2022

GLOBAL HUNGER INDEX

FOOD SYSTEMS TRANSFORMATION AND LOCAL GOVERNANCE

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Klaus von Grebmer, Jill Bernstein, Miriam Wiemers, Laura Reiner, Marilena Bachmeier, Asja Hanano, Olive Towey, Réiseal Ní Chéilleachair, Connell Foley, Seth Gitter, Grace Larocque, and Heidi Fritschel

Guest Author
Danielle Resnick, Brookings Institution and International Food Policy Research Institute

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Madachir Kadir displays an onion harvested from the kitchen garden near his community of Tahoua, Niger. People's local setting—whether village, district, or municipality—remains the main level at which food system governance and food policies affect them most directly.

FOREWORD

This year's Global Hunger Index (GHI) brings us face to face with a grim reality. The toxic cocktail of conflict, climate change, and the COVID-19 pandemic had already left millions exposed to food price shocks and vulnerable to further crises. Now the war in Ukraine—with its knock-on effects on global supplies of and prices for food, fertilizer, and fuel—is turning a crisis into a catastrophe.

The 2022 global GHI score shows that progress in tackling hunger has largely halted. Other indicators reveal the tragic scale of the unfolding crisis. *The State of Food Security and Nutrition in the World 2022* reported that in 2021 the number of undernourished people—an indicator of chronic hunger—rose to as many as 828 million. Further, according to the *Global Report on Food Crises 2022*, the number of people facing acute hunger also rose from 2020, reaching nearly 193 million in 2021. These impacts are now playing out across Africa South of the Sahara, South Asia, Central and South America, and beyond.

As we face the third global food price crisis in 15 years, it is clearer than ever that our food systems in their current form are inadequate to the task of sustainably ending poverty and hunger. The global food crisis underway now is widely presented as an aftershock caused by the war in Ukraine. The severity and speed of the impacts on hunger have occurred largely, however, because millions of people were already living on the precarious edge of hunger—a legacy of past failures to build more just, sustainable, and resilient food systems.

While it is urgent that the international community respond to these escalating humanitarian crises, it must not lose sight of the need for a long-term transformation of food systems. The shocks we have experienced reveal chronic vulnerabilities that will continue to put millions at risk of hunger. Past and current GHI reports highlight these persistent vulnerabilities and show what actions can address immediate humanitarian needs and kick-start food system transformation. Rather than operating reactively, the international community must take proactive steps to actually make good on its international commitments and pledges, scaling them up and directing them toward emergency measures. Political attention and funding must be targeted toward evidence-based policies and investments that address structural obstacles to food and nutrition security. More high-quality and timely data are also needed so that we can monitor progress in these areas.

This year's GHI report considers one important avenue for food systems transformation: community action that engages local leaders and citizens in improving governance and accountability. The essay by Danielle Resnick provides promising examples from a variety of settings where citizens are finding innovative ways to amplify their voices in food system debates—including by tracking government performance and by engaging in multistakeholder platforms—and keeping decision makers accountable for addressing food and nutrition insecurity and hunger. Encouragingly, examples of empowerment are just as visible in fragile contexts with high levels of societal fractionalization as they are in more stable settings with longer traditions of local democracy.

It is critical to act now to rebuild food security on a new and lasting basis. Failure to do so means sleepwalking into the catastrophic and systematic food crises of the future. Much more can be done to ward off the worst impacts of the current crisis and set deep changes in motion rather than reinforcing the dangerous and unsustainable arrangements we now live with. We must ensure rights-based food systems governance at all levels, building on the initial steps taken at the 2021 United Nations Food Systems Summit. Governments and development partners must harness local voices, match local governance efforts to conditions and capacities on the ground, and support local leadership through capacity building and funding. Governments need to enable citizens to participate fully in developing and monitoring public policies that affect food security while upholding a legal right to food.

Prevention pays off. Investments made today can avert future crises that may be even more costly and tragic than what we now face. It has been said that the saddest words are "If only." We may find ourselves saying, "If only past generations had used their time and resources to do what was needed to end hunger and ensure the right to food for all." May the next generation not say the same of us.

Mathias Mogge
Secretary General
Welthungerhilfe

Dominic MacSorley
Chief Executive Officer
Concern Worldwide

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SUMMARY

As the 2022 Global Hunger Index (GHI) shows, the global hunger situation is undeniably grim. The overlapping crises facing the world are exposing the weaknesses of food systems, from global to local, and highlighting the vulnerability of populations around the world to hunger.

Global Progress against Hunger Is at a Near Standstill

Global progress against hunger has largely stagnated in recent years. The 2022 GHI score for the world is considered *moderate,* but at 18.2, it shows only a slight decline from the 2014 score of 19.1. Indeed, one indicator used in the GHI, the prevalence of undernourishment, shows that the share of people who lack regular access to sufficient calories is increasing. As many as 828 million people were undernourished in 2021, representing a reversal of more than a decade of progress against hunger. Without a major shift, neither the world as a whole nor approximately 46 countries are projected to achieve even *low* hunger as measured by the GHI by 2030.

A Barrage of Crises Is Undermining the Fight against Hunger

The situation is likely to worsen in the face of the current barrage of overlapping global crises—conflict, climate change, and the economic fallout of the COVID-19 pandemic—all of which are powerful drivers of hunger. The war in Ukraine has further increased global food, fuel, and fertilizer prices and has the potential to significantly worsen hunger in 2023 and beyond. These crises come on top of underlying factors such as poverty, inequality, inadequate governance, poor infrastructure, and low agricultural productivity that contribute to chronic hunger and vulnerability. Globally and in many countries and regions, current food systems are inadequate to the task of addressing these challenges and ending hunger.

High Hunger Persists in Too Many Regions

Hunger is *serious* in both South Asia (where hunger is highest) and Africa South of the Sahara (where hunger is second highest). South Asia has the world's highest child stunting and child wasting rates. In Africa South of the Sahara, the prevalence of undernourishment and the rate of child mortality are higher than in any other world region. Parts of East Africa are experiencing one of the most severe droughts of the past 40 years, threatening the survival of millions. In West Asia and North Africa, where hunger is *moderate*, there are worrying signs of a reversal in progress against hunger. Hunger is considered *low* in Latin America and the Caribbean, East and Southeast Asia, and Europe and Central Asia.

Conflict, Climate Extremes, and COVID-19 Effects Are Worsening Hunger in Many Countries

Hunger is at *alarming* levels in 5 countries—Central African Republic, Chad, Democratic Republic of the Congo, Madagascar, and Yemen—and is provisionally considered *alarming* in 4 additional countries—Burundi, Somalia, South Sudan, and Syria. In a further 35 countries, hunger is considered *serious,* based on 2022 GHI scores and provisional designations. In a number of countries, hunger is worsening: since 2014, hunger has increased in 20 countries with *moderate, serious,* or *alarming* GHI scores across multiple regions. Even within well-performing regions and countries, hotspots of food and nutrition insecurity persist. There are, however, also signs of progress: since 2000, 32 countries have seen their GHI scores decline by 50 percent or more, including at least one country from nearly every world region.

Local Action Can Help Strengthen Food Systems

Confronted with weaknesses in the global food system, citizens in some areas are finding innovative ways to improve food system governance at the local level, holding decision makers accountable for addressing food and nutrition insecurity and hunger. Citizens are using a range of tools, including systems for tracking government budgets and expenditures, community scorecards for assessing the performance of local governments, and inclusive multistakeholder platforms that engage a range of local actors. Encouragingly, examples of empowerment are just as visible in fragile contexts with high levels of societal fractionalization as they are in more stable settings with longer traditions of local democracy.

Transforming Food Systems at All Levels Is Crucial

In the face of spiraling crises, it is crucial to scale up resources to respond to current emergencies while also transforming food systems so they are more equitable, inclusive, sustainable, and resilient—and thus are able to help avert future crises. Governments and other actors at all levels must put inclusive governance and accountability at the center of efforts to transform food systems, while respecting, protecting, and fulfilling the right to food. Stakeholders at all governance levels should harness local voices and capacities and promote strong local leadership, and governments and development partners need to raise citizens' awareness of their entitlements. Finally, efforts to strengthen governance must be tailored to conditions and capacities on the ground.

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In the village of Subo, Kenya, Mumina Mohamed has learned how to use climate-smart farming techniques to increase her yields of maize, mung beans, and cowpeas. With the increased harvest, she is able to provide her children with three meals a day and cover their school fees.

GLOBAL, REGIONAL, AND NATIONAL TRENDS IN HUNGER

Key Messages

→ **Global progress against hunger has largely stagnated in recent years, according to the 2022 GHI.** In many countries across regions the situation has worsened. Indeed, one indicator used in the GHI, the prevalence of undernourishment, shows that the share of people who lack regular access to sufficient calories is increasing, with as many as 828 million people undernourished in 2021.

→ **The situation is likely to worsen in the face of the current barrage of overlapping global crises—conflict, climate change, and the economic fallout of the COVID-19 pandemic—all of which are powerful drivers of hunger.** The war in Ukraine has further increased global food, fuel, and fertilizer prices and has the potential to contribute to food shortages in 2023 and beyond.

→ **These crises come on top of underlying factors such as poverty, inequality, inadequate governance, poor infrastructure, and low agricultural productivity that contribute to chronic hunger and vulnerability.** Globally and in many countries and regions, current food systems are inadequate to the task of addressing these challenges and ending hunger.

→ **Africa South of the Sahara and South Asia are the regions with the highest hunger levels and are most vulnerable to future shocks and crises.** Like other world regions, progress against hunger in these regions has stagnated, which is particularly troubling given their desperate need for improvement.

→ **Without a major shift, neither the world as a whole nor approximately 46 countries are projected to achieve even *low* hunger as measured by the GHI by 2030.** There are 44 countries that currently have *serious* or *alarming* hunger levels. Twenty countries with *moderate*, *serious*, or *alarming* hunger have higher 2022 GHI scores than 2014 GHI scores, the most recent historical reference year for GHI scores in this report. These countries are in diverse world regions, not just those with the highest hunger overall.

→ **Levels of hunger and undernutrition vary widely within countries.** Hotspots of food and nutrition insecurity persist even within well-performing regions and countries, where increased and targeted efforts are needed. A closer look at within-country data and at the performance of existing efforts to combat hunger can help guide programs and policies so that they benefit the specific populations most in need.

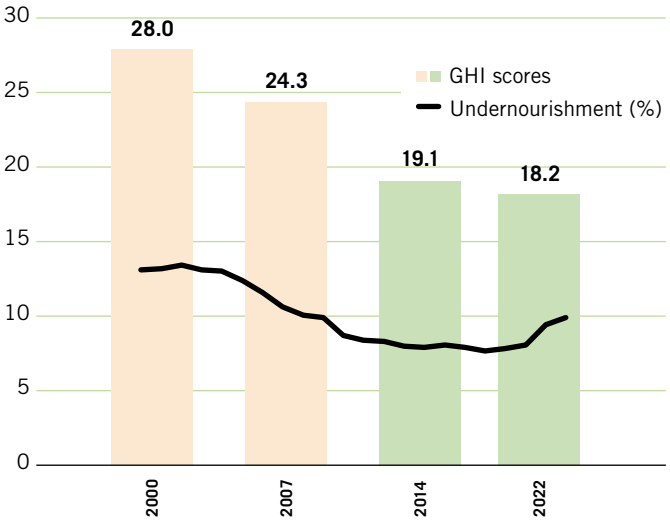
The World: Progress Is at a Near Standstill

The 2022 Global Hunger Index shows that after decades of global hunger reduction, progress has nearly come to a halt. The 2022 GHI score for the world is 18.2, considered *moderate*, down slightly from the 2014 score of 19.1. This is a considerable slowdown compared with previous periods: the 2000 world GHI score of 28.0 fell to 24.3 for the 2007 GHI score (Figure 1.1). The prevalence of undernourishment—one of the four indicators used in the calculation of GHI scores—declined between 2000 and 2017, at which point it increased, at first gradually and then sharply.[1] As many as 828 million people were undernourished in 2021, representing a reversal of more than a decade of progress in tackling hunger (FAO, IFAD et al. 2022). The other indicators used in the GHI show mixed results. Rates of child wasting (low weight-for-height) have stagnated in recent years worldwide,[2] while rates of child mortality and child stunting (low height-for-age) have continued to decline (FAO, IFAD et al. 2022; UN IGME 2021). Compared with other indicators, however, child

[1] The global prevalence of undernourishment was 13.0 percent in 2000 and 7.6 percent in 2017. There were small increases in the prevalence of undernourishment in two instances between 2000 and 2017, but neither exceeded 0.3 percentage points. Between 2017 and 2021 the global prevalence of undernourishment increased from 7.6 to 9.8 percent.

[2] These are the authors' calculations based on data sources for child wasting listed in Appendix A. A comparison of child wasting values for 2012–2016 and 2017–2021 shows virtually no change.

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; 2007 GHI scores include data from 2005–2009; 2014 GHI scores include data from 2012–2016; and 2022 GHI scores include data from 2017–2021. Data on undernourishment are from FAO (2022a). The undernourishment values are for 2000–2021 for the world as a whole, including countries both included in and excluded from the GHI. For a complete list of data sources for the calculation of GHI scores, see Appendix A. Colors correspond to the GHI Severity of Hunger Scale.

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:[3]

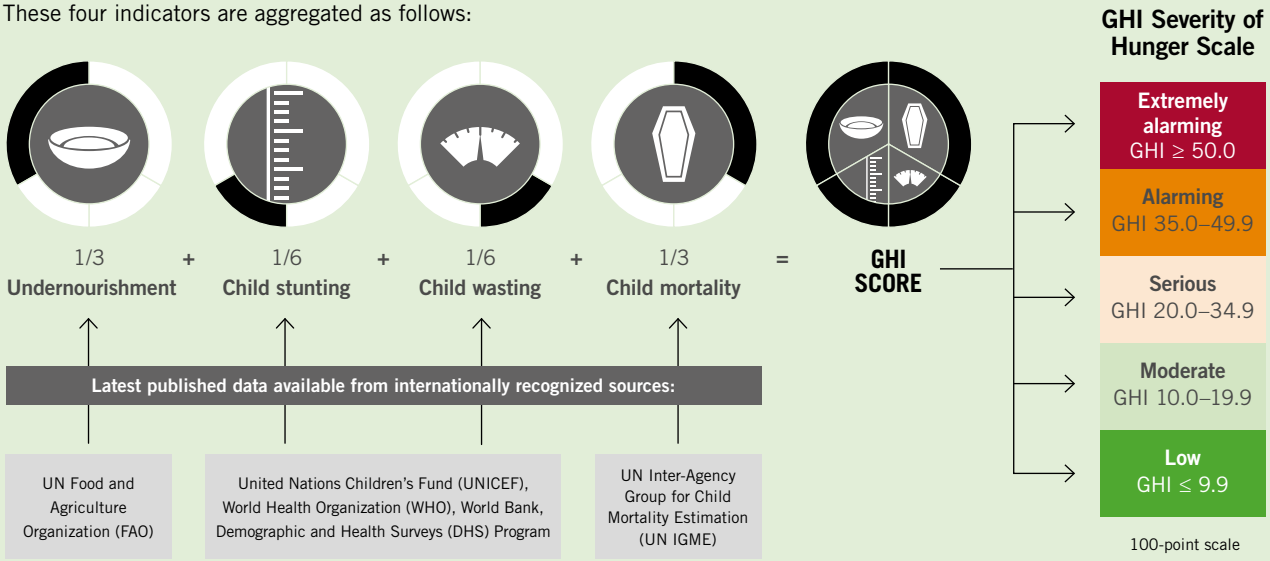
Undernourishment: the share of the population with insufficient caloric intake.

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 mortality: the share of children who die before their fifth birthday, partly reflecting the fatal mix of inadequate nutrition and unhealthy environments.

These four indicators are aggregated as follows:



Based on the values of the four indicators, a GHI score is calculated on a 100-point scale reflecting the severity of hunger, where 0 is the best possible score (no hunger) and 100 is the worst.[4] Each country's GHI score is classified by severity, from *low* to *extremely alarming*.

[3] Each of the indicators is standardized; see Appendix A for details.

[4] 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, 2007, and 2014, which can be compared with 2022 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 Appendix A.

stunting rates change slowly over time, and it may take several years for these rates to reflect the increasingly challenging global context.

The world is facing a series of overlapping chronic and acute crises that are exposing vulnerabilities in the global food system and undermining progress in ending hunger (Figure 1.2). Based on current GHI projections, the world as a whole, and at least 46 countries, will fail to achieve even *low* hunger by 2030. The three key drivers of hunger—climate change, violent conflict, and economic downturns including those caused by the COVID-19 pandemic—are each worsening. The war in Ukraine adds an additional layer of complexity, disrupting food, fertilizer, and energy markets around the world. The countries and populations already vulnerable due to entrenched poverty, inequality, and weak institutions and governance are bearing the greatest burden of these crises.

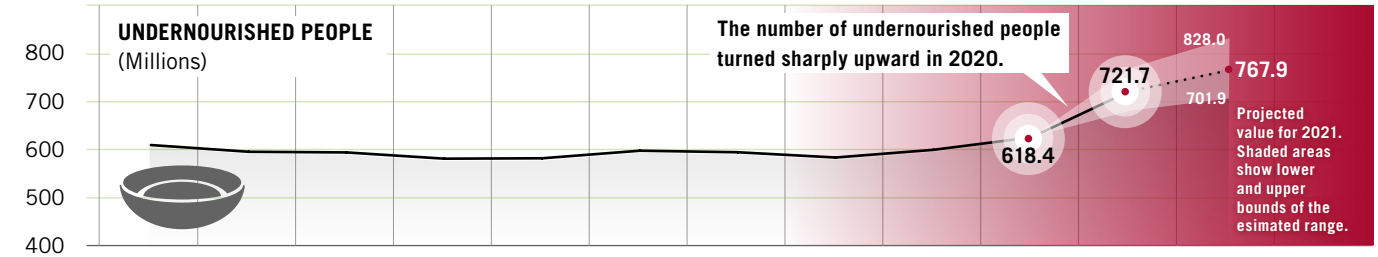
Human-induced climate change is causing more frequent and intense extreme weather events, leading to widespread adverse impacts for nature and people. Climate change is putting stress on agriculture, forestry, fisheries, and aquaculture, increasingly impeding efforts to meet human needs. As climate-related extremes push down the productivity of agriculture and fisheries, the result is rising food insecurity, water scarcity, and malnutrition. According to current projections, climate change is a key factor that will prevent the world from achieving the second Sustainable Development Goal of "Zero Hunger" by 2030 (IPCC 2022). As described in the *2019 Global Hunger Index* report on hunger and climate change, "Human actions have created a world in which it is becoming ever more difficult to adequately and sustainably feed and nourish the human population" (von Grebmer et al. 2019, 27).

Violent conflict, another driver of hunger, is also on the rise, as described in the *2021 Global Hunger Index* report (von Grebmer et al. 2021). According to the *2022 Global Report on Food Crises*, conflict/insecurity was the main driver of acute food insecurity in 2021.[5] Of 193 million people facing crisis or worse levels of acute food insecurity in 2021, conflict/insecurity was the primary driver

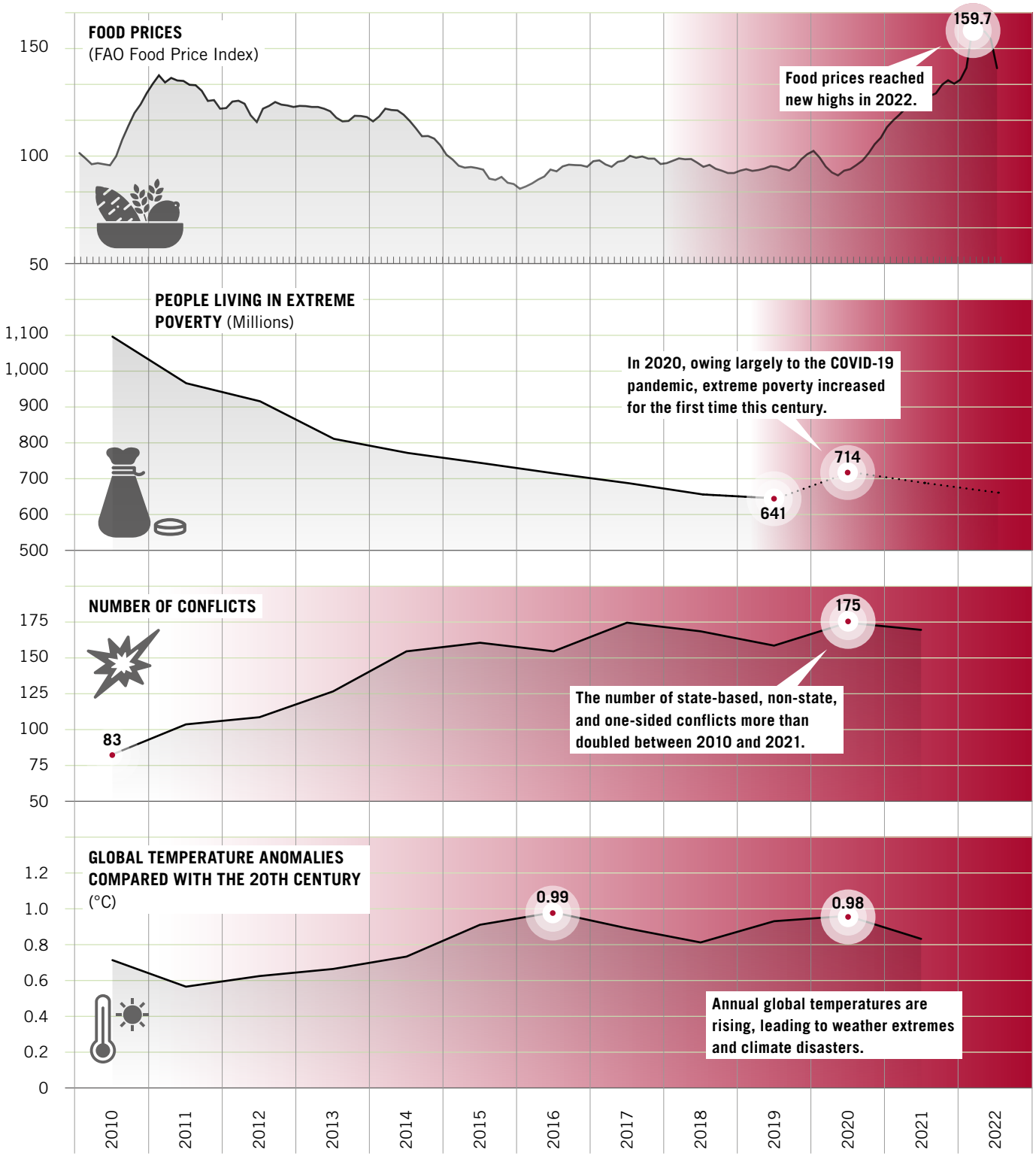
[5] See "Resources for Understanding Hunger and Malnutrition" on page 52.

FIGURE 1.2 **THE RISING RISK FROM DRIVERS OF HUNGER**

Worldwide, the number of undernourished people is climbing …



… driven by harmful trends in food prices, poverty, conflict, and climate.



Data sources: FAO (2022a,c); World Bank (2022b); Mahler et al. (2022); UCDP (2022); NOAA (2022).

for 139 million people—nearly three-quarters of the total (FSIN and GNAFC 2022). Conflict is also a major driver of chronic hunger as measured by the prevalence of undernourishment, one of the four indicators used in the GHI. The number of conflicts that occurred per year increased between 2010–2014 and 2015–2019, and conflicts are becoming increasingly complex and prolonged (FAO, IFAD et al. 2021). The 2022 war in Ukraine, with its global implications for food prices and supplies, further escalates the nexus of conflict and hunger. Box 1.2 describes the multiple ways in which the conflict in Ukraine is affecting global food prices and access and raising concerns about even more extreme impacts in the future.

The COVID-19 pandemic has worsened the economic plight of low- and middle-income countries, slowing economic growth, driving up prices for goods and services, and increasing projected global poverty rates. Since the COVID-19 pandemic hit in 2020, rising fuel prices, the disruption of global supply chains, and, in some cases, aggressive stimulus programs have contributed to a surge in global inflation. Countries across the world, low- and high-income alike, are experiencing this rise in inflation, which is the most extreme spike experienced globally for more than 20 years (Reinhart and von Luckner 2022). At the same time, the effects of the pandemic are projected to last longer in poorer countries than in higher-income economies. Growth in gross domestic product (GDP) is expected to return more slowly to pre-pandemic expectations for poorer countries, even before taking into account the war in Ukraine (IMF 2022). Extreme poverty, too, is projected to have increased in 2020 for the first time this century, and 75 million to 95 million more people are estimated to live in extreme poverty in 2022 compared with pre-pandemic predictions (Mahler et al. 2022). Nearly two-thirds of survey respondents from 18 low- and middle-income countries reported that their household food quantity had diminished, and just over half reported that their household food quality had declined since the start of the pandemic (Alliance2015 2022)—again, before the war in Ukraine began.

