports through the country's ports, and a near cessation in payment of government salaries, affecting up to 30 percent of households. These factors have created a food security crisis in Yemen (Tandon and Vishwanath 2020). In 2021, according to the World Food Programme, more than 5 million Yemenis are on the verge of famine and tens of thousands of Yemenis already face famine-like conditions (WFP 2021e).

At 43.0, considered *alarming,* Central African Republic (CAR) has the third-highest 2021 GHI score of the countries with sufficient data for inclusion in the ranking. The prevalence of undernourishment in CAR is 48.2 percent, meaning nearly half of the population lacks access to sufficient calories on a regular basis. Forty percent of children are stunted, 5.3 percent of children are wasted, and 11.0 percent of children die before reaching the age of five. CAR has been engaged in a civil war since 2013, and although a peace deal was signed in 2019, the situation is still fragile and volatile, with renewed violence by rebel groups posing a threat to the country (Semba 2021). The main drivers of food insecurity in CAR are violence and civil insecurity and the associated displacement of the population; market disruption caused by the COVID-19 pandemic, worsened by supply chain blockages perpetrated by armed groups; and low agricultural production, itself exacerbated by instability in the country (IPC 2021a).

Chad has the fourth-highest 2021 GHI score in this report—39.6, which is considered *alarming.* Although Chad's GHI score has declined relative to 2012, the most recent historical reference year for GHI scores in this report, the prevalence of undernourishment rose between 2014–2016 and 2018–2020. Chad's current prevalence of undernourishment, at 31.7 percent, indicates that nearly one-third of the population lacks regular access to sufficient calories. Surveys conducted in 2019 show that child undernutrition is a major concern: Chad's child stunting rate, at 35.1 percent, is considered very high in terms of public health significance, and its child wasting rate, at 13.0 percent, is considered high (de Onis et al. 2019).[6] With an under-five mortality rate of 11.4 percent, it is one of the few countries in the world where more than 1 in 10 children die before age five. Food insecurity in Chad is driven by conflict, insecurity, and weather extremes, exacerbated by the impact of the COVID-19 pandemic. Chad hosts approximately half a million refugees—mainly from Sudan and Central African Republic—for whom food insecurity is a major concern (FSIN and GNAFC 2021).

[5] There are several resources within this report to assess how countries fare over time, relative to other countries, and according to multiple indicators. To understand how the countries included in the GHI compare with each other, Table 1.1 shows the numerical ranking, from lowest to highest hunger levels, for each country with a 2021 GHI score. Appendix F shows the 2021 GHI scores, from highest to lowest, within each region to allow for an assessment of countries' hunger status relative to nearby countries. Appendix D shows the values of the GHI indicators—the prevalence of undernourishment, child wasting, child stunting, and child mortality—for each country, including their historic values.

[6] Values are averages of stunting values and wasting values from the two surveys.

TABLE 1.1 GLOBAL HUNGER INDEX SCORES BY 2021 GHI RANK

Rank[1]	Country	2000	2006	2012	2021
2021 GHI scores less than 5, collectively ranked 1-18.[2]	Belarus	<5	<5	<5	<5
	Bosnia & Herzegovina	9.3	6.7	<5	<5
	Brazil	11.5	7.4	5.5	<5
	Chile	<5	<5	<5	<5
	China	13.3	9.0	<5	<5
	Croatia	<5	<5	<5	<5
	Cuba	<5	<5	<5	<5
	Estonia	<5	<5	<5	<5
	Kuwait	<5	<5	<5	<5
	Latvia	5.5	<5	<5	<5
	Lithuania	<5	<5	<5	<5
	Montenegro	—	6.5	<5	<5
	North Macedonia	7.5	7.7	<5	<5
	Romania	7.9	5.9	5.0	<5
	Serbia	—	6.1	5.3	<5
	Slovakia	6.0	5.3	<5	<5
	Turkey	10.2	6.5	5.0	<5
	Uruguay	7.4	6.7	5.0	<5
19	Argentina	6.4	5.6	5.2	5.3
19	Costa Rica	7.0	5.5	<5	5.3
21	Uzbekistan	24.3	16.6	9.5	5.9
22	Tunisia	10.3	7.8	7.0	6.0
23	Bulgaria	8.6	8.1	7.8	6.1
23	Mongolia	30.2	23.4	12.8	6.1
25	Albania	20.7	15.9	8.8	6.2
25	Russian Federation	10.1	7.1	6.4	6.2
27	Georgia	12.3	8.8	<5	6.3
28	Kazakhstan	11.2	12.3	8.1	6.4
29	Saudi Arabia	11.0	12.1	8.2	6.8
29	Ukraine	13.0	7.1	6.9	6.8
31	Algeria	14.5	11.7	8.9	6.9
32	Armenia	19.3	13.3	10.4	7.2
33	Azerbaijan	25.0	15.9	10.6	7.5
33	Paraguay	11.7	11.6	9.5	7.5
35	Iran (Islamic Republic of)	13.5	8.9	8.1	7.7
36	Dominican Republic	15.1	13.2	10.2	8.0
36	Peru	20.6	16.4	9.2	8.0
38	Jordan	10.8	8.1	8.5	8.3
39	Mexico	10.2	8.6	7.8	8.5
40	Fiji	9.6	9.0	8.1	8.6
40	Jamaica	8.6	9.0	9.1	8.6
40	Kyrgyzstan	18.3	13.9	11.7	8.6
43	Morocco	15.5	17.5	9.6	8.8
44	Colombia	10.9	11.4	9.3	8.9
44	El Salvador	14.7	12.0	10.4	8.9
44	Panama	18.7	15.0	10.1	8.9
44	Trinidad & Tobago	11.0	11.3	10.8	8.9
48	Lebanon	11.6	13.2	12.3	9.7
48	Turkmenistan	20.1	14.8	11.9	9.7
*	Moldova (Republic of)*	—	—	—	0–9.9*
50	Suriname	15.1	11.4	10.4	10.4
51	Guyana	17.1	15.6	12.1	10.7
52	Cabo Verde	15.4	11.9	12.3	10.8
53	Thailand	18.5	12.3	12.4	11.7
54	Mauritius	15.2	14.0	13.0	12.2
55	Oman	14.7	13.8	11.6	12.3
56	Egypt	16.3	14.4	15.2	12.5
57	Bolivia (Plurinational State of)	27.7	23.3	15.6	12.7
58	Honduras	21.8	19.6	13.8	12.8
58	Malaysia	15.4	13.7	12.4	12.8
60	South Africa	18.1	17.6	12.7	12.9
61	Viet Nam	26.3	21.8	16.0	13.6
62	Ecuador	19.7	18.9	12.8	14.0
62	Nicaragua	22.3	17.4	14.9	14.0
64	Ghana	28.4	22.0	17.9	14.9
65	Sri Lanka	21.9	20.0	20.6	16.0
66	Senegal	34.0	24.1	19.2	16.3
67	Gabon	21.0	20.2	18.6	16.6
68	Philippines	25.0	20.4	20.5	16.8
69	Cambodia	41.1	27.1	24.2	17.0
69	Eswatini	24.5	23.2	21.8	17.0
71	Myanmar	39.8	31.6	22.9	17.5
72	Gambia	29.0	27.5	22.1	17.6
73	Indonesia	26.1	29.5	23.0	18.0
74	Cameroon	35.7	30.9	23.1	18.6
75	Solomon Islands	20.0	18.2	20.2	18.8
76	Bangladesh	34.0	28.9	28.6	19.1
76	Nepal	37.4	30.9	23.1	19.1
78	Lao PDR	44.1	31.9	25.7	19.5
79	Guatemala	28.4	24.6	22.0	19.6
*	Tajikistan*	—	—	—	10–19.9*
80	Namibia	25.3	25.8	26.6	20.2
81	Malawi	43.1	33.5	26.2	21.3
82	Benin	34.0	27.7	24.0	22.2
82	Venezuela (Bolivarian Republic of)	14.6	11.2	7.4	22.2
84	Côte d'Ivoire	33.3	37.1	30.0	22.3
85	Mauritania	31.9	28.9	23.6	22.6
86	Iraq	23.9	23.9	27.5	22.8
87	Kenya	36.7	31.2	25.4	23.0
88	Botswana	26.7	26.2	24.3	23.2
89	Togo	39.1	36.5	25.3	23.7
90	Ethiopia	53.5	43.4	33.5	24.1
91	Burkina Faso	44.9	35.8	29.7	24.5
92	Mali	41.7	36.8	24.8	24.7
92	Pakistan	36.7	33.1	32.1	24.7
92	Tanzania (United Republic of)	40.6	33.6	29.1	24.7
95	Sudan	—	—	29.8	25.1
96	Korea (DPR)	39.5	33.1	29.1	25.2
97	Angola	65.0	46.9	27.8	26.0
98	Rwanda	49.3	38.3	31.0	26.4
99	Djibouti	44.3	36.9	35.4	27.4
99	Lesotho	32.5	29.6	24.6	27.4
101	India	38.8	37.4	28.8	27.5
102	Papua New Guinea	33.6	30.3	33.7	27.8
103	Afghanistan	50.9	42.7	34.3	28.3
103	Nigeria	39.5	32.5	30.4	28.3
105	Congo (Republic of)	34.9	34.6	28.5	30.3
106	Mozambique	48.0	38.2	31.5	31.3
106	Sierra Leone	57.7	52.7	34.7	31.3
108	Timor-Leste	—	46.1	36.2	32.4
109	Haiti	42.0	43.6	35.2	32.8
110	Liberia	48.1	40.0	35.0	33.3
*	Guinea, Guinea-Bissau, Niger, Uganda, Zambia, and Zimbabwe*	—	—	—	20–34.9*
111	Madagascar	42.8	41.6	34.3	36.3
112	Dem. Rep. of the Congo	50.6	45.3	42.3	39.0
113	Chad	50.8	51.2	45.7	39.6
114	Central African Republic	48.9	48.0	40.5	43.0
115	Yemen	41.0	38.8	38.4	45.1
*	Burundi, Comoros, South Sudan, and Syrian Arab Republic*	—	—	—	35–49.9*
116	Somalia	58.1	57.9	65.1	50.8

— = Data are not available or not presented. Some countries did not exist in their present borders in the given year or reference period.

Note: As always, rankings and index scores from this table cannot be accurately compared to rankings and index scores from previous reports (see Appendix A).

For the 2021 GHI report, data were assessed for 135 countries. Of these, there were sufficient data to calculate 2021 GHI scores for and rank 116 countries (by way of comparison, 107 countries were ranked in the 2020 report).

* For 19 countries, individual scores could not be calculated and ranks could not be determined owing to lack of data. Where possible, these countries were provisionally designated by severity: 1 country is designated as *low,* 1 as *moderate,* 6 as *serious,* and 4 as *alarming.* For 7 countries, provisional designations could not be established (see Box 1.3).

[1] Ranked according to 2021 GHI scores. Countries that have identical 2021 scores are given the same ranking (for example, Argentina and Costa Rica are both ranked 19th).

[2] The 18 countries with 2021 GHI scores of less than 5 are not assigned individual ranks, but rather are collectively ranked 1–18. Differences between their scores are minimal.

= low = moderate = serious = alarming = extremely alarming

BOX 1.3 ASSESSING THE SEVERITY OF HUNGER IN COUNTRIES WITH INCOMPLETE DATA

In this year's GHI report, 19 countries that met the criteria for inclusion in the GHI had insufficient data to allow for calculation of a 2021 GHI score. To address this gap and give a preliminary picture of hunger in the countries with missing data, the table below indicates provisional designations of the severity of hunger. These designations are based on those GHI indicator values that are available, the country's last known GHI severity designation, the country's last known prevalence of undernourishment,[7] the prevalence of undernourishment for the subregion in which the country is located, and/or an examination of the 2019, 2020, and 2021 editions of the *Global Report on Food Crises* (FSIN 2019; FSIN and GNAFC 2020, 2021).[8]

In some cases, data are missing because of violent conflict or political unrest (FAO, IFAD et al. 2017; Martin-Shields and Stojetz 2019), which are strong predictors of hunger and undernutrition (see Box 1.4 and Chapter 2). The countries with missing data may often be those facing the greatest hunger burdens. Of the 4 countries provisionally designated as *alarming*—Burundi, Comoros, South Sudan, and Syrian Arab Republic—it is possible that with complete data, one or more of them would fall into the *extremely alarming* category. However, without sufficient information to confirm that this is the case, we have conservatively categorized each of these countries as *alarming*.

[7] Previously published undernourishment values, GHI scores, and GHI severity classifications are not considered valid once superseding reports have been issued, but were used as benchmarks to consider the plausibility of a country falling into a broad range of undernourishment values and GHI scores.

[8] The *Global Reports on Food Crises* report on acute food insecurity, which is different from chronic hunger as measured by the prevalence of undernourishment. However, the 2019, 2020, and 2021 *GRFCs* were used to confirm whether a country experienced extreme hunger crises such as famine, threat of famine, and/or repeated hunger crises in 2018, 2019, and 2020.

PROVISIONAL HUNGER SEVERITY DESIGNATIONS AND EXISTING DATA FOR COUNTRIES WITH INCOMPLETE DATA

Country	Provisional 2021 GHI severity designation	Child stunting, 2016–2020 (%)	Child wasting, 2016–2020 (%)	Child mortality, 2019 (%)	Last GHI categorization	Last prevalence of undernourishment value (%)	Subregional prevalence of undernourishment (%)	Range of prevalence of undernourishment values for provisional designation (%)
Moldova (Rep. of)	Low	5.4*	2.7*	1.4	Low (2017)	8.5 (2017)	<2.5	0.0–13.8
Tajikistan	Moderate	17.5	5.6	3.4	Serious (2017)	30.1 (2017)	3.2	0.0–22.6
Guinea	Serious	30.3	9.2	9.9	Serious (2019)	16.5 (2019)	14.8	0.0–31.6
Guinea-Bissau	Serious	27.9	6.5	7.8	Serious (2019)	28.0 (2019)	14.8	5.5–41.4
Niger	Serious	47.1	9.8	8.0	Serious (2019)	16.5 (2019)	14.8	0.0–25.6
Uganda	Serious	28.9	3.5	4.6	Serious (2019)	41.0 (2019)	26.6	16.2–52.1
Zambia	Serious	34.6	4.2	6.2	Alarming (2019)	46.7 (2019)	26.6	8.4–44.3
Zimbabwe	Serious	23.5	2.9	5.5	Serious (2019)	51.3 (2019)	26.6	18.1–54.0
Burundi	Alarming	54.0	4.8	5.6	Extremely alarming (2014)	67.3 (2014)	26.6	33.9–69.8
Comoros	Alarming	36.0*	8.8*	6.3	Alarming (2014)	65.3 (2014)	26.6	37.2–73.1
South Sudan	Alarming	—	—	9.6	—	—	26.6	**
Syrian Arab Republic	Alarming	—	—	2.2	Moderate (2014)	6.0 (2014)	14.6	**
Bahrain	Not designated	3.9*	6.6*	0.7	—	—	14.6	N/A
Bhutan	Not designated	22.4*	3.8*	2.8	—	—	14.1	N/A
Equatorial Guinea	Not designated	25.7*	3.7*	8.2	—	—	30.5	N/A
Eritrea	Not designated	—	—	4.0	Extremely alarming (2014)	61.3 (2014)	26.6	N/A
Libya	Not designated	29.4*	8.2*	1.2	Low (2014)	1.4 (2014)	6.6	N/A
Maldives	Not designated	15.3	9.1	0.8	—	—	14.1	N/A
Qatar	Not designated	1.9*	3.7*	0.7	—	—	14.6	N/A

Source: Authors, based on sources listed in Appendix C and previous GHI publications included in the bibliography.
Note: Years in parentheses show when the relevant information was published in the GHI report.
* Authors' estimate. **Designation based on FSIN (2019), FSIN and GNAFC (2020, 2021), and expert consultation.
N/A = not applicable; — = not available.

With a 2021 GHI score of 39.0, Democratic Republic of the Congo (DRC) also faces an *alarming* level of hunger. Food insecurity is driven by ongoing conflict, large-scale population displacement, low household purchasing power, and damage to crops from pests, and has been exacerbated by the measures taken to contain the COVID-19 pandemic (FSIN and GNAFC 2021). Although DRC experienced its first peaceful transition of presidential power in 2019, it still faces steep challenges along the path to development (IFAD 2019). The security situation worsened in several eastern provinces in 2020. Violence has led to high levels of displacement: at the end of 2020, 5.3 million people were displaced within the country—the highest level in Africa (IDMC 2021). In the latter half of 2020, the combination of DRC's large population and widespread food insecurity led to the largest food crisis in the world in terms of the number of affected people (FSIN and GNAFC 2021).

Madagascar is the only country with an *alarming* 2021 GHI score (36.3) that is not experiencing conflict.[9] The country's food insecurity is driven by consecutive years of drought brought on by global climate change, which is pushing areas in the south of the country to the brink of famine in 2021 (WFP 2021a,c). Its undernourishment rate, at 43.2 percent, is one of the five highest rates for 2018–2020 and has been steadily increasing since 2010–2012, when it was as low as 28.3 percent (FAO 2021).

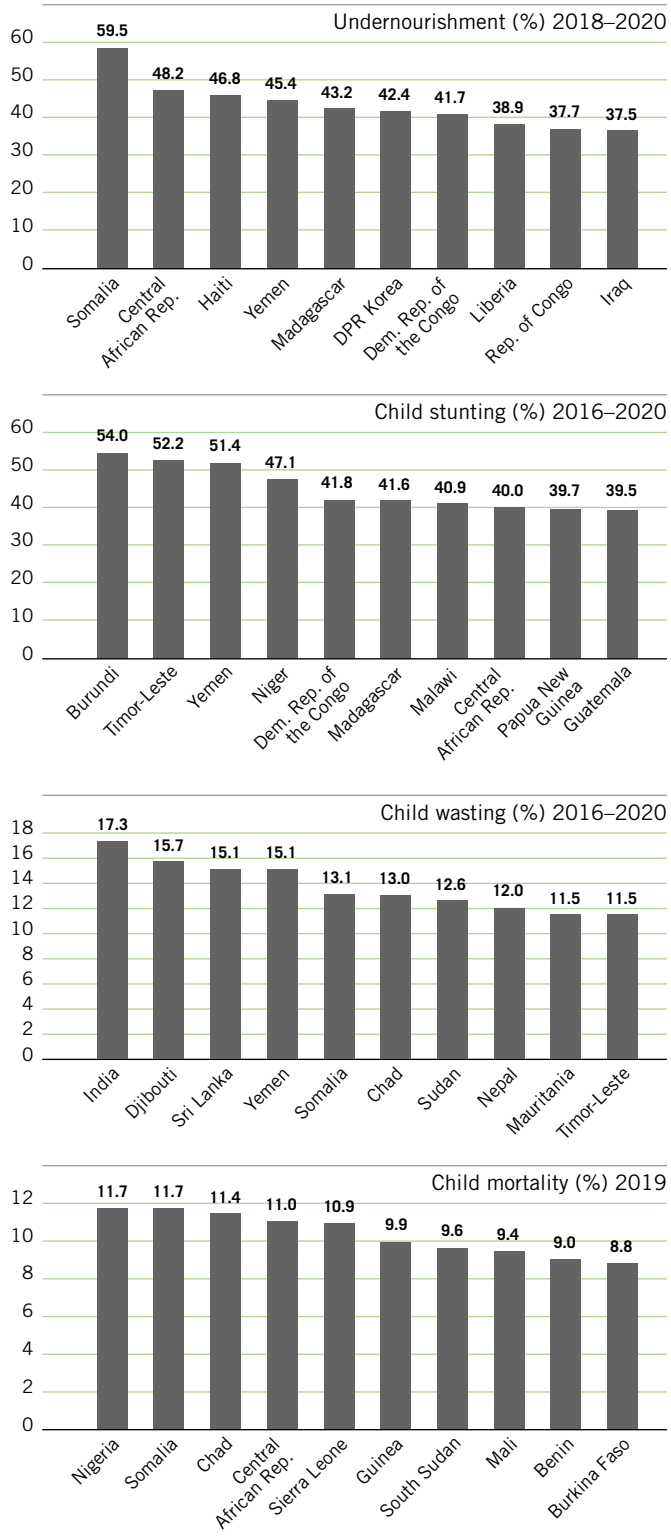
Despite committing to the goal of achieving Zero Hunger by 2030, too many countries are still experiencing increasing hunger. According to the GHI, hunger has increased in 10 countries with *moderate, serious,* or *alarming* hunger levels since 2012, the latest historical reference year in this year's report. These 10 are Central African Republic, Republic of Congo, Ecuador, Lesotho, Madagascar, Malaysia, Oman, South Africa, Venezuela, and Yemen. In the case of several of these countries with *moderate* 2021 GHI scores, this result indicates a stagnation of progress along the path toward *low* hunger or Zero Hunger. Ecuador and South Africa, for example, experienced substantial declines in hunger between 2000 and 2012, only to see their progress halted and partially reversed according to their 2021 scores. For those countries with *alarming* levels of hunger that are experiencing rising hunger—Central African Republic, Madagascar, and Yemen—these increases represent intensification of already dangerous situations.

The status of each of the GHI indicators (the prevalence of undernourishment, child stunting, child wasting, and child mortality) provides insight into the particular nature of hunger in each country (see Figure 1.3 and Appendix D). For example, Haiti, with a GHI score of 32.8, has the third-highest prevalence of undernourishment of any country in this year's GHI report, yet more than 50 countries have higher stunting rates and more than 70 countries have higher wasting rates. Despite Haiti's moderate child stunting and child wasting values relative to other countries, other indicators of child nutrition such as child anemia rates and the percentage of children who receive appropriate diets reveal that child undernutrition is nonetheless a major challenge in Haiti (IHE and ICF 2018). Timor-Leste, by contrast, has the second-highest child stunting rate in this report, yet 21 countries have prevalence of undernourishment values that exceed Timor-Leste's rate of 22.6 percent. To address its child nutrition challenges, Timor-Leste must tackle underlying issues by increasing dietary diversity and consumption of nutritious foods; improving the water, sanitation, and hygiene (WASH) environment; empowering women; and scaling up community-based management of acute malnutrition programming (Bonis-Profumo, McLaren, and Fanzo 2019).

