# REGIONAL DEVELOPMENTS

# RECENT GLOBAL CRISES HAVE LED TO DIVERSE IMPACTS ACROSS THE WORLD'S

low- and middle-income regions, reflecting local conditions and differing policy responses. These effects are often compounded by more local shocks and crises, including prolonged conflict and violence, natural disasters, and fragile economic and governance systems. This section examines the impacts of recent food crises to identify both future risks and promising policy options that could improve early warning, immediate response, and resilience building in each region.

- Pursuing a humanitarian-development-peace approach to Africa's protracted crises
- Reducing reliance on food imports in the Middle East and North Africa
- Diversifying trade and improving governance for great resilience in Central Asia
- Increasing smallholder productivity and sustainability in South Asia
- Building regional integration in East and Southeast Asia to better manage future crises
- Managing commodity cycles and building human capital in Latin America and the Caribbean

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# **AFRICA**



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n Africa, about 282 million people (20 percent of the population) are facing food insecurity and are undernourished, more than double the share in any other region of the world. Food insecurity levels vary significantly across and within Africa's subregions. As of 2021, countries in central and southern Africa had the largest populations deemed at crisis levels or worse of food insecurity (45.6 million people, 18.4 percent of the population), with 9.9 million at an emergency level (Table 1; see Chapter 2, Box 2, for a definition of the IPC food insecurity phases).2 In eastern Africa, about 43.6 million people (9.8 percent of the population) are in crisis or worse, with 10.1 million in emergency. In western Africa and the Sahel region, 30.4 million people (8.6 percent of the population) are in crisis or worse, about 42 percent of them in Nigeria.

In terms of absolute numbers of people, the situation is most critical in the Democratic Republic of the Congo (DRC), where 27.3 million people are in crisis or worse, followed by Nigeria and Sudan. In terms of the share of population, South Sudan is most affected, with 60 percent of the population (7.2 million), including 2.4 million people in emergency and 100,000 in catastrophe situations.<sup>3</sup> Other countries with more than 30 percent of the population in crisis or worse include Angola, the Central African Republic, Eswatini, Ethiopia, Lesotho, Madagascar, Namibia, and Zimbabwe.

### DRIVERS OF FOOD CRISES IN AFRICA

Food crises in Africa are driven largely by conflict, weather shocks (especially droughts and floods), and poverty, all of which affect the demand, supply, and availability of food.<sup>4</sup> Food shortages and income losses have been worsened by pests associated with extreme weather, especially the fall armyworm plague that started in 2016 in western Africa<sup>5</sup> and the locust infestation across eastern Africa in 2020.<sup>6</sup>

Agricultural policies have also contributed to persistent food crises. Policy support tends to favor agricultural exports, for which prices have been declining, over food commodities consumed in Africa, for which prices have been increasing. Lower export prices have led to declining foreign exchange receipts and income losses, while rising food prices have resulted in higher food import bills and declining investment in agriculture and other key public goods and services.<sup>7</sup>

Other recent shocks compounding food insecurity include the Ebola outbreaks in western Africa (2014-2016) and the DRC (2018-2020), the COVID-19 pandemic, and the Russia-Ukraine war. During the Ebola and COVID-19 outbreaks, lockdowns implemented to limit the spread of disease in many countries led to a slowdown or shutdown of economic activities that disrupted food systems. The continuing crisis reflects remaining supply chain issues caused by the pandemic, as well as additional disruptions from the Russia-Ukraine war,

TABLE 1 Acute food insecurity in sub-Saharan Africa regions and selected countries (millions of people affected), 2021

		Integrated Food Security Phase Classification (IPC)					
Region/country	Number of countries included	Phase 2: Stressed	Phase 3: Crisis	Phase 4: Emergency	Phase 5: Catastrophe		
Central and Southern Africa	12	67.7	35.7	9.9	0.01		
Democratic Republic of the Congo		40.8	20.5	6.7	0.0		
Mozambique		8.4	2.6	0.3	0.01		
Malawi		6.3	2.5	0.1	0.0		
East Africa	9	51.2	30.3	10.6	0.5		
Ethiopia		17.2	12.1	4.3	0.4		
Sudan		16.5	7.1	2.7	0.0		
South Sudan		3.3	4.7	2.4	0.1		
West Africa and the Sahel	16	74.3	28.4	1.5	0.0		
Nigeria		35.0	12.7	0.2	0.0		
Cameroon		5.8	2.4	0.3	0.0		
Niger		5.8	2.4	0.1	0.0		

Source: Data from FSIN and GNAFC, 2022 Global Report on Food Crises (Rome: 2022).

Note: See Chapter 2, Box 2, for information on the IPC classifications.

as a large share of Africa's food imports (especially wheat and maize) come from Russia and Ukraine.<sup>9</sup>

The incidence and severity of these shocks, as well as the drivers, vary across the continent (Table 2). While occasional conflict occurs in many places, several African countries – including Nigeria, Ethiopia, the DRC, Somalia, Mali, and Burkina Faso (in order of fatalities) - suffered substantial violence against civilians in 2022. 10 Conflict, political instability, and violence against civilians are the primary drivers of food crises in other countries as well. The impact of weather shocks is likewise varied and widespread. In 2022, for example, floods affected millions of people and their livelihoods, destroyed thousands of homes and properties, and killed nearly 2,000 people, while desertification and drought are the main challenges in other places.

Poverty has also put healthy diets out of reach for many Africans. Although the cost of a healthy diet in Africa (US\$3.46 per person per day) is slightly below the global average (US\$3.54 per person per day), per capita income is also lower and poverty rates are higher in Africa than the global average. As a result, a larger proportion of Africa's population cannot afford a healthy diet, especially

given recent shocks that have raised food, fertilizer, and fuel prices.<sup>11</sup> The continent's population growth, at about 2.5 percent per year compared to the global average of a little under 1 percent per year, puts additional pressure on the food system and economy to keep pace.

# **GENDERED EFFECTS OF FOOD CRISES**

Food crises affect women and men and boys and girls differently due to norms and cultural practices that lead to different roles, responsibilities, and access to resources and coping strategies (see Chapter 6). Data from several African countries indicate that more women (32.8 percent) than men (29.7 percent) were significantly affected by food price shocks during the COVID-19 pandemic, because women spend a much higher share of their income on food. Moreover, women face hunger more often than men during food crises; for example, in 2014-2016, 25.2 percent of African women were severely food insecure compared to 23.7 percent of men. 12 This disparity is due to differences in income, access to employment or means of production, and cultural practices that put women last, or allot them smaller portions, when

TABLE 2 Main drivers of food crises in selected African countries

Country	Main drivers of food crises
Burkina Faso	Coup d'état in September 2022 and the presence of armed groups, mainly in the country's north.
Chad	Desertification, including drying up of rivers and lakes in recent years, accelerated by drought in northern Chad.
Democratic Republic of the Congo	Combination of increased food prices and transportation costs, epidemics, and one of the world's longest-running armed conflicts.
Ethiopia	Civil war (November 2020 to November 2022) exacerbates the effects of drought.
Kenya	Multiple shocks including dry spells, below-average crop and livestock production, localized resource-based conflict, and the COVID-19 pandemic.
Malawi	Poor infrastructure keeps vital aid from reaching the poorest parts of the country.
Mozambique	In Cabo Delgado province, extremist groups have forced more than 700,000 civilians from their homes since 2017.
Niger	In 2021, a surge in armed groups and internal conflicts forced tens of thousands of vulnerable people into the driest parts of Niger.
Nigeria	Loss of more than 860,000 acres of land every year to desertification, affecting 11 of 36 states.
South Sudan	Decades of armed conflicts, including eruption of civil war in 2013, frequent climate-related shocks (severe flooding and dry spells), and macroeconomic crisis.
Uganda	Drought in 2022 led to price increases of up to 25 percent for basic household items.
Zimbabwe	The 2018/19 drought plus long-standing macroeconomic challenges are pushing millions to the edge of starvation.

**Source:** Authors' compilation based on Convoy of Hope, "Food Crisis in Africa Reaches Terrifying Levels," Aug. 25, 2022; IPC, "Acute Food Insecurity and Malnutrition Snapshot Acute Food Insecurity: October 2022 - July 2023, Acute Malnutrition July 2022-June 2023" (2022); République Démocratique du Congo, "Aperçu de la sécurité alimentaire et de la nutrition, juillet 2022-juin 2023" (2022).

food is in short supply.<sup>13</sup> In Sierra Leone and Liberia, for example, the closure of food and other retail markets to control the 2014-2016 Ebola outbreak destroyed the livelihoods of traders, 85 percent of whom were women.<sup>14</sup> Similarly, in South Africa, women accounted for about two-thirds of the job losses during the COVID-19 lockdowns.<sup>15</sup>

Such disruptions can exacerbate other negative impacts for women and girls, such as violence and sexually transmitted infections. For example, sexual and domestic violence reportedly rose in Ebola-affected regions of the DRC after an outbreak began in 2018. Likewise during the Ebola outbreak in Guinea, a 4.5 percent increase in violence against women was reported. Tood insecurity can also increase the likelihood that

women and girls will engage in negative coping strategies, such as transactional sex, to generate income needed to purchase food for their families. Conflict seems to widen the gender gap as well (see Chapter 7). Some studies have found higher rates of chronic malnutrition among pregnant women and children or increased risk of acute malnutrition in areas of several African countries affected by armed conflict, including Burundi, Côte d'Ivoire, Ethiopia and Eritrea, Nigeria, Rwanda, and Somalia.

# **CRISIS RESPONSES AND CHALLENGES**

National and international actors (such as governments, UN agencies, and NGOs) as well as affected

local communities and households have responded to food crises with varied approaches and coping strategies.

HUMANITARIAN ASSISTANCE is the most common, straightforward response to aid affected populations. In 2022, the total budget for the UN's Humanitarian Response Plan for sub-Saharan Africa was estimated at US\$16.7 billion. This funding is largely earmarked to ensuring food security, while a smaller amount is allocated to nutrition, refugees, and social protection. However, as of the end of October 2022, less than 45 percent of total humanitarian needs had been funded (see Chapter 3).