The economic pressures and disruptions that have emerged since 2020 have resulted in extraordinary increases in food prices worldwide, with the war in Ukraine pushing prices even higher and causing grave concern for the future (see Box 1.2). According to the Food Price Index of the United Nations Food and Agriculture Organization (FAO), in February 2022, global food prices reached the highest levels measured since the inception of the Food Price Index in 1990. Then, with the onset of the war in Ukraine in late February 2022, the Food Price Index set another record, jumping 13 percent from February to March 2022, resulting in a level 34 percent higher than that of March 2021 (FAO 2022b). High food prices disproportionately burden poor households, which spend a higher share of their income on food than wealthier households (Gill and Nagle 2022). Furthermore, rising food prices have the potential to spark further unrest and conflict (Brück and d'Errico 2019), perpetuating the cycle of conflict and hunger.

The Regions: High Hunger Persists in Too Many Regions

Progress in tackling hunger is stagnating in South Asia and Africa South of the Sahara, the world regions with the highest hunger levels as measured by the GHI, at 27.4 and 27.0, respectively (Figure 1.3). The hunger levels in both regions are considered *serious*. As in the other world regions, progress in reducing hunger has largely stagnated in South Asia and Africa South of the Sahara relative to 2014 (the most recent reference year in this year's report), when their scores were 28.0 and 28.1. South Asia and Africa South of the Sahara are dangerously off track in terms of the progress needed to achieve the second Sustainable Development Goal of "Zero Hunger" by 2030.

South Asia, the region with the world's highest hunger level, has the highest child stunting rate and by far the highest child wasting rate of any world region.[6] India's child wasting rate, at 19.3 percent, is the highest of any country in the world and drives up the region's average owing to India's large population. Patterns of wasting among young children of different ages shed light on child wasting in South Asia. The child wasting rate in South Asia is highest at birth and then consistently declines to the age of three, at which point it becomes fairly steady. In Africa South of the Sahara, however, wasting increases between birth and approximately age one, at which point it begins to decline. These patterns suggest that the factors driving South Asia's high child wasting rate are mothers' insufficient weight gain during pregnancy and low birth weight among infants (Headey and Ruel 2022). In Africa South of the Sahara, by contrast, the increase in child wasting up to age one may reflect challenges relating to the transition from exclusive breastfeeding to complementary foods and the increased risk of disease due to the consumption of contaminated foods, drinking water from unimproved sources, or poor environmental sanitation (Akombi et al. 2017). Meanwhile, India, Pakistan, and Afghanistan each have child stunting rates between 35 and 38 percent, with Afghanistan's rate being the highest in the region. In 2022, Afghanistan is experiencing drought, political and economic instability, extreme poverty, and the consequences of the global rise in food and fuel prices made worse by the war in Ukraine, which together may result in higher stunting rates

[6] These comparisons are based on regional indicator values calculated by the authors. FAO, IFAD et al. (2022) indicate that Africa South of the Sahara has a higher child stunting rate than South Asia. The primary difference is that the authors use child stunting and wasting survey data and GHI estimates, whereas FAO, IFAD et al. use modeled child stunting and wasting data.

in years to come. As of May 2022, UNICEF estimates that 1.1 million Afghan children will need treatment for acute malnutrition in 2022 alone (UNICEF 2022b).

Africa South of the Sahara is the world region with the second-highest GHI score, slightly below that of South Asia.[7] The prevalence of undernourishment and rate of child mortality are higher in Africa South of the Sahara than in any other world region. Conflict is a key contributor to food insecurity for many of the region's countries, including Burkina Faso, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Ethiopia, Mali, Niger, Nigeria, Rwanda, Somalia, South Sudan, and Uganda (FAO, ECA, and AUC 2021; FAO, IFAD et al. 2021; FSIN and GNAFC 2022).[8] The region is also exceptionally vulnerable to climate variability and change given its high poverty rate and reliance on natural resource-dependent activities such as farming, fishing, and livestock herding. Heavy rains triggering flooding, increased drought frequency, and desertification all have the potential to further decrease food production and increase food insecurity in this region in the future (WMO 2021).

In East Africa, Ethiopia, Kenya, and Somalia are experiencing one of the most severe droughts of the past 40 years, threatening the survival of millions. Climate change and the atmospheric phenomenon La Niña have contributed to severe rainfall shortages over the past four consecutive rainy seasons since late 2020, and drought conditions are predicted to continue in the late 2022 season. This extended drought has been devastating to herds, crops, water availability, and household incomes in the region, pushing the number of people facing acute food insecurity in these three countries to 18.4 million as of June 2022 (UN OCHA 2022). The effects of the drought are compounded by conflict in the region, the ongoing fallout of the COVID-19 pandemic, price spikes made even more severe by the war in Ukraine, and an infestation of desert locusts devastating local crops (Joint Research Centre 2022).

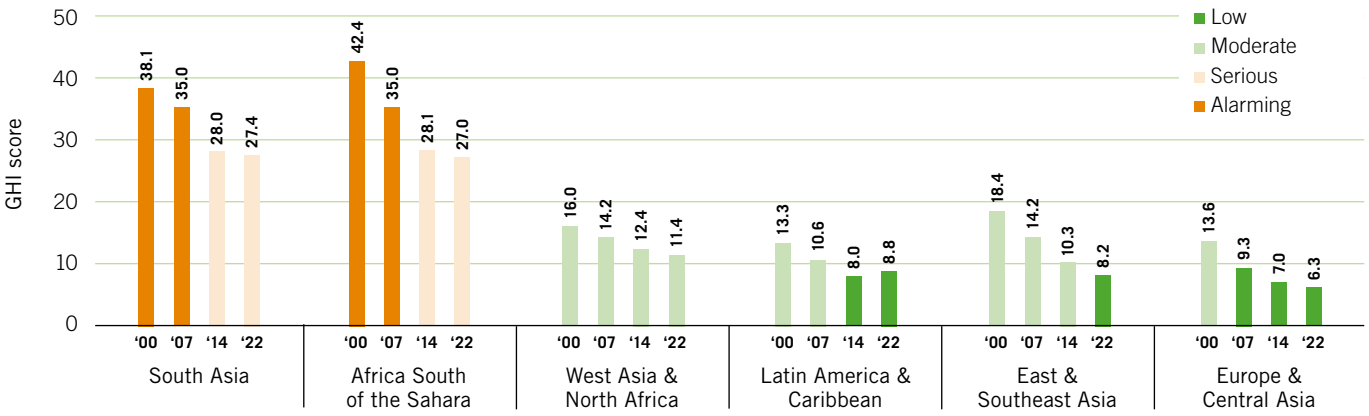
There are troubling trends in West Asia and North Africa, the world region with the next-highest hunger level after South Asia and Africa South of the Sahara, according to its GHI score. With a 2022 score of 11.4, West Asia and North Africa has a level of hunger considered *moderate*. Yemen, the country with the highest GHI score in this year's report, lies in the region. Worryingly, the prevalence of undernourishment in West Asia and North Africa has seen an upward trend in recent years, rising from 6.1 percent in 2010 to 8.6 percent in 2021, its highest rate since 2001. Jordan's prevalence of undernourishment increased from 6.0 percent in 2013–15 to 16.9 percent in 2019–2021, and undernourishment rates have also increased in Lebanon, Oman, and Yemen in this period (FAO 2022a). The 2022 GHI scores for each of these countries are higher than their 2014 GHI scores.

Latin America and the Caribbean is the one world region with an increase between its 2014 and 2022 GHI scores. Though its hunger level is still considered *low*, the increase in GHI scores from 8.0 to 8.8 is a troubling trend. Underpinning this increase is the rise in the region's prevalence of undernourishment, from 5.3 percent in 2014

[7] The countries included in each of the regions referred to here and throughout the report are shown in Appendix D.

[8] This includes food insecurity due to conflicts occurring within the countries themselves and food insecurity experienced by refugees who have fled violence in neighboring countries.

FIGURE 1.3 **REGIONAL 2000, 2007, 2014, AND 2022 GLOBAL HUNGER INDEX SCORES**



Source: Authors.

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

to 8.6 percent in 2021 (FAO 2022a). The dramatically worsening situation in Venezuela is a major contributor to this upward swing. The country's 2014 GHI score was 8.1, considered *low*, whereas its 2022 GHI score of 19.9 is considered *moderate* verging on *serious*. Other countries in the region have seen a stagnation or worsening of their GHI scores since 2014, including Ecuador, Haiti, and Suriname.

At 8.2, East and Southeast Asia's 2022 GHI score is *low* and has decreased relative to its 2014 score, 10.3, which was in the *moderate* category. While its prevalence of undernourishment, child wasting rate, and child mortality rate are each considered low or very low, the region's child stunting rate of 13.4 percent (FAO, IFAD et al. 2022) is considered to be at a medium level. Several countries in Southeast Asia in particular have child stunting rates that are very high, including Indonesia (30.8 percent), Lao PDR (33.1 percent), and Timor-Leste (46.7 percent). Also, several countries in the region have medium or high wasting rates, including Cambodia (9.5 percent), Indonesia (10.2 percent), and Malaysia (9.7 percent). These values underscore the need to maintain and increase efforts to address child undernutrition in the region despite its *low* overall hunger level.

Europe and Central Asia has the lowest 2022 GHI score of any region in the report, considered *low* at 6.3. The region's 2000 GHI score was 13.6, considered *moderate*. Each of the countries in the region has a *low* 2022 GHI score, with the exception of Tajikistan, which has a score of 13.9, considered *moderate*. As recently as 2000, the region had one country with *alarming* hunger (Tajikistan), four countries with *serious* hunger levels (Albania, Azerbaijan, Turkmenistan, and Uzbekistan), and seven countries in the *moderate* category. Many countries in the region experienced a period of low agricultural production and relatively high food insecurity during the transition from socialist planned economies to market economies between 1990 and 2000. Since this transition, most countries have regained their production levels for most commodities and exceeded them in some cases (Burkitbayeva, Liefert, and Swinnen 2021). The high volumes of grain and other agricultural commodities produced in Ukraine and the Russian Federation highlight the significant risk that the war in Ukraine poses for global food security and trade.

The Countries: Conflict Is Driving Hunger Directly and Indirectly

According to the 2022 GHI scores and provisional designations, 9 countries have *alarming* levels of hunger and 35 have *serious* levels of hunger. There are 5 countries with 2022 GHI scores in the *alarming* range—Central African Republic, Chad, Democratic Republic of the Congo, Madagascar, and Yemen—and an additional 4 countries provisionally designated as *alarming*—Burundi, Somalia, South Sudan, and Syria—despite there being insufficient data for the calculation of GHI scores.

Once data for 2022 become available, and if data were available for all countries, it is highly possible that one or more countries would move into the *extremely alarming* category. Parts of Somalia in particular are facing a serious risk of famine in 2022 owing to an exceptionally severe and prolonged drought, sharp increases in staple food prices due to the war in Ukraine, and rising conflict and insecurity. There are reports of an alarming increase in acute malnutrition in children and child deaths related to hunger in southern Somalia (FEWS NET 2022b). Humanitarian assistance to alleviate the crisis has been insufficient to date. As of May 2022, 1.5 million children under the age of five—45 percent of the country's children—were projected to face acute malnutrition through the end of the year, including 386,400 who were expected to be severely malnourished. As of June 2022, at least 2.1 million Somalis were expected to face a food emergency (IPC Phase 4), and an additional 213,000 appeared likely to experience famine (IPC Phase 5) between June and September 2022 (IPC 2022).

Yemen, with a 2022 GHI score of 45.1, considered *alarming*, has the highest score of any country in this year's report (Table 1.1 and Figure 1.4). Like so many countries in this report, Yemen is suffering from conflict within its own borders as well as from the effects of conflict elsewhere. Since 2014, when Yemen became embroiled in a civil war (Robinson 2022), poverty has increased dramatically and the country's economy has been crippled (World Bank 2022a). Yemen is highly dependent on food imports, including wheat from Russia and Ukraine. Even before the February 2022 onset of the war in Ukraine, food prices in Yemen were rising owing to depreciation of the country's currency and rising fuel costs. When the conflict in Ukraine began, food prices rose even higher, compounding food insecurity in Yemen and pushing prices of basic goods further out of reach (FEWS NET 2022a).

Central African Republic has the second-highest 2022 GHI score in this year's report, at 44.0, considered *alarming*. A staggering 52.2 percent of the population was undernourished in 2019–2021, the highest rate of any country in this year's report. Additionally, 40.0 percent of the country's children are stunted, 5.3 percent are wasted, and 10.3 percent of children do not live to their fifth birthday. According to the most recent edition of the Human Development Index (HDI), Central African Republic has the second-worst HDI score of any country with data in the world, after only Niger (UNDP 2020). The country has experienced decades of violence and instability, and

TABLE 1.1 GLOBAL HUNGER INDEX SCORES BY 2022 GHI RANK

Rank[1]	Country	2000	2007	2014	2022
2022 GHI scores less than 5, collectively ranked 1–17[2]	Belarus	<5	<5	<5	<5
	Bosnia & Herzegovina	9.3	6.6	<5	<5
	Chile	<5	<5	<5	<5
	China	13.3	7.8	<5	<5
	Croatia	<5	<5	<5	<5
	Estonia	<5	<5	<5	<5
	Hungary	5.5	<5	<5	<5
	Kuwait	<5	<5	<5	<5
	Latvia	5.6	<5	<5	<5
	Lithuania	5.4	<5	<5	<5
	Montenegro	—	5.4	<5	<5
	North Macedonia	7.5	7.2	<5	<5
	Romania	7.9	5.8	5.1	<5
	Serbia	—	6.1	5.8	<5
	Slovakia	7.0	5.9	5.7	<5
	Türkiye	10.1	5.8	<5	<5
	Uruguay	7.4	6.5	<5	<5
18	Costa Rica	7.0	<5	<5	5.3
18	United Arab Emirates	6.2	6.5	5.9	5.3
20	Brazil	11.4	7.1	5.0	5.4
21	Uzbekistan	24.2	15.4	8.3	5.6
22	Georgia	12.3	7.8	6.1	5.7
22	Mongolia	30.0	21.8	9.2	5.7
24	Bulgaria	8.6	7.9	7.4	5.9
24	Kazakhstan	11.2	11.6	5.8	5.9
26	Tunisia	10.3	7.6	6.7	6.1
27	Albania	20.7	15.8	9.2	6.2
28	Russian Federation	10.1	7.1	6.7	6.4
29	Iran (Islamic Republic of)	13.7	8.8	7.4	6.5
30	Saudi Arabia	11.0	12.2	7.4	6.7
31	Argentina	6.6	5.5	5.0	6.8
32	Algeria	14.5	11.4	8.7	6.9
32	Armenia	19.3	12.1	7.3	6.9
32	Moldova	18.7	20.3	6.8	6.9
35	Jamaica	8.6	8.1	8.8	7.0
36	Azerbaijan	24.9	15.3	9.3	7.5
36	Ukraine	13.0	7.2	7.2	7.5
38	Colombia	10.9	11.2	8.6	7.6
38	Peru	20.6	15.0	7.6	7.6
40	Kyrgyzstan	18.0	13.6	9.4	7.8
41	Paraguay	11.6	11.4	8.1	8.0
42	Mexico	10.2	8.5	7.0	8.1
42	Panama	18.6	14.0	9.4	8.1
44	El Salvador	14.7	12.1	10.4	8.4
45	Dominican Republic	15.0	13.9	9.8	8.8
46	Trinidad & Tobago	11.0	10.7	8.8	9.0
47	Fiji	9.5	8.5	9.3	9.2
47	Morocco	15.8	12.4	9.6	9.2
49	Turkmenistan	20.4	14.6	10.6	9.5
50	Suriname	15.1	11.3	10.0	10.2
51	Guyana	17.1	15.8	12.4	10.4
52	Lebanon	11.6	11.2	8.7	10.5
53	Jordan	10.8	7.5	7.4	10.6
54	Cabo Verde	15.3	11.9	12.1	11.8
55	Viet Nam	26.3	21.4	15.4	11.9
56	Thailand	18.6	12.1	11.9	12.0
57	Egypt	16.3	17.2	14.6	12.3
58	Malaysia	15.4	13.8	10.9	12.5
59	South Africa	18.1	17.2	12.7	12.9
60	Oman	14.7	11.5	11.5	13.0
61	Bolivia (Plurinational State of)	27.7	22.0	14.7	13.2
62	Honduras	21.8	19.2	14.1	13.4
62	Mauritius	15.3	14.1	13.0	13.4
64	Nicaragua	22.4	17.9	15.5	13.6
64	Sri Lanka	21.7	18.9	17.3	13.6
66	Iraq	23.8	20.8	16.6	13.7
67	Ghana	28.5	22.1	15.5	13.9
67	Tajikistan	40.3	32.9	20.6	13.9
69	Philippines	25.0	19.5	18.8	14.8
70	Ecuador	19.7	18.6	11.7	15.2
71	Myanmar	39.9	29.4	17.9	15.6
71	Senegal	34.2	22.8	17.6	15.6
73	Eswatini	24.7	22.9	18.4	16.3
74	Côte d'Ivoire	33.4	35.8	22.7	16.8
75	Cambodia	41.1	26.1	20.1	17.1
76	Gabon	20.9	20.3	16.5	17.2
77	Indonesia	26.1	29.1	22.2	17.9
78	Namibia	25.4	26.8	22.9	18.7
79	Guatemala	28.4	24.1	21.7	18.8
80	Cameroon	35.8	29.9	21.4	18.9
81	Nepal	37.0	30.0	21.2	19.1
82	Lao PDR	44.2	31.4	22.5	19.2
83	Solomon Islands	20.1	18.1	22.3	19.4
84	Bangladesh	33.9	31.3	26.3	19.6
85	Venezuela (Bolivarian Republic of)	14.6	10.1	8.1	19.9
86	Botswana	27.7	25.8	20.5	20.0
87	Gambia	29.0	26.5	22.2	20.7
87	Malawi	43.3	32.5	24.1	20.7
87	Mauritania	31.8	28.3	26.3	20.7
90	Djibouti	44.3	35.8	27.4	21.5
91	Benin	33.8	26.9	23.2	21.7
92	Togo	39.3	30.2	26.1	22.8
93	Mali	41.7	35.7	26.1	23.2
94	Kenya	36.6	31.1	21.6	23.5
95	Tanzania (United Republic of)	40.8	30.9	25.5	23.6
96	Burkina Faso	44.9	34.5	26.5	24.5
97	Korea (DPR)	39.5	29.6	27.5	24.9
98	Angola	64.9	44.7	26.2	25.9
99	Pakistan	36.8	32.1	29.6	26.1
100	Papua New Guinea	33.6	29.9	29.0	26.5
101	Comoros	39.5	31.7	29.1	26.9
102	Rwanda	49.9	35.9	29.5	27.2
103	Nigeria	40.4	32.1	28.4	27.3
104	Ethiopia	53.6	42.6	27.4	27.6
105	Congo (Republic of)	34.7	33.7	25.3	28.1
106	Sudan	—	—	29.3	28.8
107	India	38.8	36.3	28.2	29.1
108	Zambia	53.3	46.0	35.2	29.3
109	Afghanistan	50.3	38.7	30.6	29.9
110	Timor-Leste	—	45.5	33.3	30.6
111	Guinea-Bissau	37.7	31.0	30.2	30.8
112	Sierra Leone	57.5	51.1	33.1	31.5
113	Lesotho	32.7	29.1	29.3	32.4
113	Liberia	48.2	39.0	34.8	32.4
115	Niger	52.5	40.2	32.8	32.6
116	Haiti	40.9	41.7	32.6	32.7
*	Guinea, Mozambique, Uganda, and Zimbabwe	—	—	—	20–34.9*
117	Chad	50.7	49.0	40.7	37.2
118	Dem. Rep. of the Congo	48.0	43.2	38.7	37.8
119	Madagascar	42.5	37.2	37.3	38.7
120	Central African Rep.	48.8	46.8	44.6	44.0
121	Yemen	41.3	38.4	41.7	45.1
*	Burundi, Somalia, South Sudan, and Syrian Arab Rep.	—	—	—	35–49.9*

= low = moderate = serious = alarming = extremely alarming

— = 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).

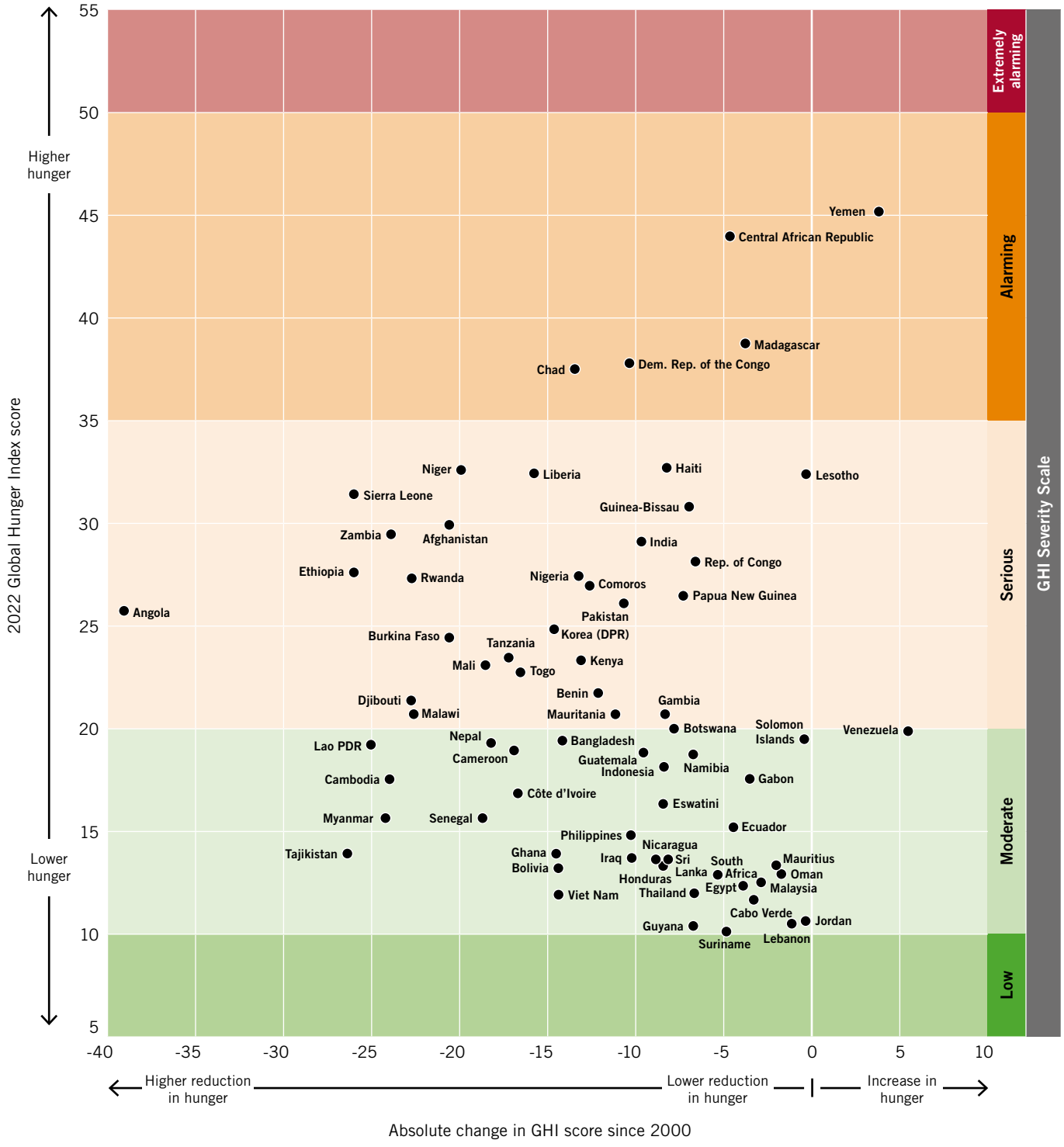
For the 2022 GHI report, data were assessed for 136 countries. Out of these, there were sufficient data to calculate 2022 GHI scores for and rank 121 countries (by way of comparison, 116 countries were ranked in the 2021 report).

* For 15 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: 4 as *serious* and 4 as *alarming*. For 7 countries, provisional designations could not be established (see Table A.3 in Appendix A).

[1] Ranked according to 2022 GHI scores. Countries that have identical 2022 scores are given the same ranking (for example, Costa Rica and United Arab Emirates are both ranked 18th).

[2] The 17 countries with 2022 GHI scores of less than 5 are not assigned individual ranks, but rather are collectively ranked 1–17. Differences between their scores are minimal.

FIGURE 1.4 **2022 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 2022 GHI scores and where 2022 GHI scores show *moderate*, *serious*, *alarming*, or *extremely alarming* hunger levels. Some likely poor performers may not appear due to missing data.