There are several success stories of countries that have reduced hunger substantially over recent years and decades (Figure 1.4). Fourteen countries have seen a 25 percent reduction or more between their 2012 and 2021 GHI scores. For example, Bangladesh has experienced an impressive decline in GHI scores since 2012, dropping from 28.6 points, considered *serious*, to 19.1 points, considered *moderate*. Its child stunting rate fell substantially in recent decades, from 51.1 percent in 2000 to 28.0 percent in 2019. These improvements are underpinned by the government's firm commitment, determination, and action to tackle malnutrition as part of the country's path toward developed-country status by 2041 (Haddad and Khondker 2020). Mongolia has decreased its GHI score by over 50 percent between its 2012 and 2021 scores, falling to a 2021 GHI score of 6.1, considered *low*. However, as a result of the COVID-19 pandemic, household food insecurity is increasing, forcing households to reduce the quality and quantity of food they consume (FAO, UNICEF et al. 2021). When data are available on the impact of the pandemic on child stunting, child wasting, and child mortality, and as data on the prevalence of undernourishment increasingly show the effects of the pandemic, it will be important to consider these effects on the progress of Mongolia and other countries that have experienced recent gains.

[9] Comoros—which lacks sufficient data for the calculation of a 2021 GHI score but is provisionally categorized as having an *alarming* hunger level—is also not experiencing conflict.

FIGURE 1.3 **WHERE THE INDICATORS OF HUNGER ARE HIGHEST**



Source: Authors (see Appendix C for data sources).

The GHI is best suited to measure hunger over recent years and decades, while other tools are better suited to real-time assessments and short-term projections of hunger. These tools show that the most severe hunger crises in 2021 are occurring in Ethiopia, Yemen, South Sudan, and Nigeria (FEWS NET 2021).[10] Measures of acute food insecurity, from sources such as the Integrated Food Security Phase Classification (IPC) and the Famine Early Warning Systems Network (FEWS NET), and longer-term measures of hunger, such as the GHI, complement each other. The former allow for the identification of crises and the pinpointing of immediate needs, while the latter show trends in hunger and undernutrition over time.

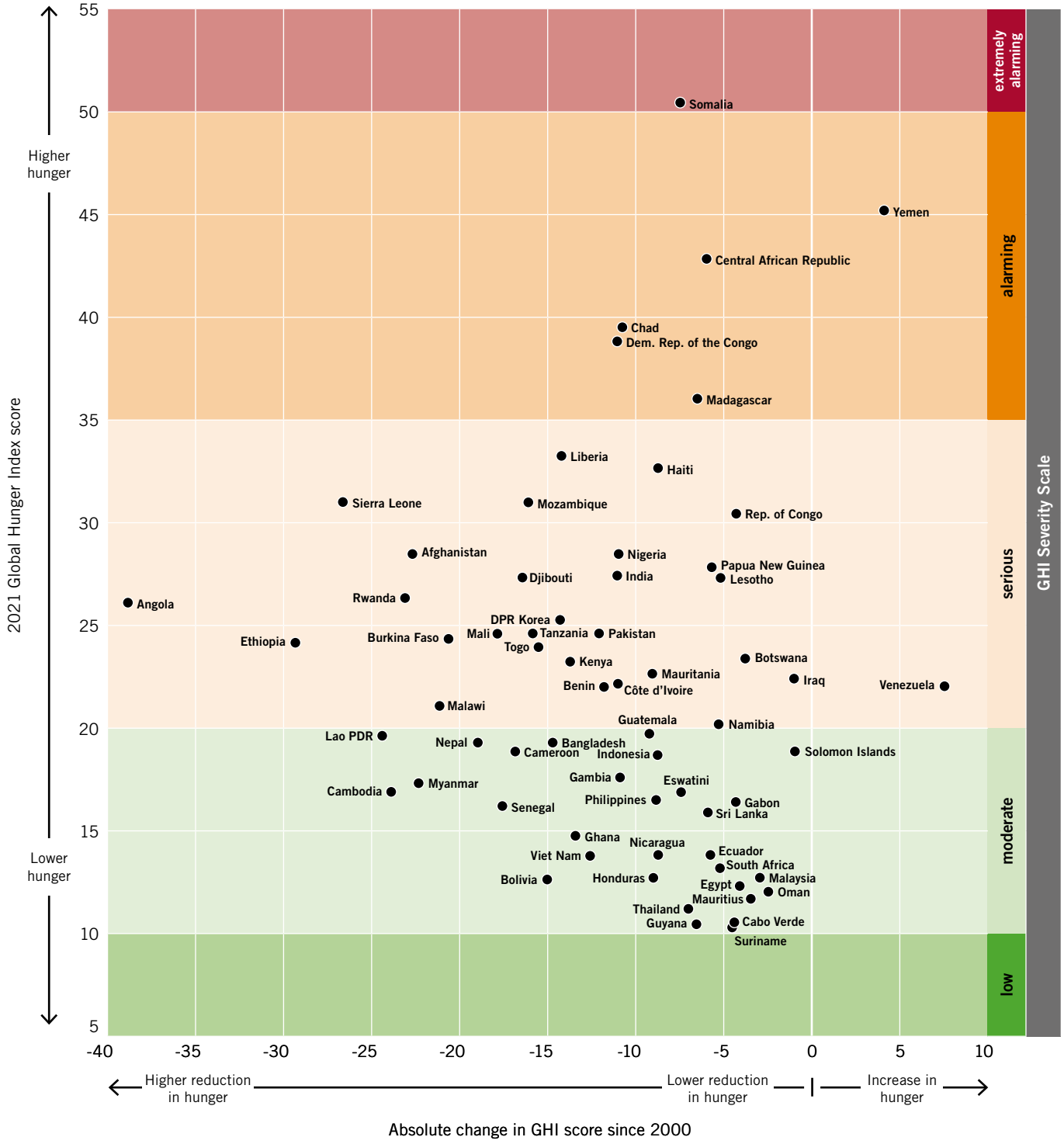
Within Country Borders

Inequality of child nutrition is pervasive, and children are suffering from inadequate diets and suboptimal health in all corners of the world. Figure 1.5 illustrates the within-country disparities in child stunting among children under the age of five in 74 countries. For each country with available data, this figure shows the stunting rates for the states or areas with the highest and lowest stunting levels, as well as the national average—the longer the black line, the wider the disparity in stunting rates within the country. In addition to inequality in nutrition and health, the size of the within-country gap in stunting levels results from several factors, such as the number of states or provinces into which a country is split for the sake of the survey, the national population size and land area, and the average national stunting level. Even within countries on the low end of the stunting range, such as Cuba and Turkey, stunting levels in some areas are near 20 percent.

Subnational child wasting data reveal countries where moderate national averages obscure high or very high levels of acute child undernutrition. In Cameroon, for example, the 2018–2019 child wasting rate averaged 4.3 percent nationally but reached 10 percent in the regions of Extrême-Nord and Adamaoua (both in the country's north). By contrast, the regions of Sud-Ouest and Ouest had child wasting rates of less than 1 percent (WHO 2021). The northern areas of the country have higher levels of poverty, are more affected by conflict, receive more refugees from neighboring countries, and are more vulnerable to climate change than other parts of the country (World Bank 2019).

[10] The GHI uses the most up-to-date data available from United Nations agencies and other international organizations (see Appendix C for the data sources and date ranges for each of the indicators used in the GHI). The 2021 GHI scores are based on the latest data for each indicator from 2016–2020, whereas the indicator data from 2021 will not be available until at least 2022. The 2021 GHI scores thus refer to the year of this report's publication, not the year from which the data are drawn.

FIGURE 1.4 **2021 GHI SCORES AND PROGRESS SINCE 2000**



Source: Authors.

Note: **This figure illustrates the change in GHI scores since 2000 in absolute values.** It features countries where data are available to calculate 2000 and 2021 GHI scores and where 2021 GHI scores show *moderate, serious, alarming*, or e*xtremely alarming* hunger levels. Some likely poor performers may not appear due to missing data.

Child mortality levels are also uneven within country borders, indicating that the chances of child survival can be vastly different depending on the state or department in which one lives. A recent compilation of subnational child mortality data reveals that of 22 countries in Africa and South Asia, Nigeria has the largest disparity in under-five mortality. Although the country's under-five mortality rate averages 11.7 percent nationally, at the state level it ranges from 26.1 percent in Kebbi state to 5.8 percent in Bayelsa. Progress in reducing child mortality can also vary within countries. Kenya's under-five mortality rate declined 57 percent between 1990 and 2019, with rates decreasing in most counties, yet the rate in Nyandarua County increased by 32 percent in that period (UN IGME 2021).

The prevalence of undernourishment is not regularly calculated at the subnational level, but nascent efforts to do so have begun and reveal subnational variation. In Pakistan, for example, the 2018–2019 rates ranged from 12.7 percent undernourished in Khyber Pakhtunkhwa province to 21.5 percent in Punjab (Afridi et al. 2021). In Viet Nam, the prevalence of undernourishment in 2016 ranged from 8.6 percent in the Southeast region to 15.6 percent in the Central Highlands (Kim et al. 2021). In part because the prevalence of undernourishment is included in the monitoring framework of the Sustainable Development Goals, capacity-building efforts are underway to enable national governments to calculate the prevalence of undernourishment for their countries, including at subnational levels, and these efforts have the potential to increase the availability of these data (FAO 2020).

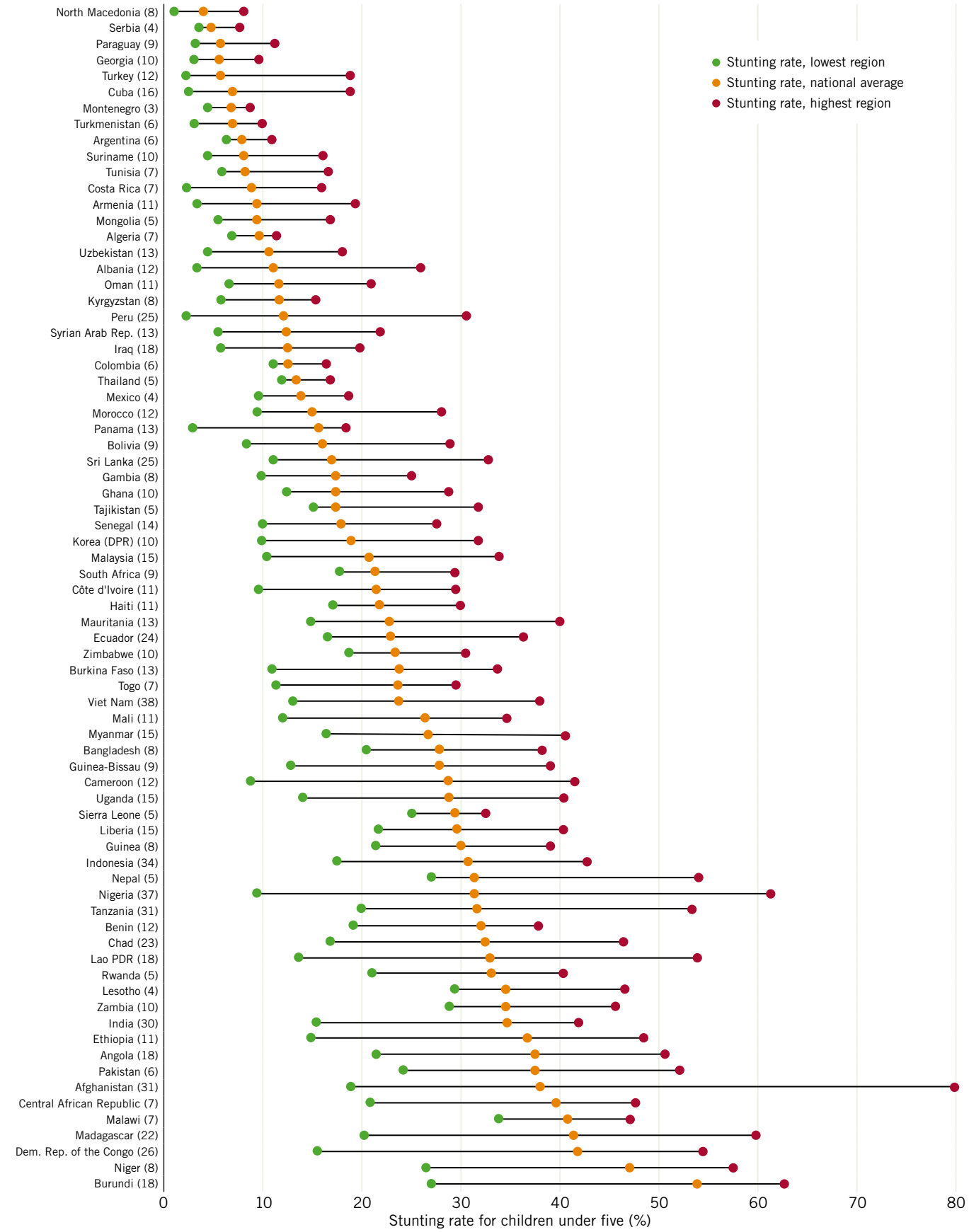
Inequality within countries is a persistent challenge, made more urgent by the movement restrictions and service disruptions associated with the COVID-19 pandemic. Pandemics have historically worsened inequality (Sedik and Xu 2020; Béné et al. 2021). While the full impact of the COVID-19 pandemic on inequality is yet to be understood, there are initial indications that inequality could worsen along multiple dimensions. For example, the pandemic may exacerbate gender inequality, a chronic and pervasive issue. The gender gap in the prevalence of moderate or severe food insecurity increased during the pandemic; this rate is now 10 percent higher among women than among men (FAO, IFAD et al. 2021). There is evidence from South Africa that women's employment has been negatively affected more than men's (Casale and Posel 2021). Meanwhile the disruption to schooling has the potential to affect girls' schooling more significantly than boys' as girls are forced into early marriage, take on disproportionate shares of household work, or are subject to sexual violence (Burzynska and Contreras 2020). Each of these aspects of gender inequality has the potential to increase food insecurity and undernutrition in the long run. More generally, the pandemic's disproportionate impact on the poor and vulnerable is widening the gap between rich and poor (Binns and Low 2021).

Hunger and undernutrition tend to be higher in rural areas than in urban areas, but it is unclear how the COVID-19 pandemic will affect this dynamic in the long term. A comparison of food insecurity according to the Food Insecurity Experience Scale (FIES) in urban and rural Mali before and during the COVID-19 pandemic shows that in the early months of the pandemic in 2020, food insecurity increased more in urban areas than in rural areas, erasing the previous rural-urban gap in food insecurity. Urban survey respondents attributed the increase to the pandemic. Urban areas were more severely disrupted by the pandemic given the stricter social distancing measures practiced in densely populated cities. In addition, the pandemic hit at a point in the agricultural cycle when postharvest processing was the predominant activity, negatively affecting economic activity in urban areas more than in rural areas (Adjognon et al. 2021). By contrast, a short-term effect of the pandemic in Nigeria was a greater increase in food insecurity among households in remote and conflict-affected areas rather than urban areas. Although households in urban areas experienced a greater drop in economic activity, this did not result in a significant reduction in food security (Amare et al. 2021).

Conclusion

Now more than ever, it is clear that the world is not on track to achieve the goal of Zero Hunger by 2030 and that past gains have been built on an unsustainable foundation. In order to achieve the SDGs and truly "leave no one behind," we—humanity—must vigorously confront the increasing challenges of conflict, climate change, and economic downturns, as well as structural factors such as poverty and inequality, that leave people facing hunger and malnutrition. While eliminating current conflict seems out of reach, we can make incremental steps toward breaking the cycle of hunger and conflict by recognizing and committing to address the unique challenges facing food systems in conflict settings. Through mitigation and adaptation measures, the devastation of global climate change could be lessened or even stopped. Although the COVID-19-induced recession has been extreme and unique in many ways, economic downturns are inevitable and will require better, more universally available safety nets to prevent hunger and malnutrition in the future. We live in a world of challenges and shocks, and our food systems must be built to withstand and recover from these challenges in ways that deliver food and nutrition security for all people. Hunger and malnutrition do not continue for want of solutions, but rather for want of the political will and resources to implement the solutions at hand and to respect, protect, and fulfill the right to food.

FIGURE 1.5 **SUBNATIONAL INEQUALITY OF CHILD STUNTING**



Source: Authors, based on surveys included in UNICEF, WHO, and World Bank (2021a), WHO (2021), UNICEF (2021), and MEASURE DHS (2021) from 2016–2020. Countries included are those with subnational stunting data available for 2016–2020. If more than one survey was completed for a country during this period, that with the most recent subnational values is used.

Note: The number in parentheses following each country name indicates the number of subnational units into which the country was divided for the sake of the survey, which can influence the degree of disparity that is revealed.

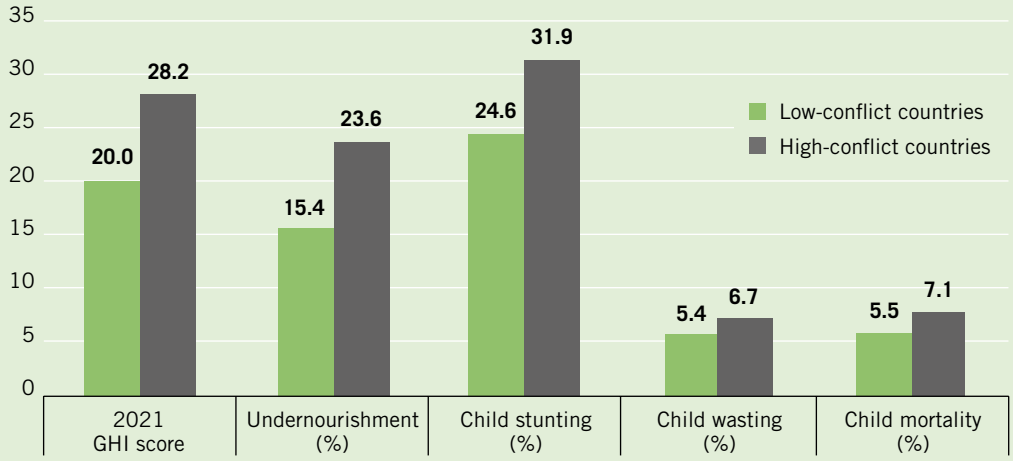
BOX 1.4 **CONFLICT AND HUNGER**

Conflict is a primary driver of hunger. Along with climate extremes and economic downturns, conflict is one of the key factors driving food insecurity and malnutrition worldwide (FAO, IFAD et al. 2021; FSIN and GNAFC 2021). More people were subject to food crises in 2020 due to conflict than any other factor, including both economic shocks and weather extremes (FSIN and GNAFC 2021). In Africa, countries with high levels of conflict, as measured by conflict-related fatalities, have higher GHI scores and fare worse for each of the GHI indicators than countries with low levels of conflict (see figure below). While conflict can drive hunger, hunger can also drive conflict, and the relationship between the two is complex (Brück and d'Errico 2019).

The nature of conflict and conflict-driven hunger is changing. As noted in the 2015 GHI report, "Armed Conflict and the Challenge of Hunger," calamitous famines—those that cause more than one million deaths—have been eliminated, and great famines—those that cause more than 100,000 deaths—have been reduced dramatically (von Grebmer et al. 2015). Yet the nature of conflict and that of conflict-driven food insecurity have changed in recent years. Conflict is now often characterized by fighting by multiple state and nonstate actors and tends to be more localized than in the past, affecting only some portions of a country, with the result that the impact on food security also tends to be more localized (Holleman et al. 2017).

Conflict is devastating for children, driving up undernutrition and child mortality. In Somalia, data on conflict and nutrition between 2007 and 2010 showed that conflict increased both child stunting and child wasting (Kinyoki et al. 2017). In Nigeria, analysis of the Boko Haram insurgency showed that conflict-ridden states had child wasting rates of 23 percent in 2013, but wasting would have been as low as 10 percent

HIGHER RATES OF CONFLICT FATALITIES ASSOCIATED WITH GREATER HUNGER IN AFRICA



Source: Authors, with data from ACLED (2021b). For sources of GHI indicator values, as used in the calculation of GHI scores, see Appendix C.

Note: Data are for 46 countries with sufficient data on conflict-related fatalities, child stunting, child wasting, and child mortality, and for 37 countries with sufficient data on the prevalence of undernourishment and 2021 GHI scores. Countries were ranked by number of conflict-related fatalities per 100,000 people between 2000 and 2020, with the lower half of countries designated "low-conflict countries" and the upper half designated "high-conflict countries." The GHI scores and indicator values shown here are averages for the countries in each grouping. The figure is limited to countries in Africa in order to include countries that are somewhat comparable and to partially control for factors other than conflict that can drive hunger.

in the absence of conflict (Dunn 2018). In Yemen, research shows that as conflict intensifies, the prevalence of child wasting increases, but this effect can be at least partially overcome by providing cash transfers to households (Ecker, Maystadt, and Guo 2019). In Afghanistan, child wasting is higher in conflict-affected regions, even when controlling for other factors (Akseer et al. 2019). Existing research consistently shows that conflict increases child stunting (Martin-Shields and Stojetz 2019; Brown et al. 2020). Evidence from Africa suggests that armed conflict increases the risk of child mortality through its effects on maternal health, the risk of infectious disease, and malnutrition, and the effects hold for children born up to 100 kilometers from the site of conflict and for children born up to eight years after the conflict's conclusion. The destructive impacts of conflict on the infrastructure for water and sanitation services, health care resources, and food security may contribute to conflict's chronic and long-term effects (Wagner et al. 2018).