EARLY WARNING SYSTEMS have emerged as a critical instrument to increase the effectiveness and efficiency of humanitarian responses over the years (see Chapters 2 and 3). Studies show that projections for Africa from famine early warning systems, such as the Famine Early Warning Systems Network (FEWS NET), are generally good, but sometimes miss the mark. These forecasting issues are usually associated with complex climate and weather events, as well as the difficulty of predicting the impact of conflict on food insecurity, as conflict-affected areas are hard to access and politically sensitive to analyze (see Chapter 3).<sup>25</sup> To facilitate early action, some early warning systems and emergency preparedness initiatives, such as the work of the Africa Centres for Disease Control and Prevention, have integrated surveillance and response strategies to mitigate the impact of disease outbreaks.<sup>26</sup> However, like other early warning systems, these too face challenges with data and information management systems, laboratory capacity and functionality, and human capacity, especially in the most remote areas.<sup>27</sup>

**MIGRATION** is another common response to food crises, and can take many forms depending on where migrants go, the duration of migration, and recurrence. Each choice is driven by a particular set of pull and push factors, and leads to diverse outcomes for migrants and the sending and host communities (see Chapter 7).<sup>28</sup> The total number of intra-African migrants increased from about 13 million people in 2000 to more than 20 million in

2020, with internally displaced people (IDPs) fleeing conflict and violence accounting for most of the increase. Displacement may also be triggered by climate change and extreme weather events, such as the flooding in 2020 that affected more than 2 million people across 18 western and central African countries.

**RESILIENCE BUILDING** has gained traction over the past decade as a potentially cost-effective strategy to tackle underlying vulnerabilities and spur local solutions for highly contextual challenges.<sup>29</sup> This strategy focuses on creating and rehabilitating household and community assets, including strengthening institutions to manage their ownership, access, and use. In 2021, for example, the World Food Programme reached 2.1 million people across 12 western African countries through its Food Assistance for Assets program. This program, which was gradually introduced beginning in 2013, has assisted local communities in restoring or cultivating 75,000 ha of agricultural land and constructing or rehabilitating 1,400 km of water infrastructure and 244 km of feeder roads.<sup>30</sup> The protection and restoration of ecosystems that provide essential services can be an important component of resilience building (Box 1). However, assessing the impact of any resilience-building intervention is difficult given the multiple definitions of and metrics on resilience, the complex nature of the intervention packages, the difficulty of tracking intervention costs, and the uncertain timeframe for recovery.31

**THE HUMANITARIAN-DEVELOPMENT-PEACE (HDP) NEXUS APPROACH** aims to strengthen collaboration, coherence, and complementarity among these three pillars of crisis recovery (see Chapter 7). Given that any external intervention may have significant consequences – both intended and unintended – on local power balances, institutions, and social cohesion, the HDP approach works to ensure that interventions maximize the reduction of vulnerability and poverty while addressing the root causes of conflict.<sup>32</sup> One good example is the Partnership for Recovery and Resilience, which was set up in South Sudan in 2018 and has brought together more than 90 different actors, including local governments,

### **BOX 1** GREAT GREEN WALL: BUILDING RESILIENCE

Ecosystem protection and rehabilitation is fundamental to building the resilience of food systems, particularly as climate change worsens. The Great Green Wall initiative is a major effort in the Sahel region intended to restore degraded landscapes across an 8,000 km strip of land between Senegal and Djibouti. Initially, this ambitious pan-African program proposed constructing a 15-km-wide "wall of trees," but this goal was abandoned in favor of a more realistic mosaic of diverse landscape interventions, including natural regeneration, agroforestry, horticulture, livestock, apiculture, and water catchment infrastructure, in addition to reforestation. Attention to the technical, social, and economic dimensions of this effort is essential to ensure success in improving environmental and socioeconomic outcomes. However, a recent study showed that most of the restoration strategies designed in 12 participating countries to shape the Great Green Wall Initiative largely fell short in identifying potential benefits for different vulnerable or demographic groups, especially female-headed households and pastoralists, while potential risk for capture of the benefits by elite groups was not assessed. On the financial side, it will require an estimated US\$44 billion (under the base scenario) to fund all proposed land restoration activities, which would increase the economic value of Sahelian ecosystems over time — in terms of food, fodder, timber, and carbon sequestration — with an expected break-even point at most 10 years after implementation.

UN agencies, NGOs, and donors, to align activities and promote collective outcomes.<sup>33</sup> The potential of the HDP approach to ensure greater coherence and impact in crisis responses has been highlighted by the recent establishment of the HDP Nexus Coalition hosted by the Global Network Against Food Crises.34 However, implementation of HDP faces a number of constraints including limited understanding among actors in the three pillars of each others' roles, lack of joint analysis and scenario planning with in-country program teams, and the need for programmatic and financial flexibility in highly volatile contexts. It also requires negotiating trade-offs among the pillars – for example, engaging in conflict resolution may jeopardize basic humanitarian principles of nonpartisanship and thus impede access to vulnerable populations (see Chapter 3).35

**REPURPOSING SUPPORT POLICIES** to reduce the cost and increase the availability of nutritious foods will also be important for improving resilience and recovery from crises. The pressing question is how to finance a transition to better diets. Currently, official development assistance (ODA) for humanitarian purposes and crisis response is rising much faster than ODA for development purposes. As countries face more frequent or protracted crises, <sup>36</sup> African governments can expect increasing

challenges in mobilizing new funding from both domestic and international sources to support their already underfunded development agendas.<sup>37</sup> The cost-effectiveness of investments will have to be improved, including by reallocating budgets and repurposing support policies. A recent scenario analysis<sup>38</sup> on repurposing existing public funding for food systems support showed potential for significant benefits in reducing the cost of nutritious diets, improving food security and nutrition, and reducing greenhouse gas emissions. However, trade-offs are also likely, including reductions in agricultural production and farm incomes. Thus, having complementary policies within and outside agrifood systems – such as social safety nets and affordable access to health services and education - as well as an environment for inclusive political participation will be needed to ensure that repurposing efforts lead to real improvements.

#### CONCLUSION

About 20 percent of Africa's population is food insecure and undernourished, more than double the population share in any other region of the world. Multiple crises in recent years – conflicts, natural disasters, disease, and economic shocks – have increased food insecurity across the continent. National and international actors,

including governments, UN agencies, and NGOs, as well as affected local communities and households themselves are responding to the growing impact of crises in various ways, including through humanitarian assistance, early warning systems, migration, and resilience building. Crisis interventions that are responsive to gender are also critical to reducing disproportional impacts on women and girls. However, the costs associated with these responses are enormous and underfunded.

The HDP nexus approach offers a promising means to address the multifaceted nature of food crises more cost effectively in the short to medium term. For the longer term, however, repurposing current public support to food and agriculture will be critical to reduce the cost and increase the availability of nutritious foods. This multifaceted strategy to building crisis resilience over time would make healthy diets affordable and available for all of Africa's population, including the poor, women, children, and other vulnerable people, which aligns with African leaders' vision of accelerated transformation of food systems for shared prosperity and improved livelihoods. Systemwide enabling conditions for lasting resilience must include good governance mechanisms, adequate policies and regulations, high quality infrastructure, functioning community networks, and reliable safety nets.

# MIDDLE EAST AND NORTH AFRICA



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hile the global economy, and the economies of many countries in the Middle East and North Africa (MENA) region, has not yet recovered from the repercussions of the COVID-19 pandemic, 2022 brought new challenges triggered by the Russia-Ukraine war and associated trade shocks. The MENA region is particularly vulnerable to shocks to world food prices and trade because of its heavy dependence on food imports. It is also subject to political instability, fragility, and persistent conflict, all of which contribute to large refugee populations, many hosted by countries within the region, and to food insecurity more broadly. MENA is also among the world's regions most at risk from climate change and water scarcity. The compound crises arising from conflict, trade shocks, and climate change currently threaten food and nutrition security in many MENA countries.

# FOOD IMPORT DEPENDENCE AND RISING IMPORT COSTS

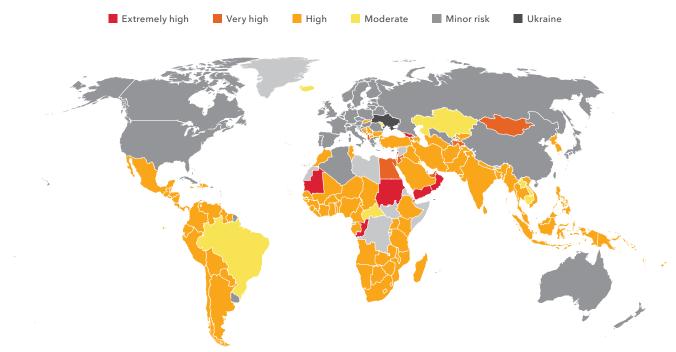
The MENA region relies heavily on food imports, especially cereal imports. For example, wheat represents 39 percent of caloric intake per person in Egypt, 20 percent in Sudan, and 46 percent in Yemen. Historically, much of this demand was met by imports from Russia and Ukraine. In Egypt, the world's largest importer of wheat, imports account for about 62 percent of total wheat consumption, of which about 85 percent comes from Russia and Ukraine. Cereal import dependence is even higher

in some other MENA countries, including Lebanon and Yemen.

At the onset of the current crisis, IFPRI researchers conducted an analysis of countries' vulnerability to the global increase in prices and the disruption of exports from Russia and Ukraine.<sup>3</sup> The country-level typology categorizes Lebanon, Sudan, and Yemen as extremely vulnerable to the crisis, and indicates Egypt is in the very high vulnerability category (Figure 1). For many countries in the MENA region, their direct exposure to the trade shock – as importers of Russian and Ukrainian cereals – and low existing stocks put their food security at risk. Existing stocks were already running low immediately before the crisis due to drought and crop failure.

Global food prices surged in early 2022 when Russia invaded Ukraine, disrupting Black Sea trade. Some exporting countries responded to these disruptions by introducing trade restrictions,<sup>4</sup> which put further pressure on global markets. Despite these challenges, many MENA countries have continued importing the usual volumes of food but at significantly higher prices (Figure 2), triggering a significant increase in import costs. For example, up to July 2022, MENA countries experienced a 50 percent increase in the cost of wheat imports. For some of these countries, the external crisis has been compounded by domestic production shortages, mainly due to weather conditions (Morocco and Iraq) and conflict (Syria), problems that have increased demand for imports just to meet basic consumption needs. Fortunately, most trade and

FIGURE 1 Overview of country-level relative vulnerability



**Source:** Adapted from K.A. Abay, C. Breisinger, J. Glauber, S. Kurdi, D. Laborde, and K. Siddig, "The Russian-Ukraine War: Implications for Global and Regional Food Security and Potential Policy Reponses," *Global Food Security* 36 (2023): 100675.

**Note:** The indicators used for this assessment included: (1) existing dependency on the Black Sea region; (2) exposure to other suppliers that have implemented export restrictions; (3) current level of wheat stocks (to determine countries' buffer capacity); (4) consequences for countries' current accounts of price increases for various commodities (positive or negative effects depending on trade structure of countries); and (5) existing level of undernourishment, food price inflation, and expected impacts of the changes in world prices on domestic food bills and household food security.

financial sanctions continue to exempt food products and critical agricultural inputs like fertilizers. These exemptions may have forestalled a larger price increase for wheat.