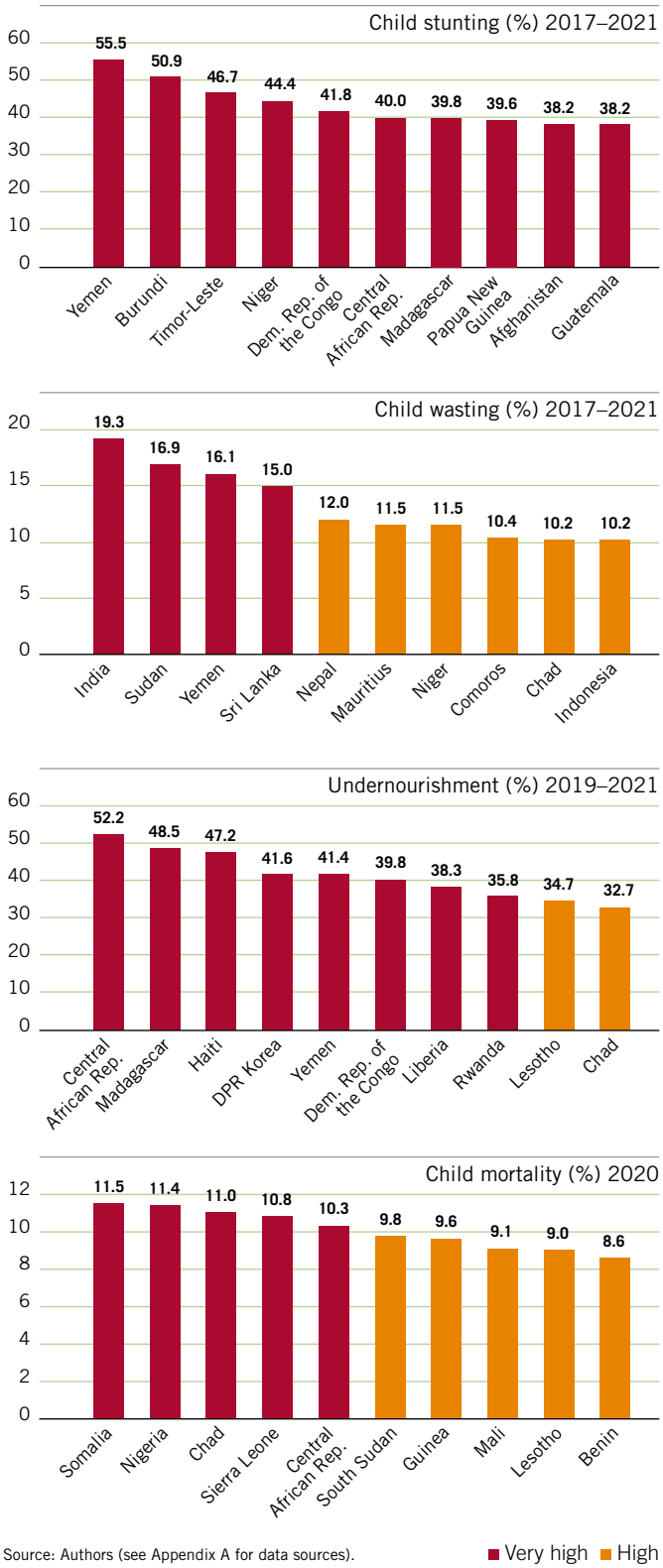
a 2019 peace agreement was never fully implemented, resulting in chronic cycles of violence and displacement. A contentious election cycle in late 2020 and early 2021 fueled further violence, accelerated population displacement, and sparked a particularly severe food security crisis in the country in 2021 (Murray and Sullivan 2021; UNICEF and WFP 2021).

Madagascar, with an *alarming* 2022 GHI score of 38.7, has the third-highest score in the 2022 GHI. Nearly half of the population, 48.5 percent, was undernourished in 2019–2021, the second-highest rate in this year's report, after only Central African Republic. Meanwhile, 39.8 percent of children were stunted and 7.7 percent of children were wasted as of 2021, and the child mortality rate was 5.0 percent. The arid southern regions of Madagascar are especially vulnerable to food and nutrition insecurity. Drought is a regular occurrence in the area, including a recent drought that began in 2019, with aftereffects expected to last until the end of 2022. People in the south of the country have been facing a hunger and undernutrition crisis since 2020, caused not only by drought but also by disease outbreaks and the economic impact of COVID-19 containment measures, as well as chronic issues such as poverty, poor infrastructure, a lack of water for irrigation or drinking, and criminal activity (ACAPS 2022). Cyclones Emnati and Batsirai devastated extensive tracts of southeast Madagascar, causing loss of lives, assets, and livelihoods and exacerbating food insecurity in southern Madagascar.

Since 2014, hunger has increased in 20 countries with *moderate*, *serious*, or *alarming* 2022 GHI scores across multiple regions (Appendix C). The 2022 GHI scores of these countries vary widely, from 10.2 (Suriname) to 45.1 (Yemen), showing that worsening hunger can afflict countries with a range of hunger severity. Venezuela had the largest increase in this period, with hunger rising from *low* (2014 GHI score of 8.1) to *moderate* verging on *serious* (2022 GHI score of 19.9). Over the longer term, only two countries—Venezuela and Yemen—with *moderate*, *serious*, or *alarming* 2022 GHI scores have a higher 2022 GHI score than their 2000 GHI score (Figure 1.4).

Several countries have exceptionally high values for one or more of the indicators used in the calculation of GHI scores, even if their overall scores do not put them in the highest categories of hunger (Figure 1.5). For example, Timor-Leste has the third-highest child stunting rate of any country in the world with data, at 46.7 percent, despite a GHI score in the *serious* category. India, with a GHI score considered *serious*, has the world's highest child wasting rate, at 19.3 percent; rates are also very high in Sudan, Yemen, and Sri Lanka. At 47.2 and 41.6 percent, respectively, Haiti and the Democratic People's Republic of Korea each

FIGURE 1.5 **WHERE THE INDICATORS OF HUNGER ARE HIGHEST**



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

have very high undernourishment rates—the third- and fourth-highest rates of any countries with data. Nigeria, with a *serious* hunger level, has the second-highest child mortality rate, at 11.4 percent, just after that of Somalia, at 11.5 percent. Awareness of which countries struggle the most according to each indicator is urgently required to ensure these problems do not go unheeded.

There are also signs of progress, with many countries achieving impressive reductions in hunger. Since 2000, 32 countries have seen their GHI scores decline by 50 percent or more, including at least one country from nearly every world region.[9] For example, in Africa South of the Sahara, Angola, Djibouti, Ghana, Malawi, and Senegal have each reduced their GHI scores by 50 to 60 percent since 2000. In West Asia and North Africa, Algeria, Iran, and Türkiye have reduced their scores by 50 percent or more since 2000, each moving from the *moderate* to the *low* category. Thirteen of the 32 countries in this category are in Europe and Central Asia. Five countries in Latin America and the Caribbean—Bolivia, Brazil, Panama, Peru, and Uruguay—have had reductions of 50 percent or more, with all of these except Bolivia reaching the *low* category according to 2022 GHI scores. Mongolia has experienced the most dramatic improvement in East and Southeast Asia: its 2022 GHI score of 5.7, reflecting *low* hunger, is more than 80 percent lower than its 2000 score of 30.0, considered *serious*. Given that many countries have experienced an increase in hunger in recent years, it is remarkable that all but 3 of these 32 countries also experienced declines relative to their 2014 GHI scores, and those that did experience increases saw their GHI scores rise by less than one point.

Within Country Borders: Hotspots of Hunger

Many countries, even those with favorable GHI scores, have wide disparities in nutritional status, with areas of serious child undernutrition. A recent project mapped and analyzed child stunting, wasting, and underweight data down to the local district or county level between 2000 and 2017 in 105 low- and middle-income countries. Stunting disparities between districts or counties were particularly pronounced in Honduras, India, Nigeria, and Viet Nam. The areas with the least improvement over time—where stunting levels either increased or stagnated—were in central Chad, central Pakistan, central Afghanistan, and northeastern Angola, as well as throughout the Democratic Republic of the Congo and Madagascar. In terms of child wasting, disparities were particularly evident in Ethiopia, Indonesia, Kenya, and Nigeria. The study authors concluded that there were "hotspots of persistent CGF [child growth failure] even within well-performing regions and countries, where increased and targeted efforts are needed" (Local Burden of Disease Child Growth Failure Collaborators 2020, 234).

Inequality in nutrition within country borders is perhaps unsurprising given the high degree of inequality in the coverage of health interventions. In Africa South of the Sahara, research reveals that coverage of reproductive, maternal, newborn, and child health interventions is distributed unequally in nearly all countries, and this inequality has decreased only slightly in recent years. Fragile and conflict-affected states tend to have higher levels of inequality in terms of health intervention coverage, whereas good governance, political stability, and absence of violence are associated with more equitable health intervention coverage (Faye et al. 2020).[10]

Despite the high level of attention given to nutrition indicators at the national level, many public health and nutrition programs are administered at a state or local level. This reality drives the need for better data at the subnational level, as well as for a clearer understanding of what improves food security and nutrition at state or local levels (Local Burden of Disease Child Growth Failure Collaborators 2020). Community feedback on and oversight of locally managed health and nutrition programs can help improve the design and implementation of such programs, as discussed in chapter 2 of this report.

Ethiopia serves as an example of a country where child stunting rates vary considerably between regions, with the northern regions experiencing higher levels of stunting than those in the south (Figure 1.6). The regions of Afar, Amhara, Benishangul-Gumuz, and Tigray have the highest stunting rates in Ethiopia, ranging from 40.7 to 48.4 percent (EPHI and ICF 2021). Extreme conditions, including cyclical drought, high levels of deforestation, and conflicts, all negatively affect agricultural production, food security, and child nutrition (Ahmed et al. 2021).

In Nepal, stunting rates range from 22.6 and 22.9 percent, respectively, in Gandaki and Bagmati provinces in the central region of the country to more than double that, at 47.8 percent, in Karnali province in the west of the country (CBS 2020) (Figure 1.6). Karnali, along with Sudurpashchim, Lumbini, and Madhesh provinces, where one-third or more of children are stunted, are the provinces with the highest Multidimensional Poverty Index values (NPC 2021). Other explanations for the high levels of child undernutrition in these provinces include difficult geographical terrain, poor infrastructure and transportation

[9] No country in South Asia has reduced its score by 50 percent or more since 2000, but Nepal came very close, with a reduction of 48.4 percent.

[10] The reproductive, maternal, newborn, and child health interventions included in the study are not nutrition-specific interventions, yet these types of interventions, and access to health care more generally, often serve as entry points to nutrition-specific interventions (Baye, Laillou, and Chitweke 2020).

facilities, food insecurity, low overall socioeconomic development, and lack of access to healthcare services (Bhusal and Sapkota 2022).

The example of India shows the importance of considering the subnational context when designing programs and policies to target child stunting. Researchers investigated the factors that contributed to a decline in stunting in four Indian states between 2006 and 2016: Chhattisgarh, Gujarat, Odisha, and Tamil Nadu. They found that stunting fell mainly in response to improvements in the coverage of health and nutrition interventions, household conditions (such as socioeconomic status and food security), and maternal factors (such as mothers' health and education). While improvements in household conditions were the most important factor for each of the four states, the second most important factor varies by state. As the authors conclude, this variability across states "indicates the need for contextualized policy and programmatic initiatives to help focus the efforts in the sectors that need the most attention for continued decline in stunting" (Avula et al. 2022, 10).

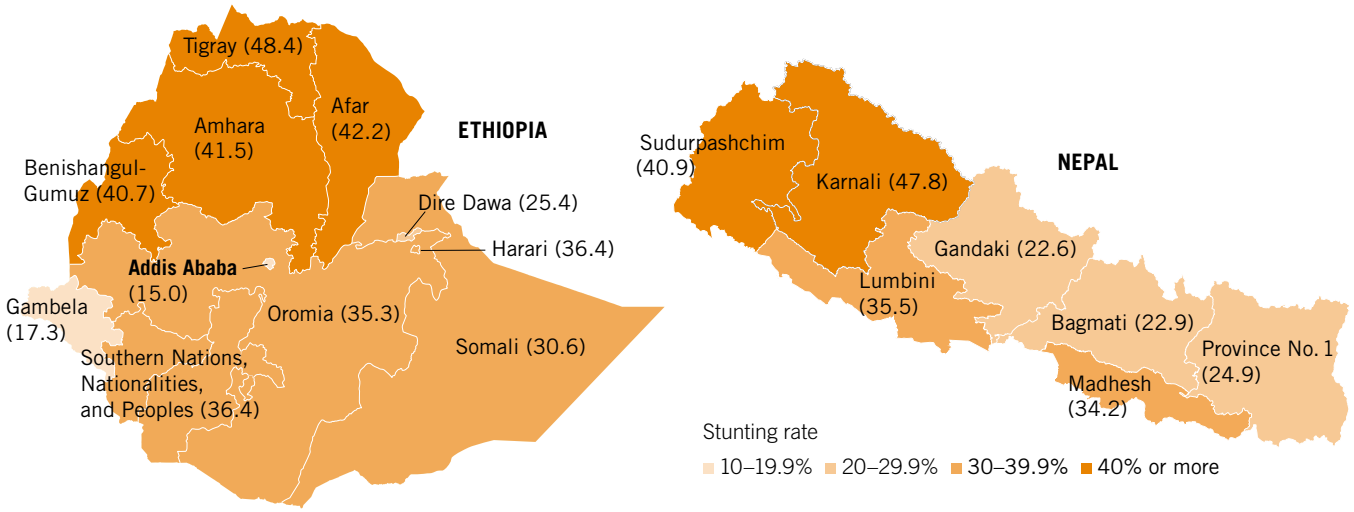
In Rwanda, districts that have implemented their nutrition programs with a high degree of political commitment and multisectoral collaboration have experienced the most success in reducing child stunting. Starting in 2009, the Rwandan government has become increasingly committed to reducing undernutrition while also decentralizing government services to the district and local levels. Each district created an annual District Plan to Eliminate Malnutrition (DPEM), laying out multisectoral approaches to tackling undernutrition. Compared with districts where stunting rose or stayed the same, districts that reduced stunting had better-organized DPEM committee meetings, with more participation from diverse sectors; had better communication between district-level actors and decision makers at the national level; reported better multisectoral integration, with representatives from various sectors focusing on nutrition; and were less likely to report a need for additional training in their districts on nutrition-related issues (Iruhiriye et al. 2022).

Conclusion

The global hunger situation as reflected in the 2022 GHI is grim. The overlapping crises facing the world are exposing the weaknesses of food systems, from global to local, and highlighting the vulnerability of populations around the world to hunger. Despite the "Zero Hunger" target articulated in the Sustainable Development Goals, the progress that has been made is being lost, and the situation is worsening in too many countries. The threat of famine looms yet again in the Horn of Africa, with humanitarian funds insufficient as of yet to reach all those in need. A failure to address this threat at the scale required would be a tragic indictment of the global food system and a fundamental breach of the human right to food.

It is critical to act now to halt and reverse the forces driving hunger and undernutrition and to take steps to build a more resilient, just, and sustainable world where hunger is a thing of the past. There can be no more excuses.

FIGURE 1.6 **SUBNATIONAL INEQUALITY OF CHILD STUNTING, ETHIOPIA AND NEPAL**



Source: EPHI and ICF (2021).

Source: CBS (2020).

Note: The map of Ethiopia reflects the nine regional states and two city administrations as they existed in 2019, the year when the survey from which the data were obtained was conducted. Two new regional states have since been formed but are not shown here. Boundaries, names, and designations shown on maps in this report do not imply official endorsement or acceptance by Welthungerhilfe or Concern Worldwide.

BOX 1.2 ENDING HUNGER: A DREAM OR STILL A POSSIBILITY?

Maximo Torero

There is already enough food to feed everyone in the world; those going hungry just lack access.

Global trade moves food from where it is produced to where it is consumed, keeping people fed. Russia and Ukraine are two of the world's largest agricultural producers, whose food exports account for some 12 percent of total calories traded in the world (Laborde 2021). The war is wrecking a quarter of global grain trade. What is at stake is an international agricultural trade worth some $1.8 trillion (UNECE 2021).

The fallout of this disruption could be devastating. Some 50 nations that rely on Russia and Ukraine for the bulk of their wheat imports—including Bangladesh, Egypt, Iran, and Türkiye—have been scrambling to find alternative suppliers (Reuters 2022; El Safty 2022).

This situation comes on top of persistent food inflation, which began in the second half of 2020. In March 2022, global food prices jumped to their highest levels ever recorded. Compared with the previous year, prices for cereals were up 37 percent; cooking oils, 56 percent; and meat, 20 percent. As of July, prices have fallen slightly since March, but in June they were still 27 percent higher than in June 2021 (FAO 2022c).

Even before the Ukraine war, fertilizer prices were skyrocketing owing to high demand and the rising cost of natural gas, a key component in fertilizers. The disruption of fertilizer shipments from Russia, a leading fertilizer exporter, is undermining food production everywhere, from Brazil and Canada to Kenya and Zimbabwe, and could lead to lower global crop yields next year (Polansek and Mano 2022). And global food stockpiles are lower than they were before the pandemic.

All of this adds up to greater food price volatility. When the price of food ticks upward, it does not mean simply that people must tighten their belts or pay more for their meals. For those already on the brink of famine, it could literally mean starvation. Food inflation can unsettle markets and even precipitate the overthrow of governments, as it did in Sri Lanka (Jayasinghe, Pal, and Ghoshal 2022), whose experience serves as a warning to the rest of the world.

A Losing Fight

At the 1974 World Food Congress in Rome, Henry Kissinger declared that in 10 years no child would go to bed hungry (Kissinger 1974). Although his prediction did not come true, the decades that followed marked steady progress against hunger. Unfortunately, though, when 193 countries met at the United Nations in 2015 to commit to ending global hunger in 15 years, the trend was already reversing—the number of undernourished people in the world had started to rise (FAO, IFAD et al. 2022).

Then came the COVID-19 pandemic, which wiped out two decades of progress on combating extreme poverty and hunger, forcing hundreds of millions more people into chronic hunger (Kharas and Dooley 2021; FAO, IFAD et al. 2022). In countries like Democratic Republic of the Congo, Ethiopia, Nigeria, and Yemen, the number of people facing hunger jumped by 20 percent between 2020 and 2021 (FSIN and GNAFC 2021).

Globally, 3.1 billion people cannot afford nutritious foods and depend on starchy foods for calories (FAO, IFAD et al. 2022). Based on current GHI projections, 46 countries will fail to achieve a *low* level of hunger by 2030.

At the outset of the pandemic, countries committed to working together to keep global agricultural trade flowing amid lockdown measures. Now, with panic setting in, signs of protectionism have emerged, as governments begin to impose food export bans to protect domestic supply (Glauber, Laborde, and Mamun 2022).

Rising prices have already put even the most basic foods beyond the reach of many poor families across the globe. If the war in Ukraine continues, food inflation will spell greater disaster, especially for poorer countries.

My colleagues and I estimate that between 8 and 13 million more people could become undernourished in 2022–23, with the biggest increases occurring in Asia, Africa South of the Sahara, and the Middle East (FAO 2022d).

How to Avert Disaster

The war between Russia and Ukraine may seem like the death knell for the hunger goal.

But the chasm between reality and the utopian ideal of achieving "Zero Hunger" should not be a reason for despair. Rather, the goal should serve to hold governments and the international community accountable for fulfilling the universal right to food and ensuring a dignified life for everyone. As international cooperation shrinks amid geopolitical tension, such advocacy has never been more important. This goal is a battle cry to rally support and push countries into action.

So what can be done? The answer is, a lot. Food aid that has kept families afloat through the pandemic must continue. Without strong social safety nets, countries cannot begin to reverse the trend in hunger. Governments are financially strapped and not keen on expanding social safety nets—but they must remember that the generous COVID-19 aid packages, especially across industrialized countries, cushioned the shock of the pandemic lockdowns, which would have triggered a global recession and sent hunger rates soaring.

Vulnerable countries, especially poorer countries that rely on food imports from Russia and Ukraine, should be given immediate financing to buy food for their populations (FAO 2022e). An emergency fund of $24.6 billion would cover the immediate needs of the 62 most vulnerable countries, which are home to 1.79 billion people. The International Monetary Fund is well positioned to implement this initiative.

Every effort should be made to avoid export restrictions of food and fertilizers. Failure to do so will increase price volatility and price hikes. Imposing export bans is the worst response countries can choose right now.

Governments and investors need more information on market conditions so they can make informed decisions without panicking. More market-monitoring services, like the Group of 20's Agricultural Market Information System, can increase market transparency.

Rigorous soil testing and nutrition soil maps can help farmers throughout the world learn exactly how much and what combination of fertilizers their land requires (Elkin, Gebre, and Boesler 2022). This information can help them use fertilizer more efficiently going forward.

At the same time, we must reduce food loss and waste. Currently, close to a third of all food produced around the globe—enough to feed about 1.26 billion people a year—is lost or wasted at some point in the food supply chain (FAO 2022f). If we could cut food loss and waste in half, the food supply would contain enough fruits and vegetables to cover the recommended amount of 400 grams per person per day. Inefficiencies along the food supply chain and food waste from the wholesale to the consumer level also have a major impact on the environment. Limiting food loss and waste can therefore help to both fight hunger and reduce environmental harms.

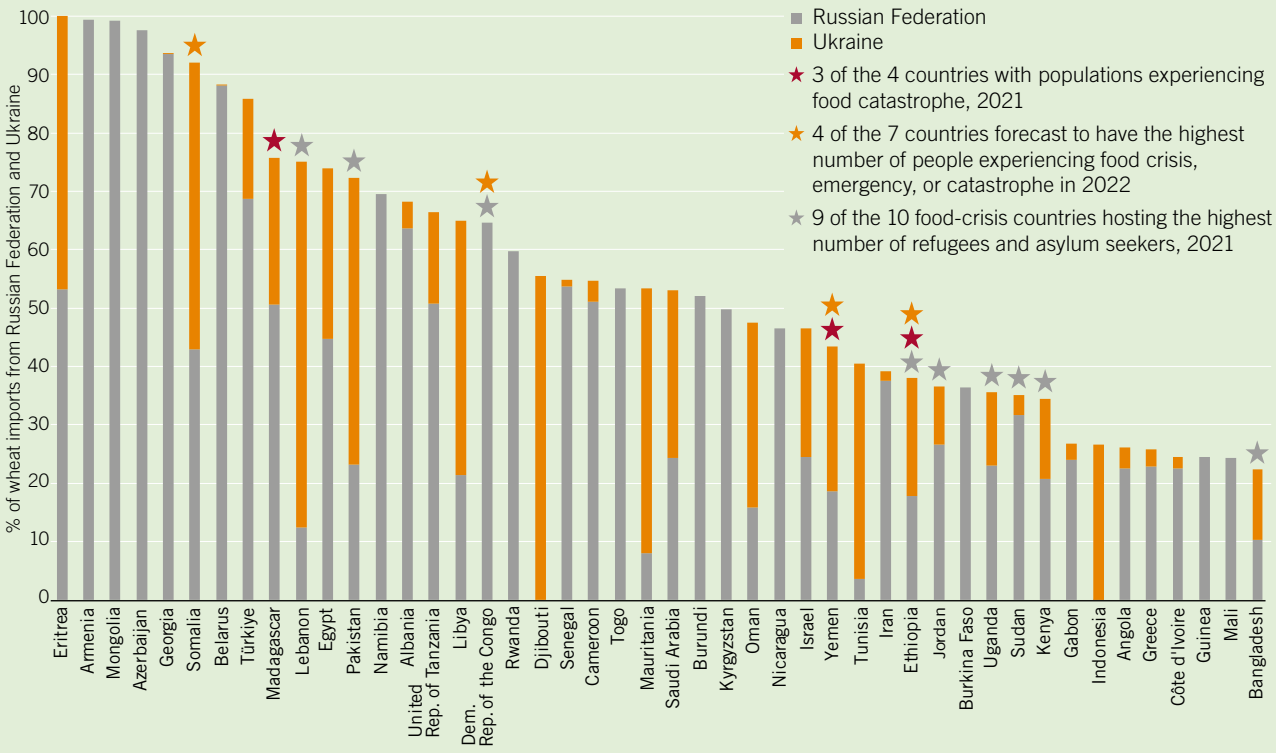
Achieving "Zero Hunger" was always going to be an enormous challenge. This is because ending hunger is not a simple matter of producing more food. Hunger cannot be eradicated unless we tackle the structural drivers that cause it: war, climate change, recession (FSIN and GNAFC 2021). It's a tall order. But that does not make the hunger goal the stuff of UN legend. As the previous set of UN development goals showed, such collective commitments influence how countries use and distribute resources (McArthur and Rasmussen 2017). They are also instrumental in raising money to continue the good fight.

Kissinger's declaration that hunger was unacceptable nearly half a century ago was prescient. Come 2030, if current conditions continue, there would still be at least 670 million undernourished people among us (FAO, IFAD et al. 2022). We may not be able to end hunger by then, but we can stop heading in the wrong direction.

The world will not end in 2030. Nor should the fight against hunger.

Maximo Torero is chief economist of the Food and Agriculture Organization of the United Nations (FAO).