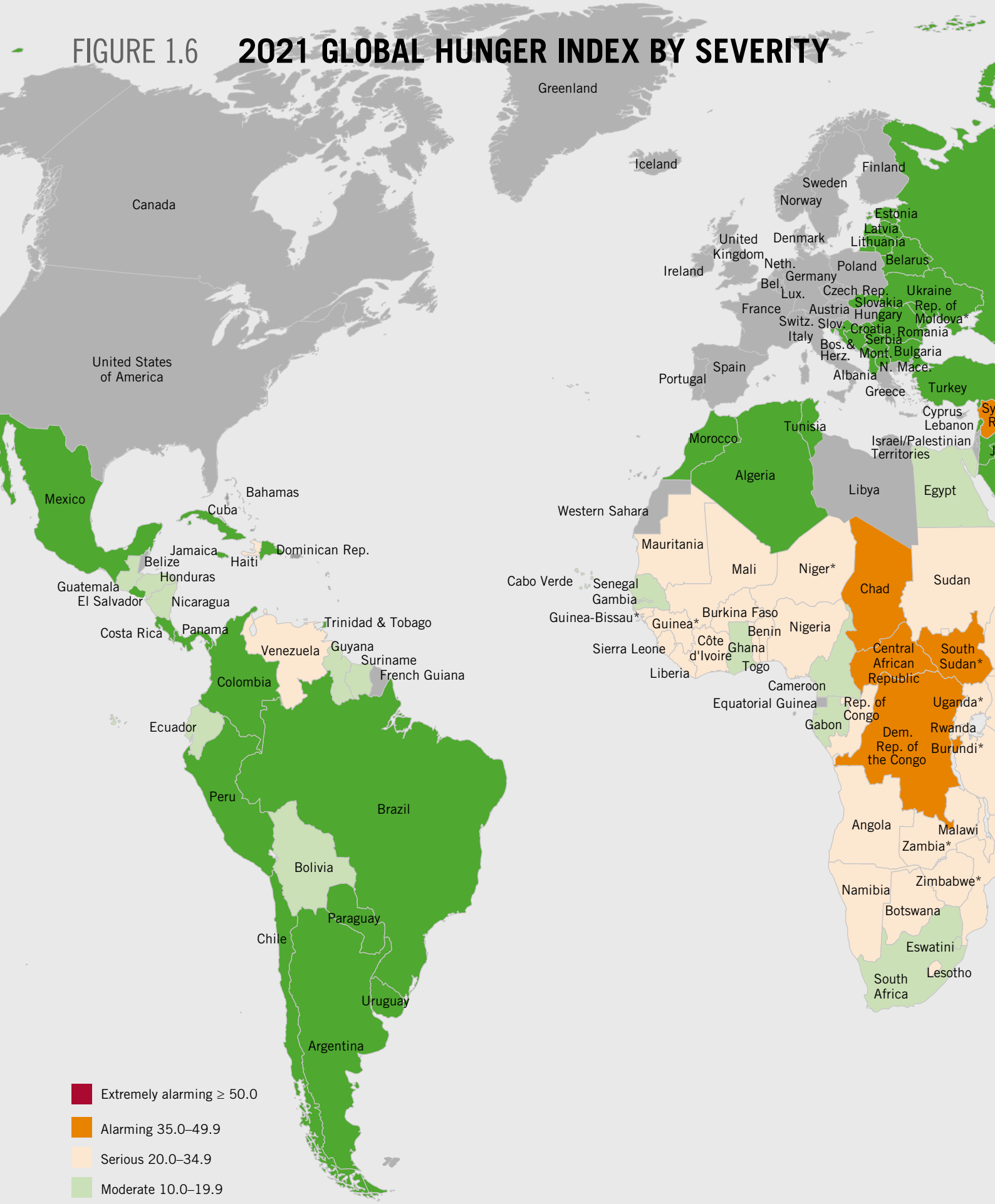
Conflict can increase food insecurity through its negative effects on agricultural production. Conflict can affect agriculture directly when crops are destroyed or taken for militant groups, inputs are destroyed or prevented from reaching farmers, land is inaccessible to farmers and cannot be utilized normally, agricultural equipment and infrastructure are damaged, and agricultural labor is reduced due to injury, death, or displacement. For example, in the case of the Boko Haram insurgency in northeast Nigeria, agricultural output has decreased, largely owing to the reduced availability of hired agricultural labor in the context of forced displacements, security risks, and conflict-related deaths (Adelaja and George 2019).

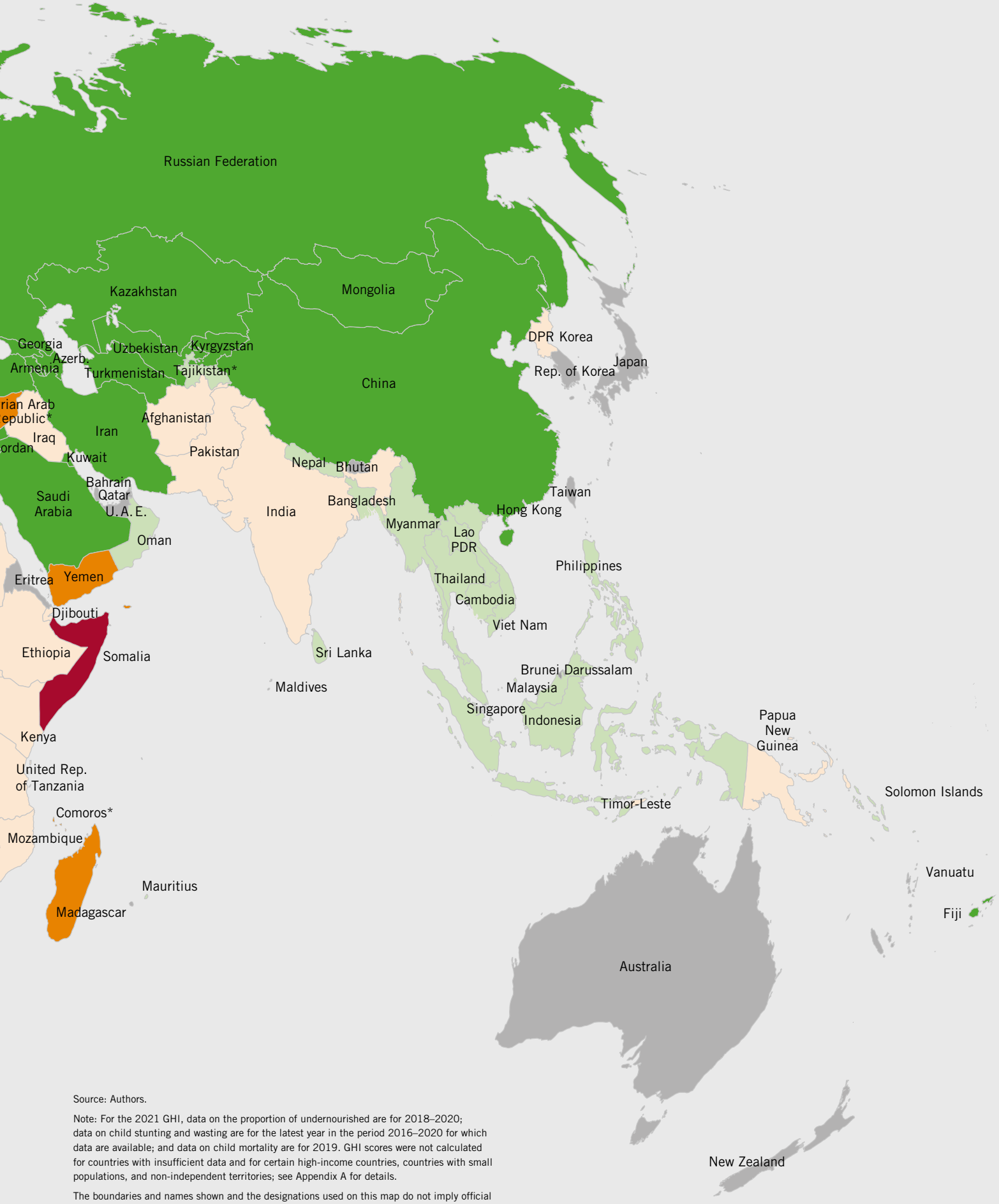
The uncertainty associated with conflict can discourage economic investment and drive down welfare, even for those not directly affected by violence. In some cases, when nonstate armed groups establish control of a region, the level of violence decreases—it is in the struggle for control when violence is greatest. Yet the presence of armed groups creates fear and uncertainty that lead to changes in individual and household behavior. For example, in Colombia, which experienced a lengthy civil war in the latter half of the 20th century, farmers living in areas controlled by armed groups shifted their production away from relatively profitable perennial crops such as coffee plants and fruit trees to seasonal and subsistence crops. These decisions required lower investment and were less profitable but allowed for quicker turnover and more immediate returns for households in the context of ongoing threats (Arias, Ibáñez, and Zambrano 2019). In Burundi, during its brutal civil war between 1993 and 2004, even relatively wealthy households in high-conflict regions tended to invest in low-risk, low-return crops rather than in livestock, given that roughly one-third to one-half of all livestock were pillaged or killed during the country's war (Bundervoet 2010). In northern Uganda, food consumption expenditure was reduced not only for households directly affected by the Lord's Resistance Army insurgency but also for households at least 10 kilometers away and lasting six years after the conflict's end (Adong et al. 2021).

Conflict can force people to flee their homes, leaving those who are displaced more vulnerable to hunger and undernutrition. A study on the effects of the Boko Haram conflict in Nigeria found that in Yobe, one of the states most affected by conflict, the likelihood of acute malnutrition was 57 percent higher for children from internally displaced households than for children from host communities, controlling for household, child, and community characteristics. These effects were presumably explained by increased hunger and lower dietary diversity in the households of the displaced (Iacoella and Tirivayi 2020). Yet the effects of displacement on child nutrition are not necessarily all negative. A review of nutrition outcomes for internally displaced children in Africa found that in some cases nutrition levels were worse for displaced children than for their non-displaced counterparts, but in other cases, such as when aid agencies supported nutrition for children in camps but not in neighboring communities, they fared better (Salami et al. 2020).

As described in Chapter 2, progress on peace and food security is possible in even the most unfavorable circumstances. Yet this requires a careful consideration of local contexts and use of a peace-building lens while establishing resilient food systems and a food security lens while paving the way for peace.

FIGURE 1.6 2021 GLOBAL HUNGER INDEX BY SEVERITY





Source: Authors.

Note: For the 2021 GHI, data on the proportion of undernourished are for 2018–2020; data on child stunting and wasting are for the latest year in the period 2016–2020 for which data are available; and data on child mortality are for 2019. GHI scores were not calculated for countries with insufficient data and for certain high-income countries, countries with small populations, and non-independent territories; see Appendix A for details.

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by Welthungerhilfe (WHH) or Concern Worldwide.

Recommended citation: von Grebmer, K., J. Bernstein, C. Delgado, D. Smith, M. Wiemers, T. Schiffer, A. Hanano, O. Towey, R. Ní Chéilleachair, C. Foley, S. Gitter, K. Ekstrom, and H. Fritschel. 2021. "Figure 1.6: 2021 Global Hunger Index by Severity." Map in *2021 Global Hunger Index: Hunger and Food Systems in Conflict Settings*. Bonn: Welthungerhilfe; Dublin: Concern Worldwide.

02

At a village market in South Sudan, a woman sells fruits and vegetables to earn her livelihood. By boosting livelihood security, resilient food systems contribute to peace building. Thus, especially in conflict-afflicted contexts, local markets play an important role in the recovery of the households of both vendors and consumers.

HUNGER AND FOOD SYSTEMS IN CONFLICT SETTINGS

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Stockholm International Peace Research Institute

Key Messages

- → The number of active violent conflicts is on the rise. Violent conflict remains the main driver of hunger, exacerbated by climate change and the COVID-19 pandemic.
- → Food systems in conflict-affected countries are often characterized by a high level of informality, structural weakness, and vulnerability to shocks.
- → Without achieving food security, it will be difficult to build sustainable peace, and without peace the likelihood of ending global hunger is minimal.
- → The two-way links between conflict and increased food insecurity and between peace and sustainable food security are unique to each case and often complex.
- → The good news is that it is possible to begin to break the destructive links between conflict and hunger in the midst of ongoing conflict. Even where there is extreme vulnerability, it is possible to start building resilience.
- → Breaking the links between conflict and hunger and harnessing the potential of food systems to contribute to peace will demand good contextual evidence, well-grounded knowledge of the setting, and cooperation between peace, humanitarian, and development actors.
- → To integrate a peace-building lens into the creation of resilient food systems and a food security lens into peace building, we propose four priorities:
  1. a flexible and agile approach that reflects local perceptions, aspirations, and concerns;
  2. an emphasis on working in partnerships that bring together local, national, and international actors, with their diverse knowledge;
  3. integrative work through hubs that convene key actors and build coalitions inclusive enough to advance peace and food security; and
  4. commitment by major donors to get funds out of separate siloes and focus them on integrative work.

Note: The views expressed in this chapter are those of the authors. They do not necessarily reflect the views of Welthungerhilfe or Concern Worldwide.

The Two-Way Links between Conflict and Hunger

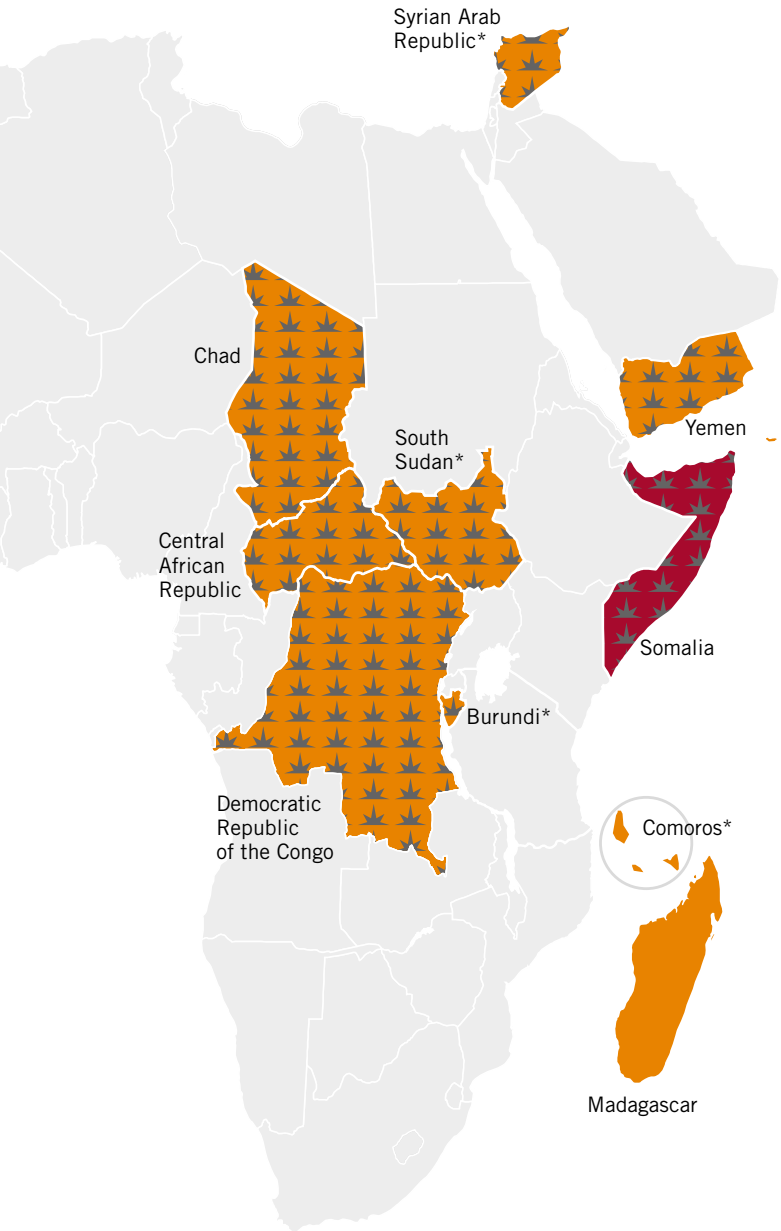
Failing food systems and the consequent increase in hunger are among the most pressing issues of our time. The world is falling far short of what is needed to achieve Zero Hunger—the second of the United Nations' Sustainable Development Goals (SDGs). The figures are stark: in 2020, 155 million people were acutely food insecure—an increase of nearly 20 million from the year before. Nearly 30 million people were on the verge of starvation, meaning they did not know where their next meal was coming from (FSIN and GNAFC 2021). Despite the devastating COVID-19 pandemic, violent conflict remained the main driver of global hunger in 2020 (WFP USA 2021).[1] The number of active violent conflicts is on the rise, and they are becoming increasingly severe and protracted (Pettersson and Öberg 2020). Moreover, there is a pattern of increased violent conflict some two to three years after a major economic crisis—as was the case after the 2008–2009 financial crisis, the 1997 Asian financial crisis, and the mid-1970s oil price shock—so there are reasons for concern that the number of armed conflicts may well increase in the next two to three years.[2] A list of those countries facing the worst food crises includes a litany of violent hot spots: Afghanistan, Democratic Republic of the Congo, Nigeria, South Sudan, Syria, Yemen. All are plagued with ongoing violence and hunger on a tragic scale (FSIN and GNAFC 2021). Of the 10 countries with *alarming* or *extremely alarming* hunger in this report, conflict is a major driver in 8 (Figure 2.1).

Without resolving food insecurity, it will be difficult to build sustainable peace, and without peace the likelihood of ending global hunger is minimal.

[1] In this essay we use the term "violent conflict" as a generic term for political and criminal conflict involving violence. It spans situations ranging from wars between states to revolutions, insurgencies, genocides, and civil wars, as well as criminal, political, and communal violence. Violent conflict rarely affects a country evenly; within a conflict-affected country, there are often areas of relative peace and stability.

[2] Based on statistics from the Uppsala Conflict Data Program (https://ucdp.uu.se/), reported in Smith (2021, 19).

FIGURE 2.1 **THE OVERLAP OF HUNGER AND CONFLICT IN THE 10 COUNTRIES WITH *ALARMING* OR *EXTREMELY ALARMING* HUNGER**



Source: Authors, based on 2021 GHI classifications and FAO, IFAD et al. (2021).

* = provisional designation (see Box 1.3).

The broader humanitarian context is rapidly deteriorating, reflecting an increased risk of violent conflict, a growing number of people suffering from hunger worldwide, the unfolding impact of climate change, and the effects of the COVID-19 pandemic. The first year of the pandemic distorted decades of development. It triggered the deepest global recession in nearly 100 years (OCHA 2021a). It pushed between 88 and 115 million people into extreme poverty in 2020, with estimates warning that a further 25–35 million could fall into extreme poverty in 2021 (World Bank 2020). This situation reverses decades of progress in poverty reduction. The mid- to long-term horizon is darkened by climate change and extreme weather events, which are also drivers of hunger and will increase the risk of conflict in the coming years. While the current situation is grave, heads of major humanitarian organizations are warning of an even more critical humanitarian agenda ahead (Jochum 2020; OCHA 2021b; SIPRI 2020).

The two-way linkages between hunger and conflict are well established and beyond doubt (FSIN and GNAFC 2021; Holleman et al. 2017; Martin-Shields and Stojetz 2019). Violent conflict has a devastating impact on food systems, as it "negatively affects almost every aspect of a food system, from production, harvesting, processing, and transport to input supply, financing, marketing, and consumption" (FAO, IFAD et al. 2021, 54). Lasting food insecurity is a principal legacy of war (Messer and Cohen 2007). At the same time, heightened food insecurity can contribute to violent conflict. Without resolving food insecurity, it will be difficult to build sustainable peace, and without peace the likelihood of ending global hunger is minimal. The situation demands action that is urgent, decisive, and sustained.

The good news is that it is possible to begin to break the destructive linkages between conflict and hunger in the midst of ongoing conflict. Even where there is extreme vulnerability, it is possible to start building resilience.[3] Research from the Stockholm International Peace Research Institute (SIPRI) shows that, especially when working together, actors such as community groups, local and international nongovernmental organizations (NGOs), United Nations agencies, and states can create conditions for food security and sustainable peace (Delgado et al. 2019; Delgado 2020; Delgado, Murugani, and Tschunkert 2021). Even small-scale interventions can go a long way toward reducing vulnerability and strengthening local pockets of peace.

[3] Resilience can be usefully understood as the ability of individuals, households, communities, cities, institutions, systems, and societies to prevent, resist, absorb, adapt, respond, and recover positively, efficiently, and effectively when faced with a wide range of risks, while maintaining an acceptable level of functioning without compromising long-term prospects for sustainable development, peace and security, human rights, and well-being for all (United Nations 2020).

The Vulnerability of Food Systems

Food systems encompass everyone

Food systems in conflict-affected countries are characterized by a high level of informality, structural weakness, and vulnerability to shocks. To appreciate their vulnerability, we first need to understand that food systems comprise everything and everybody connected to the production, distribution, consumption, and disposal of food. It is useful to think of food systems as the combination of four systems:

- → *the natural system of earth, water, and climate*, which determines the basic conditions for the production of food;
- → *the technical agricultural system*, including the crops grown and livestock raised;
- → *the logistical and distributive system* that takes products from point of origin to market and onward to waste disposal; and
- → *the social and economic system* that shapes relationships, including international ones, between producers, distributors, and consumers.

Because food systems are also social systems and reflect the inequalities found in all societies, food security is vulnerable to challenges ranging from pandemics to violence.

Violent conflicts affect food systems directly and indirectly—with major impacts in rural areas

In conflict-affected countries, about 60 percent of people live in rural areas. Agriculture is the mainstay of their livelihoods, and food systems tend to be localized and traditional (Vos et al. 2020). Violent conflict has a direct negative impact on these food systems. It reduces people's ability to produce, trade, and buy food. Violent conflict can also affect food systems indirectly through its impacts on health, energy, and transport systems. In many cases, the effects of violent conflict and of climate change intersect with each other to exacerbate communities' risks and vulnerabilities. Likewise, a failure in the food system has a social impact. Extreme circumstances tend to reduce people's inhibitions against engaging in violence. Food insecurity creates grievances that can escalate into instability and violent conflict, acting as a channel for individuals or groups to express broader socioeconomic and political grievances.[4]

Under conflict, black markets flourish

Armed conflict generally reduces the functioning of formal markets and the capacity and presence of the national government in conflict-affected areas. This double effect has a heavy impact on food systems. It makes resources less available—including agricultural inputs like seeds and feed—and reduces the ability of governments to effectively use measures such as rationing and price controls to mitigate the impact of violence. Violent conflict makes it harder for farmers to get their products to market and increases the costs for consumers. This confluence of factors in turn generates the conditions under which black markets flourish. In many conflict-affected settings, informal arrangements come to dominate most transactions all along the supply chain (Delgado, Murugani, and Tschunkert 2021). In Afghanistan, for example, where food systems have been affected by decades of armed conflict, there is a striking lack of formal markets for agricultural inputs. These have instead been smuggled in from neighboring countries (Hiller, Hilhorst, and Weijs 2014). Similarly, since the collapse of the Siad Barre regime in Somalia in 1991, that country has maintained a functioning informal economy dominated by livestock, remittance inflows, and money transfers. The livestock sector, which provides food and income to more than 60 percent of the population, has been a major contributor to the thriving unofficial economy thanks to unregistered livestock exports to Ethiopia and Kenya (Maystadt and Ecker 2014).