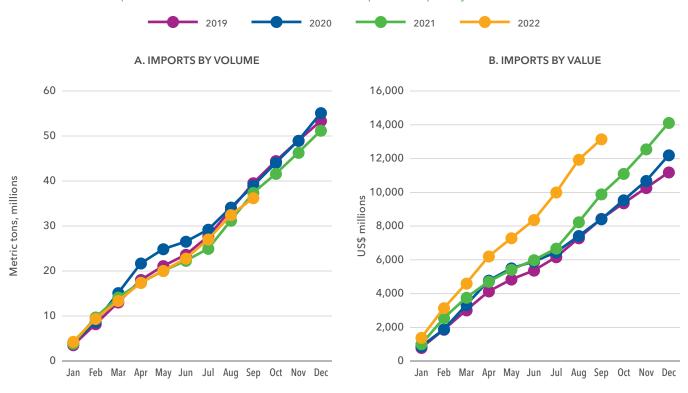
# WINDFALLS AND INCREASED ECONOMIC DIVERGENCE

In the face of global commodity shocks, the economies of MENA's oil-exporting countries have fared better than the region's oil-importing countries. The surge in oil and natural gas prices generated windfalls for MENA's oil exporters, although some of these countries, including Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates, rely heavily on cereal and related food imports. MENA's oil-importing countries, such as Egypt, faced the double burden of high food and fuel prices. These price surges have raised import costs and reduced available government funds for oil importers, <sup>5</sup> triggering macroeconomic

imbalances and major currency devaluations in Egypt, Lebanon, and Morocco. The devaluations in turn are causing significant inflationary pressure in domestic economies, which has fueled further price increases for a wide range of commodities and services in domestic markets. The surges in cereal prices have also significantly increased the cost of humanitarian assistance in fragile countries, such as Yemen and Sudan. For instance, rising wheat prices forced humanitarian organizations, including the World Food Programme, to reduce food-basket rations in both countries.

Within countries, the combination of rising fuel and food prices meant some sectors fared significantly better than others. As a result of the counteractive impact of the price increases for imports and exports, some countries' overall GDP and employment were affected less than initially expected. For example, while Egypt is a major wheat importer, it also exports natural gas and fertilizers. The windfall revenues from higher natural

FIGURE 2 Wheat imports to MENA countries in 2022, compared to prior years



Source: Based on data from Trade Data Monitor (https://www.tradedatamonitor.com/).

gas prices have supported overall GDP, and firms and households with income associated with this sector are expected to benefit. However, Egypt's agrifood system has been harmed, particularly its off-farm agrifood system activities, which are energy-intensive (Figure 3).<sup>6</sup> Other fertilizer exporters faced more complex challenges. For example, Morocco is a large producer of phosphate, but relies on imports of intermediate inputs (either natural gas or ammonia) for fertilizer production. While high fertilizer prices could benefit Morocco, the war in Ukraine and the country's difficult relationships with neighboring countries, such as Algeria, complicated access to essential inputs in 2022.<sup>7</sup>

# IMPACTS ON POVERTY AND INEQUALITY

Within countries, the crisis has had differential impacts across households, leading to an increase in inequality. Poorer households bear the greatest burden of current food price shocks because they spend a larger portion of their income on food and

consume a disproportionate share of cereals and other cheap, energy-dense foods. In Egypt, Sudan, and Yemen, for example, poorer households consume a significantly larger share of wheat-based calories per day than richer households. Conflicts in Yemen and some other MENA countries further increase households' reliance on cereals and hence their vulnerability to food price shocks.

The fuel price shock, in combination with the food price shock, is expected to further worsen inequalities. Windfall revenues from oil and natural gas exports are likely to accrue to governments, while most households – particularly poor or rural ones – are likely to be hit twice, by both rising prices and falling incomes. In Egypt, for example, overall national real household consumption is estimated to have fallen by a modest 0.9 percent (Figure 4), but rural and poor households have suffered a much larger decline in consumption than urban ones. Because Egypt produces most of the fertilizer it uses domestically and even exports a small amount, some urban households derive

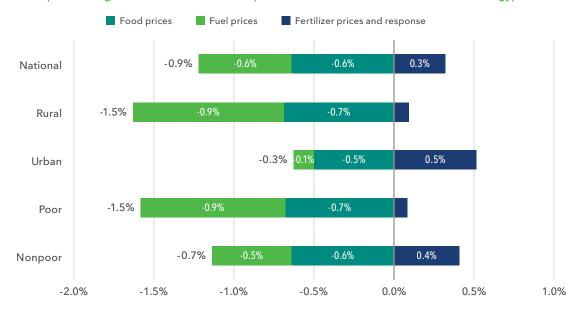
FIGURE 3 Anticipated change in GDP and employment due to food, fuel, and fertilizer shocks in Egypt



**Source:** Simulation results from IFPRI's Egypt RIAPA model, reported in K.A. Abay, F. Abdelradi, C. Breisinger, et al., "Egypt: Impacts of the Ukraine and Global Crises on Poverty and Food Security," Global Crisis Country Series Brief 18 (Washington, DC: IFPRI, 2022).

Note: Agrifood system (AFS) includes primary sector, food processing, and food-related services.

FIGURE 4 Anticipated change in real household consumption due to food, fuel, and fertilizer shocks in Egypt



**Source:** Simulation results from IFPRI's Egypt RIAPA model, reported in K.A. Abay, F. Abdelradi, C. Breisinger, et al., "Egypt: Impacts of the Ukraine and Global Crises on Poverty and Food Security," Global Crisis Country Series Brief 18 (Washington, DC: IFPRI, 2022).

**TABLE 1** Share of households affected by different types of shocks and food insecurity (2021–2022)

	Household type	Reported types of shocks affecting households						
Country		High food prices (%)	High fuel prices (%)	Sickness and accident (%)	Job loss (%)	Drought (%)	Other economic shock (%)	of moderate or severe food insecurity (%)
Iraq	Male-headed	32	9	20	20	13	8	35
	Female-headed	35	8	34	21	8	7	49
Yemen	Male-headed	67	46	29	11	12	4	58
	Female-headed	62	40	46	6	6	5	74

Source: Based on FAO, Data In EMergencies (DIEM), accessed January 2023. https://data-in-emergencies.fao.org/pages/monitoring

income from fertilizer production and trade. As a result, the increase in fertilizer prices has had a positive impact for urban households as a group. Rural and poor households, however, have faced large impacts from all rising prices – for food, fuel, and fertilizer.

In several MENA countries, local conflict has compounded the impact of these global shocks. Countries affected by fragility, conflict, and violence saw the greatest increases in poverty caused by the COVID-19 pandemic. 11 Iraq and Yemen continue to grapple with the multiple shocks caused by conflict and high food and fuel prices, which all contribute to food insecurity. These underlying vulnerabilities are likely to affect households differently. For example, households headed by women in Iraq and Yemen are more likely to face idiosyncratic shocks such as sickness and accidents that reduce the income-generating potential of their households (Table 1). About one-third of households in Iraq and two-thirds in Yemen reported being affected by high food prices in the last two years, with those headed by women experiencing higher rates of food insecurity.

#### **NATIONAL POLICY RESPONSES**

The Russia-Ukraine war triggered important public policy responses, some of which have helped to contain inflationary pressures, though they have also contributed to fiscal pressures and costs. Several MENA countries introduced monetary and fiscal policies designed to cushion the adverse impact of the crisis on economies and households

(Table 2).<sup>12</sup> Fiscal policies have included increased food and fuel subsidies, new price controls, incentives to boost domestic agricultural production, trade regulations, indirect tax exemptions, product-specific exchange rates, and the introduction or expansion of cash transfers and utility bill and financial support to vulnerable households. Some of these are adaptations of policies introduced in response to the COVID-19 pandemic. Others, including commodity subsidies, are new.<sup>13</sup> These measures have helped to limit price increases, but their medium-term impacts in terms of protecting households as well as the long-term fiscal implications for government debt remain to be evaluated.

#### PREPARING FOR COMPOUND CRISES

National policy responses to global food crises need to consider other regional vulnerabilities, including climate change, water scarcity, conflict, and rising debt vulnerability stemming from governments' increased fiscal spending. Recurring trade shocks and food crises are strong reminders that MENA countries need to reinforce their investments and efforts to increase the resilience of their food systems. In the very short term, MENA countries should consider diversifying their food imports and exports while continuing to invest in social protection systems to protect poor and vulnerable households from food price spikes. These social protection programs need to effectively target the most vulnerable groups, including women, who make up a large share of the poor.

TABLE 2 Public policy responses to mitigate the impact of trade shocks (introduced since February 2022)

	Product market interventions						Targeted social protection		
	Increased food and fuel subsidies	Instituted new price controls	Trade reg- ulations	Indirect tax exemp- tions	Product- specific exchange rates	Increased regulated prices/ reduced subsidies	Cash transfers	Utility bill and financial support	Improved targeting
Algeria				•				•	
Bahrain				•				•	
Djibouti	•	•		•			•		•
Egypt	•	•	•		•		•		
Iran					•	•	•		
Iraq	•		•				•	•	•
Jordan	•	•	•	•		•	•		
Kuwait		•							
Lebanon					•	•	•	•	
Libya		•	•					•	
Morocco	•								
Oman		•						•	
Qatar									
Saudi Arabia		•					•		
Syria			•		•	•			•
Tunisia	•	•				•			
United Arab Emirates	•	•						•	
West Bank and Gaza	•	•		•					
Yemen			•						
Total: Out of 19	8	10	6	5	4	5	7	7	3

**Source:** Reproduced from F. Belhaj, R. Gatti, D. Lederman, et al. New State of Mind: Greater Transparency and Accountability in the Middle East and North Africa—Middle East and North Africa Economic Update (October) (Washington, DC: World Bank, 2022).

**Note:** These public policy responses, which are likely an incomplete list, were compiled by World Bank country economists. This list does not include monetary policy responses, such as increasing interest rates and devaluation, which have been deployed by some countries.

Targeting during the COVID-19 pandemic had mixed success in the MENA region, with targeting shown to be progressive (pro-poor) in some countries, including Egypt, but not in others, such as Morocco. A Rethinking consumer policies and adopting healthier and more sustainable diets (particularly reducing reliance on wheat) is also important. Indeed, while governments must prioritize protection for poor consumers in times of crisis, once prices have stabilized, they should focus on reforming food subsidies to improve diets and reduce vulnerability.

In the longer term, MENA countries will need to explore policy options for mitigating vulnerability

to trade shocks that take account of domestic production capacities and constraints related to environmental sustainability and risk of weather shocks. Policies supporting the transition toward a greener future can offer a double win: less vulnerability to oil price shocks and a contribution to climate change mitigation. Given the region's strong potential for expanding wind and solar energy, it could generate additional revenues by diversifying exports.