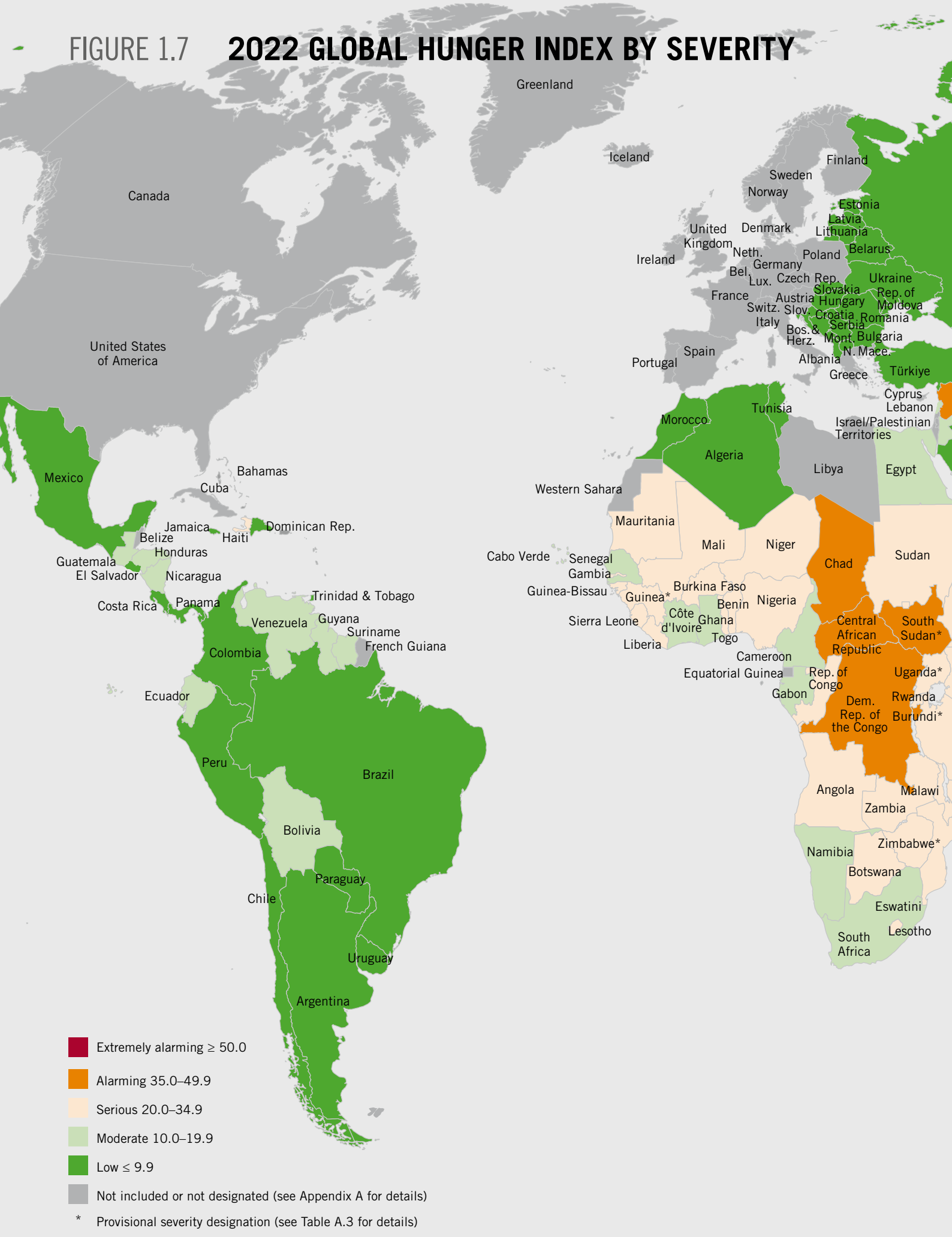
WHEAT IMPORT DEPENDENCY ON THE RUSSIAN FEDERATION AND UKRAINE, 2021



Source: FAO calculations based on Trade Data Monitor (TDM); FSIN and GNAFC (2022).

Note: Figure shows net wheat-importing countries that get at least 20 percent of their wheat from the Russian Federation and Ukraine. Food catastrophe = IPC/CH Phase 5, emergency = IPC/CH Phase 4, crisis = IPC/CH Phase 3.

FIGURE 1.7 2022 GLOBAL HUNGER INDEX BY SEVERITY



Source: Authors.

Note: For the 2022 GHI, data on the proportion of undernourished are for 2019–2021; data on child stunting and wasting are for the latest year in the period 2017–2021 for which data are available; and data on child mortality are for 2020. GHI scores were not calculated for countries for which data were not available and for countries that did not meet the GHI inclusion criteria; 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.

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02

In Paroha, Rautahat District, Nepal, women participate in nutrition training as part of the Nutrition Smart Villages program. The program seeks to leverage agriculture and other sectors for better nutrition, working with and empowering community-based institutions.

FOOD SYSTEMS TRANSFORMATION AND LOCAL GOVERNANCE

Danielle Resnick
Brookings Institution and International Food Policy Research Institute

Key Messages

- → Within a global food system that has fallen short of sustainably ending poverty and hunger, citizens are finding innovative ways to improve food systems governance at the local level, holding decision makers accountable for addressing food and nutrition insecurity and hunger.

- → A recent trend toward decentralizing government functions has given local governments greater autonomy and authority, including over key elements of food systems. And in fragile states local or informal sources of governance, such as traditional authorities, may have greater credibility with communities. Yet in a number of countries, civic spaces are subject to increasing repression, hindering citizens from claiming and realizing their right to adequate food.

- → Citizens are using a range of tools, including systems for tracking government budgets and expenditures, community scorecards for assessing the performance of local governments, and inclusive multistakeholder platforms that engage a range of local actors, including government officials, community groups, and private sector participants, in policy planning.

- → Local action has the potential to help citizens realize the right to food, but they are often unaware of this right, even where it has been enshrined in national law. It is thus important to raise not only local governments' awareness of their responsibilities but also citizens' awareness of their entitlements.

- → Given the diversity of local government settings—where degrees of local government power, civic space, and state fragility can vary widely—governance efforts must be well matched to conditions and capacities on the ground. Encouragingly, examples of empowerment are just as visible in fragile contexts with high levels of societal fractionalization as they are in more stable settings with longer traditions of local democracy.

- → Motivated and consistent local leadership is pivotal to the sustainability of local interventions. Fostering such leadership may involve educating local officials or encouraging local champions outside of government.

- → Local communities experiencing the worst hunger have the most to gain from improved accountability, but they also often live with weak or poor governance, high levels of displacement, and a lack of security. Efforts by development partners to strengthen local food systems governance in these settings require more time and more flexible use of resources.

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

Spiraling food prices and global supply chain disruptions precipitated by the Ukraine war, the COVID-19 pandemic, climate change, and regional conflicts have worsened hunger for millions of people, requiring humanitarian and resilience-building responses to be urgently scaled up. These current crises and urgent needs, discussed in more detail elsewhere in this report, amplify longstanding structural deficiencies in the global food system, which is inadequate for sustainably ending poverty and hunger as envisaged by the United Nations' 2030 Agenda (Barrett et al. 2020; Webb et al. 2020). Several high-level gatherings in recent years have reinforced this message, including the UN Food Systems Summit in September 2021, the UN Climate Change Conference (COP26) in November 2021, and the Nutrition for Growth Summit in December 2021 (von Braun et al. 2021). Yet the crucial topic of food systems governance, which plays a core role in determining whether people have nutritious and sustainable diets, has largely been marginalized in these global assemblies (Canfield, Anderson, and McMichael 2021).

Food systems consist of the interactions among the many actors involved in growing, processing, distributing, consuming, and disposing of food products, and their links with the social, environmental, and economic structures in which they are embedded (Fanzo et al. 2021; HLPE 2017). Governance of these food systems encompasses the actors and institutions that exert power over food access, availability, and quality; the ways through which priorities are deliberated, coordinated, and acted upon; and the responsibilities for financing, delivering, and monitoring results (Delaney et al. 2018).

Because food systems are multifaceted—spanning agriculture, health, environment, gender, markets and trade, humanitarian assistance, and several other domains—food systems governance is always complicated by the need to reconcile competing interests and values and to achieve policy coherence across sectors. Recent political trends further circumscribe efforts to improve food systems governance. At the global level, rising nationalism and geopolitical tensions—underscored by the war in Ukraine—threaten prospects for multilateral cooperation on food systems and food and nutrition security. At the national level, civic spaces and freedom of expression are

becoming increasingly repressed (CIVICUS 2021; Dupuy, Fransen, and Prakash 2021), with at least 50 countries legally limiting the operations of civil society organizations (Amnesty International 2019). The narrowing of such spaces hinders citizens from claiming and realizing their right to adequate food, as enshrined in the UN's Universal Declaration of Human Rights, as well as from participating in decisions on how to tackle hunger and from learning about and exercising their constitutional entitlements (Elver 2016; Fakhri 2020).

Given these dynamics, this essay focuses on opportunities to improve food systems governance at the local level. In some countries, citizens are finding innovative ways to amplify their voices in food system debates—including by using data to track government performance and by engaging in multistakeholder platforms—and keeping decision makers accountable for addressing food and nutrition insecurity and hunger. Encouragingly, examples of empowerment are just as visible in fragile contexts with high levels of societal fractionalization as they are in more stable settings with longer traditions of local democracy.

Why Local Food Systems Governance Matters

While recognizing that transforming food systems ultimately requires interventions at multiple levels, a greater focus on local governance of food systems is warranted for five main reasons.[1]

First, consumer preferences, natural resource management practices, and farming and livestock rearing methods are often grounded in local cultural traditions, historical experiences, and agroecological conditions.

Second, as the world urbanizes and cities demonstrate their own unique food security challenges (Crush and Riley 2019; Fan 2017), mayors and municipal councils have become more influential in transnational development networks (Barber 2014). In initiatives such as the C40 Cities Climate Leadership Group and the Milan Urban Food Policy Pact, leaders of major world cities express shared commitments related to climate action and food policies. These initiatives have given mayors a platform to proceed with their own food systems goals that may reinforce, bypass, or intersect with national-level aspirations (Moragues-Faus 2021).

Third, the trend toward decentralizing government functions over the past 20 years has given greater political autonomy and functional authority to subnational governments (Rodden and Wibbels 2019). Consequently, local governments increasingly have more functional authority over key elements of food systems, such as the location of and infrastructure in informal markets, which are main sources of food for the urban poor (Smit 2016). In many countries—from Ghana to Nepal, Kenya to Pakistan—authority for budgeting, designing, and implementing food systems policies in the agriculture, health, and environment domains has been devolved to provinces, counties, or districts (Kyle and Resnick 2019; Resnick 2022; Resnick and Rana 2016).

Fourth, a local lens is particularly necessary in fragile states where—owing to ongoing conflict, weak capacity, or both—national governments are unable to exert power, authority, or legitimacy across the full range of territory that they legally govern. Instead, informal sources of governance, such as traditional authorities, may have greater credibility with local communities (Baldwin and Raffler 2019). Conversely, certain subnational areas, such as the eastern Democratic Republic of Congo or northeastern Nigeria, can be disproportionately infiltrated by armed groups and violent nonstate actors whose presence limits opportunities for community engagement. Consequently, these areas, which tend to be the worst affected by hunger (Delgado and Smith 2021), are least likely to experience the benefits of national food system commitments.

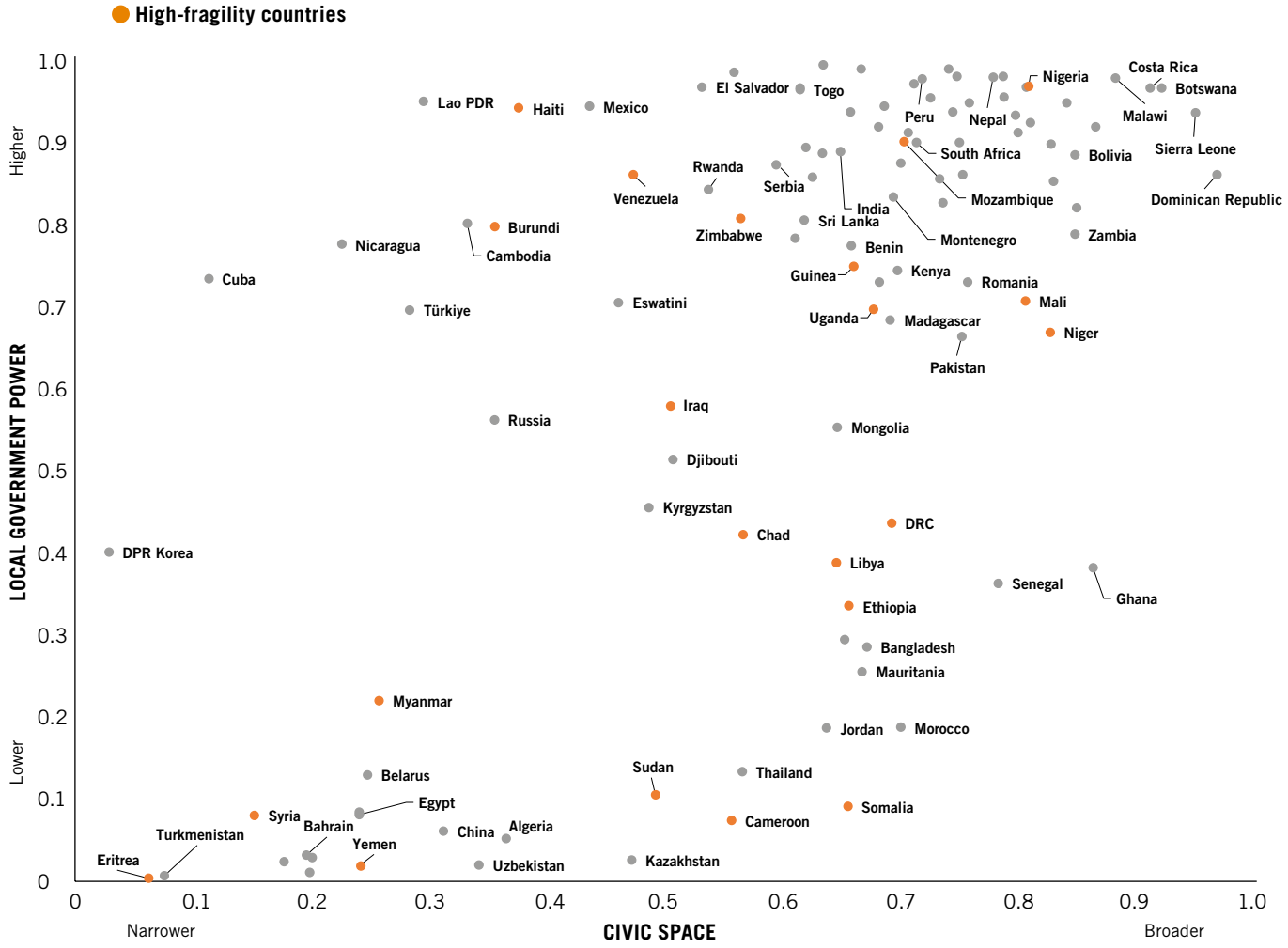
In some countries, citizens are finding innovative ways to amplify their voices in food system debates and keeping decision makers accountable for addressing food and nutrition insecurity and hunger.

Finally, a local perspective can help reveal whether and how national food system priorities actually reflect local needs and preferences. Food corporations and agribusiness interests can, through corporate concentration and lobbying resources, play an outsized role in national and global decision making around food and agriculture policy (see Clapp and Fuchs 2009). Yet at the subnational level, there may be circumstances where such actors are less prominent, creating a more even playing field for understanding the concerns of communities and the frontline service providers who are ultimately responsible for implementing agrifood systems policies.

When adopting a local lens, however, it is important to remember that the same tools for participation and accountability cannot be used everywhere. The nature of civic engagement in food system processes at the local level, and the degree to which local

[1] "Local" refers here to subnational actors, institutions, and processes, such as mayors, district councils, traditional authorities, community-based associations, nongovernmental organizations, and neighborhood groups. This essay focuses on government and civic actors, not on humanitarian groups that may be active in localities. Local governance refers to how these actors engage with each other to make decisions, allocate resources, and deliver goods and services.

FIGURE 2.1 **CONTEXTS FOR LOCAL FOOD SYSTEMS GOVERNANCE: THE NEXUS OF LOCAL GOVERNMENT AUTONOMY, CIVIC SPACE, AND STATE FRAGILITY (2021)**



Source: Local government power is measured by the Local Government Index (LGI), and civic space is measured by the Civil Society Participation Index (CSPI). The LGI and the CSPI are from the Varieties of Democracy database (V-Dem Institute 2022). Countries are classified as fragile based on 2021 data from the Fragile States Index (FSI) provided by the Fund for Peace (2022).

Note: This figure shows data for 111 countries. For space reasons, not all are labeled. The LGI captures three dimensions: whether a local government administrative unit exists, the degree to which local executives and assemblies are elected (rather than appointed), and the degree to which non-elected offices are subordinate to elected offices at the local level. The CSPI captures whether civil society organizations (such as labor unions, professional associations, women's groups, nongovernmental organizations, and religious organizations) have autonomy from the state and citizens can freely and actively pursue their political and civic goals. The FSI data were reverse-normalized so 1 is the least fragile and 0 is the most fragile. Countries that received 0.20 or lower were characterized as the most fragile. Countries classified as high income by the World Bank are excluded from the figure.

governments can be held accountable for food and nutrition security outcomes, depends on the extent of community power relations and social cohesion as well as on the broader governance setting. For instance, participation is naturally more limited in countries where the state limits freedom of association and speech. Moreover, where local government leaders are appointed rather than elected, those leaders often feel more accountable to the central government that appointed them than to the community residents they serve (Faguet 2012). Fragile states characterized by high vulnerability to societal conflict and weak oversight may require especially careful approaches to citizen engagement. Figure 2.1 illustrates how these different dimensions correspond with each other, highlighting that while there is a strong association between more empowered local governments and those that allow greater space for civil society participation, fragility can be present in a wide variety of settings. Thus, tools for engaging citizens and promoting accountability need to be appropriate for the degree of local government autonomy, the space citizens have to engage in freedom of speech and association,

and the level of government fragility, which can affect the capacity of local authorities.

Bringing Communities into Food Systems Governance

How exactly can communities in these different settings engage at the local level to improve accountability for food and nutrition security outcomes? Many innovative approaches have emerged in recent years. Here, two mechanisms are considered. One is the use of data and technology to track performance at the local level. The other consists of local platforms that bring many stakeholders together to contribute their perspectives on food system challenges and policy options. These approaches are relatively new, so their direct impacts on food security and long-term sustainability will require further study, but it is worth examining here their potential and initial achievements in improving food security policy processes.

Tracking Local Performance

One set of accountability mechanisms centers on surveillance of policy and project implementation. Because implementing policies and projects that affect food and nutrition security often requires spending money, budget tracking has gained prominence. For several years, the Scaling Up Nutrition (SUN) Movement has worked with its member countries to analyze government budget allocations toward policies that are nutrition-specific, such as micronutrient supplementation and infant and young child feeding programs, and nutrition-sensitive, such as clean water, sanitation, and access to healthcare (Fracassi et al. 2020). While this approach captures the amounts that are budgeted by governments for nutrition, it does not capture the amounts they actually disburse, so other complementary approaches have also emerged, such as the World Bank's nutrition public expenditure reviews (Wang et al. 2022).

For both budget and expenditure tracking, the lack of publicly accessible subnational data on nutrition, agriculture, and other food system dimensions—due to either unavailability or unaffordable license fees—poses a challenge for accountability. Yet some local actors have found ways around this information shortfall. In Nigeria, for example, the civic organization BudgIT has since 2011 aggregated all state-level budgets and uses its open data Tracka platform to enable the public to provide information about the implementation of government projects in their communities (BudgIT 2022; Tracka 2022; Herbst and Onigbinde 2017). This is increasingly facilitating civic awareness and participation in a country traditionally characterized by its opaque budget processes (Bisong and Ogwumike 2020).

Another approach focuses on incentivizing local governments to perform better through peer comparisons. In Ghana, District League Tables (DLTs) have been published annually by UNICEF and Ghana's National Development Planning Commission since 2014 to enhance civic awareness and improve social accountability. The DLTs are scorecards that rely on administrative data for all of the country's 260 districts to calculate 17 indicators focused on five domains: education, health, water and sanitation, governance, and information and communication technology (NDPC and UNICEF Ghana 2021). The highest- and lowest-ranked districts are often profiled in the media, encouraging public scrutiny of performance. More recently, the government announced the launch of the National District Awards, which will reward the best-performing districts on the DLTs with additional financial support (Aniagyei 2022).

Yet scorecards can result in minimal impact if they reflect idealized outcomes that are not feasible given the capacities of local government; if they exacerbate tensions between communities, bureaucrats, and politicians; and if they fail to generate interest among policymakers (Kelley 2017). Several initiatives have therefore shifted to developing such tools in a more interactive way with local governments, with opportunities for feedback and refinement. In Malawi's Mangochi District, the Community Initiative for Self Reliance (CISER), in coordination with local civil society organizations, started developing community scorecards in the 2020–2021 agricultural season to capture residents' experiences with one of the national government's flagship programs, the Affordable Inputs Program (AIP), which provides subsidized fertilizer and seeds to vulnerable farmers.[2] The indicators were initially developed with several communities in the district and the District Agricultural Extension Coordinating Committee (DAECC), based on AIP guidelines.

The communities and civil servants from the District Agriculture Office scored the performance of the program based on the indicators. The scorecards revealed several weaknesses in the AIP: among other things, the mobile application used for redeeming input coupons was slow and volatile, inputs were disbursed too late in the planting season, poor roads in the rainy season affected people's ability to access input distribution sites, individuals who lost their national identity cards had problems obtaining the inputs, and mechanisms for airing grievances were lacking. The DAECC communicated many of these issues to the central government, which addressed several of them in the subsequent agricultural season. For instance, farmers are now allowed to obtain their inputs from a different location than originally allocated, and inputs are delivered to agro-dealers

[2] Welthungerhilfe and Concern Worldwide work in partnership with several of the organizations mentioned in this essay, including the Community Initiative for Self Reliance (CISER) and the Civil Society Agriculture Network (CISANET) in Malawi, Aasaman in Nepal, the High Commission for Nigeriens Nourishing Nigeriens (HC3N) initiative, the Sierra Leone Network on the Right to Food (SiLNoRF), Fundación Alternativas in Bolivia, and Consorcio Agroecológico Peruano (CAP) and Red de Agricultura Ecológica (RAE) in Peru.

earlier in the season. Furthermore, a new indicator—experience with gender-based violence when trying to access the AIP inputs—has been added to the scorecard (interview, Felix Sanudi, CISER, June 10, 2022).

In Nepal, the civil society organization Aasaman Nepal has used a similar interactive approach to develop community scorecards. In two municipalities within Madhesh Province, residents, municipal representatives, and service providers convene to discuss their expectations for their health facilities and the quality of the health services to which citizens are entitled. They organize an assessment of health services, jointly discuss and develop indicators to score the performance of health facilities and services, separately assess those indicators, and then reconvene. If a health facility's performance falls below a certain threshold, all participants agree on an action plan and identify their roles and responsibilities for improving performance. In each of the health facilities, this action plan is publicly posted and regularly monitored; the following year, performance is reassessed (interview, Mani Ram Acharya, Aasaman Nepal, June 2, 2022).

The local milieu—whether neighborhood, district, or municipality—remains the main level at which citizens engage with the state and where they are most directly affected by food policy and service delivery performance.

Such collaboration may be more challenging in contexts that are fragile or that lack formal venues for meaningful civic engagement. Sudan's resistance committees represent one example of a grassroots movement aimed at promoting accountability and addressing gaps in service delivery. First arising in Khartoum in 2013, these committees emerged organically, encompassing students, unemployed youth, and activists from urban neighborhoods. The committees made efforts to oversee bread distribution in Sudan's main cities by using a mobile application to record data on flour deliveries, bakery closures, and smuggling. In this way, they aimed to prevent bakeries from siphoning off subsidized flour for illegal purposes (Resnick 2021). Although the long-term sustainability of this volunteer-based initiative remains questionable, the committees nonetheless remain an important feature in urban Sudan almost a decade after their original formation.

Meaningfully Engaging Local Stakeholders

Multistakeholder platforms, which aim to foster dialogue and collaboration among a diverse range of constituents, are a popular tool for addressing the complexities of agricultural and food system transformation (Hermans et al. 2017; Thorpe et al. 2022). They are especially popular for promoting citizens' entitlements to the right to food (see Box 2.1). There are, however, several concerns about such platforms, including whether they create unrealistic expectations from participants about policy outcomes (Resnick and Birner 2010) and whether they simply reinforce existing power asymmetries in the food system (Canfield, Anderson, and McMichael 2021; Gleckman 2018; HLPE 2018). This is particularly problematic in local settings with entrenched forms of patriarchy and other asymmetrical power relationships.