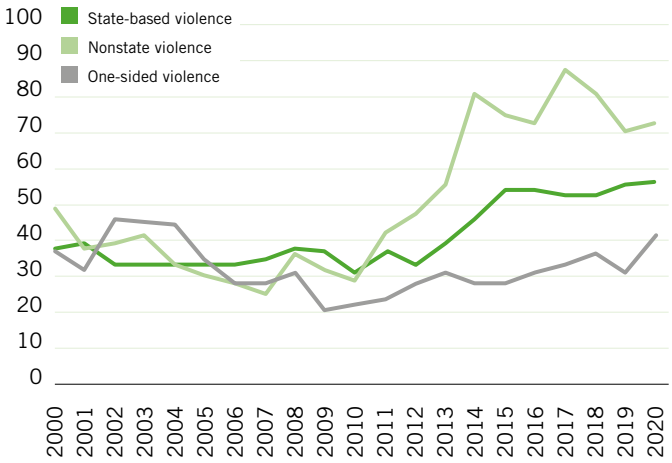
Food insecurity creates grievances that can escalate into instability and violent conflict.

Although informal markets can serve an important function for conflict-burdened communities, they can also heighten households' exposure to risks and shocks. This is because small-scale producers lack access to insurance, credit, and cash flows with which to cushion the impact of the unreliable supply chains and volatile prices that characterize informal markets. Worse, the war economies that informal arrangements underpin can have a corrosive influence on the sustainability of peace, even after the fighting stops (Pugh, Cooper, and Goodhand 2004).

Though Venezuela is experiencing an economic and political crisis rather than open armed conflict, it represents another case in point. Until the mid-2010s, the country benefited from abundant petroleum resources and a relatively strong economy. When oil prices started to drop in 2014, the resulting crisis quickly worsened food insecurity.

[4] For a detailed discussion, see Delgado, Murugani, and Tschunkert (2021, note 11).

FIGURE 2.2 **NUMBER OF ARMED CONFLICTS, 2000–2020**



Source: See UCDP (2020) for data and definitions.

The government responded by providing subsidized food boxes to vulnerable households. However, corrupt officials have diverted food boxes to the black market, exacerbating food shortages and allowing some of those who operate the scheme to overcharge both the government and consumers (Pielago 2020). At the same time, there have been reports that the government is using the subsidized food to reward political loyalty (Rendon and Mendales 2018). The humanitarian crisis has pushed many civilians into criminal activity in order to survive and consequently strengthened criminal networks. As a result, crime and violence in Venezuela have spiraled, and the gangs' reach now extends into neighboring Colombia and Central America (van Roekel and de Theije 2020).

Confronting the Worsening Problem of Violent Conflict

Violent conflict is increasing

As a general proposition, peace is more likely to be built and sustained if it is linked to secure livelihoods and food security, and vice versa (Vos et al. 2020). Yet current global, regional, and national trends are discouraging and threaten the achievement of Zero Hunger and other SDG ambitions by 2030. Global security has deteriorated significantly since 2010. In 2020, worldwide, there were 56 armed conflicts involving states, either in conflict with other states or with rebel forces; 72 violent conflicts in which states were not involved (nonstate); and a further 41 in which the state or a rebel force was the only actor and its opponents were unarmed (UCDP 2020; Figure 2.2). All three forms of conflict have risen significantly in the past decade, with nonstate conflicts alone increasing by 148 percent. By 2020, military spending had risen to its highest level since before the end of the Cold War, as had the international trade in major weapons (Wezeman et al. 2020). The increasingly toxic nature of global geopolitics is clear in the triangular relationship between China, Russia, and the United States and their respective allies (Smith 2018, 2019, 2020, 2021). This international context is not conducive to cooperation or conflict mediation.

Recovery is long and complex

Emerging and recovering from violent conflict can take decades. Violence continues in Afghanistan, which now has the second-highest number of people in emergency food insecurity in the world (OCHA 2021c). Although Somalia gradually recovered from food insecurity and famine in 2011, food insecurity is worsening once again, and more than half a million people are on the brink of famine, in large part owing to conflict (WFP 2021b; FSIN and GNAFC 2021). Youth unemployment is high (it stood at 67 percent a few years ago)—a key concern, as unemployed youth are a prime target for extremist recruitment (World Bank 2015). Syria and Yemen are further examples of protracted armed conflicts with profound crises of food insecurity, ill health, and social trauma (WFP 2021d,e). Support for these countries must address the livelihood needs of hard-hit, long-suffering communities so they can, in time, generate food security for themselves. If not, the cycle of grievance will continue, potentially fueling a resurgence of violent conflict (Strandh and Yusriza 2021; Vos et al. 2020). Because of this kind of feedback loop and risk of conflict recidivism, the World Bank estimates that it takes an average of 15–30 years for a conflict-affected country to raise itself from the level of Haiti—which in 2020 ranked 170th out of 189 in the Human Development Index—to that of a reasonably well-functioning state such as Ghana, which ranked 138th that same year (World Bank 2011; UNDP 2020).

By 2020, military spending had risen to its highest level since before the end of the Cold War, as had the international trade in major weapons.

The pathways from conflict to increased food insecurity—and from increased food insecurity to conflict—are unique to each case and often complex. That is because, as the examples cited show, there are many underlying causes of both food insecurity and conflict,

interacting in different combinations. The capacity of people and communities to cope with threats to their livelihoods is also specific to each setting. Breaking the links between conflict and hunger and fully harnessing the potential of food systems to contribute to peace will demand good contextual evidence, well-grounded knowledge of the setting, and cooperation between peace, humanitarian, and development actors.

Making Peaceful Progress

Evidence shows advances are possible

Research demonstrates that progress is possible even in the most unfavorable circumstances. SIPRI's research on the impact of the work of the World Food Programme (WFP) on the prospects for peace suggests that, even in an inimical global environment, efforts can be made to leverage resilient food systems to help advance peace (Delgado et al. 2019). Scaling up these efforts could generate tangible progress, if not fulfillment of the highest ambition.

In northeast Nigeria, many communities lie in areas controlled by nonstate armed groups. Those who have managed to escape have mostly fled to garrison towns surrounded by defensive trenches. Having lost access to their livelihoods, they depend on food aid. The risk of famine is steadily increasing. However, humanitarian organizations are implementing small-scale interventions to enhance resilience by enabling households to cultivate food crops in the trenches. Although most households still depend on food aid, this practice helps them meet their immediate food needs and prevents the loss of skills from one generation to the next. It maintains employment and contributes to a sense of community engagement. Furthermore, SIPRI's research suggests that generating hope for better livelihoods in the area helps prevent recruitment by nonstate armed groups (Delgado, Tschunkert, and Riquier 2021).

Similar findings have emerged in remote areas of Colombia. In the wake of the 2016 peace accords between the Colombian government and the Revolutionary Armed Forces of Colombia (FARC), small-scale livelihood interventions helped reintegrate former rebel combatants. Local production of animal feed increased the viability of keeping small farm animals. The ex-combatants and local farmers received training on climate-resilient farming practices and on marketing. The money earned through the projects went toward salaries, and additional gains were reinvested in community works. These activities generated both employment and a sense of engagement among ex-combatants, which are crucial for maintaining their motivation to remain part of the peace process, especially given that some nonstate armed groups continue to offer lucrative alternatives. The ex-combatants' active engagement in the projects, their leadership skills, and their commitment were important catalysts for wider community engagement and critical elements in the reconciliation and reincorporation process. Furthermore, the intervention increased the economic value of local perishable products; generated local markets in an area largely cut off from wider markets, allowing community members to diversify production and increase income, nutritional intake, and food security; and made communities more resilient to the impact of climate change (Delgado 2020).

Similar kinds of action can help build sustainable and equitable local food systems in violence-affected urban areas as well. Capacity building and skills training for vulnerable youth in gang-controlled areas in San Salvador, which involved linking up with restaurateurs and retailers, had a dampening effect on gang recruitment. It is worth noting, however, that capacity building and skills training to give young people the chance to obtain jobs can have the unintended consequence of serving as a push factor for irregular migration abroad. A cook in El Salvador earns US$300 per month on average, whereas a similar job in the United States pays on average US$500 a week. Nationwide in El Salvador, more than 360,000 young people enter the job market each year whereas only 127,000 jobs are created annually (ECLAC 2019). While economic migration per se can be positive, irregular migration risks exposing individuals to severe violations of their human and civil rights in countries of transit and destination (Delgado 2019).

Understanding local context is crucial. How peace is understood can vary dramatically along ethnic, sectarian, regional, or political lines, where perceptions of risks and grievances may differ.

These examples illustrate some of the pathways for strengthening food systems and helping generate conditions conducive to peace. Sustainable, equitable food systems offer food and nutrition security while limiting negative environmental impacts. They are socially inclusive and improve general well-being. They thus contribute to all-around community resilience, which equips communities to respond well to challenges such as climate change, extreme weather events, economic shocks, and the risk of violent conflict (CIAT 2019; Policy Link 2021). The fact that food systems are social systems (as well as natural, agricultural, and logistical systems) means that strengthening them demands much more than technical knowledge and resources. Especially for those undertaking or supporting interventions from

abroad, contextual knowledge and sensitivity to conflict risk are essential attributes.

Unintended consequences pose risks

While progress is always possible, care is always needed. The risk of unintended consequences, seen with the San Salvador culinary projects, arises in different ways in many places. In the Colombian agricultural projects, reincorporation of ex-combatants may ultimately depend on fundamental social change; if that does not happen, setbacks may occur. Further, project-based interventions can be unsustainable and generate aid dependency. Enhancing food security enhances the prospects for peace but does not guarantee it; any return to violent conflict generates vulnerability to food insecurity—and the risk of a return to violent conflict is always present. A World Bank study found that of the 103 countries that experienced civil war in the 65 years after 1945, only 44 avoided relapse after peace had been agreed to; in fact, most civil wars today are, in one way or another, continuations of previous conflicts (Walter 2011). All who are attempting to build peace would do well to pay attention to these risks. In rural Colombia, one community that had integrated former combatants yearned for improved infrastructure. However, they cautiously rejected the construction of a road to the community for fear of retaliatory attacks by other nonstate armed groups (Delgado 2020).

It is important to know what has worked in other contexts, what has not worked, and what has caused problems. This is where partnerships come in.

Tackling Conflict and Hunger Together

The complexities of food systems and of conflict and peace-building environments present many difficulties. It is hard for individual organizations and institutions working in the fields of food security and peace building to take full account of the diversity of actors, the multiplicity of levels and processes, and the effects of feedback loops. The scale of the task, however, does not constitute a reason not to try. At a modest level of ambition, the challenge is to ensure that food assistance is delivered in a way that is sensitive to the risk of conflict. More ambitiously, in working to achieve the linked goals of sustainable food security and sustainable peace, the challenge is not simply to avoid doing harm but to do good. This work calls for integrating a peace-building lens into the effort to create resilient food systems and a food security lens into peace building. To move along that road, we see four priorities.

Priority 1: Adopt a flexible and agile approach

Understanding local context is crucial. How peace is understood can vary dramatically along ethnic, sectarian, regional, or political lines, where perceptions of risks and grievances may differ (Kanbur, Rajaram, and Varshney 2010; McKeown, Cavdar, and Taylor 2019). Using a definition of peace from one group can create grievances with another. Challenges in building peace also evolve over time, and new concerns are identified. Concurrently, new challenges to the community arise—an extreme weather event, an economic downturn, violent conflict in a neighboring area, a pandemic—and responses to them may be decisive for sustaining or undermining the prospects for peace. Likewise, food systems are highly contextual, face evolving challenges in achieving security, and must thus be supported with flexibility and responsiveness. Lastly, both food systems and peace are generated by the intersection of different processes and dynamics and are challenged by a cluster of different risk factors. Thus, action to support peace building as part of food security interventions must be flexible, agile, and able to adapt to changing circumstances and concerns.

Priority 2: Work through partnerships

Although understanding the local context is crucial, it is not enough. It is also important to know what has worked in other contexts, what has not worked, and what has caused problems. This is where partnerships come in. The insights of the people, groups, and organizations who truly know the locality must be brought together with the knowledge generated through research and action in a range of different contexts. National governments and international organizations, whether NGOs or UN agencies, cannot be successful without local partners, and local partners are likewise unlikely to be successful on their own. No single person or organization can know or do it all—the answer is to work together.

It matters, though, how partnerships are designed. All too often, national governments and international agencies conduct their own strategic planning and bring in local groups only as implementing partners. To be more effective, partnerships must involve local partners at the idea stage of strategies and projects, as well as during implementation and monitoring.

Priority 3: Pursue integrative ways of working

If peace is a precondition for food security, while food security is a precondition for peace, and resilience in the face of climate change

strengthens both, it makes sense to find ways to work on all three issues at once. Working in partnership makes this easier. One way to do this in a conflict-affected country is to institutionalize cooperation in the form of food-and-peace hubs. This proposal for hubs, which emerged in the buildup to the 2021 United Nations Food Systems Summit, would draw in those organizations—from communities, from provincial and national governments, and from international actors—

Governments, aid agencies, and donors that claim to want an integrative approach must reexamine how they allocate funding and try new, more integrated funding models.

that are working to tackle food insecurity and build peace. The aim is to convene them all, enable access to resources, and encourage and incentivize cooperation. This approach would connect not only different actors but also different issues and problems in fruitful ways.

Many issues remain to be worked out to make this concept viable. Connecting the different actors and stakeholders—a key part of the concept—will work only if there is enough mutual respect and commonality of purpose. Forward movement on peace and food security will depend on what the World Bank's seminal 2011 report *Conflict, Peace, and Development* referred to as "inclusive-enough coalitions" (World Bank 2011). However, it is not easy to assess whether coalitions and partnerships are inclusive enough in the abstract. It takes the test of experience: we will know they are adequately constituted if they work. Bringing actors together in food-and-peace hubs does not guarantee the consolidation of peace and sustainable food security. The hubs are only a mechanism for achieving what is fundamental—partnerships of equals involving everyone who needs to be involved.

Priority 4: Break down funding siloes

This essay's emphasis on intersecting risks is increasingly widely accepted. No international conference on these issues is complete without several ministers and senior officials saying that we must all break out of—or break down—the siloes in our thinking and in our actions between different but evidently related issues. The fact that this exhortation is a cliché does not make it untrue or uninteresting. Such statements are obvious but generate no action. Why not? A large part of the answer is because financing is still siloed. Governments, aid agencies, and donors that claim to want an integrative approach must reexamine how they allocate funding and try new, more integrated funding models that direct funding precisely toward the points of intersection. To do so, they need a mechanism that is able also to act on those points of intersection—such as the food-and-peace hubs.

Conclusion

With flexibility, agility, and sensitivity to local perceptions and respect for knowledge, with a new emphasis on partnership, and with integrative action through food-and-peace hubs, backed by financing to match, we can see a way forward to building food security resilience. Transformative changes are made up of immediate concrete steps, structured according to clear priorities. The global context is not helpful, but actions to break the vicious cycle between conflict and hunger are possible.

BOX 2.1 PARTNER SPOTLIGHT: WELTHUNGERHILFE IN SUDAN

Welthungerhilfe, with its mandate to work on both humanitarian assistance and development cooperation, operates in many countries affected by violent conflict. One such country is Sudan, where decades of conflict, coupled with economic downturns, have led to widespread hunger. With a 2021 GHI score of 25.1, Sudan suffers from a *serious* level of hunger and ranks 95th out of 116 countries. A record 9.8 million people in Sudan—one-fifth of the population analyzed—faced high projected levels of acute food insecurity between June and September 2021 and require urgent assistance. North Darfur is forecast to be the worst-affected area (IPC 2021b).

Operating in Sudan requires a clear understanding of the historical causes of conflict and its drivers, which are complex, politicized, and multi-level, encompassing local, national, regional, and international dimensions at the same time. The country has large numbers of both internally displaced persons (IDPs) and refugees from neighboring countries (IOM and WFP 2021; UNHCR 2021). Tensions over scarce livelihood assets and land have arisen between host communities and displaced persons as well as between pastoralists and farmers, particularly along migratory routes. Droughts, desertification, and floods are contributing to new conflicts in an environment where resources and opportunities are already under stress (OCHA 2020).

It is now widely recognized that there can be no food and nutrition security without peace. To strengthen resilience and achieve food and nutrition security, Welthungerhilfe strives to take a systemic approach to food systems, including in conflict settings such as Sudan. It works along the humanitarian–development–peace-building nexus to provide relief and recovery in the event of acute shocks and stresses while strengthening resilience and livelihoods for host communities, IDPs, and refugees. Placing communities at the center of its work, Welthungerhilfe's program also supports community-level peace-building initiatives.

North Darfur is the region of focus for Welthungerhilfe's operations in Sudan, along with the states of Gedaref, Kassala, and Red Sea. Welthungerhilfe addresses the most critical humanitarian needs of host communities, IDPs, and refugees through cash and voucher assistance, protection, shelter, nonfood items, and water, sanitation, and hygiene. It links those interventions with others aimed at improving human security, resilience, food and nutrition security, and livelihoods, as well as contributing to peace building and social cohesion. Activities include farmer and pastoralist field schools and training for women's groups on food processing, home gardening, healthy nutrition, and income generation. A pilot intervention aimed at improving food and nutrition security and reducing competition over natural resources has led to the introduction of low-space vertical gardening for the production of fodder and vegetables in IDP camps in North Darfur. This program has improved access to nutritious food and created new income opportunities, even when land and water are in short supply, and thus represents a solution adapted to the existing context.

Welthungerhilfe also helps promote peaceful dialogue, coexistence, and reconciliation in North Darfur through community-based resolution mechanisms (CBRMs), which bring together pastoral and farmer communities of diverse ethnicities along migratory routes. CBRMs target youth at risk of becoming engaged in violence, as well as women, whose participation is crucial for mitigating and resolving disputes within and between communities. CBRMs offer workshops on migratory route awareness, rehabilitation of migratory routes, and sensitization of communities. Welthungerhilfe's project has linked CBRMs with relevant government ministries, legal institutions, the Sudan Humanitarian Aid Commission, and security services, giving rural communities better access to legal avenues of conflict resolution and resources. Nonetheless, the situation remains volatile, with flare-ups of political instability and violence in addition to natural disasters and the pandemic. As recent political developments have destabilized the official judicial system, CBRMs have become more important than ever. Welthungerhilfe seeks to increase the inclusion of youth, women, and marginalized communities in the CBRMs.

BOX 2.2 PARTNER SPOTLIGHT: CONCERN WORLDWIDE IN HAITI

On Saturday, August 14, 2021, Haiti was hit by a 7.2-magnitude earthquake. At the time of writing, the scale of the disaster was unclear, but early estimates of 1,300 dead, 5,700 injured, and more than 15,000 homes destroyed or damaged were all expected to rise.

The resilience of the Haitian people in the face of environmental, social, economic, and political instability is as extraordinary as the scale of challenges they face daily. Though not at war, the country has suffered violence over many decades. In 2004, a UN peacekeeping mission was deployed there when, for the first time in history, a mandate was given authorizing the use of force—not to address an active conflict or enforce a peace agreement, but because the political and humanitarian crisis was a threat to international peace and security. That UN mission continued until 2017 and was followed by a smaller peacekeeping mission. Having worked in Haiti for more than 27 years, Concern Worldwide has learned a number of lessons about how best to help people build resilience to the shocks and stresses they are confronted with. Its resilience-building work has been focused especially on Haiti's urban centers, where the majority of Haitians live.

Growing urbanization in Haiti has led to a high concentration of the population in the metropolitan area of Port-au-Prince, where sprawling slums and high unemployment put enormous pressure on the area's limited social infrastructure and basic services. Since long before the catastrophic 2010 earthquake, Haitians have suffered from degraded living conditions, limited educational opportunities, and poor economic prospects. In recent months the country's sociopolitical and economic context has deteriorated further (President Jovenel Moïse was assassinated on July 7), leaving marginalized communities even more vulnerable to social and natural shocks. One of the areas where Concern Worldwide works is Cité Soleil, a marginalized and stigmatized commune in the Port-au-Prince area with a population of more than 265,000. Throughout 2021, tensions in the commune have been high. Fuel scarcity, traffic disruptions, and the closure of businesses and schools have harmed the livelihoods of the poorest households. According to the National Coordination for Food Security (CNSA), 46 percent of the population—4.4 million Haitians—are food insecure and in need of urgent humanitarian action. In Cité Soleil, at the time of writing, 55 percent of households are in a food crisis or food emergency (CNSA 2021).

Against this backdrop, where hunger and conflict collide, Concern Worldwide's integrated programming consists of a range of interventions that work holistically. Its approach prioritizes working with and through local facilitators and community health workers, and it places a strong emphasis on its relationships with local institutions. Its collaboration with the professional school Haiti Tec and the training center Centre Animation Paysanne et d'Action Communautaire (CAPAC), for example, has encouraged these institutions to make additional investments in vulnerable communities. As part of its adaptive approach, Concern Worldwide seeks to use technology to best effect, including using mobile phones to distribute vouchers or delivering radio broadcasts about good health and nutrition practices.

Concern Worldwide's integrated urban program is designed to meet people's basic needs while building their capacity to meet their future needs. It provides people with the means to buy food while ensuring that markets have high-quality products from preapproved local suppliers. The team helps promote good health and nutritional practices so people can achieve both food security and nutrition security, which are especially critical at this time.

Despite the challenging context and growing needs, Concern Worldwide—working in collaboration with partners and local communities—has had a positive impact on families living in Cité Soleil. Its programming has helped improve the food security of 3,000 of the commune's most vulnerable and food-insecure households. Its interventions have increased households' access to food, reduced the number of families resorting to negative coping strategies, and improved people's nutrition behavior, including their consumption of fruits and vegetables and their dietary diversity. Concern's food security programming has contributed to a rise in the food consumption score in the commune. Since the onset of the organization's food security programming in Cité Soleil, the share of the population with an acceptable food consumption score has risen from 39 percent to 73 percent, and the share of the target population reporting poor food consumption has fallen from 25 percent to just 2.1 percent. In the face of the myriad challenges faced by the people of Haiti, it is critical that these gains be protected and built on over the months and years to come.