Long-term agricultural policies in particular must take account of climate change and water scarcity. While some countries may have potential to expand arable land and production (such as

Sudan), such expansion is likely to be unsustainable in water- and land-scarce countries. For example, Egypt's principal focus should be on adapting its farming systems to address imminent water shortages and climate change threats and to increase resilience, rather than unsustainably expanding production.<sup>15</sup>

Windfall increases in state revenues in oil-exporting countries and the associated increase in government funds could serve all these objectives if fiscal surpluses are directed toward productive investments that diversify food imports and exports, thus strengthening the resilience of these economies. However, oil-importing countries, which continue to face significantly higher import bills and increasing debt vulnerability, need to devise sustainable means of addressing trade shocks and food crises. Those countries affected by prolonged conflict and violence should focus on restoration of livelihoods and protection of vulnerable households in the short term, while laying the groundwork for longer-term investment to support diversification and resilience of livelihoods.

# **CENTRAL ASIA**



### KAMILJON AKRAMOV

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n Central Asia, the combined impact of the COVID-19 pandemic and the Russia-Ukraine war has ignited inflation and increased poverty. Although the region made good progress in reducing poverty and inequality over the past two decades, the pandemic stalled this progress and even reversed the welfare gains in some countries. Nearly half a million individuals in the region are estimated to have fallen into extreme poverty, due to decreased incomes, job losses, and work interruptions. In Kyrgyzstan, for example, the poverty rate rose from about 20 percent in 2019 to more than 33 percent in 2021.<sup>2</sup> Subsequent external shocks to Central Asia's food systems, driven by the Russia-Ukraine war, have likely further worsened poverty and increased the vulnerability of households and individuals to food insecurity. Both these major shocks have constrained economic growth in the region. The Central Asian countries' strong trade and financial links with Russia and Ukraine, along with heavy reliance on remittances from their migrant workers in Russia, made them particularly vulnerable to the disruptions caused by the conflict, and the economic damage has been considerable.3

# REMITTANCES, PRICES, AND FOOD SECURITY

Labor remittances play an important role in reducing poverty and inequality in Central Asia. In Kyrgyzstan and Tajikistan, remittances currently account for about 30 percent of national GDP, and more than 90 percent of these remittances come from Russia. Remittances also account for an essential share of income for many households in these

countries. The impact of the war on labor migration and remittances has so far been mixed. Evidence suggests that migration interruptions following the war's onset were limited, and seasonal labor migration from the region between March and July 2022 increased slightly. However, the share of households with a member considering migration declined.<sup>4</sup> Data suggest the total flow of remittances to the region has been resilient and even increased significantly for Uzbekistan. 5 However, that growth cannot be explained by regular flows of remittances. Data from the National Bank of Kyrgyzstan suggest that while the total flow of labor remittances from Russia did not decline, the net inflow of labor remittances fell by nearly 14 percent in 2022 compared to 2021, with the declining trend more evident in the second half of 2022 (Figure 1). Unfortunately, we do not have data on the outflow of transfers from Uzbekistan.

Supply shortages and higher food and energy prices associated with the Russia-Ukraine war fueled double-digit inflation across the region. In Kazakhstan, annual inflation stood at 20.3 percent.<sup>6</sup> In Kyrgyzstan, overall inflation reached 14.7 percent in 2022, with food inflation at 15.8 percent and the consumer price index for wheat flour and products up 24.2 percent. <sup>7</sup> Since wheat and wheat products account for a significant share of caloric intake in the region, rising consumer prices could reduce household consumption, increase poverty further, and are likely to strike poorer households hardest. In Tajikistan, for example, wheat products account for about 45 percent of the average total caloric intake, and net wheat imports make up nearly 60 percent of the domestic supply (Figure 2). The retail price of wheat flour in Tajikistan rose

2021 2022 200 150 JS\$ millions 100 50 0 Jan Feb Mar Jun Jul Oct Nov Dec Apr May Aug Sep

FIGURE 1 Monthly net inflow of remittances from Russia to Kyrgyzstan, 2021 and 2022

Source: Data from the National Bank of Kyrgyzstan (2023).

sharply in the first months of the war (February to May 2022), and despite a slight decline in the second half of the year, wheat flour prices remained more than 30 percent above the levels recorded at the end of 2021.8

### LONG-TERM SOURCES OF FRAGILITY

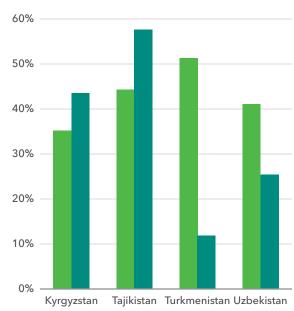
In addition to the setbacks caused by the recent global shocks, food systems in Central Asia are at risk because of long-term sources of fragility, including gender inequality, climate change, and poor governance. Considerable gender gaps in labor force participation and earnings make women more vulnerable to external shocks and food insecurity during crises. When women enter their prime childbearing years, the gap increases as a result of their increased domestic and care burdens and the limited availability of public childcare services. In addition, existing household, institutional, and societal gender inequalities add to the fragility of food systems in the region.

Climate change poses a serious risk, given the large share of agriculture in GDP and employment in Central Asia. The region's agrifood sector and related livelihoods are exposed to increasingly

**FIGURE 2** Share of wheat products in total caloric intake and net imports in domestic wheat supply, 2019/20







Source: Data from FAOSTAT (2022).

frequent extreme weather events, including temperature extremes, droughts, and floods, as well as greater variability in precipitation as global temperatures continue to rise. <sup>11</sup> For example, heatwaves in July 2021 and July 2022 and cold waves in January 2023 had major impacts on agricultural livelihoods and food systems in Uzbekistan.

The region's vulnerability to climate change is exacerbated by weak infrastructure, high levels of poverty, and poor governance. Despite some recent positive developments in governance, some evidence shows that weak political institutions, lack of accountability, poor regulatory quality and government effectiveness, and widespread corruption pose significant challenges to the stability of food systems in the region.<sup>12</sup>

### **LESSONS LEARNED**

The recent COVID-19 pandemic exposed two significant weakness in Central Asia's food systems – a lack of diversity in markets and products and alarmingly weak governance. Central Asian countries score low on multiple dimensions of the World Bank's government effectiveness indicator, including the perceived quality of public services and the credibility of governments' commitment to their policies. 13 Poor governance and widespread corruption weaken Central Asian governments' capacity to collect revenue and spend public resources efficiently, 14 with detrimental impacts on their ability to respond adequately to external shocks and crises. Thus, public governance and anticorruption reforms should be a high priority in the region.

The lack of economic diversity is evident in the high concentration of imports from a few countries – for example, the Russian Federation, Kazakhstan, and China account for more than 50 percent of Uzbekistan's total imports – and dependence on remittances from a single country. In combination with rising inequality, this dependence on a few economic partners exacerbated the pandemic's negative impacts in the region, especially for poorer households. Increasing the number of trading partners and the diversity of supply chains, and economic diversification more

generally, is essential to making the region's food systems more robust and resilient to external shocks (see Chapter 4).

Trade export restrictions, though not prolonged, caused considerable increases in food prices at the outset of the pandemic. Temporary bans and reductions in wheat exports imposed by the Russian Federation and Kazakhstan led to higher food prices in the wheat-importing countries - Kyrgyzstan, Tajikistan, and Uzbekistan. In response, some Central Asian governments shifted focus toward achieving a high degree of self-sufficiency in food, especially wheat. For example, in Tajikistan, policymakers have advocated for 80 percent self-sufficiency in grain, up from the current 45-50 percent they now produce. An IFPRI phone survey conducted in 2020 showed that many smallholders switched to growing wheat instead of high-value crops such as vegetables. 15 Central Asian countries are net exporters of vegetables, which allows them leeway to promote cereal production at the expense of these crops in order to reduce reliance on imported wheat. However, this shift could also cause food insecurity by reducing the dietary diversity that is accessible at affordable prices. Moreover, food self-sufficiency policies may require increased government intervention in agriculture, including price controls, subsidies, and regulation, which tend to create production and market inefficiencies and, as a result, may not achieve their desired outcome.

Social protection policies aim to protect vulnerable households and individuals from hardship caused by crises (see Chapter 5). In Central Asia, the social protection measures put in place during the COVID-19 pandemic were devoted to income protection, with a significant amount allocated to cash-for-work programs and unconditional cash transfers. However, they did not focus on job protection measures. Overall, these social protection policies were limited in scope. Moreover, weak governance and widespread corruption led to inefficient allocation and spending of limited public resources. 16 As a result, households resorted to negative food-based coping strategies, such as consuming less desirable, less expensive foods, as well as asset-depleting coping strategies.<sup>17</sup>

### MONITORING AND RAPID RESPONSE

During the COVID-19 pandemic, regional governments and development partners worked together to monitor and respond to crises. These efforts were not sustained in the aftermath of the pandemic, leaving communities and households vulnerable to new shocks and failing to address the long-term impacts of the crisis on poverty, food security, and livelihoods. The World Food Programme has since established food security monitoring systems in Kyrgyzstan and Tajikistan, which conduct bimonthly household surveys to track trends in vulnerable communities. In Uzbekistan, the UN's Food and Agriculture Organization in partnership with Westminster International University in Tashkent recently launched a web-based monitoring tool designed to collect national food price data and facilitate its dissemination and analysis. However, these tools are limited in scope and focus on only a few aspects of food security. They are not designed to predict, monitor, or manage the long-term impacts of crises or vulnerability (see Chapters 2 and 3).

Policy responses to the COVID-19 pandemic differed widely across the region, largely reflecting governments' fiscal capacity. Kyrgyzstan and Tajikistan developed limited policy response measures, given their narrow fiscal space and limited public monitoring capacities. 18 Kazakhstan and Uzbekistan, with a larger fiscal base, responded swiftly to the crisis, implementing strict monitoring and confinement measures and designing large support packages. The multiple crisis response measures adopted by the Kazakh government included supporting the domestic private sector and employment; offering workers and families affected by the crisis short-term relief measures, such as cash payments to individuals who had lost their jobs or were on unpaid leave due to the quarantine; provision of food baskets and nonfood essentials to vulnerable populations; and an increase in pension and social benefits.<sup>19</sup>

Uzbekistan's government developed and implemented a framework for local community-based monitoring and rapid crisis response. In addition to specific short-term measures intended to slow

or prevent transmission of the virus and to ensure that health systems had the necessary capacity for response, this framework aimed to address the medium-term social and economic consequences of the pandemic. As elsewhere, the pandemic's impact was most severe for the poorest and most vulnerable. The government relied on the community-based targeting approach to reach the neediest sectors of the population as a part of the crisis response framework. But with a highly fragmented social protection system and limited government capacity, it was not able to deliver support to all vulnerable communities and households, and many needy households have received no assistance. In particular, the social protection coverage did not reach most unemployed and informal workers, leaving them more vulnerable to shocks. These poor households are forced to reduce consumption of nutritious foods, directly affecting their long-term nutrition, health, and productivity, with impacts that are difficult to reverse and perpetuate the cycle of poverty and vulnerability.