Attuned to these concerns, several multistakeholder platforms are sensitive to how voices are heard in these fora. In Bolivia, for example, the civil society organization Fundación Alternativas has been working with the municipal food security committee in La Paz since 2013. The committee, which aims to ensure that resources are devoted to food security and food system policy priorities, includes participants from all levels of government, the private sector, and civil society. Organized into specific thematic groups, the participants meet monthly to identify where parts of the food system need to be improved and collaborate on either normative draft laws to be considered by the legislative branch or work on proposals for targeted investments (interview, Maria Teresa Nogales, Fundación Alternativas, June 6, 2022). In 2018–2019, the committee was instrumental in drafting a municipal law for urban agriculture, which is now legally recognized as an appropriate use of land (Nogales 2019).

Critically, the thematic groups in the municipal food security committee must reach consensus before proceeding with a policy recommendation. The committee's deliberations are bolstered by the use of the Dialogic Change Model (interview, Maria Teresa Nogales, Fundación Alternativas, June 6, 2022); this model is a structured collaborative approach to planning and implementation that emphasizes the need to hear everyone's voice in multistakeholder platforms (Collective Leadership Institute n.d.).

In Brazil, Ethiopia, Indonesia, and Peru, subnational platforms focusing on collaborative management of land and forestry resources revealed several power asymmetries among stakeholders that affected the groups' efficacy. For instance, indigenous communities felt marginalized, or only those civil society actors with travel budgets could participate (Barletti 2022). Consequently, the "How are we doing?" tool developed by the Center for International Forestry Research (CIFOR) and its partners is based on the principles of adaptive collaborative management and is aimed at increasing trust and equity

BOX 2.1 RAISING AWARENESS OF THE RIGHT TO FOOD

Global food price inflation in 2022 and growing hunger raise renewed questions about the substantive implications of the right to food. Approximately 18 lower-middle-income or low-income countries explicitly protect the right to adequate food in their constitutions, while another 9 implicitly protect the right to food by emphasizing rights to an adequate standard of living and well-being (FAO n.d). Yet it can be challenging for citizens to realize the right to food—a right of which they are often unaware. The constitutional right to food often lacks legislative backing. In more decentralized contexts, there can be a mismatch between legislation at the national level and food, nutrition, and agricultural responsibilities at local levels.

This last issue has become pronounced in Kenya, where the 2010 Constitution devolved responsibility for agriculture, livestock, fisheries, health, and the environment to the country's 47 counties while also noting in Article 43 (1c) that "every person has a right to be free from hunger" and in Article 53 (1c) that "every child has the right to basic nutrition, shelter and healthcare." Because no act of Parliament has institutionalized this right, the national Right to Food Coalition and other partners are working on a national bill on the right to food that recognizes interrelated rights that affect food rights, such as landownership for women and water rights. At the local level, Rural Outreach Africa is working to raise county governments' awareness of their responsibilities and citizens' awareness of their entitlements. In Vihiga, Kakamega, Bungoma, Kisumu, and Nandi counties, county officials who oversee agriculture, budget planning, and other departments that influence food systems are working with local politicians, community leaders, community-based organizations, and journalists to create awareness of participatory budgeting processes that affect food systems decisions. Ahead of the August 2022 elections, this coalition of counties has also shared a "Food Manifesto" with all of the main political parties, hoping it will be integrated into the county investment and development plans of the next set of county governors (interview, Stella Kimani and Josephine Thome, WHH, May 27, 2022).

Although the right to food has been enshrined in Malawi's constitution since 1994, citizens' awareness of this entitlement remains just as nascent as in Kenya. Various efforts to develop a right to food bill during the 2000s faced resistance by successive administrations, which feared that such a law would obligate them to feed everyone. The election of a new government in 2020 has renewed efforts on the part of the Civil Society Agriculture Network (CISANET) and like-minded civil society organizations to promote enactment of an existing draft bill. At the national level, they conduct lobbying meetings with Malawi's government ministries and media outlets to raise public awareness of the relevance of a legally binding standard for the right to food. In select areas, such as Mangochi District, they also provide residents with a better understanding of the types of entitlements they should be able to demand from their local governments through roadshows, field days, and regular meetings with traditional authorities, area and village development committees, and district nutrition committees (interview, Felix Sanudi, CISER, June 10, 2022).

Sierra Leone's constitution does not include an explicit right to food, but several provisions—such as the state's obligation to "secure the maximum welfare" of its citizens and "ensure self-sufficiency in food production" (Article 7.1)—are relevant to the right to food. At the local level, the Sierra Leone Network on the Right to Food (SiLNoRF) works with communities in the city of Makeni to better understand the implications of these provisions and increase civic engagement. As the deputy director of SiLNoRF notes, "People cannot claim their rights if they don't know them." This is particularly true in a country where only 26 percent of people are literate. Concerted efforts by SiLNoRF to strengthen local democracy have also focused on educating the paramount chiefs about their responsibilities to their communities, since they are the main custodians of much of the land and are often farmers themselves (interview, Abass Kamara, SiLNoRF, June 14, 2022).

in these settings through continuous feedback from participants, resulting in iterative shifts in the design of the multistakeholder platforms (Barletti et al. 2020).

In Peru, roundtables for local development in food security have been led by Consorcio Agroecológico Peruano (CAP) and Red de Agricultura Ecológica del Perú (RAE) in five districts surrounding metropolitan Lima in the Lurín and Chillón valleys. The roundtables build on existing, organic community structures that emerged during the COVID-19 pandemic, when residents of low-income neighborhoods in those valleys and elsewhere in the capital city organized soup kitchens known as "common pots." These kitchens have continued as a survival strategy during the global inflation spurred by the war in Ukraine (Briceno 2022). CAP, RAE, and other nongovernmental organizations work with these networks of popular kitchens and also incorporate farmer organizations, youth groups, and religious associations. As in Bolivia, these roundtables meet regularly either in person or virtually, organize around thematic groups, and focus on improving local laws relevant to food systems (interview, Juan Sanchez, CAP/RAE, June 6, 2022).

While Bolivia and Peru deepened their decentralization processes in the mid-1990s and early 2000s, respectively, with executive mayors who have functional autonomy over specific aspects of the food system, Nepal's experience with local government is much more recent. The country's 2015 Constitution provides for three tiers of government: national, provincial, and municipalities. Following the passage of the Local Government Operations Act (LGOA) in 2017 and the 2017 local elections, municipalities received legal authority to formulate and implement policies in 22 domains.

In this delicate environment of newly empowered and elected local governments, the civil society organization Aasaman Nepal has focused on ensuring municipalities' responsiveness to residents' concerns about food and nutrition security, health, and other development needs. Since 2018 Aasaman Nepal has leveraged the seven-step local planning process that is integral to the LGOA, working in eight municipalities in Madhesh Province where gender inequality, landlessness, food insecurity, and malnutrition are high. In each municipality, participatory planning begins each year in February at the settlement level, where communities discuss priorities and development plans that are then streamlined at the next-highest administrative level, the ward, before being incorporated into the municipal-level plans. Over the past three years, more and more plans have been approved by the municipalities, and in 2021 the eight municipalities approved 341 settlement plans submitted by the groups through this process (interview, Mani Ram Acharya, Aasaman Nepal, June 2, 2022).

Niger represents a particularly fragile environment owing to growing desertification, a struggling economy, and the presence of many nonstate armed groups along its borders. Nonetheless, community groups have coalesced in several thematic multistakeholder platforms to address targeted food system problems with support from the High Commission for the Nigeriens Nourishing Nigeriens (HC3N) initiative. For instance, in 2021, HC3N facilitated an exchange between farmers' organizations and processors in the flour value chain. The participants addressed challenges related to providing fortified flour from local millet and sorghum at an affordable price and of consistent quality for consumers while still ensuring that both processors and farmers can make a decent living from the value chain, given the variations in access to and prices for inputs. Jointly, the participants found consensus on several areas of action for policymakers to pursue (interview, Gervais Ntandou-Bouzitou, FAO-Niger and technical assistant to HC3N, June 10, 2022).

Lessons Learned and the Way Forward

On their own, accountability tools may not directly improve food and nutrition security. However, as elaborated in this essay, the experiences of these various communities and civil society organizations with using performance tracking and multistakeholder platforms suggests several successes, such as the adoption of a new municipal law in Bolivia, more inclusive budgeting processes in Nepal, and improved service delivery in Malawi, all of which indirectly affect food access and quality. Moreover, the practice of exercising oversight and participation empowers communities to demand government responsiveness while increasing their awareness of their entitlements and the means to access them. Though not sufficient, these actions are surely necessary in the continued quest for better food and nutrition security.

At the same time, several key lessons emerge from these experiences.

First, it is important to recognize that local governments often have fewer resources and technical staff than their central government counterparts. Moreover, given the wide diversity of local government settings, it is important to ensure that governance efforts are well matched to conditions and capacities on the ground and to be realistic about the replicability of such tools. In more decentralized settings, citizens may be able to draw on established planning and budget structures, regular collection of administrative data, and skilled local bureaucrats to advance food policy. In countries that have only recently decentralized, citizens will need to internalize the practices of local democracy and set up ways to participate in implementing and overseeing development projects. In fragile and more autocratic settings, organic community efforts may be the only

realistic channel for action on local food systems governance. When possible, partners can learn from such efforts and facilitate the scaling up of such measures to other communities.

Second, local leadership is pivotal to the sustainability of local interventions. In Peru, in mid-2022, concerns about whether local elections in October 2022 will derail momentum on food commitments has led the civil society organizations Consorcio Agroecológico Peruano (CAP) and Red de Agricultura Ecológica del Perú (RAE) to educate all mayoral candidates about the work of multistakeholder platforms in the Lurín and Chillón valleys. By contrast, in Nepal, a new cadre of motivated local leaders elected in May 2022 created a window of opportunity for Aasaman Nepal to scale up its activities. Similarly, while the municipal government of Madagascar's capital city, Antananarivo, has been a partner in the city's Food Policy Council since its inception in 2016, all projects are led by "champion" nongovernmental stakeholders who can ensure that momentum on food policy continues even as mayors change (Andrianarisoa et al. 2019).

Third, those local communities with the worst hunger have the most to gain from improved accountability. However, owing to weak or poor governance, high levels of displacement, and a lack of security, initiatives to enhance accountability will encounter greater risks of failure. Development partners need to be prepared for this potential trade-off and ensure that their planning and engagement with communities incorporate a sufficiently long timeline and flexibility in funding arrangements. In extremely fragile contexts affected by ongoing crises and dominated by humanitarian coordination structures, any interventions to empower local communities to shape food systems should also build on the Core Humanitarian Standard on Quality and Accountability—a set of nine commitments designed to hold humanitarian agencies accountable to affected populations (CHS Management Group 2022).

Overall, while the governance of food systems takes place at multiple levels, there are, even in the most fragile contexts, innovative mechanisms and tools that can empower local communities to shape food systems in ways that address hunger, food and nutrition security, and related concerns. In places where local democracy is relatively new, creating support for a culture of inclusion and accountability inevitably requires a high degree of learning, patience, and realism.

The local milieu—whether neighborhood, district, or municipality—remains the main level at which citizens engage with the state and where they are most directly affected by food policy and service delivery performance. Harnessing their experiences and mobilizing their voices is therefore pivotal for meaningful food system transformation that ultimately benefits all people, especially the most vulnerable.

PARTNER SPOTLIGHT

LOCAL GOVERNANCE IN A FRAGILE CONTEXT: MANAGING FOOD, FODDER, AND CREDIT IN DIFFA, NIGER

Jean-Patrick Masquelier and Marilena Bachmeier

People in the Diffa region of Niger are facing a set of overlapping crises that are having dire consequences for their food and nutrition security. Land degradation, health epidemics, floods, and massive displacement of people in the region due to the high level of insecurity caused by armed groups have reduced agricultural production and placed severe pressure on already vulnerable host communities. The limited resources available are shared by host communities and displaced populations, with the result that only 11 percent of communities can feed themselves through their own production (UNHCR 2021).

One example of effective local action is a recent project centered on community management of food, fodder, and credit. To complement the emergency programs being implemented in the region, the Shimodu Project[3] put communities at the center of designing integrated and sustainable development strategies in cooperation with national and international partners. This initiative—which was funded by the European Union and implemented by a consortium made up of Agora and Alliance2015 members ACTED, Concern Worldwide, and Welthungerhilfe—sought to improve the living conditions and resilience of vulnerable groups, including displaced, refugee, and host populations.

As part of the Shimodu Project, community members, local authorities, humanitarian actors, and the consortium came together to identify needs in each locality. Based on the expressed needs, the communities set up food and fodder banks and established a warrantage system—that is, a system for providing loans to farmers against the value of their stored stocks of food and fodder—to improve food availability and access during the lean season. The stocks of food and fodder built up in times of relative abundance are sold at a price set by the communities themselves at general assemblies attended by all affected households. In the lean season or during shocks like the current food price crisis, the stocks are sold back to the communities, protecting them from price increases for staple foods and fodder.

[3] The full name of this project is the Integrated Resilience Support Project for Vulnerable Refugee, Displaced, Returnee and Host Populations in the Diffa Region (Lake Chad Basin).

In this way, vulnerable households gain access to both grain to feed their families and fodder for their livestock.

The project, while centered on communities, involved close cooperation with regional and departmental government officials and humanitarian actors. Communities themselves construct and maintain the food and fodder banks, sell and replenish the stocks, and organize general assemblies. The committees that manage the banks maintain regular contact with the local authorities, which provide technical support and training on, for instance, financial and stock management. Furthermore, the project, together with the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and government authorities, went beyond the food and fodder banks to develop relevant humanitarian response and support plans for local communities. Working groups on food security and on water, sanitation, and hygiene met to ensure the project's activities were aligned and coordinated with the overall humanitarian response plan.

Despite the challenging context, this initiative has enabled approximately 28,000 people in 4,000 households affected by the security crisis in the Diffa region to integrate sustainably into the local economy. It has given them sustainable access to basic social services, strengthened social cohesion, achieved more inclusive local governance, and significantly improved food and nutrition security.

The project has generated a number of other promising results as well. Municipalities and district institutions have strengthened their networking, coordination, and peer learning. By sharing experiences, vulnerable households and communities have been able to reduce their negative coping strategies and improve their living conditions. Various collective entities have emerged to offer financial, agricultural, and other services, such as village savings and loan associations, agricultural input shops, food processing and marketing services, feed banks, producers of animal feed known as densified multi-nutritional blocks, and community animal health workers. These activities have helped connect local development initiatives with actors from the private sector operating in the area while strengthening social cohesion.

Furthermore, the warrantage system has enabled community members to access local credit, which would otherwise not have been possible through local banks, and maximize their profits by selling their stocks when prices are higher. The income generated has enabled participants to endure the lean season by accessing food reserves stored in the food banks. The advantages of the system are twofold, as it not only allows families to guarantee the availability of food and fodder in anticipation of the lean season, but also gives households access to income they can use to start an economic activity to meet their needs beyond food. The grants and supplies have enabled households to increase both the quantity and quality of their food intake, leading to overall improved nutrition and food security in the region (INTES 2021).[4]

By working with the local authorities, engaging civil society organizations such as women's and youth associations, and exploiting synergies with research institutes through, for example, action research and household assessments in collaboration with the University of Diffa and the Institut National de la Recherche Agronomique du Niger, the project has encouraged a dialogue on resilient and sustainable food systems and helped strengthen the resilience of communities affected by the overlapping crises.

Jean-Patrick Masquelier is country director, Concern Worldwide Niger. Marilena Bachmeier is a project assistant, Deutsche Welthungerhilfe e.V.

[4] The description of project implementation and outcomes in this box is based on a report prepared by the implementers and donors. An independent evaluation has not yet been undertaken.

03

A woman harvests potatoes in Laja near La Paz, Bolivia. A focus on local food governance is useful because local conditions often form the basis of communities' farming and livestock-rearing methods, natural resource management practices, and food preferences.

POLICY RECOMMENDATIONS

The 2022 GHI reflects both the scandal of *alarming* hunger in too many countries across the world as well as the changing trajectory in countries where decades of progress in tackling hunger is being eroded.

These recommendations highlight the need to respond to current emergencies while also transforming food systems so they are more equitable, inclusive, sustainable, and resilient—and thus are able to avert future crises.

1 Put inclusive governance and accountability at the center of efforts to transform food systems.

→ Governments must respect, protect, and fulfill the right to food, which should be enshrined in national law and supported by mechanisms for redressing grievances. All actors, from citizens to regional and international organizations to courts at all levels, should contribute to holding governments accountable.

→ It is vital that governments strengthen inclusive coordination of food and nutrition policies at all levels. In particular, government planning and budgeting processes should take into account existing power imbalances and prioritize the voices of the most vulnerable and crisis-affected groups and constituencies. Support must be directed to inclusive food governance bodies, such as food councils and other multi-actor platforms.

→ Governments must review, implement, and monitor their food systems commitments, including the national pathways launched at the 2021 United Nations Food Systems Summit, in an inclusive way and with an emphasis on accountability and governance at all levels.

→ At the global level, governments should strengthen the Committee on World Food Security (CFS) so it can deliver on its mandate as the central multilateral, inclusive global policy coordination platform.

2 Ensure citizens' participation, action, and oversight, and consider the local context.

→ Stakeholders at all governance levels must harness local voices and capacities. Communities, civil society organizations, small producers, farmers, and indigenous groups, with their local knowledge and lived experiences, should shape how access to nutritious food is governed; their capacities and good practices should be supported, including in fragile and conflict-affected contexts.

→ Strong local leadership is pivotal to the sustainability of local food systems interventions and should be fostered by, for example, building the capacity of local officials or encouraging local champions—especially women.

→ To enable oversight, governments and development partners need to raise citizens' awareness of their entitlements and of pathways to food and nutrition security. Citizens require a clear understanding of food systems activities and relevant processes, as well as guaranteed access to data and information, so they can track government performance and enforce their rights.

→ Efforts to strengthen governance must be tailored to conditions and capacities on the ground, given the diversity of local government settings. National governments should devolve responsibilities to lower administrative units and raise and allocate resources that enable local authorities to understand and carry out their responsibilities for local food and nutrition security.

3 Scale up resources to address pressing humanitarian needs, while transforming food systems to make them resilient to shocks.

→ The international community needs to mobilize greater public support, increased investment, and more diverse sources of funding in order to meet escalating humanitarian needs, while at the same time scaling up essential resilience-building efforts. The 2022 United Nations Climate Change Conference (COP27) and subsequent international fora must deliver commitments to accelerate food system transformation for all.

→ In countries suffering from protracted crises, governments and development partners must use early warning systems and flexible contingency funds to anticipate shocks and quickly respond to them. Initiatives such as the Global Network Against Food Crises should be supported to ensure earlier responses using evidence-based interventions.

→ Against the backdrop of global food security pressures, governments should avoid ad hoc reactions such as export restrictions. Rather, they should consider the use of food import facilities to ensure that food price increases do not lead to increased hunger, social unrest, or conflict.

→ In situations of conflict, actors involved in humanitarian, development, and peace-building activities must come together to jointly analyze and respond to the needs of conflict-affected people. This approach will link the practical management of people's immediate needs with attention to their long-term livelihood needs, while also promoting reconciliation and peace building.

APPENDIXES

In Herat, Afghanistan, a woman gathers saffron. She is a member of the cooperative Socio-Agricultural Women of Pashtoon Zarghoon District, which works with its local partner, the Rehabilitation Association and Agriculture Development for Afghanistan. The women in the cooperative grow high-quality saffron, which they sell to help support their households.

METHODOLOGY

The Global Hunger Index (GHI) is a tool designed to comprehensively measure and track hunger at global, regional, and national levels, reflecting multiple dimensions of hunger over time.[1] The GHI is intended 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.

How the GHI Is Calculated

Each country's GHI score is calculated based on a formula that combines four indicators that together capture the multidimensional nature of hunger:

Undernourishment: the share of the population whose caloric intake is insufficient;

Child stunting: the share of children under the age of five who have low height for their age, reflecting chronic undernutrition;

Child wasting: the share of children under the age of five who have low weight for their height, reflecting acute undernutrition; and

Child mortality: the share of children who die before their fifth birthday, reflecting in part the fatal mix of inadequate nutrition and unhealthy environments.[2]

Using this combination of indicators to measure hunger offers several advantages (see Table A.1). The indicators included in the GHI formula reflect caloric deficiencies as well as poor nutrition. The undernourishment indicator captures the food access 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. These four indicators are all part of the indicator set used to measure progress toward the United Nations Sustainable Development Goals (SDGs).

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 (undernourishment, child stunting, child wasting, and child mortality). 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 for 2021 (FAO 2022a).

[1] For further background on the GHI concept, see Wiesmann, von Braun, and Feldbrügge (2000), 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.

GHI scores are calculated using a three-step process:

1. Values are determined for the four component indicators for each country, drawing on the latest published data available from internationally recognized sources.

2. 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.[4] For example, the highest value for undernourishment estimated in this period is 76.5 percent, so the threshold for standardization is set a bit higher, at 80 percent.[5] 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 level. Here are the formulas used to standardize each indicator:

$$\frac{\text{Prevalence of undernourishment}}{80} \times 100 = \textbf{standardized undernourishment value}$$

$$\frac{\text{Child stunting rate}}{70} \times 100 = \textbf{standardized child stunting value}$$

$$\frac{\text{Child wasting rate}}{30} \times 100 = \textbf{standardized child wasting value}$$

$$\frac{\text{Child mortality rate}}{35} \times 100 = \textbf{standardized child mortality value}$$

[4] 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.

[5] 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.

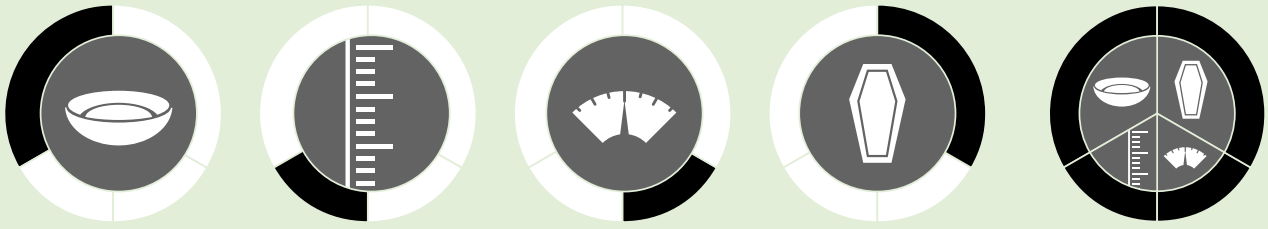
TABLE A.1 **HOW THE FOUR INDICATORS UNDERLYING THE GHI CAPTURE THE MULTIDIMENSIONAL NATURE OF HUNGER**

Undernourishment	Child stunting	Child wasting	Child mortality
• Measures inadequate food access, an important indicator of hunger • Refers to the entire population, both children and adults • Is used as a lead indicator for international hunger targets, including Sustainable Development Goal 2 (Zero Hunger)	• Go beyond calorie availability, consider aspects of diet quality and utilization • Reflect children's particular vulnerability to nutritional deficiencies • Are sensitive to uneven distribution of food within the household • Are used as nutrition indicators for SDG 2 (Zero Hunger)		• Reflects that death is the most serious consequence of hunger, and children are the most vulnerable • Improves the GHI's ability to reflect deficiencies of essential vitamins and minerals • Stunting and wasting only partially capture the mortality risk of undernutrition

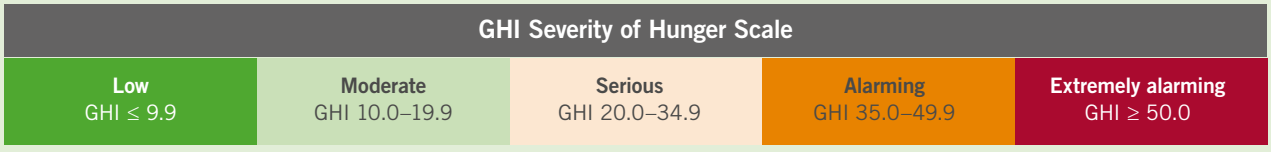
3. The standardized scores are aggregated to calculate the GHI score for each country. Undernourishment and child mortality each contribute one-third of the GHI score, while child stunting and child wasting each contribute one-sixth of the score, as shown in the formula (Figure A.1).

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.

FIGURE A.1 **COMPOSITION OF GHI SCORES AND SEVERITY DESIGNATIONS**



Note: All indicator values are standardized.



Where the Indicator Data Come From

Data used in the calculation of GHI scores come from various UN and other multilateral agencies, as shown in Table A.2. The GHI scores reflect the latest revised data available for the four indicators.[6] Where original source data were unavailable, estimates for the GHI component indicators were made based on the most recent available data.

How Hunger Severity Is Determined for Countries with Incomplete Data

In this year's GHI report, 136 countries met the criteria for inclusion in the GHI but 15 had insufficient data to allow for calculation of a 2022 GHI score. To address this gap and give a preliminary picture of hunger in the countries with missing data, provisional designations of the severity of hunger were determined based on several known factors (Table A.3):

- 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
- assessment of the relevant findings of the 2020, 2021, and 2022 editions of the *Global Report on Food Crises* (FSIN and GNAFC 2020, 2021, 2022).[8]

For some countries, 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. The countries with missing data may often be those facing the greatest hunger burdens. Of the 4 countries provisionally designated as *alarming*—Burundi, Somalia, 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*.