03

A woman waters vegetables in the communal garden in the village of Toungaïlli, Tahoua region, Niger. Climate volatility and conflict directly affect the agricultural livelihoods of thousands of communities. Climate-resilient agriculture is therefore key to improving food and nutrition security.

POLICY RECOMMENDATIONS

The success of the recently concluded United Nations Food Systems Summit should be judged on how well it generates concrete and transformative long-term action to get to Zero Hunger, to respect, protect, and fulfill the human right to food, and to leave no one behind in light of conflict, climate change, and the COVID-19 pandemic. Although addressing conflict ultimately requires political solutions and societal change, integrating a peace-building lens into the creation of resilient food systems and a food security lens into peace building can help advance both sustainable food and nutrition security and durable peace.

1 Enhance the resilience of food systems to simultaneously address the impacts of conflict and climate change and to ensure food and nutrition security

→ Governments and donors must promote interventions in conflict settings that link immediate and long-term livelihood needs, as well as reconciliation and peace building.

→ In conflict-affected areas that lack access to wider markets, governments and donors must promote climate-resilient and diversified farming practices and strengthen local markets to generate employment along the food value chain, allowing community members to diversify their production, increase their income, and boost their nutritional intake and food security.

→ Social protection measures such as cash and voucher assistance are essential to enhance the resilience of rural food economies and of households affected by shocks and stressors.

2 Base actions on a thorough understanding of the context, and strengthen inclusive, locally led initiatives

→ Humanitarian, development, and peace-building actors must engage in systemic and ongoing analysis of the context. All programs and interventions must identify the causes of and actors in any conflict and must design programming with an understanding of existing power relations, placing affected people at the center.

→ Partnerships should bring together local, national, and international actors. All actors should work with and build on local structures, which have the potential to provide the most effective and timely support, are likely to incorporate local understandings of peace, and can increase the legitimacy, ownership, and sustainability of interventions.

→ All actors must address the need for transparency, accountability, and inclusive participation of those who are most vulnerable. This includes ensuring women's meaningful participation in all activities, including peace-building efforts.

3 Commit to flexible, need-based, cross-sectoral, and multiyear planning and financing

→ Donors, UN agencies, nongovernmental organizations (NGOs), and local actors should strive to build and maintain cross-sectoral and long-term relationships. This requires multiyear donor investments in long-term development and peace building that are adaptable to the highly fluid and dynamic contexts of conflict and crisis. Funding priorities must follow a flexible and agile approach that reflects local perceptions, aspirations, and concerns.

→ All actors' roles across the humanitarian–development–peace-building nexus must be clearly defined and sufficiently supported. Funding must be based on needs and not fall prey to security or political agendas.

4 Address conflict on a political level, strengthen international law, and ensure accountability for rights violations

→ States must live up to their responsibility to end protracted crises, but donor countries, key UN agencies, and regional bodies must also address conflict and its consequences, including through a food and nutrition security lens.

→ Given widespread violations of the right to food during conflict, the recurring use of starvation as a method of warfare, and denial of humanitarian access, it is vital that the UN and its member states strengthen international humanitarian law and vigorously prosecute and sanction those who use starvation as a weapon of war.

5 Lead the way to fundamentally change food systems

→ Governments must actively follow up on the UN Food Systems Summit by addressing the structural challenges—including inequities, market failures, health risks, and environmental and climate threats—embedded in our food systems. Actions must put vulnerable people at the center of food policies and build on existing responsibilities such as the Sustainable Development Goals, the Paris Agreement on climate change, and human rights treaties.

→ Multilateral food governance must be anchored in human rights and meaningful participation of civil society and communities.

→ Governments must use upcoming opportunities, including the 2021 United Nations Climate Change Conference (COP 26) and the 2021 Tokyo Nutrition for Growth Summit, to reinforce their commitments to achieving Zero Hunger by investing in nutrition and resilience in fragile and conflict-affected contexts.

APPENDIXES

A smallholder farmer sells onions at a market in Luweero, Uganda. In many areas, disruptions to food systems triggered by the COVID-19 pandemic have undermined the livelihoods of small-scale farmers. Building resilient food systems requires not only raising agricultural productivity but also strengthening food transport, storage, and distribution.

THE CONCEPT OF THE GLOBAL HUNGER INDEX

The Global Hunger Index (GHI) is a tool designed to comprehensively measure and track hunger at global, regional, and national levels.[1] GHI scores are calculated each year to assess progress and setbacks in combating hunger. The GHI is designed to raise awareness and understanding of the struggle against hunger, provide a way to compare levels of hunger between countries and regions, and call attention to those areas of the world where hunger levels are highest and where the need for additional efforts to eliminate hunger is greatest.

Measuring hunger is complicated. To use the GHI information most effectively, it helps to understand how the GHI scores are calculated and what they can and cannot tell us.

Assembling the GHI

How are GHI scores calculated?

GHI scores are calculated using a three-step process that draws on available data from various sources to capture the multidimensional nature of hunger (Figure A.1).

First, for each country, values are determined for four indicators:

1. **UNDERNOURISHMENT:** the share of the population that is undernourished (that is, whose caloric intake is insufficient);
2. **CHILD WASTING:** the share of children under the age of five who are wasted (that is, who have low weight for their height, reflecting acute undernutrition);
3. **CHILD STUNTING:** the share of children under the age of five who are stunted (that is, who have low height for their age, reflecting chronic undernutrition); and
4. **CHILD MORTALITY:** the mortality rate of children under the age of five (in part, a reflection of the fatal mix of inadequate nutrition and unhealthy environments).[2]

Second, each of the four component indicators is given a standardized score on a 100-point scale based on the highest observed level for the indicator on a global scale in recent decades.

Third, standardized scores are aggregated to calculate the GHI score for each country, with each of the three dimensions (inadequate food supply; child mortality; and child undernutrition, which is composed equally of child stunting and child wasting)

BOX A.1 WHAT IS MEANT BY "HUNGER"?

The problem of hunger is complex, and different terms are used to describe its various forms.

Hunger is usually understood to refer to the distress associated with a lack of sufficient calories. The Food and Agriculture Organization of the United Nations (FAO) defines food deprivation, or undernourishment, as the habitual consumption of too few calories to provide the minimum dietary energy an individual requires to live a healthy and productive life, given that person's sex, age, stature, and physical activity level.[3]

Undernutrition goes beyond calories and signifies deficiencies in any or all of the following: energy, protein, and/or essential vitamins and minerals. Undernutrition is the result of inadequate intake of food in terms of either quantity or quality, poor utilization of nutrients due to infections or other illnesses, or a combination of these immediate causes. These, in turn, result from a range of underlying factors, including household food insecurity; inadequate maternal health or childcare practices; or inadequate access to health services, safe water, and sanitation.

Malnutrition refers more broadly to both undernutrition (problems caused by deficiencies) and overnutrition (problems caused by unbalanced diets that involve consuming too many calories in relation to requirements, with or without low intake of micronutrient-rich foods). Overnutrition, resulting in overweight, obesity, and noncommunicable diseases, is increasingly common throughout the world, with implications for human health, government expenditures, and food systems development. While overnutrition is an important concern, the GHI focuses specifically on issues relating to undernutrition.

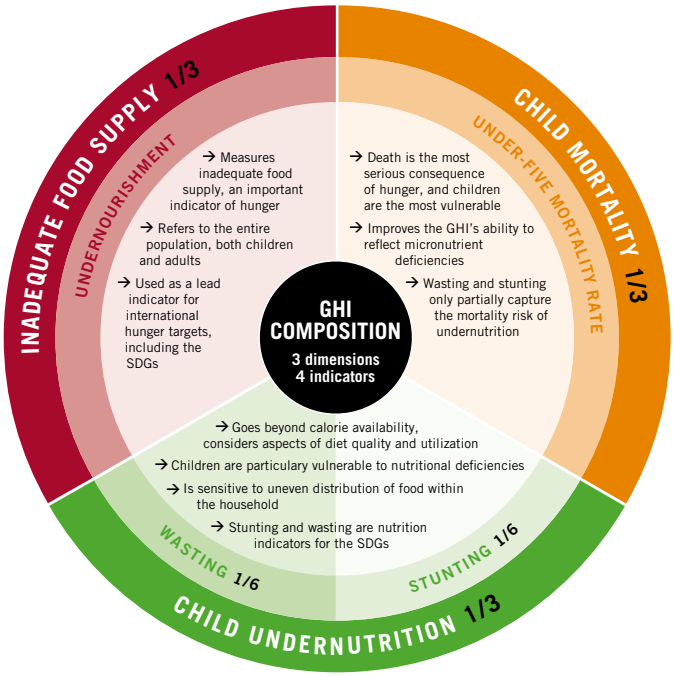
In this report, "hunger" refers to the index based on the four component indicators. Taken together, the component indicators reflect deficiencies in calories as well as in micronutrients.

[3] The average minimum dietary energy requirement varies by country—from about 1,660 to more than 2,050 kilocalories (commonly, albeit incorrectly, referred to as calories) per person per day for all countries with available data in 2020 (FAO 2021).

[1] For further background on the GHI concept, see Wiesmann (2006) and Wiesmann et al. (2015).

[2] According to Black et al. (2013), undernutrition is responsible for 45 percent of deaths among children under the age of five.

FIGURE A.1 **COMPOSITION OF THE GLOBAL HUNGER INDEX**



Source: Wiesmann et al. (2015).

Note: The values of each of the four component indicators are standardized. See Appendix B for the complete GHI formula and Appendix C for the data sources. SDGs = Sustainable Development Goals.

given equal weight (the formula for calculating GHI scores is provided in Appendix B).

This three-step process results in GHI scores on a 100-point GHI Severity Scale, where 0 is the best score (no hunger) and 100 is the worst. In practice, neither of these extremes is reached. A value of 0 would mean a country had no undernourished people in the population, no children under the age of five who were wasted or stunted, and no children who died before their fifth birthday. A value of 100 would signify that a country's undernourishment, child wasting, child stunting, and child mortality levels were each at approximately the highest levels observed worldwide in recent decades. The GHI Severity Scale below shows the severity of hunger—from *low* to *extremely alarming*—associated with the range of possible GHI scores.

Why does the GHI incorporate four different indicators?

Using this combination of indicators to measure hunger offers several advantages. The indicators included in the GHI formula reflect caloric deficiencies as well as poor nutrition. The undernourishment indicator captures the hunger situation of the population as a whole, while the indicators specific to children reflect the nutrition status within a particularly vulnerable subset of the population for whom a lack of dietary energy, protein, and/or micronutrients (essential vitamins and minerals) leads to a high risk of illness, poor physical and cognitive development, and death. The inclusion of both child wasting and child stunting allows the GHI to document both acute and chronic undernutrition. By combining multiple indicators, the index minimizes the effects of random measurement errors.

Where do the source data for the four indicators come from?

Data used in the calculation of GHI scores come from various UN and other multilateral agencies. Undernourishment data are provided by the Food and Agriculture Organization of the United Nations (FAO). Child mortality data are sourced from the United Nations Inter-agency Group for Child Mortality Estimation (UN IGME). Child wasting and child stunting data are drawn from the joint database of UNICEF, the World Health Organization (WHO), and the World Bank, as well as from WHO's continually updated Global Database on Child Growth and Malnutrition, the most recent reports of the Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS), and statistical tables from UNICEF.

The GHI scores presented here reflect the latest revised data available for the four indicators.[4] Where original source data were unavailable, estimates for the GHI component indicators were made based on the most recent available data. (Appendix C provides more detailed background information on the data sources for the 2000, 2006, 2012, and 2021 GHI scores.)

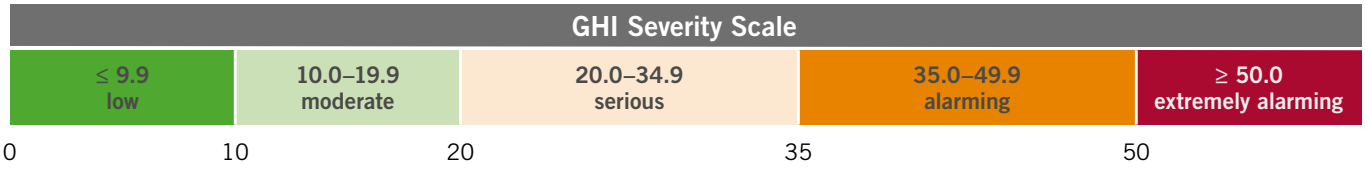
Understanding the GHI

Why is a certain country's GHI score so high (or so low)?

The key to understanding a country's GHI score lies in that country's indicator values, especially when compared with the indicator values for other countries in the report (see Appendix D for these values). For some countries, high scores are driven by high rates of undernourishment, reflecting a lack of calories for large swathes of the population. For others, high scores result from high levels of child wasting, reflecting acute undernutrition; child stunting, reflecting chronic undernutrition; and/or child mortality, reflecting children's hunger and nutrition levels, in addition to other extreme challenges facing the population. Broadly speaking, then, a high GHI score can be evidence of a lack of food, a poor-quality diet, inadequate child caregiving practices, an unhealthy environment, or all of these factors.

While it is beyond the scope of this report to provide a detailed explanation of the circumstances facing each country with a GHI score, Chapter 1 describes the situation in select countries. Furthermore, this report offers other avenues for examining a country's hunger and nutrition situation: country rankings based on 2021 GHI scores appear in Table 1.1; GHI scores for selected years for each country appear in Appendix E; and regional comparisons appear in Appendix F.

[4] For previous GHI calculations, see von Grebmer et al. (2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011, 2010, 2009, 2008); IFPRI, WHH, and Concern Worldwide (2007); and Wiesmann, Weingärtner, and Schöninger (2006).



Source: Authors.

Does the 2021 GHI reflect the situation in 2021?

The GHI uses the most up-to-date data available for each of the GHI indicators, meaning the scores are only as current as the data. For the calculation of the 2021 GHI scores, undernourishment data are from 2018–2020; child stunting and child wasting data are from 2016–2020, with the most current data from that range used for each country; and child mortality data are from 2019. In 2021, owing to the COVID-19 pandemic, the values of some of the GHI component indicators, and in turn the GHI scores, are likely to worsen, but any changes that occur in 2021 are not yet reflected in the data and scores in this year's report.

How can I compare GHI results over time?

Each report includes GHI scores and indicator data for three reference years in addition to the focus year. In this report, the 2021 GHI scores can be directly compared with the GHI scores given for three reference years—2000, 2006, and 2012 (Appendix E). The reference years are selected to provide an assessment of progress over time while also ensuring there is no overlap in the range of years from which the data are drawn.

Can I compare the GHI scores and indicator values in this report with results from previous reports?

No—GHI scores are comparable within each year's report, but not between different years' reports. The current and historical data on which the GHI scores are based are continually being revised and improved by the United Nations agencies that compile them, and each year's GHI report reflects these changes. Comparing scores between reports may create the impression that hunger has changed positively or negatively in a specific country from year to year, whereas in some cases the change may partly or fully reflect a data revision.

Moreover, the methodology for calculating GHI scores has been revised in the past and may be revised again in the future. In 2015, for example, the GHI methodology was changed to include data on child stunting and wasting and to standardize the values (see Wiesmann et al. 2015). This change caused a major shift in the GHI scores, and the GHI Severity Scale was modified to reflect this shift. Since 2015, almost all countries have had much higher GHI scores compared with their scores from 2014 and earlier. This does not necessarily mean their hunger levels rose in 2015—the higher scores merely reflect the revision of the methodology.

Can I compare the GHI rankings in this report to those in previous reports to understand how the situation in a country has changed over time relative to other countries?

No—like the GHI scores and indicator values, the rankings from one year's report cannot be compared to those from another. In addition to the data and methodology revisions described above, different countries are included in the ranking every year. This is due in part to data availability—the set of countries for which sufficient data are available to calculate GHI scores varies from year to year. If a country's ranking changes from one year to the next, this may be, in part, because it is being compared with a different group of countries. Furthermore, the ranking system was changed in 2016 to include all of the countries in the report rather than only those with a GHI score of 5 or above. This added many countries with *low* scores to the ranking that had not been previously included.

Why do some countries not have a GHI score?

Because data for all four indicators in the GHI formula are not available for every country, GHI scores could not be calculated for some. However, where possible, countries with incomplete data are provisionally categorized according to the GHI Severity Scale based on existing data and complementary reports (see Box 1.3 in Chapter 1). Several of these countries are experiencing unrest or violent conflict, which affects the availability of data as well as the food security and nutrition situation in the country. It is possible that one or more of these countries would have a higher GHI score than Somalia—the country with the highest 2021 GHI score—if sufficient data were available.

Likewise, GHI scores are not calculated for some high-income countries where the prevalence of hunger is very low. Even though food insecurity is a serious concern for segments of the population in certain high-income countries, nationally representative data for child stunting and child wasting are not regularly collected in most high-income countries. In addition, although data on child mortality are usually available for these countries, child mortality does not reflect undernutrition in high-income countries to the same extent it does in low- and middle-income countries.

Finally, GHI scores are not calculated for certain countries with small populations (such as Belize) or for non-independent entities or territories (such as Western Sahara).

How are provisional severity designations for countries with incomplete data determined?

For each country with up-to-date child stunting, child wasting, and child mortality values, these data were used to determine the range in which the country's undernourishment value would need to fall for each GHI severity category. The country's last known prevalence of undernourishment and the prevalence of undernourishment of the subregion in which it is located were used to determine the most plausible range of undernourishment values for the 2018–2020 period and therefore to determine its provisional severity designation. Each country's last known GHI severity classification was also used as a point of reference in the evaluation. In ambiguous cases, the authors designated the country's hunger level in the lower category.

In some cases it was not possible to even determine a provisional severity designation, such as if the country had never previously had a prevalence of undernourishment value, GHI score, or GHI designation since the first GHI report was published in 2006. Also, in one case, Libya, it was determined that the situation in the country had changed to such an extent since its last inclusion in a GHI report in 2014 that it did not provide a sufficient benchmark for classification. In the cases of South Sudan and the Syrian Arab Republic, data were unavailable for three out of four GHI indicators. However, a review of the relevant information in the 2019, 2020, and 2021 editions of the *Global Report on Food Crises* and consultations with experts on food and nutrition insecurity in these countries made clear that designations of *alarming* were justified.

B

FORMULA FOR CALCULATION OF GLOBAL HUNGER INDEX SCORES

GHI scores are calculated using a three-step process:

First, values for the four component indicators are determined from the available data for each country. The indicators are

- → the percentage of the population that is undernourished,
- → the percentage of children under five years old who suffer from wasting (low weight-for-height),
- → the percentage of children under five years old who suffer from stunting (low height-for-age), and
- → the percentage of children who die before the age of five (child mortality).

STEP 1 Determine values for each of the component indicators:

PUN: proportion of the population that is undernourished (in %)
CWA: prevalence of wasting in children under five years old (in %)
CST: prevalence of stunting in children under five years old (in %)
CM: proportion of children dying before the age of five (in %)

Second, each of the four component indicators is given a standardized score based on thresholds set slightly above the highest country-level values observed worldwide for that indicator since 1988.[1] For example, the highest value for undernourishment estimated in this period is 76.5 percent, so the threshold for standardization was set a bit higher, at 80 percent.[2] In a given year, if a country has an undernourishment prevalence of 40 percent, its standardized undernourishment score for that year is 50. In other words, that country is approximately halfway between having no undernourishment and reaching the maximum observed levels.

STEP 2 Standardize component indicators:

$$\text{Standardized PUN} = \frac{\text{PUN}}{80} \times 100$$

$$\text{Standardized CWA} = \frac{\text{CWA}}{30} \times 100$$

$$\text{Standardized CST} = \frac{\text{CST}}{70} \times 100$$

$$\text{Standardized CM} = \frac{\text{CM}}{35} \times 100$$

Third, the standardized scores are aggregated to calculate the GHI score for each country. Undernourishment and child mortality each contribute one-third of the GHI score, while the child undernutrition indicators—child wasting and child stunting—each contribute one-sixth of the score.

STEP 3 Aggregate component indicators:

$$\begin{aligned} &\tfrac{1}{3} \times \text{Standardized PUN} \\ +\ &\tfrac{1}{6} \times \text{Standardized CWA} \\ +\ &\tfrac{1}{6} \times \text{Standardized CST} \\ +\ &\tfrac{1}{3} \times \text{Standardized CM} \\ \hline =\ &\text{GHI score} \end{aligned}$$

This calculation results in GHI scores on a 100-point scale, where 0 is the best score (no hunger) and 100 is the worst. In practice, neither of these extremes is reached. A value of 100 would signify that a country's undernourishment, child wasting, child stunting, and child mortality levels each exactly meets the thresholds set slightly above the highest levels observed worldwide in recent decades. A value of 0 would mean that a country had no undernourished people in the population, no children younger than five who were wasted or stunted, and no children who died before their fifth birthday.

[1] The thresholds for standardization are set slightly above the highest observed values to allow for the possibility that these values could be exceeded in the future.

[2] The threshold for undernourishment is 80, based on the observed maximum of 76.5 percent; the threshold for child wasting is 30, based on the observed maximum of 26.0 percent; the threshold for child stunting is 70, based on the observed maximum of 68.2 percent; and the threshold for child mortality is 35, based on the observed maximum of 32.6 percent. While the thresholds were originally established based on the maximum values observed between 1988 and 2013, covering 25 years' worth of available data prior to the methodological review process, these values have not been exceeded since then.