### PREPARING FOR FUTURE SHOCKS

Several factors – including climate change, limited diversity of foreign trade, volatility of commodity prices, and dependence on remittances – make Central Asian countries especially vulnerable to external shocks and crises. The ad hoc approach that has been taken to managing such crises has failed to prevent serious increases in poverty, with long-term implications for development. Clearly, as crises become more frequent and even coincide, a more permanent, comprehensive framework for crisis readiness and response is needed. Such a framework will include a set of strategies, tools, and procedures put in place by the region's governments to prepare for emergencies and respond to them effectively by mitigating impacts and speeding recovery. Components may include risk assessment, early warning systems, a crisis management plan, communication, training and testing, and recovery and learning.

**SOCIAL PROTECTION.** Gender-sensitive social protection systems should be an integral part of any crisis response framework (see Chapter 6).

These programs can provide a safety net during short-term shocks as well as long-term changes in the labor market that affect incomes and jobs. An optimal safety net policy would protect the welfare of the poorest and most at-risk households and support sustainable growth without hindering the reallocation of labor to more productive sectors of the economy, which is essential for the development and transformation of food systems (see Chapter 5).<sup>20</sup>

Social protection systems should also cover Central Asia's labor migrants. Because these migrants work primarily in Russia, they are at risk when Russia's economy and labor market conditions deteriorate. With Russia subject to severe sanctions, labor migrants may lose employment because of declining demand, or fluctuations in the Russian ruble may make it difficult to exchange rubles for other currencies, such as the US dollar, thus decreasing the value of labor remittances. If these problems materialize, large numbers of migrants may return to their home countries, and they should be able to count on national social protection systems.

REGIONAL COOPERATION. Regional cooperation and foreign trade play a significant role both in making the relatively small and undiversified economies of Central Asia resilient to crises and in developing reliable national crisis response frameworks. However, the landlocked position of Central Asian countries is compounded by infrastructure bottlenecks, institutional and policy barriers, and poor trade facilitation, which need to be addressed. Trade and policy reforms, investments in physical and virtual connectivity, and cooperation in using shared natural resources, such as water resources, are essential to improve the region's readiness to respond to and prevent crises.

MONITORING AND ANALYSIS. Addressing increasingly frequent and disruptive crises will also require timely and well-tailored high-frequency data and analysis (see Chapter 2). At present, Central Asian countries collect little household and community-level data, and information and analysis is needed to identify the most vulnerable and affected populations and target social safety nets

to them. The scarcity of gender-disaggregated data in particular makes it difficult to understand the differences and inequalities between men and women, address gender inequalities in crisis response, and ensure that policies and interventions are more effective in reducing gender disparities. Moreover, little in-country capacity exists for modern data analytics and assessment. Investment in gender-disaggregated, high-frequency data collection and in building analytical and applied research capacity is essential to better anticipate and prepare for future crises in Central Asia.

# **SOUTH ASIA**



# ANJANI KUMAR AND SHAHIDUR RASHID

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he COVID-19 pandemic dealt a serious blow to the strong economic and social performance maintained by South Asia for two decades. Regional GDP shrank by almost 5 percent in 2020 (Table 1A). The agriculture sector, however, enjoyed modest growth across most of the region (Table 1B). As the regional economy struggled to recover from the pandemic, the Russia-Ukraine war and natural disasters, including devastating floods in Pakistan in 2022, led to further disruptions. Spikes in global food and energy prices and the tightening of global financial conditions, as countries tried to contain high inflation, led to contractions in South Asian trade and in the hospitality and manufacturing sectors. The deterioration in economic conditions that began with the pandemic led to a substantial increase in poverty, with 48-59 million people estimated to be newly poor in 2021, particularly in Afghanistan, Pakistan, and Sri Lanka.<sup>1</sup>

These shocks all contributed to higher food prices and disrupted food production and distribution. Food insecurity worsened in Afghanistan, Pakistan, and Sri Lanka during 2022 (Figure 1).<sup>2</sup> As pressures on food markets intensified, a number of food-exporting countries resorted to protectionist measures that subsequently contributed to higher international prices and market volatility. Afghanistan, Bangladesh, India, and Pakistan implemented export restrictions in 2022 on rice, wheat, and sugar, among other products. While international food prices have recently eased, they remain significantly above pre-pandemic averages, and continuing high prices for fertilizers and energy have made agricultural production less remunerative despite the increase in output prices.3

#### **CURRENT ECONOMIC OUTLOOK**

Economic prospects for the region are mixed, including for agriculture and food systems. In the second half of 2022, most of the region's domestic currencies depreciated by more than 10 percent against the US dollar (Bangladeshi taka, 18 percent; Pakistani rupee, 14 percent; Sri Lankan rupee, 45 percent), and consumer price inflation remains above national central bank targets.

India, which accounts for three-quarters of the region's output, showed robust growth of about 7 percent in 2022/23 despite recent shocks, and similar growth is expected in 2023/24. Its agriculture sector also showed strong annual growth, at more than 3 percent. With this recovery, India is poised to become the fastest-growing economy among the world's largest emerging market and developing economies. Reasons for concern persist, however. Consumer inflation spiked to 7.8 percent in April 2022 and remained at 6.5 percent in January 2023, which led the Reserve Bank to tighten its monetary policy.

Bangladesh was also hit by COVID-19 and the more recent shocks, although to a more limited extent than other South Asian countries. GDP growth is expected to slow from 7.2 percent to 5.2 percent in 2022/23 due to falling exports, a growing trade deficit, continued high inflation, reduced remittances, energy scarcity and higher prices, and tighter monetary policy.<sup>6</sup>

Pakistan – an already vulnerable economy with a debt equal to 97 percent of its GDP,<sup>7</sup> soaring inflation, and acute shortage of foreign exchange reserves – faces continued policy and political uncertainty as well as damage from natural

TABLE 1 Annual GDP and agricultural GDP growth in South Asia

	2019		20	20	20	2022	
Country	GDP growth	Ag GDP growth	GDP growth	Ag GDP growth	GDP growth	Ag GDP growth	GDP growth
Afghanistan	3.9	17.5	-2.4	5.9	-20.731	-2.8	NA
Bangladesh	7.9	3.3	3.4	3.4	6.9	3.2	7.2
Bhutan	4.4	1.3	-2.3	4.6	-3.3	2.1	4.0
India	3.7	5.5	-6.6	3.3	8.7	3.0	6.8
Maldives	6.9	-7.5	-33.5	7.1	37	-0.6	8.7
Nepal	6.7	5.2	-2.4	2.4	4.2	2.8	4.2
Pakistan	3.1	0.9	-0.9	3.9	5.7	3.5	6.0
Sri Lanka	-0.2	0.5	-3.5	-1.4	3.3	2.5	-8.7
South Asia	3.8	4.8	-4.8	3.4	8.1	3.0	6.4

**Source:** GDP growth data are from the International Monetary Fund's World Economic Outlook (2023); agricultural GDP growth data are from the World Bank's World Development Indicators (2023).

Note: NA indicates data not available.

disasters that pushed an estimated 5.8 to 9.0 million people into poverty in 2022.8

Sri Lanka and Afghanistan are also still facing crisis. Sri Lanka's output fell by an estimated 9.2 percent in 2022 and is expected to decline another 4.2 percent in 2023 as a result of ongoing foreign exchange shortages, high inflation, increased interest rates, and policy measures implemented to restore macroeconomic stability. This economic crisis increased poverty and reversed income gains made over the past decade. In Afghanistan, the sudden suspension of international aid in August 2021, along with reduced foreign investment, shrank the country's output by about one-third, leading to a large increase in poverty. The situation there remains precarious, and severe food shortages are likely.

On the other hand, Nepal has enjoyed a strong recovery in domestic demand, which may raise GDP growth to 5.8 percent in 2022/23, and the country is expected to maintain robust growth for the foreseeable future. In addition, the Maldives and Bhutan are benefiting from the post-pandemic recovery of tourism. The Maldives is likely to remain the fastest-growing small economy in the region due to infrastructure investments and the rebound in tourism. Bhutan's economy is projected to grow by 4.1 percent in 2022/23, as a result of opening its border with India in September 2022.

# **FOOD SECURITY AND POVERTY**

South Asia is far off track to achieve Sustainable Development Goal 2 (SDG2), Zero Hunger, by 2030, and progress in tackling the problem has stalled. Numbers of undernourished people and those facing severe food insecurity are up substantially over the past five years (Figure 1). Child stunting and wasting remain more prevalent in South Asia than in other world regions. The deterioration in food security is largely due to the pandemic-induced economic disruptions, poor macroeconomic management, armed conflicts, and climate change. Progress toward SDG1, No Poverty, has also been set back, as hard-won gains have been lost and the pandemic pushed an additional 62-71 million people into poverty in South Asia.

The recovery and development of food systems in South Asia face multiple challenges. Although spillover effects from the Russia-Ukraine war have not been large, South Asia has been affected by the global rise in food, fuel, and fertilizer prices. Food prices have risen sharply, contributing to food insecurity. In September 2022, the year-on-year consumer inflation rate for food was 66 percent in Sri Lanka, 36 percent in Pakistan, and about 8 percent in India, Bangladesh, and Nepal. The inflation in Pakistan and Sri Lanka is attributed mainly to macroeconomic instability

and mismanagement, especially the sharp devaluation of their currencies, and the fertilizer ban in Sri Lanka.

#### NATURAL DISASTERS

Climate change is another significant threat. Diverse geophysical settings and climatic conditions make the region vulnerable to various environmental shocks. Natural calamities, many related to climate, have become increasingly frequent over the past two decades (Figure 2), with a corresponding increase in the numbers of people affected in many countries. Several extreme weather events occurred in 2022, compounding the other shocks to the region. Record-breaking heatwaves in Afghanistan, Bangladesh, India, southern Nepal, and Pakistan posed serious threats to life, livelihoods, and economies.<sup>10</sup> In Pakistan, severe droughts followed by devastating floods inflicted major damage on agricultural production. These back-to-back catastrophes affected approximately 33 million people. Economic losses are estimated at US\$15 billion, and the country's GDP declined by about 5 percent. 11 Pakistan's federal and provincial authorities are now working with local, national, and international partners to manage massive relief efforts across the country.

Afghanistan suffered two major earthquakes in 2022 that affected about 9,000 people. In response, the government allocated \$11.3 million for disbursement to the affected population, including the injured and households that lost family members. Adding to this misery, Afghanistan suffered a drought that affected 80 percent of the country, and production of wheat declined as a result of the 2022 La Niña occurrence, which stressed the country's water resources, adding to food insecurity.