In some cases even a provisional severity designation could not be determined, 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 Somalia, 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 2020, 2021, and 2022 editions of the *Global Report on Food Crises* as well as consultations with experts on food and nutrition insecurity in these countries made clear that designations of *alarming* were justified.

[6] For previous GHI calculations, see von Grebmer et al. (2021, 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).

[7] Previously published undernourishment values, GHI scores, and GHI severity classifications are not considered valid once superseding reports have been issued, but are 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 2020, 2021, and 2022 *GRFCs* were used to confirm whether a country experienced extreme hunger crises such as famine, threat of famine, and/or repeated hunger crises in 2019, 2020, and 2021.

TABLE A.2 **DATA SOURCES AND REFERENCE YEARS FOR THE GLOBAL HUNGER INDEX COMPONENT INDICATORS, 2000, 2007, 2014, AND 2022**

Indicator	Data sources	Reference years for indicator data			
		2000 GHI scores (117 countries)	**2007 GHI scores** (120 countries)	**2014 GHI scores** (121 countries)	**2022 GHI scores** (121 countries)
Prevalence of undernourishment	FAO 2022a	2000–2002[a]	2006–2008[a]	2013–2015[a]	2019–2021[a]
Child stunting and wasting	WHO 2022; UNICEF, WHO, and World Bank 2022; UNICEF 2022a, 2013, and 2009; MEASURE DHS 2022	1998–2002[b]	2005–2009[c]	2012–2016[d]	2017–2021[e]
Child mortality	UN IGME 2021	2000	2007	2014	2020

Note: The number of countries for which sufficient data were available to calculate GHI scores for each year or time span is shown in parentheses.

[a] Three-year average.
[b] Data collected from the years closest to 2000; where data from 1998 and 2002 or 1999 and 2001 were available, an average was used.
[c] Data collected from the years closest to 2007; where data from 2005 and 2009 or 2006 and 2008 were available, an average was used.
[d] Data collected from the years closest to 2014; where data from 2012 and 2016 or 2013 and 2015 were available, an average was used.
[e] The latest data gathered in this period.

TABLE A.3 **EXISTING DATA AND PROVISIONAL SEVERITY DESIGNATIONS FOR COUNTRIES WITH INCOMPLETE DATA**

Country	2022 GHI provisional severity designation	Child stunting, 2017–2021 (%)	Child wasting, 2017–2021 (%)	Child mortality, 2020 (%)	Last GHI categorization	Last prevalence of undernourishment value (%)	Subregional prevalence of undernourishment (%)	Range of prevalence of undernourishment values for provisional designation (%)
Guinea	Serious	30.3	9.2	9.6	Serious (2019)	16.5 (2019)	12.5	0.0–32.4
Mozambique	Serious	37.5	3.9	7.1	Serious (2021)	31.2 (2021)	29.2	5.0–41.0
Uganda	Serious	25.4	3.6	4.3	Serious (2019)	41.0 (2019)	29.2	18.7–54.7
Zimbabwe	Serious	23.5	2.9	5.4	Serious (2019)	51.3 (2019)	29.2	18.2–54.2
Burundi	Alarming	50.9	5.7	5.4	Extremely alarming (2014)	67.3 (2014)	29.2	34.9–70.8
Somalia	Alarming	—	—	11.5	Extremely alarming (2021)	59.5 (2021)	29.2	**
South Sudan	Alarming	—	—	9.8	—	—	29.2	**
Syrian Arab Republic	Alarming	—	—	2.2	Moderate (2014)	6.0 (2014)	10.0	**
Bahrain	Not designated	1.2*	2.3*	0.7	—	—	10.0	N/A
Bhutan	Not designated	20.5*	2.5*	2.8	—	—	15.3	N/A
Equatorial Guinea	Not designated	25.6*	3.9*	7.8	—	—	30.5	N/A
Eritrea	Not designated	—	—	3.9	Extremely alarming (2014)	61.3 (2014)	29.2	N/A
Libya	Not designated	29.7*	8.2*	1.1	Low (2014)	1.4 (2014)	6.1	N/A
Maldives	Not designated	15.3	9.1	0.6	—	—	15.3	N/A
Qatar	Not designated	0.6*	3.7*	0.6	—	—	10.0	N/A

Source: Authors, based on sources listed in this appendix 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 and GNAFC (2020, 2021, and 2022), and consultations with experts.
N/A = not applicable; — = not available.

Understanding and Using the Global Hunger Index: FAQs

Which countries are included in the GHI?

Inclusion in the GHI is determined based on prevalence of undernourishment and child mortality data dating back to 2000. Countries with values above the "very low" threshold for one or both of these indicators since 2000 are included in the GHI. Specifically, countries are included if the prevalence of undernourishment was at or above 5.0 percent and/or if the child mortality rate was at or above 1.0 percent for any year since 2000. Data on child stunting and child wasting, the other indicators used in the calculation of GHI scores, are not included in the inclusion criteria because their availability varies widely from country to country, with data especially limited for higher-income countries.[9] Non-independent territories are not included in the GHI, nor are countries with very small populations (under 500,000 inhabitants), owing to limited data availability.

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 of Hunger Scale based on existing data and complementary reports (see Table A.3). 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 Yemen—the country with the highest 2022 GHI score—if sufficient data were available.

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 B 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 a combination 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 2022 GHI scores appear in Table 1.1, GHI scores for selected years for each country appear in Appendix C, and regional comparisons appear in Appendix

[9] 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.

D. (Case studies of the hunger situation in specific countries appear on the GHI website, www.globalhungerindex.org.)

Does the 2022 GHI reflect the situation in 2022?

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 2022 GHI scores, undernourishment data are from 2019–2021; child stunting and child wasting data are from 2017–2021, with the most current data from that range used for each country; and child mortality data are from 2020. In 2022, owing to the conflict in Ukraine and the ongoing 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 2022 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 2022 GHI scores can be directly compared with the GHI scores given for three reference years—2000, 2007, and 2014 (Appendix C). 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 of Hunger Scale was modified to reflect this shift. In the GHI reports published since 2015, almost all countries have had much higher GHI scores compared with their scores in reports published in 2014 and earlier. This does not necessarily mean their hunger levels rose in 2015—the higher scores merely reflect the revision of the methodology. The 2000, 2007, 2014, and 2022 GHI scores shown in this year's report are all comparable because they all reflect the revised methodology and the latest revisions of data.

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, GHI rankings cannot be compared between GHI reports, for two main reasons. First, the data and methodology used to calculate GHI scores have been revised over time, as described above. Second, the ranking in each year's report often includes different countries because the set of countries for which sufficient data are available to calculate GHI scores varies from year to year. Thus, if a country's ranking changes from one report to the next, this may be in part because it is being compared with a different group of countries.

DATA UNDERLYING THE CALCULATION OF THE 2000, 2007, 2014, AND 2022 GLOBAL HUNGER INDEX SCORES

Guide to the colors shown in Appendix B

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	Child wasting	Child stunting	Child mortality
Very low	<5%	<2.5%	<2.5%	<1%
Low	5–<15%	2.5–<5%	2.5–<10%	1–<4%
Medium	15–<25%	5–<10%	10–<20%	4–<7%
High	25–<35%	10–<15%	20–<30%	7–<10%
Very high	≥35%	≥15%	≥30%	≥10%

Note: Threshold values for the prevalence of undernourishment are adapted from FAO (2015). Threshold values for child stunting and child wasting are from de Onis et al. (2019). Threshold values for child mortality are adapted from those shown in UN IGME (2021) but condensed to the five categories shown.

B

DATA UNDERLYING THE CALCULATION OF THE 2000, 2007, 2014, AND 2022 GLOBAL HUNGER INDEX SCORES

Country	Undernourishment (% of population)				Child wasting (% of children under five years old)				Child stunting (% of children under five years old)				Child mortality (% of children under five years old)			
	'00–'02	'06–'08	'13–'15	'19–'21	'98–'02	'05–'09	'12–'16	'17–'21	'98–'02	'05–'09	'12–'16	'17–'21	2000	2007	2014	2020
Afghanistan	47.8	29.8	20.7	29.8	10.9 *	8.3 *	9.5	5.1	50.6 *	51.1 *	40.4	38.2	12.9	10.0	7.4	5.8
Albania	4.9	8.3	5.0	3.9	12.2	8.5	4.5 *	1.6	39.2	25.0	15.2 *	11.3	2.7	1.7	1.0	1.0
Algeria	8.0	5.9	2.9	<2.5	3.1	4.1	4.1	2.7	23.6	15.4	11.7	9.8	4.0	3.1	2.5	2.3
Angola	67.5	46.1	13.7	20.8	11.2 *	8.2	4.9	6.1 *	46.7 *	29.2	37.6	29.8 *	20.4	14.7	9.3	7.1
Argentina	3.0	3.3	<2.5	3.7	1.7 *	1.2	1.6 *	2.7	10.5 *	8.2	8.3 *	12.3	2.0	1.6	1.2	0.9
Armenia	26.1	6.9	2.8	3.5	2.5	5.4	4.4	3.1 *	17.3	17.9	9.4	11.4 *	3.1	2.1	1.5	1.1
Azerbaijan	17.0	<2.5	<2.5	<2.5	9.0	6.8	3.2	3.8 *	24.2	26.5	17.8	12.9 *	7.4	4.6	2.8	1.9
Bahrain	—	—	—	—	3.6 *	2.7 *	2.5 *	2.3 *	1.8 *	1.4 *	1.3 *	1.2 *	1.2	1.0	0.8	0.7
Bangladesh	15.9	13.9	14.1	11.4	12.5	17.5	14.4	9.8	51.1	43.2	36.2	28.0	8.6	5.8	4.0	2.9
Belarus	<2.5	<2.5	<2.5	<2.5	2.2 *	2.2	2.2 *	2.2 *	6.2 *	4.5	3.5 *	3.5 *	1.3	0.7	0.4	0.3
Benin	17.2	10.1	7.4	7.4	9.0	5.0	4.5	5.0	36.2	37.4	34.0	32.2	13.7	11.6	10.0	8.6
Bhutan	—	—	—	—	2.5	4.5	3.0 *	2.5 *	47.7	34.9	25.5 *	20.5 *	7.7	5.1	3.5	2.8
Bolivia (Plurinat. State of)	27.9	23.9	15.6	13.9	1.6	1.4	1.7	1.4 *	33.2	27.1	17.1	18.0 *	7.6	5.0	3.3	2.5
Bosnia & Herzegovina	3.2	<2.5	<2.5	<2.5	7.4	4.0	2.3	3.3 *	12.1	11.8	8.9	7.7 *	1.0	0.8	0.6	0.6
Botswana	23.7	22.2	19.3	21.9	5.9	7.3	5.8 *	5.2 *	29.1	28.9	18.7 *	15.4 *	8.0	5.9	5.0	4.5
Brazil	10.7	5.6	2.5	4.1	2.3 *	1.8	1.5 *	1.3 *	9.9 *	7.0	6.8 *	6.5 *	3.5	2.2	1.6	1.5
Bulgaria	4.0	4.6	3.3	3.0	4.7 *	4.7	6.3	4.4 *	10.8 *	9.2	7.0	6.9 *	1.8	1.2	0.9	0.6
Burkina Faso	22.6	16.0	11.8	18.0	15.5	11.3	8.5	7.7	41.4	35.1	29.0	19.6	17.9	13.9	10.5	8.5
Burundi	—	—	—	—	8.1	9.0	5.0 *	5.7	64.0	57.7	53.7 *	50.9	15.4	11.0	7.1	5.4
Cabo Verde	14.5	12.3	16.2	17.7	3.7 *	3.2 *	2.6 *	2.4 *	15.0 *	9.9 *	8.2 *	7.2 *	3.8	2.8	2.1	1.4
Cambodia	23.6	14.8	9.2	6.3	17.1	8.8	9.7	9.5 *	49.0	41.1	32.4	28.1 *	10.6	5.5	3.3	2.6
Cameroon	22.9	12.6	5.3	6.7	6.2	7.6	5.2	4.3	38.2	37.6	31.7	28.9	14.4	12.1	9.2	7.2
Central African Republic	39.2	35.7	47.9	52.2	10.4	12.1	6.2	5.3	44.4	43.6	38.0	40.0	16.9	15.6	12.8	10.3
Chad	38.8	39.2	27.0	32.7	13.9	15.5 *	13.3	10.2	38.9	37.0 *	39.8	31.1	18.4	16.0	13.2	11.0
Chile	3.4	3.1	3.0	2.6	0.5	0.3	0.3	0.3 *	3.0	2.1	1.8	1.8 *	1.1	0.9	0.8	0.7
China	10.0	5.0	<2.5	<2.5	2.5	2.6	1.9	1.9	17.8	9.8	8.1	4.8	3.7	2.0	1.2	0.7
Colombia	8.7	11.0	7.5	8.2	1.0	1.6	1.6	0.9 *	18.2	16.0	12.7	10.2 *	2.5	2.0	1.6	1.3
Comoros	27.1	19.6	20.0	20.4	13.3	9.7 *	11.2	10.4 *	46.9	39.6 *	31.1	28.7 *	10.1	9.2	7.5	6.1
Congo (Republic of)	27.0	35.4	25.3	31.6	9.8 *	8.0	8.2	7.9 *	29.9 *	31.2	21.2	26.4 *	11.4	7.4	5.4	4.5
Costa Rica	4.7	3.8	4.7	3.4	2.2 *	1.0	1.3 *	1.8	11.0 *	5.6	5.3 *	9.0	1.3	1.1	0.9	0.8
Côte d'Ivoire	20.4	17.9	9.2	4.4	6.9	14.0	6.8	4.8 *	31.2	39.0	25.8	20.4 *	14.3	11.8	9.4	7.8
Croatia	6.8	<2.5	<2.5	<2.5	1.3 *	1.1 *	1.1 *	1.0 *	1.3 *	1.0 *	0.9 *	0.8 *	0.8	0.6	0.5	0.5
Dem. Rep. of the Congo	32.2	34.5	35.1	39.8	15.9	10.4	8.1	6.4	44.4	45.8	42.7	41.8	15.9	12.7	9.9	8.1
Djibouti	42.0	25.1	15.7	13.5	19.4	17.0	13.9	10.1	27.1	33.0	28.0	20.9	10.1	8.4	6.8	5.6
Dominican Republic	20.4	16.2	8.2	6.7	1.5	2.3	2.4	2.2	7.7	10.1	7.1	6.7	4.0	3.6	3.5	3.4
Ecuador	21.0	22.1	8.7	15.4	2.7	2.1	1.6	3.7	27.9	25.9	23.9	23.0	3.0	2.2	1.6	1.3
Egypt	5.2	5.7	4.2	5.1	7.0	7.9	9.5	5.5 *	24.4	30.7	22.3	22.4 *	4.7	3.3	2.4	1.9
El Salvador	7.2	9.7	10.8	7.7	1.5	1.6	2.1	1.0 *	32.3	20.8	13.6	14.3 *	3.3	2.3	1.6	1.3
Equatorial Guinea	—	—	—	—	9.2	3.4 *	3.0 *	3.9 *	42.7	30.0 *	24.7 *	25.6 *	15.6	12.4	9.7	7.8
Eritrea	—	—	—	—	15.0	—	—	—	43.0	—	—	—	8.5	6.2	4.8	3.9
Estonia	3.6	<2.5	<2.5	<2.5	1.6 *	1.6 *	1.5	1.4 *	1.5 *	1.2 *	1.2	1.1 *	1.1	0.6	0.3	0.2
Eswatini	10.5	10.7	12.7	11.0	1.7	2.9	2.0	1.4 *	36.5	29.2	25.5	27.2 *	11.2	10.4	6.2	4.7
Ethiopia	47.0	35.0	15.9	24.9	12.4	12.4	8.8	6.8	57.4	50.0	40.4	36.8	14.1	9.7	6.6	4.9
Fiji	4.0	3.7	6.3	5.7	7.9 *	6.6 *	6.2 *	4.6	5.6 *	4.3 *	3.9 *	7.2	2.2	2.4	2.4	2.7
Gabon	10.7	15.9	13.3	17.2	4.2	3.8 *	3.4	3.3 *	25.9	21.0 *	17.0	17.8 *	8.3	6.9	5.3	4.2
Gambia	17.8	18.7	10.5	21.6	9.1	7.4	11.0	5.1	24.1	27.7	24.6	17.5	11.3	8.4	6.2	4.9
Georgia	7.7	4.0	7.9	7.6	3.1	2.1	0.6 *	0.6	16.1	13.2	6.0 *	5.8	3.7	1.9	1.1	0.9
Ghana	14.9	9.4	7.1	4.1	9.9	7.3	4.7	6.8	30.6	28.2	18.8	17.5	10.0	7.8	5.7	4.5
Guatemala	22.2	18.2	17.7	16.0	3.7	1.0	0.8	1.4 *	51.0	51.5	46.7	38.2 *	5.2	3.9	2.9	2.4
Guinea	—	—	—	—	10.3	7.2	7.8	9.2	46.9	34.0	32.6	30.3	16.4	12.7	10.9	9.6
Guinea-Bissau	15.6	16.3	26.7	31.7	11.8	7.6 *	6.0	6.5	33.8	31.0 *	27.6	27.9	17.4	13.2	9.6	7.7
Guyana	6.5	7.5	7.0	4.9	12.1	8.3	6.4	6.4	13.9	17.9	11.3	9.1	4.6	4.0	3.4	2.8
Haiti	50.7	50.1	42.6	47.2	5.5	10.2	4.6	3.7	28.8	29.6	22.7	21.9	10.4	8.5	7.2	6.0
Honduras	21.9	21.0	14.6	15.3	1.3	1.4	1.4	1.9	35.5	29.8	22.6	18.7	3.7	2.7	2.0	1.6
Hungary	<2.5	<2.5	<2.5	<2.5	2.0 *	1.9 *	1.9 *	1.6 *	11.2 *	9.3 *	8.1 *	7.9 *	1.0	0.7	0.5	0.4
India	18.4	17.5	14.8	16.3	17.1	20.0	15.1	19.3	54.2	47.8	38.7	35.5	9.2	6.8	4.6	3.3
Indonesia	19.2	18.5	7.9	6.5	5.5	14.8	13.5	10.2	42.4	40.1	36.4	30.8	5.2	3.8	2.9	2.3
Iran (Islamic Republic of)	4.8	5.7	4.9	4.1	6.1	4.1 *	3.7 *	4.3	20.4	8.4 *	7.4 *	4.8	3.6	2.3	1.6	1.3
Iraq	22.1	17.8	17.3	15.9	6.6	5.8	4.5 *	3.0	28.1	27.5	16.7 *	12.6	4.4	3.8	3.1	2.5
Jamaica	7.4	8.3	9.3	6.9	3.0	2.7	3.6	3.2	7.2	5.4	6.0	4.6	2.2	1.9	1.6	1.3
Jordan	9.7	6.1	6.0	16.9	2.5	1.6	2.4	0.6	11.7	8.2	7.8	7.4	2.7	2.2	1.8	1.5
Kazakhstan	6.5	5.1	<2.5	<2.5	2.5	4.9	3.1	4.1 *	13.2	17.5	8.0	9.1 *	4.2	2.7	1.3	1.0
Kenya	32.2	26.9	19.6	26.9	7.4	6.9	4.2	4.8 *	40.8	40.3	26.2	23.6 *	9.8	6.8	5.1	4.2
Korea (DPR)	35.7	38.2	39.6	41.6	12.2	5.2	4.0	2.5	51.0	32.4	27.9	19.1	6.0	3.2	2.2	1.7
Kuwait	2.6	<2.5	<2.5	2.7	2.2	3.6	2.4	2.5	4.0	5.1	5.8	6.4	1.2	1.1	0.9	0.9
Kyrgyzstan	15.0	9.6	6.1	5.3	3.1 *	3.4	2.8	2.0	22.3 *	18.1	12.9	11.8	5.0	3.6	2.3	1.8
Lao PDR	31.2	20.1	8.0	5.1	17.5	7.4	9.7	9.0	47.5	47.7	35.5	33.1	10.7	7.9	5.6	4.4
Latvia	4.6	<2.5	<2.5	<2.5	2.3 *	2.0 *	1.9 *	2.1 *	4.3 *	2.4 *	2.2 *	1.8 *	1.4	0.9	0.5	0.4
Lebanon	7.8	9.9	5.5	10.9	4.8 *	4.4 *	4.4 *	3.9 *	16.0 *	14.7 *	12.9 *	13.3 *	2.0	1.2	0.9	0.7