DATA SOURCES FOR THE GLOBAL HUNGER INDEX COMPONENTS, 2000, 2006, 2012, AND 2021

GHI	Number of countries with GHI scores	Indicators	Reference years	Data sources
2000	112	Percentage of undernourished in the population[a]	2000–2002[b]	FAO 2021
		Percentage of wasting in children under five	1998–2002[c]	UNICEF, WHO, and World Bank 2021a; WHO 2021;[d] and authors' estimates
		Percentage of stunting in children under five	1998–2002[c]	UNICEF, WHO, and World Bank 2021a; WHO 2021;[d] and authors' estimates
		Under-five mortality	2000	UN IGME 2020a
2006	115	Percentage of undernourished in the population[a]	2005–07[b]	FAO 2021
		Percentage of wasting in children under five	2004–08[e]	UNICEF, WHO, and World Bank 2021a; WHO 2021;[d] and authors' estimates
		Percentage of stunting in children under five	2004–08[e]	UNICEF, WHO, and World Bank 2021a; WHO 2021;[d] and authors' estimates
		Under-five mortality	2006	UN IGME 2020a
2012	116	Percentage of undernourished in the population[a]	2011–13[b]	FAO 2021
		Percentage of wasting in children under five	2010–14[f]	UNICEF, WHO, and World Bank 2021a; WHO 2021;[d] and authors' estimates
		Percentage of stunting in children under five	2010–14[f]	UNICEF, WHO, and World Bank 2021a; WHO 2021;[d] and authors' estimates
		Under-five mortality	2012	UN IGME 2020a
2021	116	Percentage of undernourished in the population[a]	2018–20[b]	FAO 2021
		Percentage of wasting in children under five	2016–20[g]	UNICEF, WHO, and World Bank 2021a; WHO 2021;[d] and authors' estimates
		Percentage of stunting in children under five	2016–20[g]	UNICEF, WHO, and World Bank 2021a; WHO 2021;[d] and authors' estimates
		Under-five mortality	2019	UN IGME 2020a

[a] Proportion of the population with chronic calorie deficiency.
[b] Average over a three-year period.
[c] Data collected from the years closest to 2000; where data from 1998 and 2002 or 1999 and 2001 were available, an average was used.
[d] WHO 2021 is the primary data source and UNICEF, WHO, and World Bank 2021a; UNICEF 2021, 2013, and 2009; and MEASURE DHS 2021 are complementary data sources.
[e] Data collected from the years closest to 2006; where data from 2004 and 2008 or 2005 and 2007 were available, an average was used.
[f] Data collected from the years closest to 2012; where data from 2010 and 2014 or 2011 and 2013 were available, an average was used.
[g] The latest data gathered in this period.

DATA UNDERLYING THE CALCULATION OF THE 2000, 2006, 2012, AND 2021 GLOBAL HUNGER INDEX SCORES

Guide to the colors shown in Appendix D

The colors shown in the table represent the following categories:

= Very low = Low = Medium = High = Very high

They are based on thresholds for the different indicator values, as follows:

Category	Undernourishment	Stunting	Wasting	Under-five mortality
Very low	<5%	<2.5%	<2.5%	<1%
Low	5–<15%	2.5–<10%	2.5–<5%	1–<4%
Medium	15–<25%	10–<20%	5–<10%	4–<7%
High	25–<35%	20–<30%	10–<15%	7–<10%
Very high	≥35%	≥30%	≥15%	≥10%

Note: Threshold values for the prevalence of undernourishment are adapted from FAO (2015). Threshold values for stunting and wasting are from de Onis et al. (2019). Threshold values for under-five mortality are adapted from those shown in UN IGME (2020a) but condensed to the five categories shown.

D

DATA UNDERLYING THE CALCULATION OF THE 2000, 2006, 2012, AND 2021 GLOBAL HUNGER INDEX SCORES

Country	Proportion of undernourished in the population (%)				Prevalence of wasting in children under five years (%)				Prevalence of stunting in children under five years (%)				Under-five mortality rate (%)			
	'00–'02	'05–'07	'11–'13	'18–'20	'98–'02	'04–'08	'10–'14	'16–'20	'98–'02	'04–'08	'10–'14	'16–'20	2000	2006	2012	2019
Afghanistan	47.8	33.3	28.2	25.6	11.7 *	8.6	9.5	5.1	51.2 *	59.3	40.4	38.2	12.9	10.4	8.0	6.0
Albania	4.9	8.8	3.5	3.9	12.2	7.3	3.8 *	1.6	39.2	26.7	17.4 *	11.3	2.7	1.9	1.1	1.0
Algeria	8.0	6.4	3.3	<2.5	3.1	4.1	4.1	2.7	23.6	15.4	11.7	9.8	4.0	3.2	2.6	2.3
Angola	67.5	49.3	16.3	17.3	11.4 *	8.2	5.8 *	4.9	46.8 *	29.2	32.9 *	37.6	20.4	15.6	10.5	7.5
Argentina	3.0	3.4	3.1	3.9	1.7 *	1.2	1.6 *	1.6	9.5 *	8.2	7.5 *	7.9	2.0	1.6	1.3	0.9
Armenia	26.1	9.3	3.6	3.4	2.5	5.4	4.1	4.4	17.3	17.9	20.9	9.4	3.1	2.3	1.7	1.2
Azerbaijan	17.0	2.8	<2.5	<2.5	9.0	6.8	4.9	3.8 *	24.2	26.5	17.1	12.9 *	7.5	4.9	3.3	2.0
Bahrain	—	—	—	—	9.8 *	8.0 *	7.0 *	6.6 *	5.5 *	4.6 *	4.3 *	3.9 *	1.2	1.0	0.8	0.7
Bangladesh	15.9	13.8	15.5	9.7	12.5	11.9	14.8	9.8	51.1	45.1	40.8	28.0	8.7	6.1	4.4	3.1
Belarus	<2.5	<2.5	<2.5	<2.5	2.3 *	2.2	1.9 *	2.0 *	6.1 *	4.5	3.4 *	3.3 *	1.3	0.8	0.5	0.3
Benin	17.2	11.0	7.9	7.6	9.0	5.0	4.5	5.0	36.2	37.4	34.0	32.2	13.9	12.0	10.6	9.0
Bhutan	—	—	—	—	2.5	4.5	5.9	3.8 *	47.7	34.9	33.5	22.4 *	7.7	5.4	3.8	2.8
Bolivia (Plurinat. State of)	27.9	24.6	16.5	12.6	1.6	1.6	1.5	2.0	33.2	29.8	18.2	16.1	7.6	5.3	3.7	2.6
Bosnia & Herzegovina	3.2	<2.5	<2.5	<2.5	7.4	4.0	2.3	2.8 *	12.1	11.8	8.9	8.1 *	1.0	0.9	0.7	0.6
Botswana	23.7	27.5	29.7	29.3	5.9	7.3	5.9 *	5.0 *	29.1	28.9	21.4 *	17.6 *	6.9	4.0	3.7	4.2
Brazil	10.7	6.2	3.1	<2.5	2.4 *	1.8	1.7 *	1.5 *	10.0 *	7.0	6.9 *	6.4 *	3.5	2.3	1.7	1.4
Bulgaria	4.0	5.1	4.0	3.0	4.9 *	4.7	6.3	4.6 *	11.0 *	9.2	7.0	6.7 *	1.7	1.2	1.0	0.7
Burkina Faso	22.6	17.1	12.7	14.4	15.5	11.9 *	10.7	8.1	41.4	33.9 *	32.8	23.8	17.9	14.7	11.2	8.8
Burundi	—	—	—	—	8.1	9.0	6.0	4.8	64.0	57.7	57.6	54.0	15.5	11.7	8.0	5.6
Cabo Verde	14.5	11.4	16.0	15.4	3.8 *	3.3 *	2.2 *	2.0 *	15.1 *	11.2 *	9.0 *	7.8 *	3.8	2.8	2.4	1.5
Cambodia	23.6	15.6	12.0	6.2	17.1	8.5	11.0	8.9 *	49.0	42.8	39.8	28.9 *	10.6	6.0	3.8	2.7
Cameroon	22.9	14.1	5.8	5.3	6.2	7.6	5.7	4.3	38.2	37.6	32.6	28.9	14.3	12.4	10.2	7.5
Central African Republic	39.2	37.7	32.8	48.2	10.4	12.1	7.4	5.3	44.4	43.6	39.7	40.0	17.0	16.0	13.9	11.0
Chad	38.8	38.4	33.6	31.7	13.9	16.2	16.3	13.0	38.9	44.4	38.7	35.1	18.5	16.4	14.1	11.4
Chile	3.4	3.1	3.2	3.4	0.5	0.5	0.3	0.3 *	3.0	2.2	1.8	1.7 *	1.1	0.9	0.8	0.7
China	10.0	6.1	<2.5	<2.5	2.5	2.9	1.9	1.9	17.8	11.7	8.1	4.8	3.7	2.2	1.4	0.8
Colombia	8.7	11.4	10.1	8.8	1.0	1.6	0.9	1.6	18.2	16.0	12.6	12.7	2.5	2.1	1.7	1.4
Comoros	—	—	—	—	13.3	9.6	11.2	8.8 *	46.9	49.8	31.1	36.0 *	10.0	9.4	7.9	6.3
Congo (Republic of)	27.0	36.6	33.0	37.7	10.0 *	8.0	6.0	7.2 *	30.2 *	31.2	24.4	25.3 *	11.4	7.9	5.9	4.8
Costa Rica	4.7	3.9	3.8	3.1	2.1 *	1.7 *	1.4 *	1.8	11.0 *	8.0 *	5.9 *	9.0	1.3	1.1	1.0	0.9
Côte d'Ivoire	20.4	20.2	21.9	14.9	6.9	14.0	7.6	6.1	31.2	39.0	29.9	21.6	14.2	12.2	10.0	7.9
Croatia	6.8	<2.5	<2.5	<2.5	1.3 *	1.2 *	1.2 *	1.2 *	1.3 *	1.0 *	1.0 *	0.9 *	0.8	0.6	0.5	0.5
Cuba	<2.5	<2.5	<2.5	<2.5	2.4	2.7	2.2 *	2.0	7.0	7.5	6.2 *	7.1	0.9	0.7	0.6	0.5
Dem. Rep. of the Congo	38.2	38.5	41.5	41.7	15.9	10.4	8.3	6.4	44.4	45.8	43.0	41.8	16.0	13.2	10.7	8.5
Djibouti	42.0	27.3	20.8	16.2	19.4	17.0	21.5	15.7 *	27.1	33.0	33.5	27.4 *	10.1	8.6	7.2	5.7
Dominican Republic	20.4	16.4	9.7	8.3	1.5	1.7	2.4	1.3 *	7.7	8.4	7.1	4.8 *	4.1	3.6	3.3	2.8
Ecuador	21.0	22.8	9.1	12.4	2.7	2.1	2.4	3.7	27.9	25.9	25.4	23.0	2.9	2.2	1.7	1.4
Egypt	5.2	6.0	5.2	5.4	7.0	5.3	9.5	5.5 *	24.4	23.9	22.3	22.2 *	4.7	3.4	2.6	2.0
El Salvador	7.2	9.4	10.5	8.5	1.5	1.6	2.1	1.1 *	32.3	20.8	13.6	14.7 *	3.3	2.4	1.7	1.3
Equatorial Guinea	—	—	—	—	9.2	2.8	3.1	3.7 *	42.7	35.0	26.2	25.7 *	15.6	13.0	10.4	8.2
Eritrea	—	—	—	—	15.0	—	14.6	—	43.0	—	52.5	—	8.5	6.5	5.1	4.0
Estonia	3.6	<2.5	<2.5	<2.5	1.7 *	1.5 *	1.5 *	1.5 *	1.6 *	1.3 *	1.3 *	1.1 *	1.1	0.6	0.4	0.2
Eswatini	10.5	10.2	18.0	11.6	1.7	2.9	1.4	1.3 *	36.5	29.2	28.2	28.5 *	11.0	10.9	7.1	4.9
Ethiopia	47.0	35.6	25.3	16.2	12.4	12.4	9.8	6.8	57.4	50.0	44.4	36.8	14.0	10.3	7.3	5.1
Fiji	4.0	3.7	3.4	5.6	7.9 *	6.3	6.3 *	5.5 *	5.6 *	7.5	3.9 *	3.2 *	2.3	2.3	2.4	2.6
Gabon	10.7	14.8	17.3	15.7	4.2	3.9 *	3.4	3.3 *	25.9	21.1 *	17.0	17.6 *	8.4	7.2	5.7	4.2
Gambia	17.8	20.7	13.0	13.6	9.1	7.4	9.5	5.1	24.1	27.7	21.1	17.5	11.3	8.6	6.7	5.2
Georgia	7.7	4.0	4.3	8.7	3.1	3.0	0.5 *	0.6	16.1	14.6	6.3 *	5.8	3.7	2.1	1.2	1.0
Ghana	14.9	10.6	7.2	6.1	9.9	6.0	6.2	6.8	30.6	27.9	22.8	17.5	9.9	8.0	6.3	4.6
Guatemala	22.2	17.8	17.0	16.8	3.7	2.0 *	1.7 *	1.4 *	51.0	50.9 *	45.8 *	39.5 *	5.2	4.1	3.2	2.5
Guinea	—	—	—	—	10.3	11.0	7.6	9.2	46.9	39.3	32.8	30.3	16.4	13.1	11.3	9.9
Guinea-Bissau	—	—	—	—	11.8	7.7 *	6.2	6.5	33.8	31.7 *	26.4	27.9	17.3	13.7	10.3	7.8
Guyana	6.5	7.1	5.9	5.2	12.1	8.3	6.4	6.5	13.9	17.9	11.3	9.1	4.6	4.0	3.6	2.9
Haiti	53.2	54.2	47.7	46.8	5.5	10.2	5.1	3.7	28.8	29.6	22.0	21.9	10.4	8.7	7.6	6.3
Honduras	21.9	21.8	13.4	13.5	1.3	1.4	1.4	1.0 *	35.5	29.8	22.6	21.1 *	3.7	2.8	2.2	1.7
India	18.4	19.6	15.0	15.3	17.1	20.0	15.1	17.3	54.2	47.8	38.7	34.7	9.2	7.1	5.2	3.4
Indonesia	19.2	19.0	9.4	6.5	5.5	14.8	13.5	10.2	42.4	40.1	36.4	30.8	5.2	4.0	3.1	2.4
Iran (Islamic Republic of)	4.8	5.5	6.2	5.5	6.1	4.8	4.0	3.9 *	20.4	7.1	6.8	7.9 *	3.4	2.4	1.8	1.4
Iraq	22.4	25.1	37.1	37.5	6.6	5.8	6.5	3.0	28.1	27.5	22.1	12.6	4.4	3.9	3.3	2.6
Jamaica	7.4	7.7	10.1	7.7	3.0	3.7	3.0	3.3	7.2	7.5	6.8	9.3	2.2	2.0	1.7	1.4
Jordan	9.7	5.7	8.5	9.5	2.5	2.2 *	2.4	1.8 *	11.7	9.6 *	7.8	7.5 *	2.7	2.3	1.9	1.6
Kazakhstan	6.5	6.3	2.8	<2.5	2.5	4.9	4.1	4.2 *	13.2	17.5	13.1	9.1 *	4.2	2.9	1.6	1.0
Kenya	32.2	26.1	24.9	24.8	7.4	6.9	6.3	4.8 *	40.8	40.3	26.3	25.0 *	9.9	7.2	5.5	4.3
Korea (DPR)	35.7	36.1	42.7	42.4	12.2	8.5	4.0	2.5	51.0	43.1	27.9	19.1	6.0	3.2	2.6	1.7
Kuwait	2.6	<2.5	<2.5	<2.5	2.2	2.8	2.4	2.5	4.0	4.6	4.3	6.4	1.2	1.1	1.0	0.8
Kyrgyzstan	15.1	9.7	8.1	7.2	3.3 *	3.4	2.8	2.0	22.9 *	18.1	17.9	11.8	5.0	3.8	2.6	1.8
Lao PDR	31.2	20.6	14.5	5.3	17.5	7.4	5.9	9.0	47.5	47.7	44.2	33.1	10.6	8.2	6.2	4.6
Latvia	4.6	<2.5	<2.5	<2.5	1.9 *	1.6 *	1.6 *	1.6 *	4.9 *	3.4 *	3.3 *	3.1 *	1.4	1.0	0.7	0.4

DATA UNDERLYING THE CALCULATION OF THE 2000, 2006, 2012, AND 2021 GLOBAL HUNGER INDEX SCORES

Country	Proportion of undernourished in the population (%)				Prevalence of wasting in children under five years (%)				Prevalence of stunting in children under five years (%)				Under-five mortality rate (%)			
	'00–'02	'05–'07	'11–'13	'18–'20	'98–'02	'04–'08	'10–'14	'16–'20	'98–'02	'04–'08	'10–'14	'16–'20	2000	2006	2012	2019
Lebanon	7.8	10.5	14.9	9.3	4.8 *	6.6	4.1 *	3.8 *	15.9 *	16.5	12.4 *	13.0 *	2.0	1.3	0.9	0.7
Lesotho	20.0	12.8	11.8	23.5	6.6 *	5.6	3.3	2.1	43.4 *	43.3	36.4	34.6	10.7	11.4	9.6	8.6
Liberia	36.6	35.3	36.3	38.9	7.4	7.9	5.6	3.4	45.3	39.6	32.1	29.8	18.8	12.1	9.6	8.5
Libya	—	—	—	—	9.4 *	6.5	10.2	8.2 *	34.2 *	21.0	38.1	29.4 *	2.8	2.2	1.5	1.2
Lithuania	<2.5	<2.5	<2.5	<2.5	2.1 *	1.8 *	1.6 *	1.5 *	5.1 *	3.7 *	3.2 *	2.7 *	1.1	0.9	0.5	0.4
Madagascar	33.8	31.0	29.7	43.2	9.8 *	15.1	7.5	6.4	54.8 *	52.7	48.9	41.6	10.7	8.1	6.4	5.1
Malawi	23.6	20.8	15.9	17.3	6.8	4.2	3.9	0.6	54.7	53.1	44.8	40.9	17.3	10.4	7.1	4.2
Malaysia	2.5	3.4	2.8	3.2	15.3	13.2	10.8 *	9.7	20.7	17.5	18.8 *	21.8	1.0	0.8	0.8	0.9
Maldives	—	—	—	—	13.4	11.9 *	10.7 *	9.1	31.9	22.1 *	16.8 *	15.3	3.9	1.9	1.2	0.8
Mali	16.2	11.9	4.7	10.4	12.6	15.4	8.8	9.3	42.5	37.6	26.8	26.4	18.7	15.1	12.1	9.4
Mauritania	8.3	8.8	7.0	9.1	15.3	13.6	11.7	11.5	38.6	31.5	23.2	22.8	11.3	10.7	9.1	7.3
Mauritius	5.7	5.0	5.6	6.2	14.3 *	13.8 *	11.9 *	10.3 *	12.8 *	11.9 *	10.9 *	10.0 *	1.9	1.5	1.5	1.6
Mexico	3.3	4.1	4.8	7.2	2.0	2.0	1.6	1.4	21.4	15.5	13.6	14.1	2.8	2.2	1.8	1.4
Moldova (Republic of)	—	—	—	—	4.2 *	5.8	1.9	2.7 *	13.3 *	10.7	6.4	5.4 *	3.1	1.9	1.6	1.4
Mongolia	31.1	27.4	17.3	4.3	7.1	2.7	1.0	0.9	29.8	27.5	10.8	9.4	6.5	4.1	2.6	1.6
Montenegro	—	3.1	<2.5	<2.5	—	4.2	2.8	2.2	—	7.9	9.4	7.2	—	1.0	0.5	0.2
Morocco	6.3	5.6	4.9	4.2	4.1 *	10.8	2.3	2.6	24.8 *	23.1	14.9	15.1	4.9	3.8	2.9	2.1
Mozambique	36.5	32.4	21.0	31.2	8.1	4.2	6.1	4.1 *	50.7	43.5	42.9	37.6 *	17.0	12.6	9.6	7.4
Myanmar	37.6	24.8	11.2	7.6	10.7	8.9 *	7.9	6.7	40.8	38.9 *	35.1	26.7	8.9	7.4	5.8	4.5
Namibia	13.5	20.1	29.6	19.8	10.0	7.6	7.1	6.7 *	29.3	29.2	22.7	17.7 *	7.5	6.6	5.2	4.2
Nepal	23.5	15.9	8.1	4.8	11.3	12.7	11.2	12.0	57.1	49.2	40.1	31.5	8.1	5.8	4.2	3.1
Nicaragua	27.5	22.2	17.8	19.3	2.3	0.9	2.2	1.1 *	25.1	20.9	17.3	15.6 *	3.8	2.8	2.2	1.7
Niger	—	—	—	—	16.2	12.1	15.8	9.8	53.5	52.9	41.7	47.1	22.5	16.0	10.8	8.0
Nigeria	8.9	6.7	8.8	14.6	12.6 *	9.8 *	10.2	6.5	47.8 *	41.6 *	35.8	31.5	18.3	15.1	13.2	11.7
North Macedonia	7.5	4.4	3.7	2.7	1.7	3.4	1.8	3.4	8.0	11.3	4.9	4.3	1.6	1.3	1.0	0.6
Oman	12.3	9.6	7.3	8.2	7.8	9.3 *	7.5	9.3	15.8	14.7 *	14.1	11.4	1.6	1.2	1.1	1.1
Pakistan	21.1	16.4	15.9	12.9	14.1	12.6 *	12.7	7.1	41.4	43.2 *	44.3	37.6	10.7	9.4	8.3	6.7
Panama	24.5	18.5	9.1	7.5	1.5 *	1.2	1.2 *	1.0 *	21.9 *	19.0	15.9 *	15.8	2.6	2.2	1.9	1.5
Papua New Guinea	26.3	27.3	21.3	24.6	8.1 *	4.4	14.1	6.8 *	47.9 *	43.9	49.5	39.7 *	7.1	6.3	5.5	4.5
Paraguay	10.5	9.7	7.7	9.2	1.6	1.1	2.6	1.0	13.6 *	17.5	10.7	5.6	3.4	2.9	2.4	1.9
Peru	21.5	15.7	6.7	8.7	1.1	1.0	0.6	0.4	31.3	29.2	18.4	12.2	3.8	2.5	1.8	1.3
Philippines	18.7	14.0	13.7	9.4	8.0	6.6	7.0	5.6	38.3	32.0	33.4	30.3	3.8	3.4	3.1	2.7
Qatar	—	—	—	—	5.1 *	4.1 *	3.6 *	3.7 *	2.1 *	1.5 *	1.2 *	1.9 *	1.2	1.0	0.9	0.7
Romania	<2.5	<2.5	<2.5	<2.5	4.3	2.9 *	2.9 *	2.9 *	12.8	10.5 *	9.5 *	8.2 *	2.1	1.7	1.1	0.7
Russian Federation	4.0	<2.5	<2.5	<2.5	4.6 *	3.8 *	3.8 *	4.1 *	17.0 *	13.0 *	12.1 *	12.5 *	1.9	1.3	1.0	0.6
Rwanda	38.5	33.7	34.3	35.2	8.7	4.9	2.4	1.1	47.9	51.4	43.8	33.1	17.9	9.8	5.2	3.4
Saudi Arabia	4.9	4.5	5.4	3.9	7.7 *	11.8	5.8 *	5.3 *	10.9 *	9.3	7.3 *	6.4 *	2.2	1.5	1.0	0.7
Senegal	24.0	15.5	12.0	7.5	10.0	8.7	8.7	8.1	26.0	19.9	15.5	18.3	12.9	8.5	6.0	4.5
Serbia	—	<2.5	2.7	3.9	—	4.5	3.7	2.6	—	8.1	6.3	5.4	—	0.8	0.7	0.5
Sierra Leone	50.7	43.7	24.3	26.2	11.6	10.2	6.0	5.4	35.5	45.0	30.9	29.5	22.8	19.0	14.6	10.9
Slovakia	6.1	5.6	3.4	4.0	2.1 *	2.0 *	1.8 *	1.8 *	5.8 *	4.6 *	4.0 *	3.8 *	1.0	0.8	0.7	0.6
Solomon Islands	13.3	12.8	17.1	16.5	6.2 *	4.3	6.0 *	5.7 *	34.2 *	32.8	31.3 *	28.9 *	3.0	2.8	2.4	2.0
Somalia	57.9	58.2	79.7	59.5	19.3	13.3	16.2 *	13.1 *	29.2	42.0	37.4 *	31.9 *	17.1	17.1	14.7	11.7
South Africa	3.9	3.5	4.0	6.5	4.5	4.8	3.4 *	3.4	30.1	24.9	22.2 *	21.4	7.1	7.9	4.1	3.4
South Sudan	—	—	—	—	—	—	22.7	—	—	—	31.3	—	—	—	9.8	9.6
Sri Lanka	16.9	14.1	10.3	6.8	15.9	15.2	21.3	15.1	18.3	18.1	14.6	17.3	1.7	1.4	1.1	0.7
Sudan	21.5	17.6	13.4	12.3	—	—	15.8	12.6 *	—	—	36.2	31.4 *	—	—	7.2	5.8
Suriname	11.8	8.8	8.2	8.7	7.0	4.9	5.0	5.5	14.1	10.6	8.8	8.3	3.1	2.6	2.2	1.8
Syrian Arab Republic	—	—	—	—	4.9	10.3	11.5	—	24.3	28.7	27.9	—	2.3	1.9	2.2	2.2
Tajikistan	—	—	—	—	9.4	7.8	9.9	5.6	42.1	36.2	26.9	17.5	8.4	5.2	4.1	3.4
Tanzania (United Rep. of)	33.0	30.2	27.2	25.1	5.6	3.5	5.3	3.5	48.3	44.4	36.2	31.8	12.9	8.9	6.5	5.0
Thailand	17.3	10.6	8.8	8.2	7.3 *	4.7	6.7	7.7	21.6 *	15.7	16.4	13.4	2.2	1.6	1.2	0.9
Timor-Leste	41.5	31.9	31.0	22.6	13.7	21.3	9.9	11.5 *	55.7	57.2	51.7	52.2 *	—	7.7	5.7	4.4
Togo	31.3	27.2	19.5	20.4	12.4	15.5	5.5	5.7	33.2	29.9	26.2	23.8	11.8	9.9	8.3	6.7
Trinidad & Tobago	10.0	10.5	7.2	6.7	5.2	5.4 *	6.4	5.3 *	5.3	6.2 *	9.2	6.0 *	2.8	2.6	2.2	1.8
Tunisia	4.4	4.3	3.1	3.0	2.9	3.4	2.8	2.1	16.8	9.0	10.1	8.4	3.0	2.1	1.8	1.7
Turkey	<2.5	<2.5	<2.5	<2.5	3.0	1.0	1.9	1.7	18.8	13.9	10.0	6.0	3.9	2.5	1.6	1.0
Turkmenistan	6.8	4.0	5.0	4.1	7.1	7.2	5.1 *	4.1	28.1	18.9	12.6 *	7.2	7.0	4.9	4.2	4.2
Uganda	—	—	—	—	5.0	6.2	4.2	3.5	44.9	38.4	33.7	28.9	14.6	10.0	6.8	4.6
Ukraine	3.0	<2.5	<2.5	<2.5	8.2	2.2 *	2.3 *	2.2 *	22.9	17.2 *	16.5 *	16.5 *	1.8	1.4	1.1	0.8
Uruguay	3.6	3.7	<2.5	<2.5	2.3	2.5	1.3	1.4	12.8	10.8	10.7	6.9	1.7	1.3	1.0	0.7
Uzbekistan	17.9	12.6	<2.5	<2.5	9.0	4.4	4.1 *	1.8	24.9	19.6	15.6 *	10.8	6.2	4.4	2.9	1.7
Venezuela (Boliv. Rep. of)	14.9	7.0	3.2	27.4	3.9	4.8	3.4 *	5.2 *	17.4	16.2	10.7 *	23.7 *	2.2	1.8	1.7	2.4
Viet Nam	19.7	15.3	9.3	6.7	9.0	9.1	6.7	5.8	42.9	33.8	26.7	23.8	3.0	2.4	2.2	2.0
Yemen	26.7	26.6	33.3	45.4	15.2 *	13.8	14.8	15.1 *	52.0 *	57.0	46.5	51.4 *	9.5	6.8	5.5	5.8
Zambia	—	—	—	—	5.0	5.6	6.2	4.2	59.2	45.8	40.0	34.6	15.2	9.9	7.5	6.2
Zimbabwe	—	—	—	—	8.3	7.2	3.2	2.9	33.8	35.3	32.2	23.5	9.3	9.4	7.4	5.5