India is prone to many major natural hazards, and in 2022 recorded a broad range of extreme weather events that caused more than 3,000 human deaths and 60,000 animal deaths, and damaged 2 million hectares of crops. Erratic monsoon rains led to increased food price volatility, threatened households' inflation expectations, and complicated monetary policy management.<sup>12</sup>

Bangladesh, too, is extremely vulnerable to natural disasters. In 2022, its northeastern region

suffered a devastating flashflood that affected about 7.2 million people. Timely and appropriate crisis response is increasingly important amid continuing climate change, as yields for rice, vegetables, and wheat are expected to decline by 5 to 6 percent by 2050.<sup>13</sup>

Other countries in the region are likewise at risk. Nepal is at high risk of earthquakes. Sri Lanka experiences a high incidence of disasters relative to its small size and concentrated economic activities, with average annual disaster-related losses of \$50 million, affecting some 500,000 people.

South Asian countries are learning from past disasters to improve responses. For instance, in the aftermath of the 2004 tsunami in India, the 2005 Enactment of Disaster Management Act sought to minimize future losses by integrating disaster management measures at all levels of governance, including national, state, and district-level authorities. In addition, an Early Warning System for Tsunamis in the Indian Ocean was established by the Indian government in 2007 to issue advance warnings in coastal areas, which could reduce impacts of future disasters.<sup>14</sup> Similarly, timely policy initiatives taken by the Government of Bangladesh after the devastating floods in 1998 including enabling private sector participation in grain markets and enhanced public investments in agriculture – have helped respond to subsequent shocks.<sup>15</sup> The relatively low death toll and low incidence of waterborne diseases after flashfloods in Bangladesh in 2004 reflect the efficacy of the country's disaster preparedness and response capabilities, and people's ability to manage and recover from disasters. These efforts have borne fruit and therefore, despite the frequency of natural disasters in South Asian countries, governments in these countries have been able to respond to recent shocks more effectively than in the past.

### POLITICAL INSTABILITY AND CONFLICTS

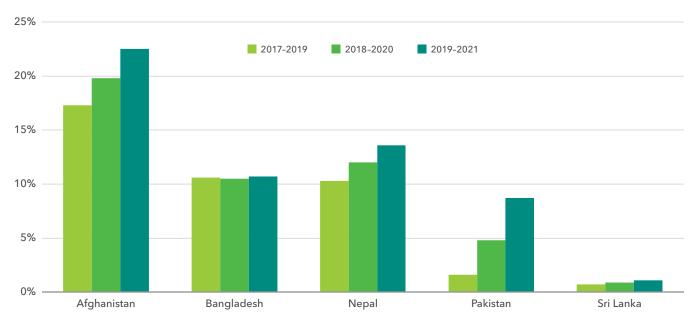
Political instability and violence also threaten food security in the region. Since their independence, many South Asian countries have experienced political instability caused by civil wars and ethnic and sectarian conflicts. As a result, a sizable number of people have been displaced.

FIGURE 1 Undernourishment and severe food insecurity in South Asia





### **B. PREVALENCE OF SEVERE FOOD INSECURITY**

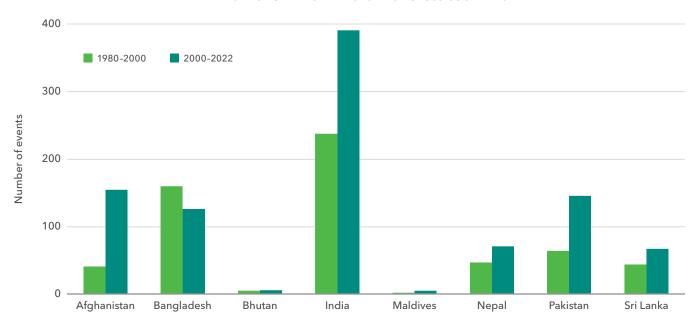


**Source:** Data from FAOSTAT, accessed Jan. 2023. https://www.fao.org/faostat

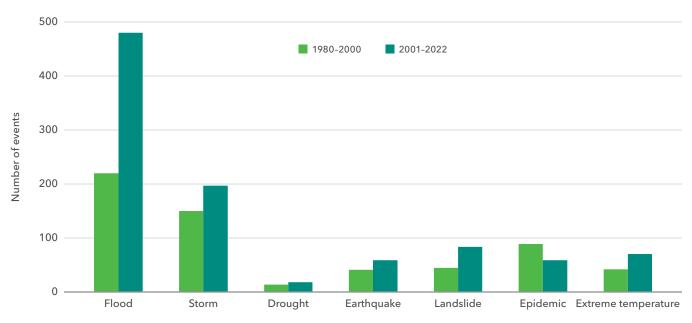
**Note:** The prevalence of severe food insecurity is an estimate of the proportion of the population that resides in severely food-insecure households. The assessment is conducted by using data collected with the Food Insecurity Experience Scale (see Chapter 2) or a compatible experience-based food security measurement questionnaire. A household is classified as severely food insecure if at least one adult has reported several of the most severe experiences described in the FIES questions, such as being forced to reduce the quantity of food, skipping meals, and going hungry due to lack of resources. Measures for severe food insecurity are not reported for India.

FIGURE 2 Natural disasters in South Asia, 1980–2022

### A. FREQUENCY OF NATURAL DISASTERS ACROSS COUNTRIES



### **B. TRENDS IN TYPES OF NATURAL DISASTERS**



**Source:** Data from EM-DAT, accessed January 2023. <a href="https://www.emdat.be/">https://www.emdat.be/</a>

Afghanistan has been affected by the Taliban insurgency and other forms of violence for decades. The political crisis after August 2021 led to a sharp economic contraction (Table 1), rising food insecurity, and an increase in poverty. The Rohingya crisis continues to pose serious challenges to Bangladesh's government, in collaboration with various international agencies, in coping with the enormous influx of refugees that has made Cox's Bazar the world's largest refugee camp. Additionally, violence resulting from the government crackdown on the opposition party in December 2022, ahead of a major rally, further added to internal disruptions in Bangladesh.

Nepal has a long history of political unrest, but a new constitution, drafted in 2015, established a federal structure in the country, fostering renewed hope for greater political stability, social cohesion, good governance, and sustainable development.

Sri Lanka faces a volatile political situation, exacerbated by the country's unsustainable debt and a severe balance-of-payments crisis. With declining economic growth and increasing poverty, political and economic instability are expected to continue.

# RECOMMENDATIONS FOR FOOD CRISIS RESPONSES

A combination of short- and long-term measures are required to tackle food system crises in South Asia. These include:

- Identification of vulnerable households and groups (women, children, the elderly, and disabled persons) to provide them adequate support. The current food shock could be used as an opportunity to strengthen social safety nets, and targeted food consumption subsidies could be explored to gradually replace broader food consumption subsidies.
- Promotion of intraregional trade, including removal of recently adopted protectionist policies, given that trade within South Asia is quite limited compared with other regional blocs.
- Increasing production by improving smallholders' access to modern technologies and

inputs – especially for women and other disadvantaged groups – including facilitating access to fertilizers, promoting crop diversification, and boosting innovative technologies and approaches.

- Stepped-up investment in customized climate-resilient agriculture for longer-run sustainability, which can be supported by repurposing existing agricultural support.
- Long-term systematic preparedness to mitigate disruptions in food systems, including strategic and resilient food security programs. Other South Asian countries could gain valuable insights from India's National Disaster Management Authority and One Nation One Ration Card and from Bangladesh's National Action Plan for Food Security and the effective implementation of its Food Friendly Programme.

Beyond these measures, South Asian countries should align with international development agencies for funding support to build resilience in the agrifood system. They should also develop a long-term strategic framework to address the macroeconomic mismanagement in Pakistan and Sri Lanka, conflict in Afghanistan, and the refugee crisis in Bangladesh, and establish a continual effort to improve governance.

# **EAST AND SOUTHEAST ASIA**

# KEVIN CHEN, YUNYI ZHOU, AND RUI MAO



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mid a global recession and the Russia-Ukraine war in 2022, East and Southeast Asian countries have experienced setbacks on their path toward meeting the Sustainable Development Goals (SDGs). Nonetheless, the region's trade and financial positions have been relatively unaffected as yet by the war, compared with much of the world. For 2022, economic growth is expected to average 3.8 percent in East Asia and 5.0 percent in Southeast Asia. Threats remain, however, as climate-related disasters, the pandemic, economic slowdown and protectionism, and their nested repercussions are unlikely to ease in the short term and could further disrupt the region's food systems in 2023.<sup>2</sup> Yet intraregional integration has continued to deepen, which can be expected to bolster the region's resilience to crises, and the UN's 2030 Agenda calls on countries in the region to collaborate in creating a globally competitive, integrated, resilient, and inclusive food system that will be better positioned to weather future crises.3

# DISRUPTED PROGRESS TOWARD ENDING POVERTY AND HUNGER

Despite some economic recovery in 2022, progress toward achieving SDGs 1 and 2 – No Poverty and Zero Hunger – has been disrupted. Across the region, there are huge disparities in food and nutrition status, which have increased in recent years. In East Asia, a rise in severe food insecurity in 2020 was reversed in 2021; in Southeast Asia, both the

absolute number and the percentage of people facing severe food insecurity increased in 2020 and 2021 (Figure 1). These trends are reflected in the Global Hunger Index for 2021, where East Asia scored well but Southeast Asian economies overall fared worse. In 2022, Myanmar, Cambodia, and the Philippines had the highest rates of insufficient food consumption among member states of the Association of Southeast Asian Nations (ASEAN).<sup>4</sup>

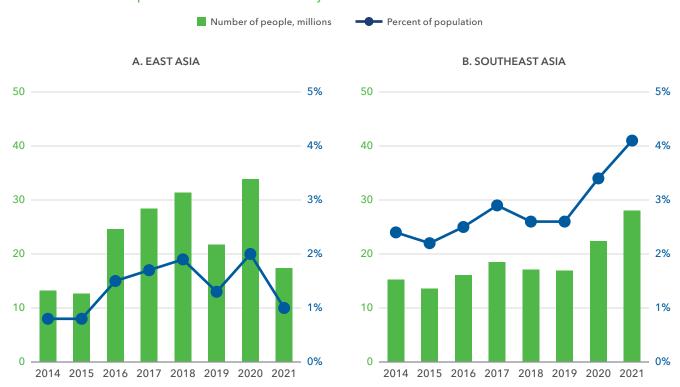
On a more positive note, the incidence of poverty and the number of poor in East and Southeast Asia (except China) in 2022 are projected to return to the levels that were forecast pre-COVID-19, although progress has been fragile. Low-income households (and especially women, children, and the elderly) are vulnerable to the food and energy price increases caused by global supply chain disruptions and the recent war. The cost of a healthy diet rose in both subregions between 2019 and 2020, and inflation may have put healthy diets even further out of reach in 2021 and 2022. Moreover, no country in either subregion is on track to meet the targets for curbing adult obesity or anemia in women of reproductive age.