DATA UNDERLYING THE CALCULATION OF THE 2000, 2007, 2014, AND 2022 GLOBAL HUNGER INDEX SCORES

Country	Undernourishment (% of population)				Child wasting (% of children under five years old)				Child stunting (% of children under five years old)				Child mortality (% of children under five years old)			
	'00–'02	'06–'08	'13–'15	'19–'21	'98–'02	'05–'09	'12–'16	'17–'21	'98–'02	'05–'09	'12–'16	'17–'21	2000	2007	2014	2020
Lesotho	20.0	12.4	26.1	34.7	6.7 *	5.6	2.8	2.1	44.1 *	42.0	33.4	34.6	10.7	11.4	9.4	9.0
Liberia	36.6	34.4	36.8	38.3	7.4	7.9	5.6	3.4	45.3	39.6	32.1	29.8	19.0	11.4	9.2	7.8
Libya	—	—	—	—	9.4 *	6.5	10.2	8.2 *	34.3 *	21.0	38.1	29.7 *	2.8	2.0	1.4	1.1
Lithuania	<2.5	<2.5	<2.5	<2.5	5.3 *	2.0 *	2.0 *	2.0 *	3.6 *	2.1 *	1.8 *	1.5 *	1.1	0.8	0.5	0.3
Madagascar	33.8	30.5	37.6	48.5	9.6 *	9.5 *	7.5	7.7	55.0 *	49.4	48.9	39.8	10.5	7.8	6.1	5.0
Malawi	23.6	19.3	15.4	17.8	6.8	4.2	3.8	2.2	54.7	53.1	42.4	35.2	17.5	10.0	5.8	3.9
Malaysia	2.5	3.6	3.6	<2.5	15.3	13.2	8.0	9.7	20.7	17.5	17.7	21.8	1.0	0.8	0.8	0.9
Maldives	—	—	—	—	13.4	10.6	9.4 *	9.1	31.9	19.0	16.5 *	15.3	3.9	1.8	1.1	0.6
Mali	16.2	10.4	3.6	9.8	12.6	15.4	13.1	9.3	42.5	37.6	28.1	22.1	18.7	14.5	11.2	9.1
Mauritania	8.3	8.1	8.0	10.1	15.3	13.6	14.8	8.3	38.6	31.5	27.9	21.6	11.2	10.4	8.5	7.1
Mauritius	5.7	5.2	5.3	7.8	14.6 *	14.0 *	12.6 *	11.5 *	12.5 *	11.3 *	9.8 *	9.0 *	1.9	1.5	1.5	1.7
Mexico	3.3	4.1	4.4	6.1	2.0	2.0	1.0	1.6	21.4	15.5	12.4	13.9	2.8	2.1	1.7	1.4
Moldova (Republic of)	24.6	30.7	6.4	6.7	4.2 *	5.8	1.9	2.7 *	13.1 *	10.7	6.4	5.4 *	3.2	1.8	1.6	1.4
Mongolia	31.1	25.2	10.1	3.6	7.1	2.7	1.0	0.9	29.8	27.5	10.8	9.4	6.3	3.4	2.0	1.5
Montenegro	9.6	<2.5	<2.5	<2.5	—	4.2	2.8	2.2	—	7.9	9.4	7.2	—	0.9	0.4	0.2
Morocco	6.3	5.5	4.1	5.6	4.1 *	3.5 *	3.1 *	2.6	24.8 *	19.4 *	15.8 *	15.1	5.2	3.7	2.5	1.9
Mozambique	—	—	—	—	8.1	4.2	4.4	3.9	50.7	43.5	42.3	37.5	17.0	11.9	8.8	7.1
Myanmar	37.6	20.5	5.1	3.1	10.7	9.0 *	6.6	6.7	40.8	37.9 *	29.4	26.7	9.0	7.2	5.4	4.4
Namibia	13.5	23.5	21.5	18.0	10.0	7.6	7.1	6.1 *	29.3	29.2	22.7	16.6 *	7.6	6.1	4.8	4.0
Nepal	23.5	14.9	6.1	5.5	11.3	12.7	11.3	12.0	56.1	49.1	37.1	31.5	7.9	5.3	3.7	2.8
Nicaragua	27.5	21.6	19.7	18.6	2.3	1.5	2.2	1.1 *	25.1	23.1	17.3	15.4 *	3.9	2.7	2.0	1.6
Niger	22.3	17.7	13.2	19.8	16.2	12.5	14.2	11.5	53.5	49.2	42.2	44.4	22.5	14.9	9.8	7.8
Nigeria	8.9	6.6	9.2	12.7	14.0 *	10.1 *	7.9	6.5	48.3 *	41.1 *	33.6	31.5	18.3	14.6	12.8	11.4
North Macedonia	7.5	3.6	3.5	3.3	1.7	3.4	2.3 *	3.4	8.0	11.3	4.1 *	4.3	1.6	1.2	1.1	0.6
Oman	12.3	9.7	7.1	9.8	7.8	7.1	7.5	9.3	15.8	9.8	14.1	11.4	1.6	1.2	1.1	1.1
Pakistan	21.1	15.8	13.4	16.9	14.1	12.0 *	10.5	7.1	41.4	42.0 *	45.0	37.6	10.8	9.3	7.8	6.5
Panama	24.5	16.2	8.3	5.8	1.4 *	1.2	1.2 *	1.1	21.4 *	19.0	15.1 *	15.9	2.6	2.2	1.8	1.4
Papua New Guinea	26.3	26.6	23.1	21.6	8.1 *	4.4	7.4 *	6.9 *	48.0 *	43.9	43.2 *	39.6 *	7.1	6.2	5.2	4.4
Paraguay	10.5	9.4	7.1	8.7	1.6	1.1	1.8	1.2 *	13.2 *	17.1	8.1	8.0 *	3.4	2.9	2.3	1.9
Peru	21.5	13.7	5.4	8.3	1.1	0.8	0.6	0.4	31.3	28.0	14.8	11.4	3.8	2.3	1.6	1.3
Philippines	18.7	12.1	11.1	5.2	8.0	6.6	7.6	5.7	38.3	32.0	30.0	29.5	3.8	3.3	3.0	2.6
Qatar	—	—	—	—	5.1 *	3.9 *	3.6 *	3.7 *	7.9 *	5.3 *	4.6 *	0.6 *	1.2	1.0	0.8	0.6
Romania	<2.5	<2.5	<2.5	<2.5	4.3	2.9 *	3.1 *	2.9 *	12.8	10.9 *	9.6 *	9.0 *	2.2	1.5	1.0	0.7
Russian Federation	4.0	<2.5	<2.5	<2.5	4.8 *	4.2 *	4.2 *	4.4 *	16.7 *	13.0 *	13.0 *	13.4 *	1.9	1.2	0.9	0.5
Rwanda	38.5	32.3	35.1	35.8	8.7	5.0	2.1	1.1	47.9	49.0	37.6	33.1	18.5	8.4	5.0	4.0
Saudi Arabia	4.9	4.8	4.3	3.7	7.7 *	11.8	5.5 *	5.3 *	11.0 *	9.3	6.8 *	6.3 *	2.2	1.5	1.0	0.7
Senegal	24.1	13.6	11.8	7.5	10.0	8.7	5.9	8.1	26.0	19.9	18.8	18.3	13.0	7.9	5.2	3.8
Serbia	3.1	<2.5	3.7	3.3	—	4.5	3.9	2.6	—	8.1	6.0	5.4	—	0.8	0.7	0.6
Sierra Leone	50.7	41.7	25.0	27.4	11.6	10.2	4.6	6.3	35.5	45.0	29.1	26.3	22.5	18.2	13.9	10.8
Slovakia	6.1	5.4	5.8	3.8	2.3 *	2.1 *	2.0 *	1.9 *	9.3 *	7.3 *	6.6 *	6.2 *	1.0	0.8	0.6	0.6
Solomon Islands	13.3	12.6	18.7	18.1	6.3 *	4.3	8.5	5.7 *	34.2 *	32.8	31.7	29.0 *	3.1	2.8	2.3	1.9
Somalia	—	—	—	—	19.3	13.3	—	—	29.2	42.0	—	—	17.3	17.0	13.8	11.5
South Africa	3.9	3.6	4.8	6.9	4.5	4.8	3.5	3.4	30.1	24.9	21.4	21.4	7.2	7.5	3.8	3.2
South Sudan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.8	9.8
Sri Lanka	16.7	11.8	6.0	3.4	15.9	15.2	18.2	15.0 *	18.3	18.1	15.9	13.4 *	1.6	1.3	0.9	0.7
Sudan	21.5	16.7	11.1	12.8	—	—	16.3	16.9 *	—	—	38.2	36.5 *	—	—	6.8	5.7
Suriname	11.8	8.8	7.3	8.2	7.0	4.9	5.1 *	5.5	14.1	10.6	8.8 *	8.3	3.1	2.5	2.1	1.8
Syrian Arab Republic	—	—	—	—	4.9	10.3	—	—	24.3	28.7	—	—	2.3	1.9	4.7	2.2
Tajikistan	40.9	36.2	18.4	8.6	9.4	6.9	6.7	5.6	42.1	39.3	23.3	17.5	8.4	4.9	3.8	3.2
Tanzania (United Rep. of)	33.1	25.7	22.5	22.6	5.6	3.2	3.8	3.5	48.3	43.8	34.7	31.8	13.0	8.4	6.0	4.9
Thailand	17.3	10.2	7.8	8.8	7.5 *	4.7	6.7	7.7	21.6 *	15.7	16.4	13.4	2.2	1.6	1.1	0.9
Timor-Leste	41.5	31.7	25.3	26.2	13.7	21.3	9.9	8.3	55.7	57.2	51.7	46.7	—	7.2	5.2	4.2
Togo	31.3	26.2	20.2	18.8	12.4	6.0	6.6	5.7	33.2	28.4	27.6	23.8	12.0	9.7	7.8	6.4
Trinidad & Tobago	10.0	9.9	6.6	7.5	5.2	5.2 *	5.1 *	5.1 *	5.3	5.9 *	5.7 *	5.9 *	2.8	2.4	2.0	1.7
Tunisia	4.4	4.0	2.7	3.1	2.9	3.4	2.8	2.1	16.8	9.0	10.1	8.4	3.0	2.0	1.7	1.7
Türkiye	<2.5	<2.5	<2.5	<2.5	3.0	1.0	1.9	1.7	18.8	12.5	10.0	6.0	3.8	2.3	1.4	0.9
Turkmenistan	6.8	3.9	3.6	3.5	8.0	7.2	4.2	4.1	27.2	18.9	11.5	7.2	7.0	4.7	4.2	4.2
Uganda	—	—	—	—	5.0	6.2	3.8	3.6	44.9	38.4	34.0	25.4	14.6	9.3	5.9	4.3
Ukraine	3.0	<2.5	<2.5	2.8	8.2	2.4 *	2.5 *	2.6 *	22.9	17.6 *	17.4 *	17.4 *	1.8	1.3	1.0	0.8
United Arab Emirates	2.8	8.1	6.6	5.6	5.7 *	2.5 *	2.5 *	2.4 *	3.5 *	3.8 *	4.1 *	3.9 *	1.1	0.9	0.8	0.7
Uruguay	3.6	3.1	<2.5	<2.5	2.3	2.5	1.0	1.4	12.8	10.8	5.0	6.9	1.7	1.3	0.9	0.6
Uzbekistan	17.9	11.5	<2.5	<2.5	9.0	4.4	4.1 *	1.8	24.9	19.6	14.7 *	10.8	6.1	3.7	2.1	1.4
Venezuela (Boliv. Rep. of)	14.9	4.8	4.5	22.9	3.9	5.0	3.4 *	5.0 *	17.4	15.6	11.0 *	22.2 *	2.2	1.7	1.8	2.4
Viet Nam	19.7	14.1	8.6	5.7	9.0	10.1	6.8	5.2	42.9	32.2	24.9	19.6	3.0	2.4	2.2	2.1
Yemen	26.7	26.1	38.1	41.4	15.4 *	13.8	16.4	16.1 *	52.7 *	57.0	46.4	55.5 *	9.5	6.6	5.9	6.0
Zambia	51.7	55.5	37.7	30.9	5.0	5.6	6.2	4.2	59.2	45.8	40.0	34.6	15.6	9.3	6.8	6.1
Zimbabwe	—	—	—	—	8.3	7.2	3.2	2.9	33.8	35.3	27.6	23.5	9.6	9.6	6.3	5.4

Note: The colors shown in the table represent the following categories: = Very low = Low = Medium = High = Very high. For more information, see page 39.
— = Data not available or not presented. Some countries did not exist in their present borders in the given year or reference period. *GHI estimates.

C

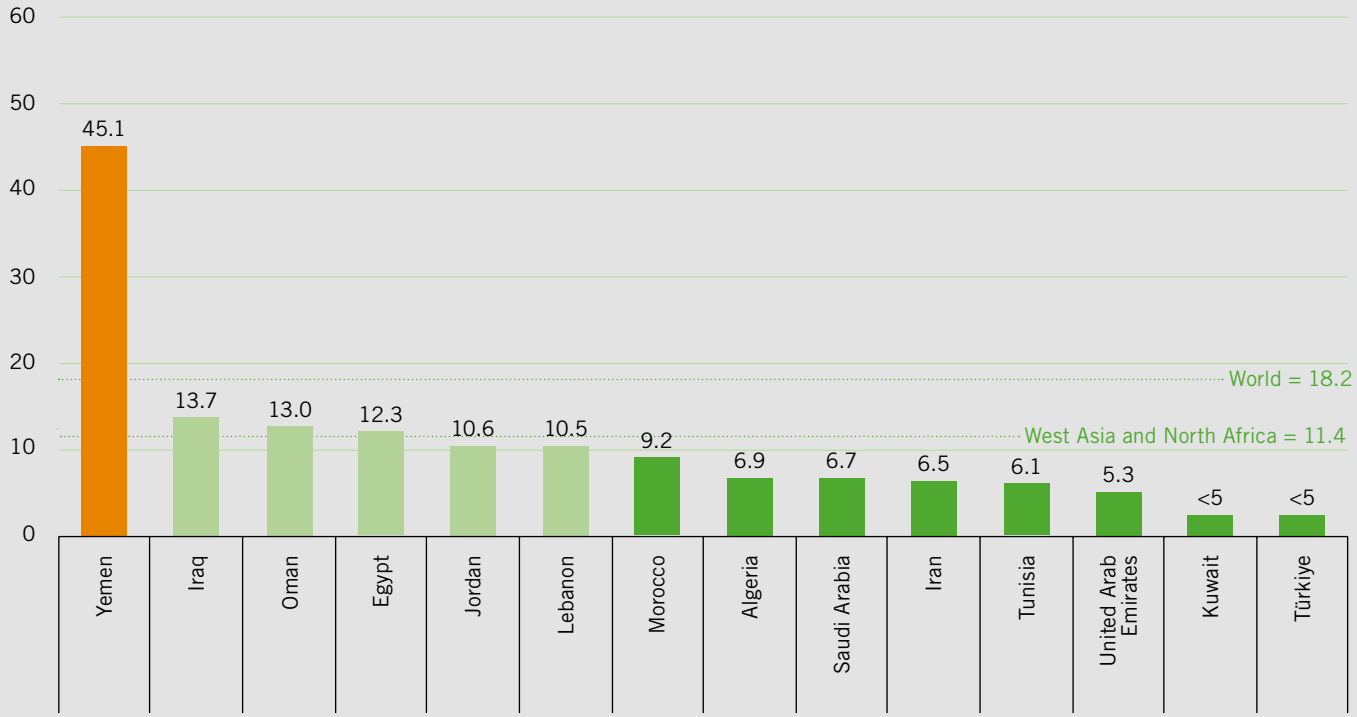
2000, 2007, 2014, AND 2022 GLOBAL HUNGER INDEX SCORES, AND CHANGE SINCE 2014

Country with data from	2000 '98–'02	2007 '05–'09	2014 '12–'16	2022 '17–'21	Absolute change since 2014	% change since 2014
Afghanistan	50.3	38.7	30.6	29.9	-0.7	-2.3
Albania	20.7	15.8	9.2	6.2	-3.0	-32.6
Algeria	14.5	11.4	8.7	6.9	-1.8	-20.7
Angola	64.9	44.7	26.2	25.9	-0.3	-1.1
Argentina	6.6	5.5	5.0	6.8	1.8	36.0
Armenia	19.3	12.1	7.3	6.9	-0.4	-5.5
Azerbaijan	24.9	15.3	9.3	7.5	-1.8	-19.4
Bahrain	—	—	—	—	—	—
Bangladesh	33.9	31.3	26.3	19.6	-6.7	-25.5
Belarus	<5	<5	<5	<5	—	—
Benin	33.8	26.9	23.2	21.7	-1.5	-6.5
Bhutan	—	—	—	—	—	—
Bolivia (Plurinat. State of)	27.7	22.0	14.7	13.2	-1.5	-10.2
Bosnia & Herzegovina	9.3	6.6	<5	<5	—	—
Botswana	27.7	25.8	20.5	20.0	-0.5	-2.4
Brazil	11.4	7.1	5.0	5.4	0.4	8.0
Bulgaria	8.6	7.9	7.4	5.9	-1.5	-20.3
Burkina Faso	44.9	34.5	26.5	24.5	-2.0	-7.5
Burundi	—	—	—	—	—	—
Cabo Verde	15.3	11.9	12.1	11.8	-0.3	-2.5
Cambodia	41.1	26.1	20.1	17.1	-3.0	-14.9
Cameroon	35.8	29.9	21.4	18.9	-2.5	-11.7
Central African Republic	48.8	46.8	44.6	44.0	-0.6	-1.3
Chad	50.7	49.0	40.7	37.2	-3.5	-8.6
Chile	<5	<5	<5	<5	—	—
China	13.3	7.8	<5	<5	—	—
Colombia	10.9	11.2	8.6	7.6	-1.0	-11.6
Comoros	39.5	31.7	29.1	26.9	-2.2	-7.6
Congo (Republic of)	34.7	33.7	25.3	28.1	2.8	11.1
Costa Rica	7.0	<5	<5	5.3	—	—
Côte d'Ivoire	33.4	35.8	22.7	16.8	-5.9	-26.0
Croatia	<5	<5	<5	<5	—	—
Dem. Rep. of the Congo	48.0	43.2	38.7	37.8	-0.9	-2.3
Djibouti	44.3	35.8	27.4	21.5	-5.9	-21.5
Dominican Republic	15.0	13.9	9.8	8.8	-1.0	-10.2
Ecuador	19.7	18.6	11.7	15.2	3.5	29.9
Egypt	16.3	17.2	14.6	12.3	-2.3	-15.8
El Salvador	14.7	12.1	10.4	8.4	-2.0	-19.2
Equatorial Guinea	—	—	—	—	—	—
Eritrea	—	—	—	—	—	—
Estonia	<5	<5	<5	<5	—	—
Eswatini	24.7	22.9	18.4	16.3	-2.1	-11.4
Ethiopia	53.6	42.6	27.4	27.6	0.2	0.7
Fiji	9.5	8.5	9.3	9.2	-0.1	-1.1
Gabon	20.9	20.3	16.5	17.2	0.7	4.2
Gambia	29.0	26.5	22.2	20.7	-1.5	-6.8
Georgia	12.3	7.8	6.1	5.7	-0.4	-6.6
Ghana	28.5	22.1	15.5	13.9	-1.6	-10.3
Guatemala	28.4	24.1	21.7	18.8	-2.9	-13.4
Guinea	—	—	—	—	—	—
Guinea-Bissau	37.7	31.0	30.2	30.8	0.6	2.0
Guyana	17.1	15.8	12.4	10.4	-2.0	-16.1
Haiti	40.9	41.7	32.6	32.7	0.1	0.3
Honduras	21.8	19.2	14.1	13.4	-0.7	-5.0
Hungary	5.5	<5	<5	<5	—	—
India	38.8	36.3	28.2	29.1	0.9	3.2
Indonesia	26.1	29.1	22.2	17.9	-4.3	-19.4
Iran (Islamic Republic of)	13.7	8.8	7.4	6.5	-0.9	-12.2
Iraq	23.8	20.8	16.6	13.7	-2.9	-17.5
Jamaica	8.6	8.1	8.8	7.0	-1.8	-20.5
Jordan	10.8	7.5	7.4	10.6	3.2	43.2
Kazakhstan	11.2	11.6	5.8	5.9	0.1	1.7
Kenya	36.6	31.1	21.6	23.5	1.9	8.8
Korea (DPR)	39.5	29.6	27.5	24.9	-2.6	-9.5
Kuwait	<5	<5	<5	<5	—	—
Kyrgyzstan	18.0	13.6	9.4	7.8	-1.6	-17.0
Lao PDR	44.2	31.4	22.5	19.2	-3.3	-14.7
Latvia	5.6	<5	<5	<5	—	—
Lebanon	11.6	11.2	8.7	10.5	1.8	20.7
Lesotho	32.7	29.1	29.3	32.4	3.1	10.6
Liberia	48.2	39.0	34.8	32.4	-2.4	-6.9
Libya	—	—	—	—	—	—
Lithuania	5.4	<5	<5	<5	—	—
Madagascar	42.5	37.2	37.3	38.7	1.4	3.8
Malawi	43.3	32.5	24.1	20.7	-3.4	-14.1
Malaysia	15.4	13.8	10.9	12.5	1.6	14.7
Maldives	—	—	—	—	—	—
Mali	41.7	35.7	26.1	23.2	-2.9	-11.1
Mauritania	31.8	28.3	26.3	20.7	-5.6	-21.3
Mauritius	15.3	14.1	13.0	13.4	0.4	3.1
Mexico	10.2	8.5	7.0	8.1	1.1	15.7
Moldova (Rep. of)	18.7	20.3	6.8	6.9	0.1	1.5
Mongolia	30.0	21.8	9.2	5.7	-3.5	-38.0
Montenegro	—	5.4	<5	<5	—	—
Morocco	15.8	12.4	9.6	9.2	-0.4	-4.2
Mozambique	—	—	—	—	—	—
Myanmar	39.9	29.4	17.9	15.6	-2.3	-12.8
Namibia	25.4	26.8	22.9	18.7	-4.2	-18.3
Nepal	37.0	30.0	21.2	19.1	-2.1	-9.9
Nicaragua	22.4	17.9	15.5	13.6	-1.9	-12.3
Niger	52.5	40.2	32.8	32.6	-0.2	-0.6
Nigeria	40.4	32.1	28.4	27.3	-1.1	-3.9
North Macedonia	7.5	7.2	<5	<5	—	—
Oman	14.7	11.5	11.5	13.0	1.5	13.0
Pakistan	36.8	32.1	29.6	26.1	-3.5	-11.8
Panama	18.6	14.0	9.4	8.1	-1.3	-13.8
Papua New Guinea	33.6	29.9	29.0	26.5	-2.5	-8.6
Paraguay	11.6	11.4	8.1	8.0	-0.1	-1.2
Peru	20.6	15.0	7.6	7.6	0.0	0.0
Philippines	25.0	19.5	18.8	14.8	-4.0	-21.3
Qatar	—	—	—	—	—	—
Romania	7.9	5.8	5.1	<5	—	—
Russian Federation	10.1	7.1	6.7	6.4	-0.3	-4.5
Rwanda	49.9	35.9	29.5	27.2	-2.3	-7.8
Saudi Arabia	11.0	12.2	7.4	6.7	-0.7	-9.5
Senegal	34.2	22.8	17.6	15.6	-2.0	-11.4
Serbia	—	6.1	5.8	<5	—	—
Sierra Leone	57.5	51.1	33.1	31.5	-1.6	-4.8
Slovakia	7.0	5.9	5.7	<5	—	—
Solomon Islands	20.1	18.1	22.3	19.4	-2.9	-13.0
Somalia	—	—	—	—	—	—
South Africa	18.1	17.2	12.7	12.9	0.2	1.6
South Sudan	—	—	—	—	—	—
Sri Lanka	21.7	18.9	17.3	13.6	-3.7	-21.4
Sudan	—	—	29.3	28.8	-0.5	-1.7
Suriname	15.1	11.3	10.0	10.2	0.2	2.0
Syrian Arab Republic	—	—	—	—	—	—
Tajikistan	40.3	32.9	20.6	13.9	-6.7	-32.5
Tanzania (United Rep. of)	40.8	30.9	25.5	23.6	-1.9	-7.5
Thailand	18.6	12.1	11.9	12.0	0.1	0.8
Timor-Leste	—	45.5	33.3	30.6	-2.7	-8.1
Togo	39.3	30.2	26.1	22.8	-3.3	-12.6
Trinidad & Tobago	11.0	10.7	8.8	9.0	0.2	2.3
Tunisia	10.3	7.6	6.7	6.1	-0.6	-9.0
Türkiye	10.1	5.8	<5	<5	—	—
Turkmenistan	20.4	14.6	10.6	9.5	-1.1	-10.4
Uganda	—	—	—	—	—	—
Ukraine	13.0	7.2	7.2	7.5	0.3	4.2
United Arab Emirates	6.2	6.5	5.9	5.3	-0.6	-10.2
Uruguay	7.4	6.5	<5	<5	—	—
Uzbekistan	24.2	15.4	8.3	5.6	-2.7	-32.5
Venezuela (Boliv. Rep. of)	14.6	10.1	8.1	19.9	11.8	145.7
Viet Nam	26.3	21.4	15.4	11.9	-3.5	-22.7
Yemen	41.3	38.4	41.7	45.1	3.4	8.2
Zambia	53.3	46.0	35.2	29.3	-5.9	-16.8
Zimbabwe	—	—	—	—	—	—

Note: — = Data are not available or not presented. See Table A.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' 2022 GHI SCORES BY REGION

WEST ASIA AND NORTH AFRICA

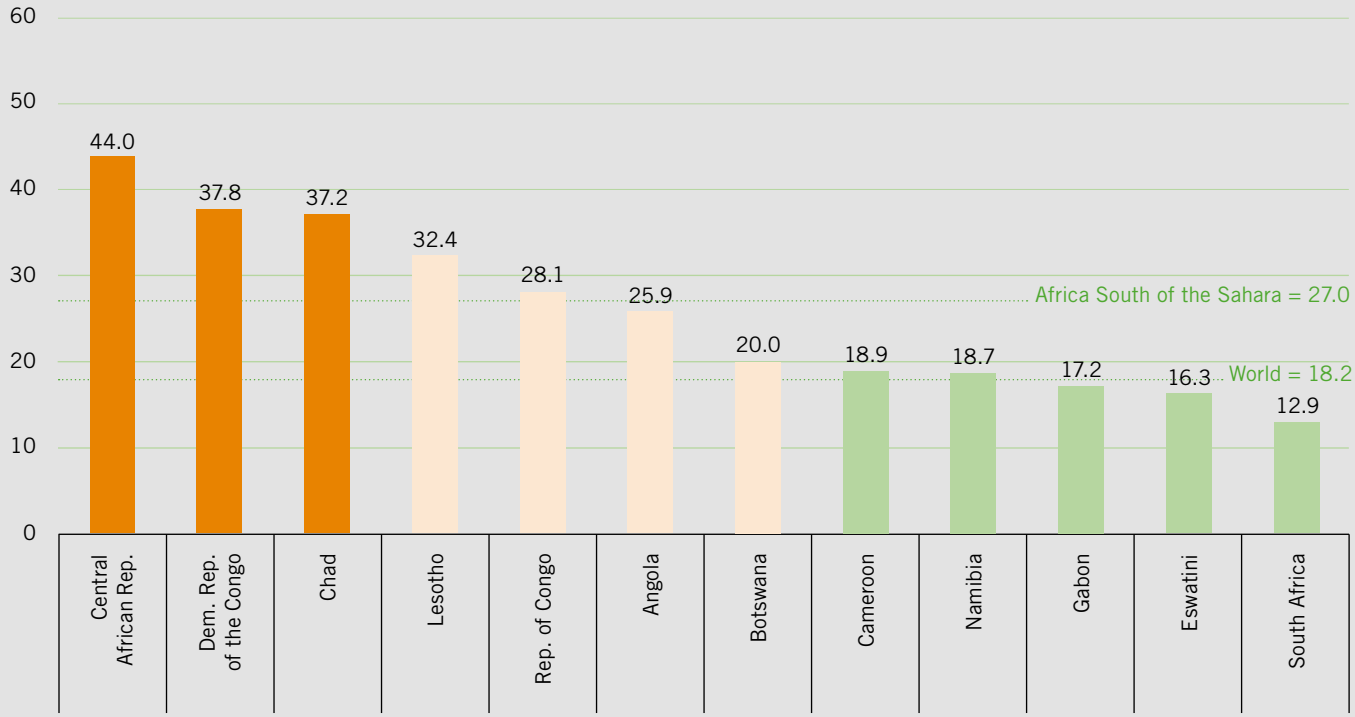


Note: Bahrain, Libya, Qatar, and Syrian Arab Republic are in the West Asia and North Africa region but are not shown, owing to insufficient data for the calculation of GHI scores. Existing data and provisional indicator values for these countries were included in the calculation of regional and global GHI scores. See Table A.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

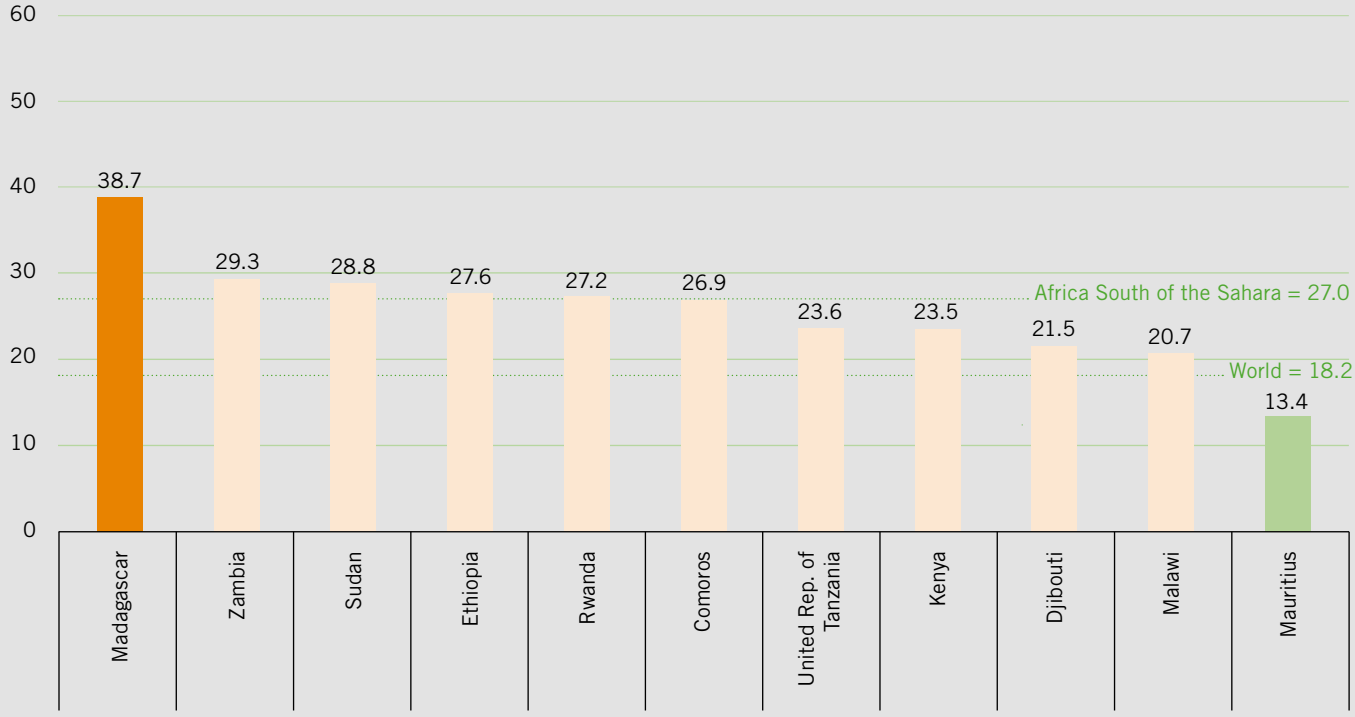
Note: Guinea is in the West Africa subregion but is not shown, owing to insufficient data for the calculation of GHI scores. Existing data and provisional indicator values for Guinea were included in the calculation of regional and global GHI scores. See Table A.3 regarding provisional designations of hunger severity for countries with incomplete data.