Note: The colors shown in the table represent the following categories: = Very low = Low = Medium = High = Very high. For more information, see page 41.
— = Data not available or not presented. Some countries did not exist in their present borders in the given year or reference period. *GHI estimates.

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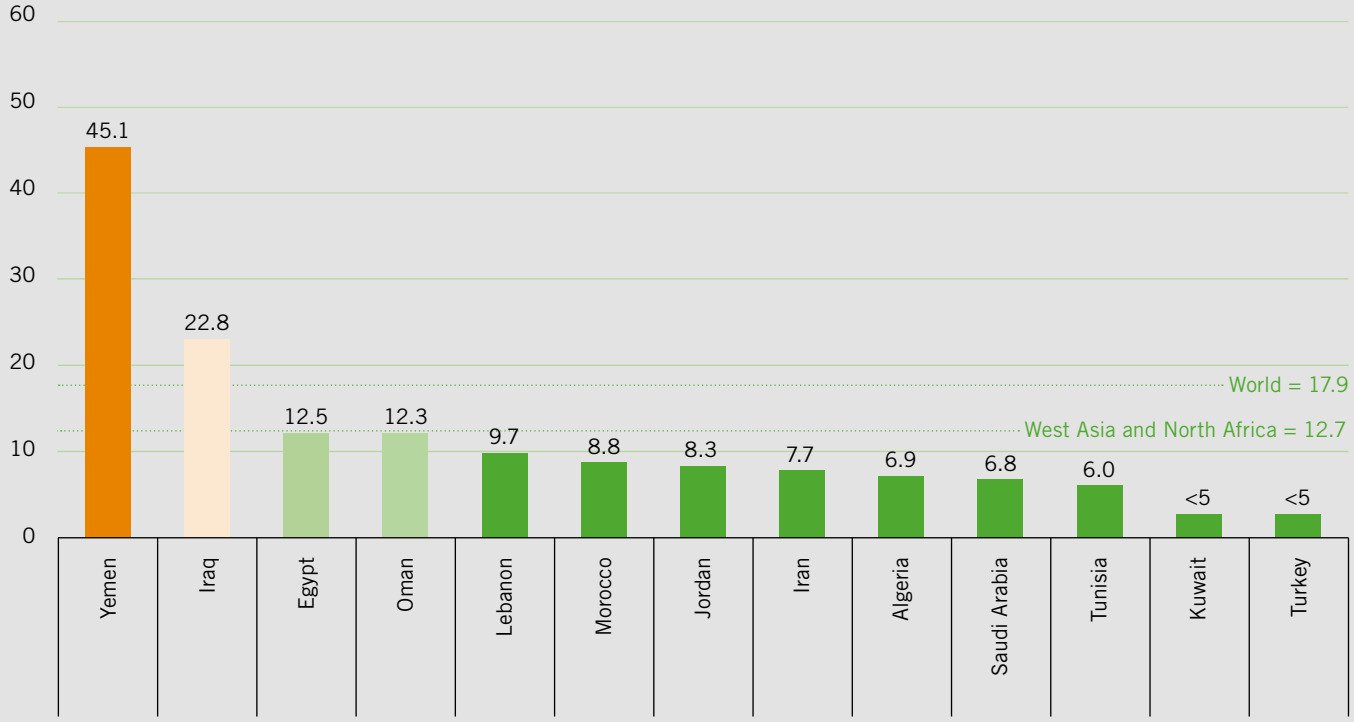
2000, 2006, 2012, AND 2021 GLOBAL HUNGER INDEX SCORES, AND CHANGE SINCE 2000

Country with data from	2000 '98–'02	2006 '04–'08	2012 '10–'14	2021 '16–'20	Absolute change since 2000	% change since 2000
Afghanistan	50.9	42.7	34.3	28.3	-22.6	-44.4
Albania	20.7	15.9	8.8	6.2	-14.5	-70.0
Algeria	14.5	11.7	8.9	6.9	-7.6	-52.4
Angola	65.0	46.9	27.8	26.0	-39.0	-60.0
Argentina	6.4	5.6	5.2	5.3	-1.1	-17.2
Armenia	19.3	13.3	10.4	7.2	-12.1	-62.7
Azerbaijan	25.0	15.9	10.6	7.5	-17.5	-70.0
Bahrain	—	—	—	—	—	—
Bangladesh	34.0	28.9	28.6	19.1	-14.9	-43.8
Belarus	<5	<5	<5	<5	—	—
Benin	34.0	27.7	24.0	22.2	-11.8	-34.7
Bhutan	—	—	—	—	—	—
Bolivia (Plurinat. State of)	27.7	23.3	15.6	12.7	-15.0	-54.2
Bosnia & Herzegovina	9.3	6.7	<5	<5	—	—
Botswana	26.7	26.2	24.3	23.2	-3.5	-13.1
Brazil	11.5	7.4	5.5	<5	—	—
Bulgaria	8.6	8.1	7.8	6.1	-2.5	-29.1
Burkina Faso	44.9	35.8	29.7	24.5	-20.4	-45.4
Burundi	—	—	—	—	—	—
Cabo Verde	15.4	11.9	12.3	10.8	-4.6	-29.9
Cambodia	41.1	27.1	24.2	17.0	-24.1	-58.6
Cameroon	35.7	30.9	23.1	18.6	-17.1	-47.9
Central African Republic	48.9	48.0	40.5	43.0	-5.9	-12.1
Chad	50.8	51.2	45.7	39.6	-11.2	-22.0
Chile	<5	<5	<5	<5	—	—
China	13.3	9.0	<5	<5	—	—
Colombia	10.9	11.4	9.3	8.9	-2.0	-18.3
Comoros	—	—	—	—	—	—
Congo (Republic of)	34.9	34.6	28.5	30.3	-4.6	-13.2
Costa Rica	7.0	5.5	<5	5.3	-1.7	-24.3
Côte d'Ivoire	33.3	37.1	30.0	22.3	-11.0	-33.0
Croatia	<5	<5	<5	<5	—	—
Cuba	<5	<5	<5	<5	—	—
Dem. Rep. of the Congo	50.6	45.3	42.3	39.0	-11.6	-22.9
Djibouti	44.3	36.9	35.4	27.4	-16.9	-38.1
Dominican Republic	15.1	13.2	10.2	8.0	-7.1	-47.0
Ecuador	19.7	18.9	12.8	14.0	-5.7	-28.9
Egypt	16.3	14.4	15.2	12.5	-3.8	-23.3
El Salvador	14.7	12.0	10.4	8.9	-5.8	-39.5
Equatorial Guinea	—	—	—	—	—	—
Eritrea	—	—	—	—	—	—
Estonia	<5	<5	<5	<5	—	—
Eswatini	24.5	23.2	21.8	17.0	-7.5	-30.6
Ethiopia	53.5	43.4	33.5	24.1	-29.4	-55.0
Fiji	9.6	9.0	8.1	8.6	-1.0	-10.4
Gabon	21.0	20.2	18.6	16.6	-4.4	-21.0
Gambia	29.0	27.5	22.1	17.6	-11.4	-39.3
Georgia	12.3	8.8	<5	6.3	-6.0	-48.8
Ghana	28.4	22.0	17.9	14.9	-13.5	-47.5
Guatemala	28.4	24.6	22.0	19.6	-8.8	-31.0
Guinea	—	—	—	—	—	—
Guinea-Bissau	—	—	—	—	—	—
Guyana	17.1	15.6	12.1	10.7	-6.4	-37.4
Haiti	42.0	43.6	35.2	32.8	-9.2	-21.9
Honduras	21.8	19.6	13.8	12.8	-9.0	-41.3
India	38.8	37.4	28.8	27.5	-11.3	-29.1
Indonesia	26.1	29.5	23.0	18.0	-8.1	-31.0
Iran (Islamic Republic of)	13.5	8.9	8.1	7.7	-5.8	-43.0
Iraq	23.9	23.9	27.5	22.8	-1.1	-4.6
Jamaica	8.6	9.0	9.1	8.6	0.0	0.0
Jordan	10.8	8.1	8.5	8.3	-2.5	-23.1
Kazakhstan	11.2	12.3	8.1	6.4	-4.8	-42.9
Kenya	36.7	31.2	25.4	23.0	-13.7	-37.3
Korea (DPR)	39.5	33.1	29.1	25.2	-14.3	-36.2
Kuwait	<5	<5	<5	<5	—	—
Kyrgyzstan	18.3	13.9	11.7	8.6	-9.7	-53.0
Lao PDR	44.1	31.9	25.7	19.5	-24.6	-55.8
Latvia	5.5	<5	<5	<5	—	—
Lebanon	11.6	13.2	12.3	9.7	-1.9	-16.4
Lesotho	32.5	29.6	24.6	27.4	-5.1	-15.7
Liberia	48.1	40.0	35.0	33.3	-14.8	-30.8
Libya	—	—	—	—	—	—
Lithuania	<5	<5	<5	<5	—	—
Madagascar	42.8	41.6	34.3	36.3	-6.5	-15.2
Malawi	43.1	33.5	26.2	21.3	-21.8	-50.6
Malaysia	15.4	13.7	12.4	12.8	-2.6	-16.9
Maldives	—	—	—	—	—	—
Mali	41.7	36.8	24.8	24.7	-17.0	-40.8
Mauritania	31.9	28.9	23.6	22.6	-9.3	-29.2
Mauritius	15.2	14.0	13.0	12.2	-3.0	-19.7
Mexico	10.2	8.6	7.8	8.5	-1.7	-16.7
Moldova (Rep. of)	—	—	—	—	—	—
Mongolia	30.2	23.4	12.8	6.1	-24.1	-79.8
Montenegro	—	6.5	<5	<5	—	—
Morocco	15.5	17.5	9.6	8.8	-6.7	-43.2
Mozambique	48.0	38.2	31.5	31.3	-16.7	-34.8
Myanmar	39.8	31.6	22.9	17.5	-22.3	-56.0
Namibia	25.3	25.8	26.6	20.2	-5.1	-20.2
Nepal	37.4	30.9	23.1	19.1	-18.3	-48.9
Nicaragua	22.3	17.4	14.9	14.0	-8.3	-37.2
Niger	—	—	—	—	—	—
Nigeria	39.5	32.5	30.4	28.3	-11.2	-28.4
North Macedonia	7.5	7.7	<5	<5	—	—
Oman	14.7	13.8	11.6	12.3	-2.4	-16.3
Pakistan	36.7	33.1	32.1	24.7	-12.0	-32.7
Panama	18.7	15.0	10.1	8.9	-9.8	-52.4
Papua New Guinea	33.6	30.3	33.7	27.8	-5.8	-17.3
Paraguay	11.7	11.6	9.5	7.5	-4.2	-35.9
Peru	20.6	16.4	9.2	8.0	-12.6	-61.2
Philippines	25.0	20.4	20.5	16.8	-8.2	-32.8
Qatar	—	—	—	—	—	—
Romania	7.9	5.9	5.0	<5	—	—
Russian Federation	10.1	7.1	6.4	6.2	-3.9	-38.6
Rwanda	49.3	38.3	31.0	26.4	-22.9	-46.5
Saudi Arabia	11.0	12.1	8.2	6.8	-4.2	-38.2
Senegal	34.0	24.1	19.2	16.3	-17.7	-52.1
Serbia	—	6.1	5.3	<5	—	—
Sierra Leone	57.7	52.7	34.7	31.3	-26.4	-45.8
Slovakia	6.0	5.3	<5	<5	—	—
Solomon Islands	20.0	18.2	20.2	18.8	-1.2	-6.0
Somalia	58.1	57.9	65.1	50.8	-7.3	-12.6
South Africa	18.1	17.6	12.7	12.9	-5.2	-28.7
South Sudan	—	—	—	—	—	—
Sri Lanka	21.9	20.0	20.6	16.0	-5.9	-26.9
Sudan	—	—	29.8	25.1	—	—
Suriname	15.1	11.4	10.4	10.4	-4.7	-31.1
Syrian Arab Republic	—	—	—	—	—	—
Tajikistan	—	—	—	—	—	—
Tanzania (United Rep. of)	40.6	33.6	29.1	24.7	-15.9	-39.2
Thailand	18.5	12.3	12.4	11.7	-6.8	-36.8
Timor-Leste	—	46.1	36.2	32.4	—	—
Togo	39.1	36.5	25.3	23.7	-15.4	-39.4
Trinidad & Tobago	11.0	11.3	10.8	8.9	-2.1	-19.1
Tunisia	10.3	7.8	7.0	6.0	-4.3	-41.7
Turkey	10.2	6.5	5.0	<5	—	—
Turkmenistan	20.1	14.8	11.9	9.7	-10.4	-51.7
Uganda	—	—	—	—	—	—
Ukraine	13.0	7.1	6.9	6.8	-6.2	-47.7
Uruguay	7.4	6.7	5.0	<5	—	—
Uzbekistan	24.3	16.6	9.5	5.9	-18.4	-75.7
Venezuela (Boliv. Rep. of)	14.6	11.2	7.4	22.2	7.6	52.1
Viet Nam	26.3	21.8	16.0	13.6	-12.7	-48.3
Yemen	41.0	38.8	38.4	45.1	4.1	10.0
Zambia	—	—	—	—	—	—
Zimbabwe	—	—	—	—	—	—

Note: — = Data are not available or not presented. See Box 1.3 for provisional designations of the severity of hunger for some countries with incomplete data. Some countries did not exist in their present borders in the given year or reference period. = low = moderate = serious = alarming = extremely alarming

COUNTRIES' 2021 GHI SCORES BY REGION

WEST ASIA AND NORTH AFRICA

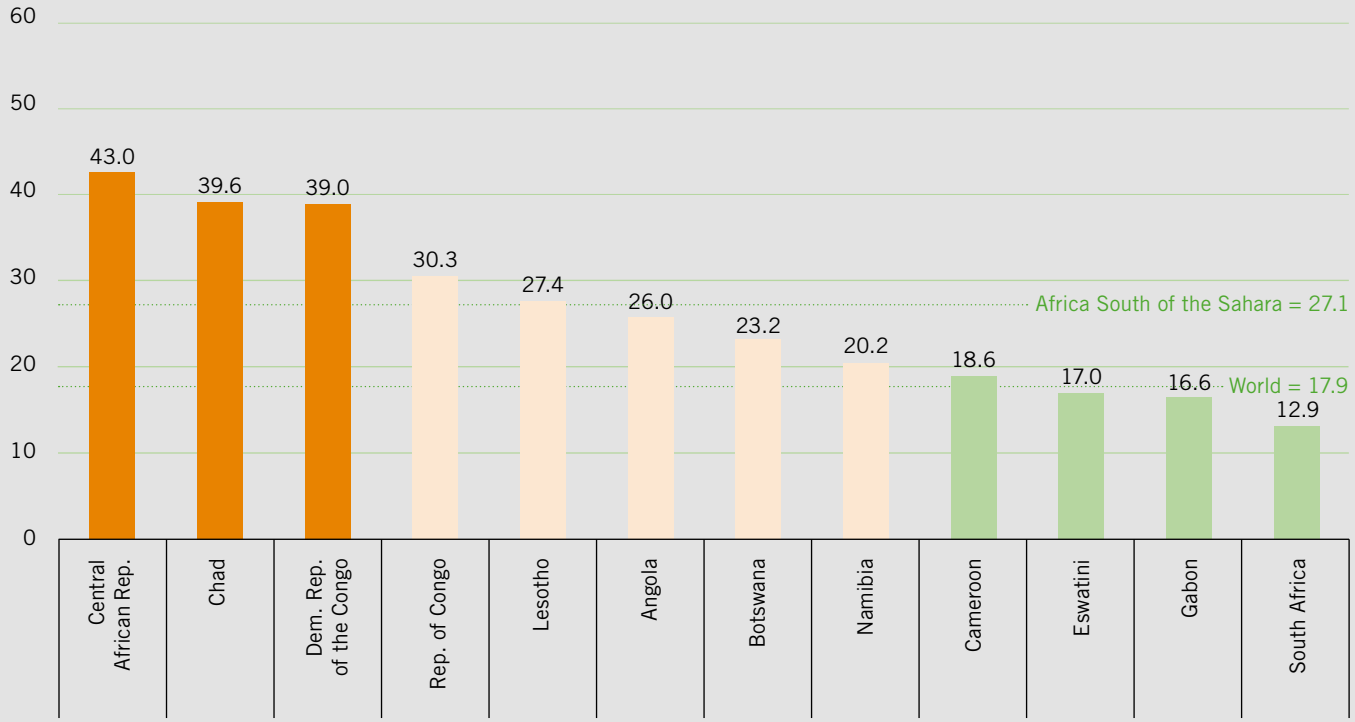


Note: Bahrain, Libya, Qatar, and Syrian Arab Republic are in the West Asia and North Africa region but are not shown, owing to insufficient data for the calculation of GHI scores. Existing data and provisional indicator values for these countries were included in the calculation of regional and global GHI scores. See Box 1.3 regarding provisional designations of hunger severity for countries with incomplete data. Countries with GHI scores less than 5 are presented in alphabetical order.