#### KEY VULNERABILITIES AND RESPONSES

### **COVID-19 PANDEMIC**

For more than three years, the repeated COVID-19 shocks have affected demand, supply, and trade in the region's food systems. Widespread vaccination in the region and major economies elsewhere

**FIGURE 1** Headcount and prevalence of severe food insecurity



Source: Adapted from World Bank, East Asia and Pacific Economic Update, October 2022: Reforms for Recovery (Washington, DC: 2022).

has allowed East and Southeast Asian governments to gradually shift their policy focus from managing pandemic disruptions to supporting post-pandemic recovery. 9 As pandemic-related restrictions were gradually lifted in 2022, many Southeast Asian economies began to revive. Recovering international tourist arrivals are expected to help countries such as Thailand and the Philippines recapture lost revenue along with jobs in food services and many other sectors. 10 China began loosening its pandemic policies in late 2022 and is increasing its pro-growth stance. Despite recent challenges in the public healthcare system as COVID-19 cases rose, its economy is expected to return to buoyant growth in 2023 as a result of reopening and possible policy stimulus, with positive impacts on global value chains.

Among ASEAN member states, disparities in income and access to public services between rural and urban areas and between men and women worsened during the pandemic, suggesting that low-income and marginalized households (such as informal employees, migrants, and

rural populations) will be more susceptible to long-term setbacks and inequalities during recovery (for example, lower savings and scant access to credit and jobs). Addressing these disparities will require a more inclusive financial system in the wake of the pandemic. <sup>11</sup> In addition, many East and Southeast Asian governments increased unsustainable measures, such as environmental deregulation, in response to the pandemic disruptions. <sup>12</sup> Coordinated action to reinforce food system resilience in the face of climate change and biodiversity loss is essential for sustainable post-pandemic recovery.

To cushion the socioeconomic impact of COVID-19, most nations provided "rescue packages" (such as in-kind food distribution, cash transfer programs, and expanded social protection) along with targeted measures to support domestic food production and consumption. For example, in Thailand, where two-thirds of laborers work in the informal sector, the government responded to the outbreak in 2020 with fiscal packages designed to support small and medium enterprises (SMEs),

farmers, and informal employees outside the social security system. Across the region, measures that aimed to sustain the food supply and protect producers included increased agricultural input subsidies and distribution, price support through procurement and regulation, new programs stimulating local food production and short value chains, and broad-based rural development policies. For example, Malaysia allocated about US\$225 million through the Bank Negara Malaysia Agrofood Financing Scheme to improve agricultural productivity and encourage local food production, with approximately \$4.5 million earmarked to train more small farmers in using digital technologies.

### **CLIMATE CHANGE**

Myanmar, the Philippines, and Thailand remained among the countries deemed most at risk by the Global Climate Risk Index in 2021.<sup>16</sup> China experienced a mix of record-breaking heatwaves, severe drought, and heavy rainfall in 2022, causing a decline in its annual grain yields (relative to projections based on prior-year trends), although the country has sufficient domestic reserves to buffer the impact on food supplies.<sup>17</sup> But as global warming worsens, the adverse impacts of extreme weather events on food security will rise, far outweighing the potential increase in output of some crops due to warmer temperatures. 18 On the consumption side, the demand for food (especially animal-source foods, maize, and soybeans) is increasing as a result of population growth, rapid urbanization, and rising household incomes. The region's reliance on conventional approaches to agricultural productivity growth (for example, its synthetic nitrogen fertilizer application rates are among the highest in the world) will make shifting to low-carbon development of the sector challenging.19

Many countries in the region have not yet set agriculture-specific targets for greenhouse gas emissions, though Viet Nam has committed to reducing its emissions by 20 percent every 10 years and is building its capacity for measuring, reporting, and verifying farm-level emissions.<sup>20</sup> To improve agricultural productivity within the bounds of sustainability, many countries have supported climate-smart agriculture

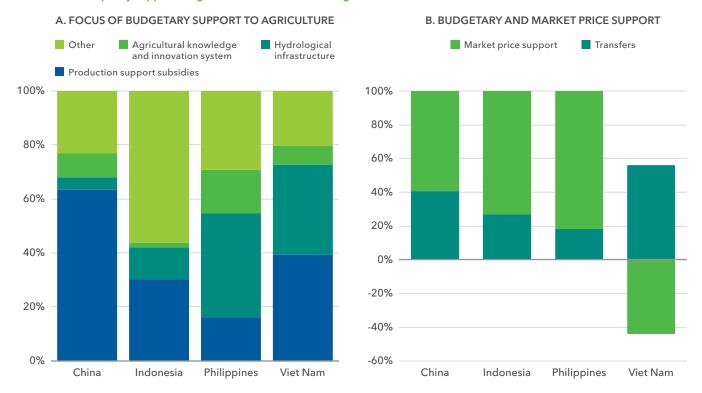
technologies and practices, including capacity building, climate-resilient crops, planting calendar adjustments, and more efficient machinery. For example, the China Weather Index Insurance Project offers digital insurance that has shown promise for stabilizing the income of small-scale farmers facing losses from natural disasters. A cross-country review of experiences with scaling out location-specific climate-smart agriculture models in ASEAN recommends starting with knowledge sharing, then mainstreaming the tested interventions into government policies, and finally sustaining efficiency with proper market strategies. 22

#### **ECONOMIC UNCERTAINTIES**

The Russia-Ukraine war has had only modest direct impacts on food systems in East and Southeast Asia compared with other regions. Deepened intraregional trade and value chain participation, stable rice production and inventories in the region, and relatively limited wheat consumption in the Southeast subregion are important factors accounting for this resilience. However, the widening impact of the war and global inflation, along with climate change, have been driving food and livelihood crises in the region. No country has escaped recent food inflation, with food insecurity of most concern in countries highly dependent on food and agricultural input imports. The rapid rise in fertilizer prices (especially nitrogen and phosphates) – induced by the war in Ukraine, reduced fertilizer production in the European Union, and a contraction in fertilizer production and exports from China – has raised concerns about the region's food security and potential systemic economic crises.<sup>23</sup> On the other hand, Viet Nam and Thailand are projected to increase rice exports in 2023 in response to strong demand.<sup>24</sup>

Many governments in the region increased support to agricultural production and even restricted exports in an effort to tame domestic pressures on food and fuel prices during the pandemic. However, those short-term measures (mostly public policy support through price controls and trade barriers) distorted markets and disrupted the trend toward green production and dietary diversification (Figure 2). Further price inflation affecting

FIGURE 2 Public policy support to agriculture, 2010–2020 average



Source: Reproduced from World Bank, East Asia and Pacific Economic Update, October 2022: Reforms for Recovery (Washington, DC: 2022).

agrifood commodities is likely to increase the budgetary costs of agricultural input subsidies and food price controls, limiting governments' scope for further policy support in agriculture. Based on evidence from Thailand, cash transfers to vulnerable groups are recommended as a more cost-efficient alternative to price interventions for supporting food security. With differing governmental capacity (fiscal positions) to sustain fiscal buffers, the agrifood sector in the Philippines, Thailand, and Malaysia may be most at risk from reduced agricultural input subsidies and food price support. E

### INTEGRATION FOR THE FUTURE

Considering growing fiscal deficits, food inflation, and debt, substantial work is needed to put the region's agrifood systems on track toward resilience and sustainability, especially in a gloomy global economic environment.<sup>27</sup> Several major integration frameworks can help build resilience for the region's future. The 2020 ASEAN Comprehensive

Recovery Framework highlights the development of climate-smart agriculture and the need to boost agro-rural productivity. The 2021 Global Call to Action for a Human-Centered Recovery, from the International Labour Organization, provides a framework for proposed actions within ASEAN member states. The ASEAN-China Joint Statement on Enhancing Green and Sustainable Development Cooperation, also announced in 2021, is expected to expand actions to move food systems toward the SDGs. In addition, the Regional Comprehensive Economic Partnership (RCEP), which came into force at the beginning of 2022, could galvanize regional integration and enable ASEAN member states and their East Asian partners to better manage a complex array of food system crises and build resilience for the future through a multilateral trading system.

# LATIN AMERICA AND THE CARIBBEAN

# EUGENIO DÍAZ-BONILLA AND VALERIA PIÑEIRO

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he countries of Latin America and the Caribbean (LAC), like most of the world, have been affected by multiple economic, health, and geopolitical shocks in recent years, all adding to the damage from more frequent extreme weather events. This section reviews major impacts from these crises, which have varied across the LAC region, reflecting the wide variation in national economies, and offers recommendations for reducing the impact of future shocks.

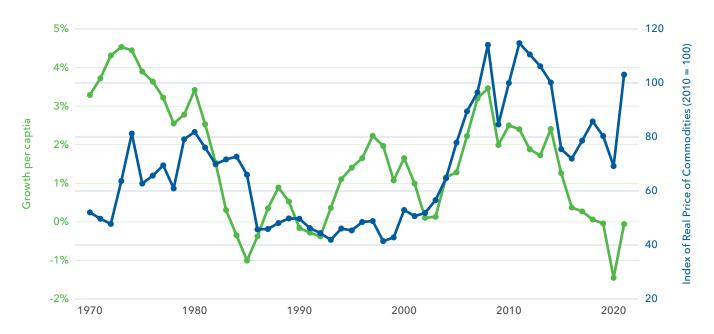
Historically, the region's economies have been substantially affected by global commodity cycles, which drive high economic volatility; in fact, the variability in the per capita growth rate in LAC is about double that of East and South Asia (although lower than in sub-Saharan Africa and the Middle East and North Africa). Economic volatility in turn has exacerbated the negative economic and social consequences associated with LAC's large income inequalities (LAC and sub-Saharan Africa are the two regions with the highest levels of inequality). On the positive side, democratic governance is more common in LAC than in other developing regions. However, the combination of economic volatility and inequality has affected the quality of democracy and the functioning of governments.<sup>1</sup>

Figure 1 illustrates the critical role of commodity cycles for Latin American economies, beginning with the high commodity prices and economic growth during the 1970s, when income per capita grew at about 3.7 percent per year. This was followed by the drop in commodity prices and the