CENTRAL AND SOUTHERN AFRICA



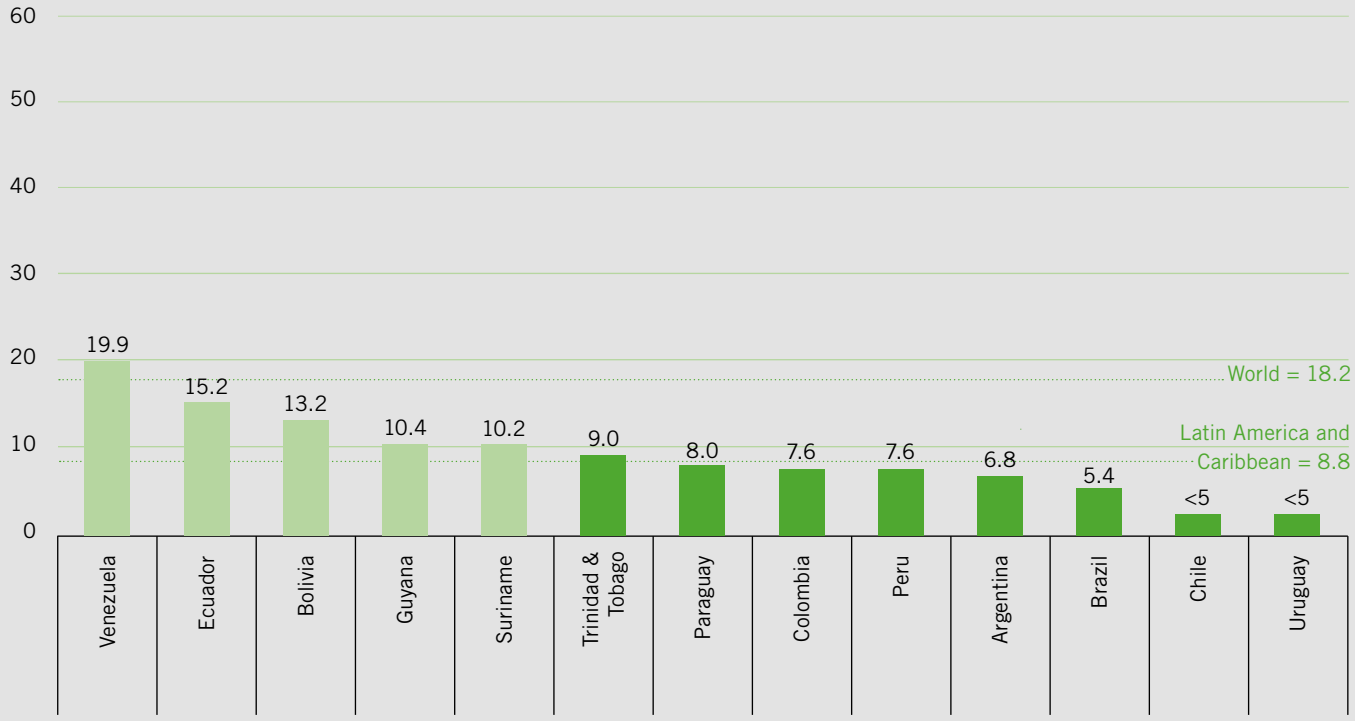
Note: Equatorial Guinea is in the Central Africa subregion but is not shown, owing to insufficient data for the calculation of GHI scores. Existing data and provisional indicator values for Equatorial Guinea were included in the calculation of regional and global GHI scores. See Table A.3 regarding provisional designations of hunger severity for countries with incomplete data.

EAST AFRICA



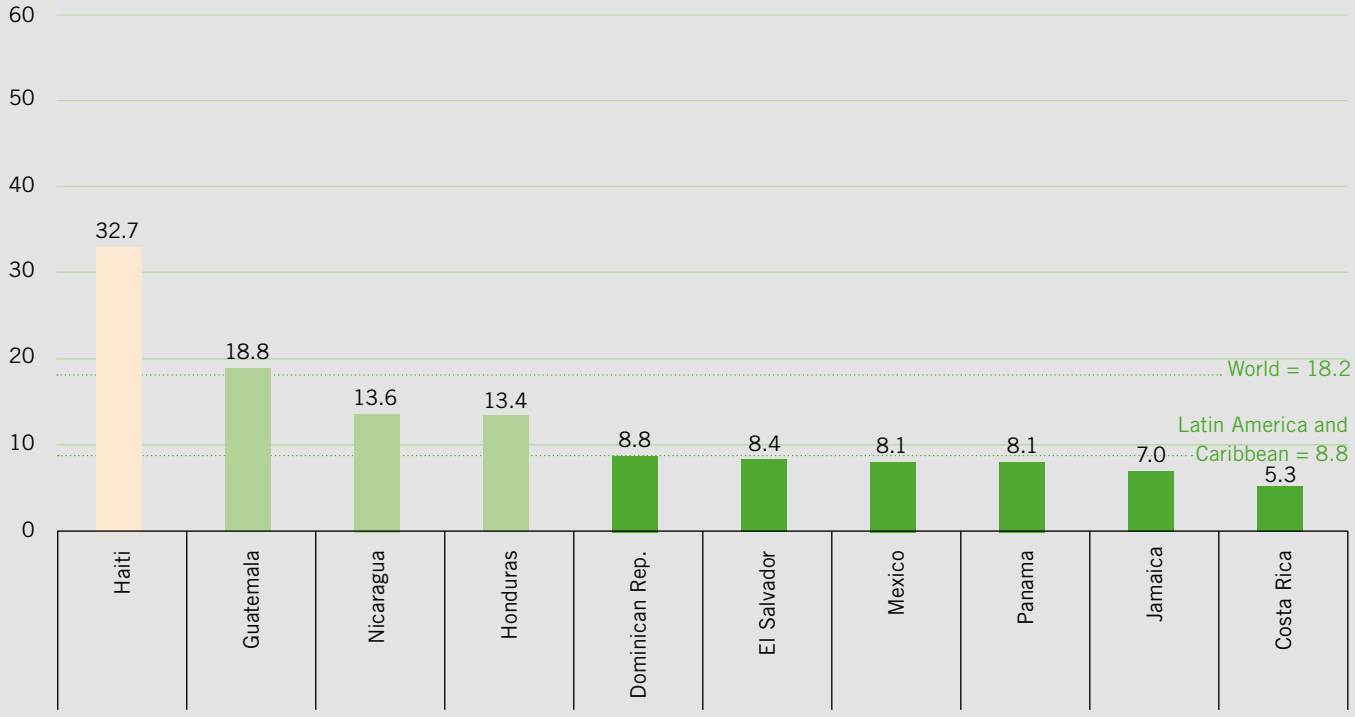
Note: Burundi, Eritrea, Mozambique, Somalia, South Sudan, Uganda, and Zimbabwe are in the East Africa subregion but are not shown, owing to insufficient data for the calculation of GHI scores. Existing data and provisional indicator values for these countries were included in the calculation of regional and global GHI scores. See Table A.3 regarding provisional designations of hunger severity for countries with incomplete data.

SOUTH AMERICA

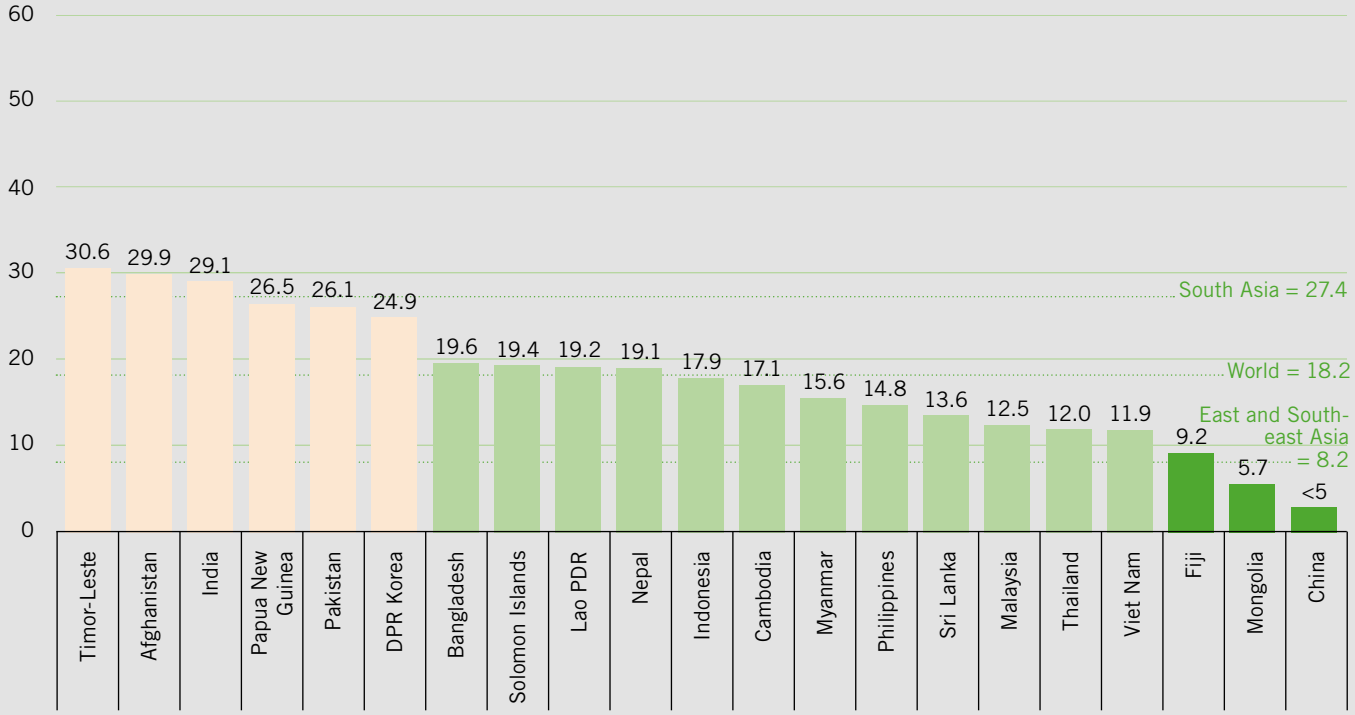


Note: Countries with GHI scores less than 5 are presented in alphabetical order.

CENTRAL AMERICA AND THE CARIBBEAN

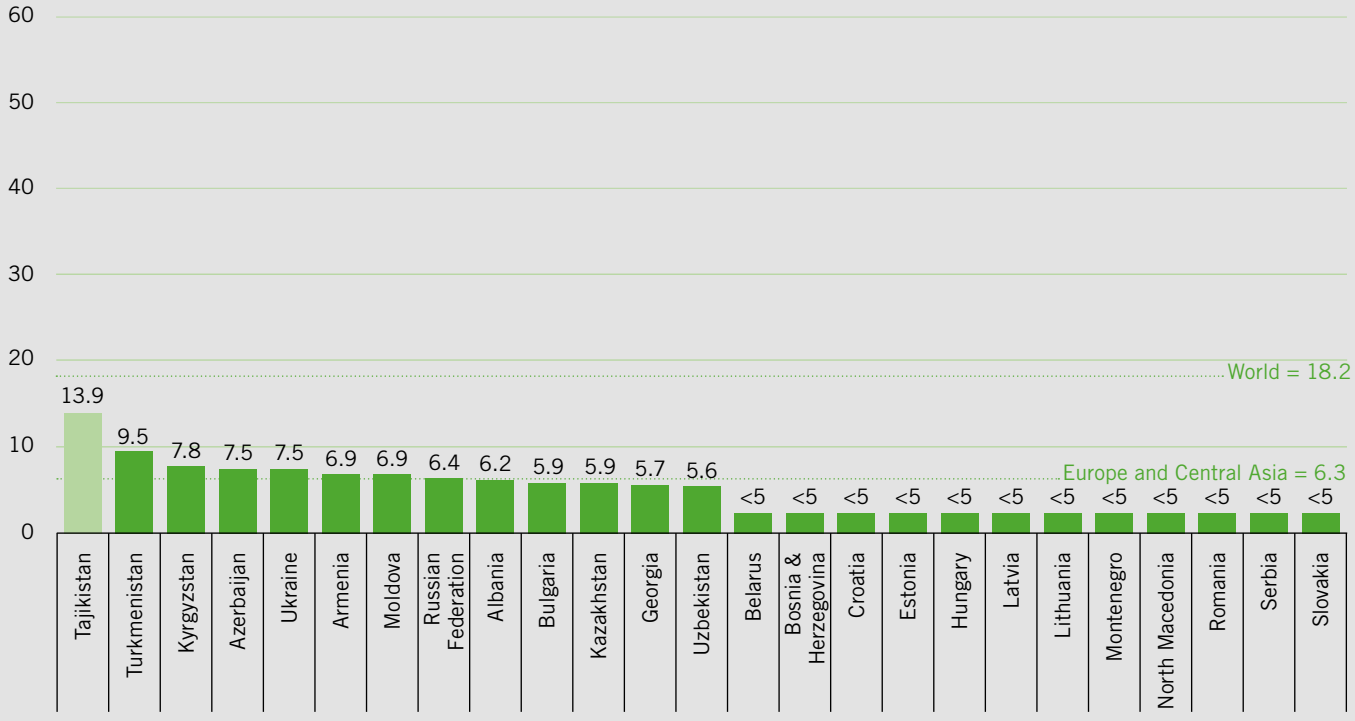


SOUTH, EAST, AND SOUTHEAST ASIA



Note: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka are in South Asia for the purposes of Figure 1.3, 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 Table A.3 regarding provisional designations of hunger severity for countries with incomplete data.

EUROPE AND CENTRAL ASIA



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

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RESOURCES FOR UNDERSTANDING HUNGER AND MALNUTRITION

The Global Hunger Index (GHI) is a tool for assessing hunger at global, regional, and national levels. Among its strengths are the following:

- → **Measuring and tracking long-term trends.** Because of the nature and availability of its underlying data, the GHI is best suited for measuring hunger and tracking progress over recent years and decades. The 2022 GHI scores are based on the most up-to-date data available for the underlying indicators for each country. This GHI report also includes GHI scores from 2000, 2007, and 2014 to show trends in hunger over time.

- → **Reflecting both the quantity and quality of food and diets.** The four indicators underlying GHI scores—undernourishment, child stunting, child wasting, and child mortality—reflect deficiencies in calories (quantity) as well as in important micronutrients (quality).

- → **Complementing other reports and resources.** The countries where GHI scores are high—indicating that calories are chronically insufficient and/or children's growth and well-being have been hampered by undernutrition—are particularly vulnerable to acute food crises and stresses, which are reported by other sources.

Other resources offer additional important perspectives on hunger and malnutrition. The following is a selection and brief description of those resources.

Resources on Food Crises and Early Warning Systems

- → **Famine Early Warning Systems Network (FEWS NET)**
  FEWS NET, the Famine Early Warning Systems Network, provides real-time assessments and short-term projections of acute food insecurity around the world. It issues monthly reports and maps detailing current and projected food insecurity as well as alerts on emerging or likely crises. FEWS NET is funded and managed by the Bureau for Humanitarian Assistance of the U.S. Agency for International Development (USAID).
  https://fews.net/

- → **Global Information and Early Warning System (GIEWS)**
  The Global Information and Early Warning System on Food and Agriculture (GIEWS) continuously monitors food supply and demand and other key indicators for assessing the overall food security situation in all countries of the world. An initiative of the Food and Agriculture Organization of the United Nations (FAO), it issues regular reports on prevailing conditions and provides early warnings of impending food crises at country or regional level.
  https://www.fao.org/giews/en/

- → **Integrated Food Security Phase Classification (IPC)**
  The Integrated Food Security Phase Classification (IPC) is an initiative led by 15 international development agencies to improve analysis and decision-making on food security and nutrition. It provides a common scale for classifying the severity and magnitude of food insecurity and acute malnutrition. The IPC acute food insecurity scale has five classifications: minimal/none, stressed, crisis, emergency, catastrophe/famine. There are also IPC scales for acute malnutrition and chronic food insecurity.
  https://www.ipcinfo.org/

- → **Global Report on Food Crises (GRFC)**
  This annual report produced by the Global Network against Food Crises—an international alliance working to address the root causes of extreme hunger—gives an overview and country-by-country update on acute, crisis-level food insecurity. Based on the Integrated Food Security Phase Classification (IPC) assessments, it triangulates recent available food security assessments, even if they are partial and from different sources.
  https://www.wfp.org/publications/global-report-food-crises-2022

Resources on Food and Nutrition Security

→ **The State of Food Security and Nutrition in the World (SOFI)**
This flagship annual report is jointly prepared by FAO, the International Fund for Agricultural Development (IFAD), the United Nations Children's Fund (UNICEF), the World Food Programme (WFP), and the World Health Organization (WHO). It is designed to chart progress toward ending hunger, achieving food security, and improving nutrition and to provide in-depth analysis on key challenges for achieving this goal in the context of the 2030 Agenda for Sustainable Development.
https://www.fao.org/publications/sofi

→ **Global Nutrition Report (GNR)**
The *Global Nutrition Report*—published annually by a multistakeholder initiative—reports on countries' progress toward meeting global nutrition targets, evaluates the impact of poor diets on human health and the planet, assesses the nutrition financing landscape, and provides a comprehensive overview of reporting on past Nutrition for Growth (N4G) commitments.
https://globalnutritionreport.org

→ **Voices of the Hungry Project**
This project of FAO uses the Food Insecurity Experience Scale (FIES), an experience-based measure of household or individual food security. The FIES relies on eight survey questions included in the Gallup World Poll, which covers 90% of the world's population. The project provides up-to-date, internationally comparable information about food insecurity that is policy-relevant and actionable. A suite of resources and research based on the FIES is available.
https://www.fao.org/in-action/voices-of-the-hungry/resources/research/en/

→ **Global Food Security Index (GFSI)**
The annual Global Food Security Index (GFSI) is based on a model constructed from 58 indicators that measure drivers of food security across 113 low-, middle-, and high-income countries. The indicators fall into four categories: food affordability, food availability, food quality and safety, and natural resources and resilience. The index was designed and constructed by Economist Impact, part of the Economist Group.
https://impact.economist.com/sustainability/project/food-security-index/

Resources on the Right to Food

→ **State of the Right to Food and Nutrition Report**
This annual report—produced by the Global Network for the Right to Food and Nutrition—provides a yearly snapshot of developments concerning the right to food and nutrition at the country and international levels. It is designed to complement FAO's S*tate of Food Security and Nutrition in the World* (SOFI) report by taking a human rights perspective and shedding light on the structural causes of hunger and malnutrition.
https://www.fian.org/en/publication/article/state-of-the-right-to-food-and-nutrition-report-2021-2804

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.

How we work

To achieve our 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.

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 implement measures ranging from rapid emergency relief to rehabilitation to long-term development cooperation projects with national and international partner organizations. As part of an active civil society, we advocate for the political change needed to achieve zero hunger. We address inequalities and foster sustainable development.

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. In a shared mission with many other organizations, our goal is to make ourselves redundant.

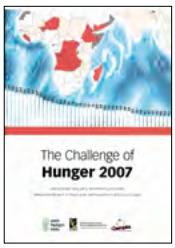
Our vision

A world in which everyone has the chance and the right to lead a self-determined life in dignity and justice, free from hunger and poverty.

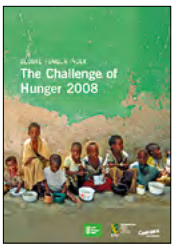
17 YEARS OF TRACKING WORLD HUNGER

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

Case Studies in the Post-Conflict Countries of Afghanistan and Sierra Leone



Measures Being Taken to Reduce Acute Undernourishment and Chronic Hunger



The Vicious Circle of Hunger and Poverty

Financial Crisis and Gender Inequality

The Crisis of Child Undernutrition

Taming Price Spikes and Excessive Food Price Volatility

Ensuring Sustainable Food Security Under Land, Water, and Energy Stresses

Building Resilience to Achieve Food and Nutrition Security

The Challenge of Hidden Hunger

Armed Conflict and the Challenge of Hunger

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

Hunger and Food Systems in Conflict Settings

Food Systems Transformation and Local Governance

Visit www.globalhungerindex.org to find:

→ more information about the 2022 Global Hunger Index
→ synopsis
→ country profiles and videos
→ translations of the full report
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Deutsche Welthungerhilfe e. V.
Friedrich-Ebert-Straße 1
53173 Bonn, Germany
Tel. +49 228-2288-0
Fax +49 228-2288-333
www.welthungerhilfe.de

Secretary General:
Mathias Mogge

Concern Worldwide
52-55 Lower Camden Street
Dublin 2, Ireland
Tel. +353 1-417-7700
Fax +353 1-475-7362
www.concern.net

Chief Executive Officer:
Dominic MacSorley

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Authors:
Welthungerhilfe: Miriam Wiemers (Senior Policy Advisor), Laura Reiner (Senior Policy Advisor), Marilena Bachmeier (Project Assistant), Asja Hanano (Head of Policy and External Relations); Concern Worldwide: Olive Towey (Senior Policy Advisor), Réiseal Ní Chéilleachair (Head of Global Advocacy), Connell Foley (Director of Strategy, Advocacy, and Learning); Independent Consultants: Klaus von Grebmer, Jill Bernstein, Heidi Fritschel; Towson University: Seth Gitter and Grace Larocque.

Guest Author:
Danielle Resnick (David Rubenstein Fellow, Brookings Institution; Non-Resident Research Fellow, International Food Policy Research Institute)

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Heidi Fritschel

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Disclaimer:
The boundaries and names shown and the designations used on the maps herein do not imply official endorsement or acceptance by Welthungerhilfe or Concern Worldwide.

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Deutsche Welthungerhilfe e. V.

Friedrich-Ebert-Straße 1
53173 Bonn, Germany
Tel. +49 228-2288-0
Fax +49 228-2288-333
www.welthungerhilfe.de
Member of Alliance2015

Concern Worldwide

52-55 Lower Camden Street
Dublin 2, Ireland
Tel. +353 1-417-7700
Fax +353 1-475-7362
www.concern.net
Member of Alliance2015