WEST AFRICA

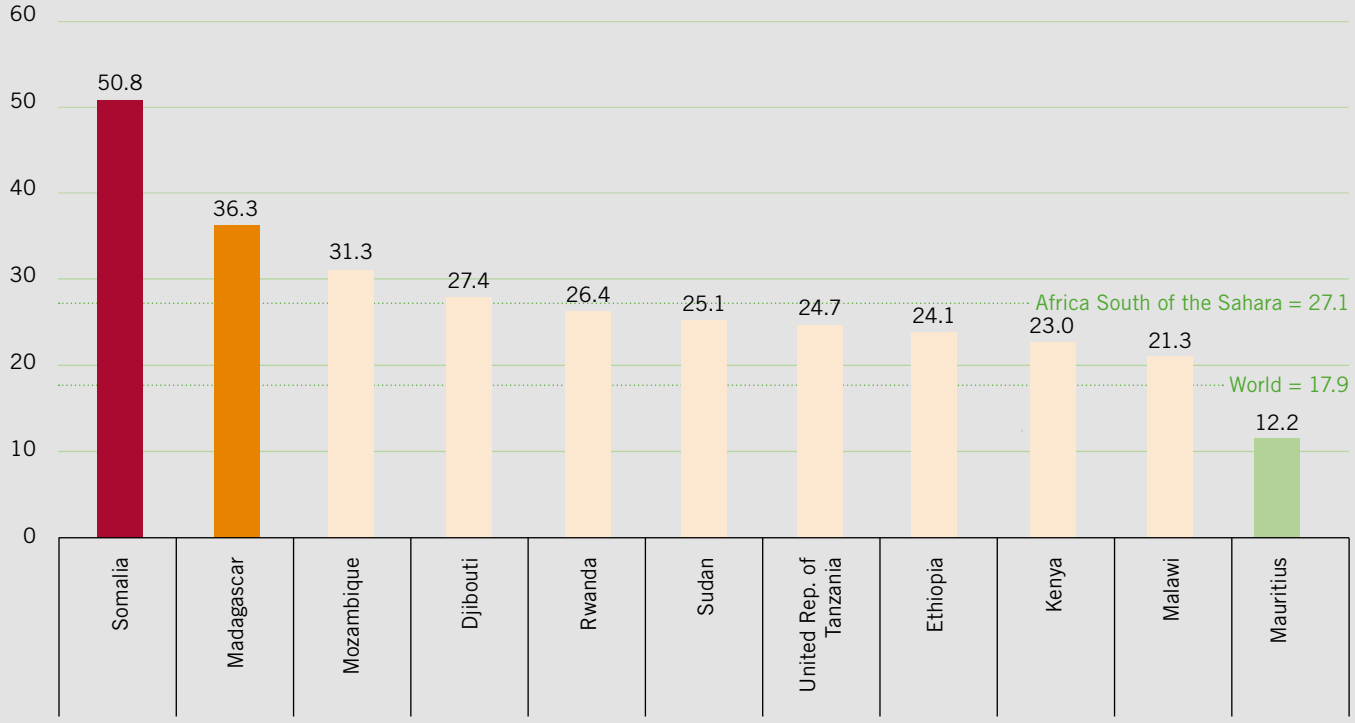
Note: Guinea, Guinea-Bissau, and Niger are in the West Africa subregion but are not shown, owing to insufficient data for the calculation of GHI scores. Existing data and provisional indicator values for these countries were included in the calculation of regional and global GHI scores. See Box 1.3 regarding provisional designations of hunger severity for countries with incomplete data.

CENTRAL AND SOUTHERN AFRICA



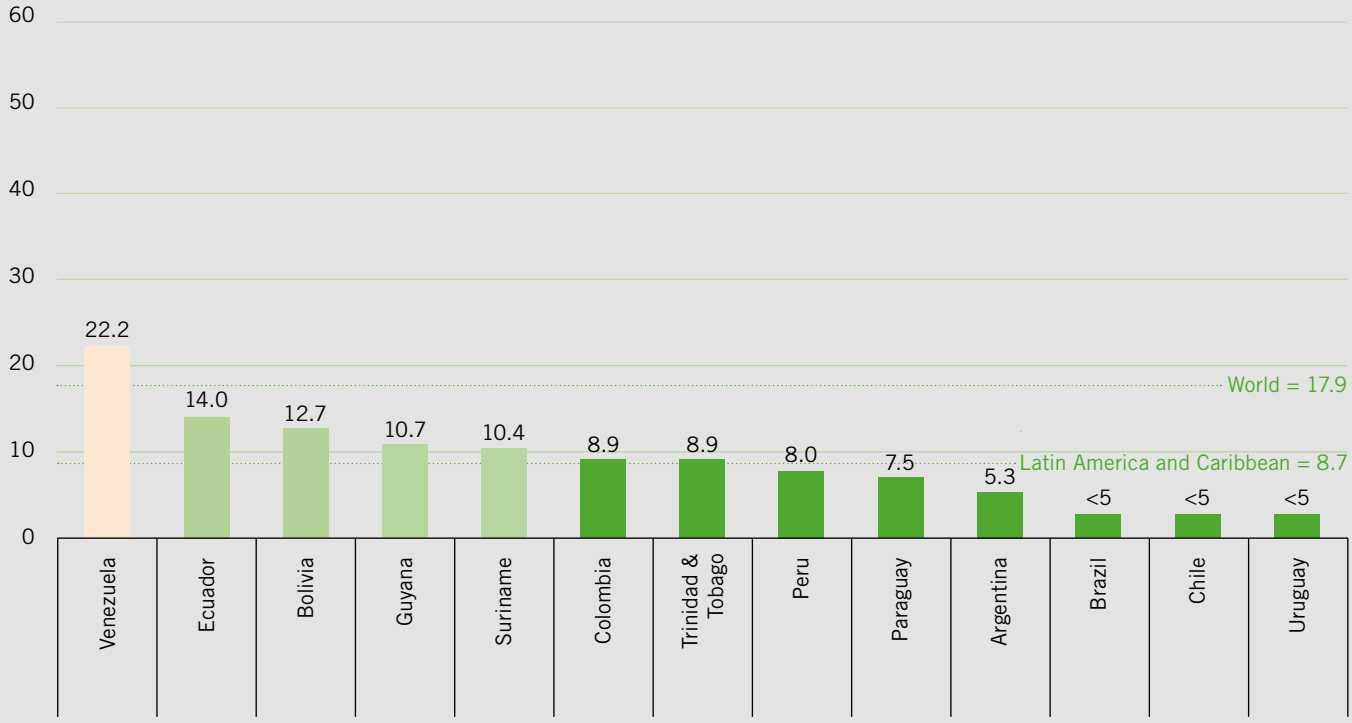
Note: Equatorial Guinea is in the Central Africa subregion but is not shown, owing to insufficient data for the calculation of GHI scores. Existing data and provisional indicator values for Equatorial Guinea were included in the calculation of regional and global GHI scores. See Box 1.3 regarding provisional designations of hunger severity for countries with incomplete data.

EAST AFRICA



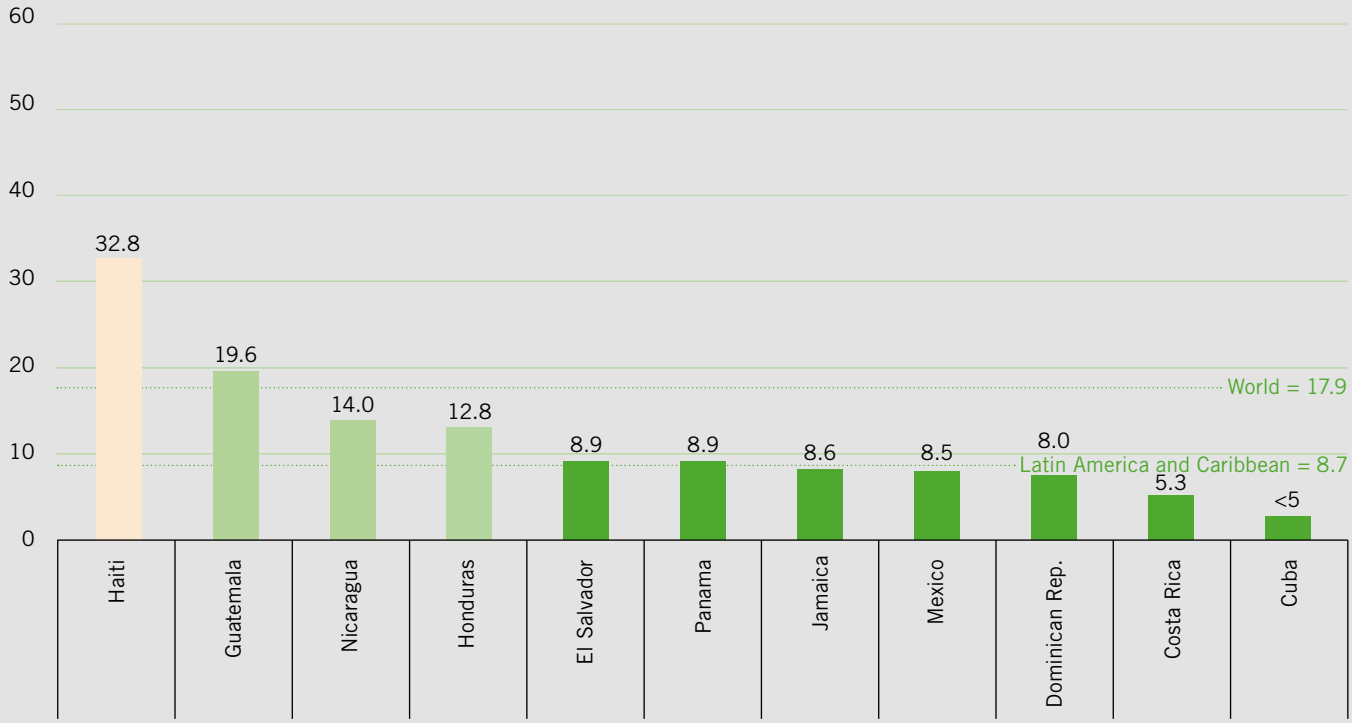
Note: Burundi, Comoros, Eritrea, South Sudan, Uganda, Zambia, and Zimbabwe are in the East Africa subregion but are not shown, owing to insufficient data for the calculation of GHI scores. Existing data and provisional indicator values for these countries were included in the calculation of regional and global GHI scores. See Box 1.3 regarding provisional designations of hunger severity for countries with incomplete data.

SOUTH AMERICA



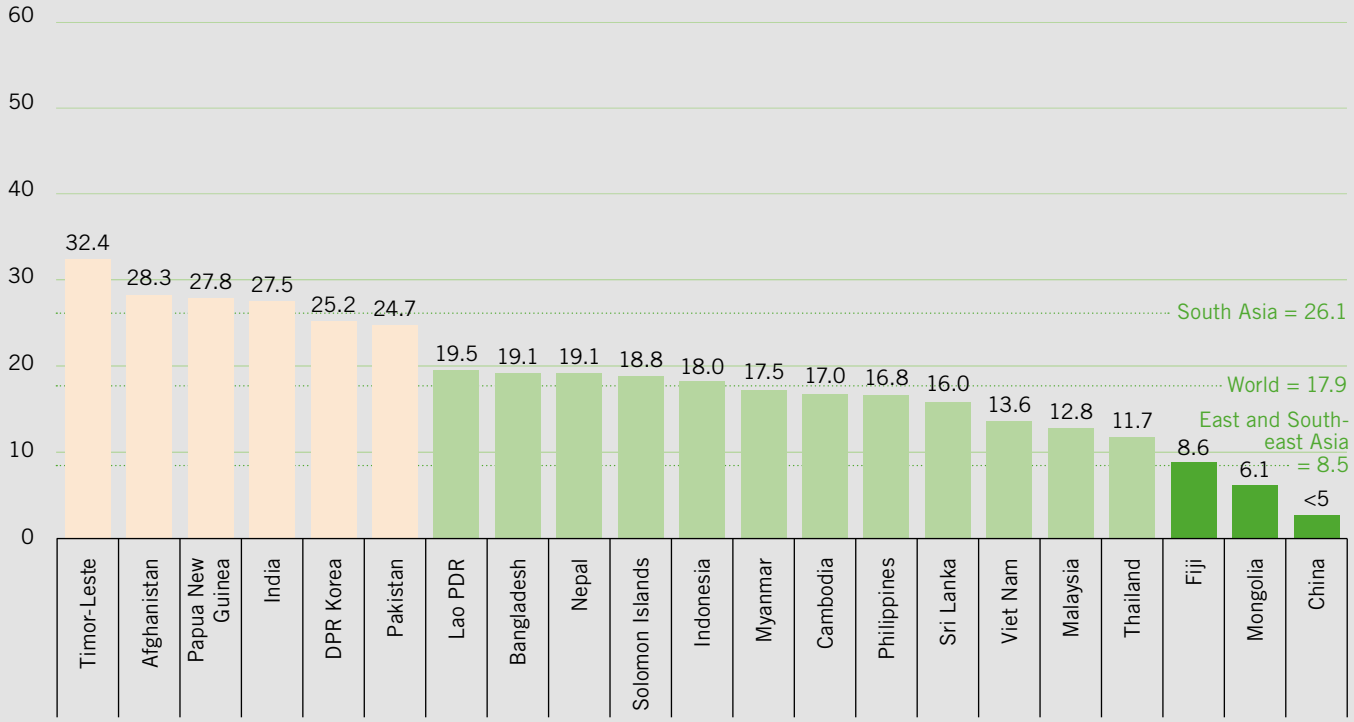
Note: Countries with GHI scores less than 5 are presented in alphabetical order.

CENTRAL AMERICA AND THE CARIBBEAN



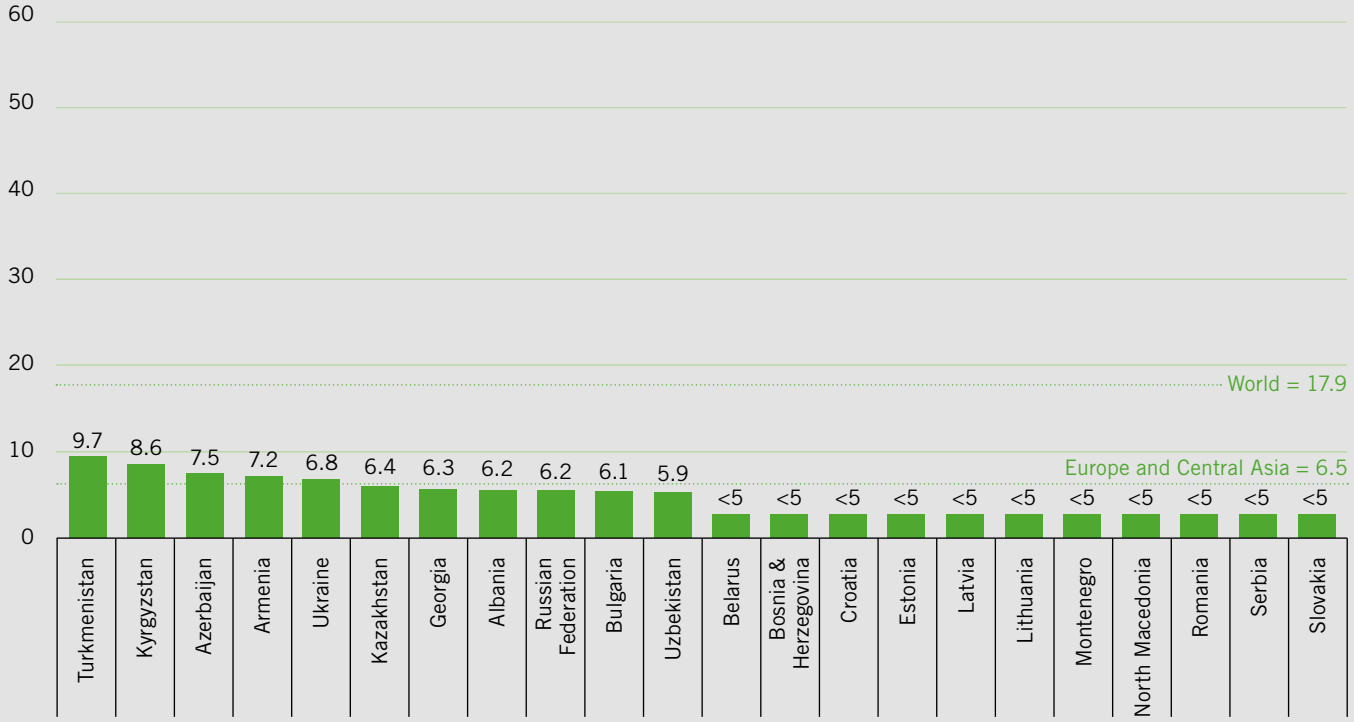
F

SOUTH, EAST, AND SOUTHEAST ASIA



Note: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka are in South Asia for the purposes of Figure 1.2, whereas the remaining countries are in East and Southeast Asia. Bhutan and Maldives are not shown, owing to insufficient data for the calculation of GHI scores. Existing data and provisional indicator values for these countries were included in the calculation of regional and global GHI scores. See Box 1.3 regarding provisional designations of hunger severity for countries with incomplete data.

EUROPE AND CENTRAL ASIA



Note: The Republic of Moldova and Tajikistan are in the Europe and Central Asia region but are not shown, owing to insufficient data for the calculation of GHI scores. Existing data and provisional indicator values for these countries were included in the calculation of regional and global GHI scores. See Box 1.3 regarding provisional designations of hunger severity for countries with incomplete data. Countries with GHI scores less than 5 are presented in alphabetical order.

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PARTNERS

Who we are

Concern Worldwide is a nongovernmental, international, humanitarian organization dedicated to the reduction of suffering and working towards the ultimate elimination of extreme poverty in the world's poorest countries.

What we do

Our mission is to help people living in extreme poverty achieve major improvements in their lives which last and spread without ongoing support from Concern. To achieve this mission, we engage in long-term development work, build resilience, respond to emergency situations, and seek to address the root causes of poverty through our development education and advocacy work. In 2020, Concern helped 36.9 million people across 23 of the world's poorest and most vulnerable countries.

Our vision

We believe in a world where no one lives in poverty, fear, or oppression; where all have access to a decent standard of living and the opportunities and choices essential to a long, healthy, and creative life; and where everyone is treated with dignity and respect.

Who we are

Welthungerhilfe is one of the largest nongovernmental development and humanitarian aid organizations in Germany. It was founded in 1962 as the German section of the Freedom from Hunger Campaign, one of the first global initiatives to fight hunger, initiated by the Food and Agriculture Organization of the United Nations (FAO).

What we do

We provide integrated aid encompassing rapid response to emergencies, reconstruction, and long-term development cooperation. In 2020, we supported 14.3 million people in 35 countries through 539 international projects.

How we work

Because our goal is to sustainably improve livelihoods in the long run, our work focuses on capacity building. We aim to strengthen structures from the bottom up and work together with local partner organizations to ensure the long-term success of our work. In addition, we raise public awareness and advocate with national and international policymakers. We thereby strive to address the root causes of hunger and poverty sustainably. In a shared mission with many other organizations, our goal is to make ourselves redundant.

Our vision

A world in which all people can exercise their right to lead a self-determined life in dignity and justice, free from hunger and poverty.

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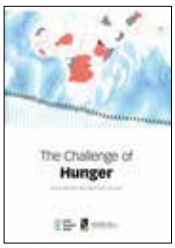
Since 2006, the Global Hunger Index has been reporting on the state of hunger globally, by region, and by country.



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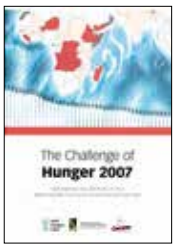

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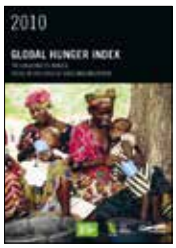

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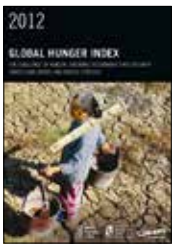

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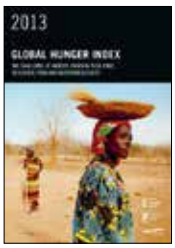

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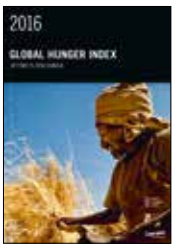

Getting to Zero Hunger

The Inequalities of Hunger

Forced Migration and Hunger

The Challenge of Hunger and Climate Change

One Decade to Zero Hunger: Linking Health and Sustainable Food Systems

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Recommended citation: von Grebmer, K., J. Bernstein, C. Delgado, D. Smith, M. Wiemers, T. Schiffer, A. Hanano, O. Towey, R. Ní Chéilleachair, C. Foley, S. Gitter, K. Ekstrom, and H. Fritschel. 2021. *2021 Global Hunger Index: Hunger and Food Systems in Conflict Settings*. Bonn: Welthungerhilfe; and Dublin: Concern Worldwide.

FSC www.fsc.org MIX Paper from responsible sources FSC® C004978

Design: muehlhausmoers corporate communications gmbh, Cologne, Germany

Printing: DFS Druck Brecher GmbH, Cologne, Germany

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Editor:
Heidi Fritschel

Ordering number: 460-9608

ISBN: 978-1-9161928-5-0

Cover photography:
Inhabitants of Idlib, Syria, with pide, a traditional round and flat bread, during the holy month of Ramadan. Anadolu Agency via AFP/Muhammed Said 2021

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Acknowledgments:
We gratefully acknowledge the Statistics Division (ESS) of the Food and Agriculture Organization of the United Nations (FAO) as well as the World Health Organization (WHO) for their invaluable support throughout the data compilation process. We thank the staff of Concern and Welthungerhilfe for their contributions. We thank Gershon Feder for conducting a peer review of this report. We appreciate Grant Price's careful review of the report. Finally, we gratefully acknowledge Doris Wiesmann for her ongoing support and guidance for the GHI.

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