"lost decade" of the 1980s, when average GDP growth was negative (-0.6 percent from 1981 to 1990). The most recent commodity cycle began in the first half of the 2000s, with commodity prices peaking around 2011 and then declining until 2021. Between 2000 and 2011, regional per capita income grew at about 2.0 percent per year but slowed to 0.4 percent from 2012 to 2019. The poor economic performance led to social protests in several countries, despite their different ideological orientations. This weakened democratic governance, causing a full breakdown in some cases, and contributed to the emergence of authoritarian governments and mass migrations in countries such as Venezuela. The index of democracy, calculated by the Economist, dropped more than 5 percent for the region between 2008 and 2021.2

Thus, when the COVID-19 pandemic hit in 2020, many countries in LAC were struggling with both low economic growth and weakened governments. Countries responded to the pandemic with restrictions on mobility and a range of health and income support measures, financed by fiscal and monetary expansion. As a result, the LAC region experienced the largest increase in the debt-to-GDP ratio among developing regions (it rose from 68.4 percent in 2019 to 77.8 percent in 2021 for LAC's group of emerging markets and middle-income developing countries). Notwithstanding the pandemic policy responses, the region, with only about 8 percent of the world's population, suffered about 30 percent of global

FIGURE 1 GDP growth per capita and real price of commodities



Source: Based on data from the World Bank's World Development Indicators and Commodity Prices database.

deaths. Income per capita fell by about 7.5 percent, more than any other developing region. LAC was particularly vulnerable to the pandemic for several reasons, including its high level of urbanization, significant income inequality (which also limits access to high-quality health services), the informality of labor markets, the prevalence of obesity, and the economic stagnation that preceded the pandemic.<sup>4</sup>

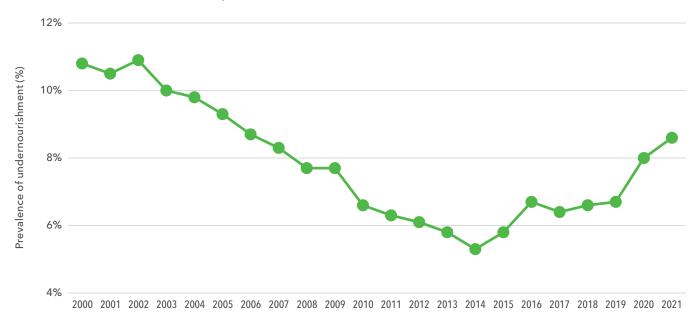
Agricultural production (including forestry and fishing) fared better in 2020 than other economic sectors, due in part to government support to the sector and to the fact that food production and distribution were considered essential activities during the pandemic by most countries, and so faced fewer mobility restrictions. But the deep recession in 2020 that affected demand, plus several climatic events (from hurricanes in Central America to droughts in South America), kept sectoral growth low. Agriculture sector growth was only 0.5 percent in 2020 and 1.2 percent in 2021, compared to more than 3.0 percent worldwide in both years.<sup>5</sup>

In 2021, the region enjoyed a strong economic rebound (up 5.8 percent over 2020), but GDP per capita remained below pre-pandemic levels. At the

same time, prices of many products were increasing due to a significant acceleration of world growth (2021 saw the highest per capita growth of any year in the period since 1960), the lingering effects of COVID-19 in logistics chains, and the effects of heatwaves and droughts in a number of agricultural countries. Then, in February 2022, the Russian invasion of Ukraine caused a further surge in the prices of food, fertilizers, and energy. Although those prices have declined since the initial shock, they remain above pre-pandemic levels.

Poverty and nutrition indicators followed the path of the most recent commodity cycle, and then were affected by the pandemic and the war. Economic growth in the upward phase of the commodity cycle, supported by the expansion of social assistance policies in LAC, helped to reduce the percentage of poor people (at US\$3.65 PPP/capita/day) from almost 27 percent of the population in 2000 to about 11 percent in 2014-2015. However, the poverty rate stagnated until 2019, when growth declined in the downcycle. Although processed household survey data is not available for all countries in LAC after 2019, extrapolation from those countries with data suggests that the pandemic

FIGURE 2 Undernourishment across LAC, 2000–2021



Source: Data from FAOSTAT (2022).

may have raised the regional poverty rate to 14 percent in 2020. Because of the closing of the economy and the nature of many women's jobs in the service sector, women were more affected than men by some of the pandemic-related problems – for example, they were 44 percent more likely than male workers to lose their jobs.<sup>7</sup>

Similarly, undernourishment and hunger (lack of calories) tracked the commodity and growth cycle, with rates declining from almost 11.0 percent of the population in 2000 to 5.3 percent in 2014 as the cycle peaked. The hunger rate trended somewhat higher until 2019, when it reached about 6.7 percent, and then rose to 8.0 percent in 2020 and 8.6 percent in 2021 as a result of the pandemic and the related economic slowdown, with the highest rates in Haiti, Central America, and Venezuela. There are no estimates as yet for 2022.

The most recent data also show that about 22.5 percent of LAC's population cannot afford a healthy diet (2020), and indicate a rising trend in obesity and related noncommunicable diseases. As of 2016, 24 percent of the adult population of LAC was obese, close to the 27 percent found in the United States, Canada, and Europe, and well above the world average of 13 percent. Of course, these

poverty and malnutrition problems vary across LAC: Haiti and several countries in Central America are more affected by hunger, poverty, and lack of access to healthy diets, but suffer less from obesity, while obesity is more prevalent in countries such as Argentian, Chile, and Uruguay, and different configurations of those problems exist in between.

All LAC countries have been affected by these macroeconomic, political, health, and climatic shocks over the past decade, but the effects have been more devasting for some than others. Haiti in particular has borne the brunt of a calamitous combination of climate and natural disasters with political, economic, social, and health crises in recent decades. In the past two years alone, its president was assassinated, and the island was hit by an extremely damaging earthquake of 7.2 magnitude followed by another of 5.3 magnitude a few months later.<sup>9</sup>

### **POLICY CONSIDERATIONS**

As the current crises play out, their negative impacts on malnutrition and poverty are likely to be aggravated by the tightening of global fiscal and monetary policies, which is leading to a

slowdown in the world economy. Moreover, the extreme weather events already inflicting damage in the region are projected to intensify in the near future. To prepare for and address these threats, LAC governments must confront a number of short- and medium-term challenges, bearing in mind that the application of policy responses will have to be fine-tuned to each country in view of the region's complexity and the large variation between lower- and higher-income countries' human, financial, and innovation capacities.

MANAGE FERTILIZER USE. Global fertilizer prices remain high, despite falling from their peak in April 2022. In the short term, special efforts are needed from LAC governments and the private sector to ensure adequate supply and more efficient use of fertilizers, along with a technological shift toward new fertilizers and management practices with lower greenhouse gas emissions. Countries should organize public-private working groups to monitor fertilizer markets and help ensure their supply.

MANAGE COMMODITY AND ECONOMIC CYCLES. While commodity cycles are inevitable, governments need to manage them better by saving in the upcycle to be able to provide economic support in the downcycle. The international community can help by (1) supporting debt relief through improved mechanisms for debt restructurings and write-offs, 11 (2) increasing the capital of multilateral development banks and optimizing the use of their balance sheets, so they can expand lending, and (3) using scarce international development funds more strategically to leverage and mobilize the vast liquidity in global private capital markets, orienting those markets toward larger humanitarian and developmental objectives (for example, by making better use of the Special Drawing Rights issued by the International Monetary Fund<sup>12</sup>).

INVEST IN SCIENCE, TECHNOLOGY, AND INNOVATION TO ADDRESS CLIMATE CHANGE. The increasing frequency of extreme weather events requires a greater investment in science, technology, and innovation to develop and scale up critical measures for adaptation, resilience, and mitigation. Agriculture

in general, and particularly in developing countries, is an important part of the solution to climate change, given its triple potential role of reducing emissions through climate-smart practices; contributing to mitigation by capturing CO<sub>2</sub> through more efficient agriculture and landscape management; and increasing sectoral resilience and adapting to worsening climate and weather conditions. Most of the LAC countries should invest more in agricultural R&D, given that current R&D expenditures in many countries fall below the suggested minimum of 1 percent of agricultural GDP. The need for scaled-up investments in science and technology applies to the whole food value chain and the consumer environment as well. In this regard, it has been suggested that investments in science, technology, and innovation should reach at least 1 percent of all GDP related to food systems, not just agricultural GDP.13

IMPROVE HEALTH SYSTEMS. The pandemic has highlighted the need for more effective health systems. LAC and the rest of the world are adjusting to a situation in which the COVID-19 virus and its variants are endemic. With vaccines, testing, and the development of better treatments, the disease now seems manageable. However, the future will bring new epidemics, which will require not only strengthening LAC's health systems but also improving global surveillance and rapid-response mechanisms. In particular, a "one health" approach to the interaction of human and animal health in food systems, which has been the source of many recent pandemics, must be supported by strong science and technology investments.

(RE)BUILD HUMAN CAPITAL THROUGH SOCIAL SAFETY NETS AND NUTRITION PROGRAMS. Finally, human capital in LAC, as in other developing regions, has been affected by the nutritional problems associated with insufficient and less-healthy diets as well as setbacks caused by the pandemic, including the gap in education for the current generation of students and the weakening of job skills due to long unemployment periods for some working people. All these problems must be addressed to improve welfare and long-term growth. In particular, it will be necessary to scale up and reevaluate

the design of social safety nets and nutrition programs in the region, with the goal of reducing the high levels of inequality and increasing resilience to future crises. A promising option for LAC countries is to expand the focus of cash-transfer programs in rural areas to combine social, productive, and environmental dimensions of sustainable development – with a percentage of cash transfers related to poverty levels; another share to cover the additional cost of implementing sustainable adaptation and mitigation technologies; and another for forest, biodiversity, and other ecosystem protection and restoration services. More generally, it would be beneficial to establish a framework for social inclusion, in both rural and urban settings, with multidimensional programs including social safety nets, livelihoods and jobs, and financial inclusion. 15

Further, given that cash transfers or vouchers are already being used for both temporary humanitarian programs that respond to recurring crises and expanded permanent social assistance programs, integrating those programs into what has been called "shock-responsive social assistance" could offer a way forward (see Chapters 3 and 5). In addition, the series of negative shocks in recent years has led to many humanitarian programs operating on a near-permanent basis. This has created strong networks of institutions - national and international, public and nongovernmental – with significant experience and operational capabilities on the ground that could be integrated within long-term national strategies developed by elected authorities.

#### CONCLUSION

The LAC region has experienced significant economic and political volatility, exacerbated by extreme climate events and natural disasters. Several policy measures – related to macroeconomic and financial issues, climate change, health, and social interventions – have been recommended here to address the short- and medium-term challenges generated by those shocks. LAC countries are now burdened by pandemic-related increases in debt and face a host of preexisting economic and social problems

as well as the threat of climate-related disasters. To tackle the current challenges and prepare for likely future shocks, they will need substantial financial support from international organizations to implement the policies that will put them on a path toward greater stability, equality, and resilience.