

PROTECTING AND STRENGTHENING HUMAN CAPITAL AMIDST A GLOBAL FOOD AND NUTRITION CRISIS



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1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org

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Introductionⁱ

Supporting and protecting human capital—the term economists use for the knowledge, skills, and health that people accumulate throughout their lives—remain the overriding challenge of a decade already wracked by pandemic, war, climate change, and poverty. People-centric policy featured prominently in the effective measures that governments around the world took in response to the COVID-19 pandemic. Policy makers can learn from that effort, as well as the response to the food, fuel, and finance crisis (the 3F crisis) of 2008–2009, to meet the current food and nutrition crisis. History may not repeat itself, but it does sometimes rhyme.

To achieve the goals of immediate relief and longer-term improvement, the response to the crisis must be deft and involve the whole of government. Individual ministries need to collaborate effectively enough that their individual efforts are mutually reinforcing and worth more together than separately. Finance ministries should not only ensure funding for the response to the crisis but also oversee expenditures to guarantee efficiency and accountability. Agriculture, health, social protection, labor, and education ministries must utilize funds for maximum effect and design policy and programs that work for the moment and for the future.

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Severity of Food and Nutrition Crisis

There is no hiding from this challenge. Supply chain disruptions, higher food prices, and outright shortages are constraining access to basic staples. This has the potential to be a reality for years, a frightening prospect in low-income countries where 42 percent of household budgets go to food.¹ Countries that already have a high undernourished population or high food price inflation are particularly at risk. Vulnerability is also increasing rapidly in middle-income countries, which host the majority of the world's poor. The threat to food security is particularly high in countries hit by compounding crises. The potential for a food, nutrition, fertilizer, and energy crisis to fuel social tensions should not be underestimated. These countries, already fragile or affected by conflict, stand to lose far more than calories.

Food inflation remains high in the world, with dozens of countries experiencing double digit inflation.² According to the World Food Programme (WFP), 349 million people across 79 countries are acutely food insecure.³ Undernourishment is worryingly on the rise, marking a troubling deterioration for the past three years. The outlook remains grim, as global food supplies are expected to hit a three-year low in the 2022-2023 period.⁴ The urgency is particularly acute in 24 countries pinpointed by the Food and Agriculture Organization (FAO) and WFP as hunger hotspots, with Africa accounting for 16 of these critical situations.⁵ Fertilizer affordability, gauged by the ratio of food prices to fertilizer prices,⁶ has hit its lowest point since the 2007-2008 food crisis. This decline is contributing to reduced food production and hitting smallholder farmers the hardest, exacerbating already steep local food prices. A case in point is the 2022 reduction in rice production—a crop for which Africa stands as the world's largest importer—combined with the likelihood of dwindling stocks, raising serious concerns. Even if commodity prices peaked in 2022, there is a good chance they will plateau at a higher-than-expected level for years.⁷

A food crisis is also, by its nature, a nutrition crisis with many facets. The most obvious is child stunting (low height for the age), the result of undernourishment among young children that can lead to a lifetime of human capital losses to individuals and societies. Globally, about 149 million children are stunted,⁸ a problem that portends lower cognitive development, educational challenges, and weaker earnings. Further, undernutrition contributes to 45 percent of child mortality.⁹ The economic costs of undernutrition, in terms of lost national productivity and economic growth, are significant—the economy and society are paying US\$3 trillion a year in the form of productivity loss, ranging from 3 to 16 percent (or more) of gross domestic product (GDP) in low-income settings.¹⁰ These losses extend across both the public and private sectors. Estimates across 95 low- and middle-income countries show that businesses collectively lose at least US\$135.4 billion in sales a year through malnutrition-related productivity reductions, equivalent to as much as 1.2 percent of national GDP across countries.¹¹

However counterintuitive it might seem, a food and nutrition crisis can drive obesity—the other face of the malnutrition crisis—which is already a serious problem in low- and middle-income countries, where over 70 percent of the world's overweight or obese individuals live.¹² Pressure to spend more on food not only means people have less to eat; it can also mean lower-quality products and often ultra-processed foods high in sugar, sodium, and trans fats, all drivers of obesity and obesity-

related noncommunicable diseases such as diabetes and cardiovascular ailments. This challenge was observed during the pandemic when supply chain breakdowns raised prices and lowered availability of healthy fresh produce. And obesity puts pressure on health systems, by raising the frequency of hospitalization and intensive care, including morbidity and mortality from COVID-19.¹³

There is clear evidence from past crises that children suffer long-term health consequences from short-term shocks and girls face disproportionately higher risks of school dropout, early pregnancies, and child marriage.¹⁴ While crises tend to force women in a family to compromise on their diet and thus nutritional status,¹⁵ early marriage and pregnancy exacerbates the situation among young women who have greater nutritional requirements.¹⁶ This is a risk factor of low birthweight and stunting, which in turn affects women in the labor market and further contributes to gender inequities and long-term impacts on female human capital utilization. Without forceful countermeasures across government ministries, the long-term economic effects of the food and nutrition crisis could be dramatic, even if the acute phase of the crisis is shorter than expected. Undernutrition may happen for a relatively brief phase in people's lives but when it affects children or women, its effects endure.

Challenges in Responding to this Food and Nutrition Crisis

All efforts to meet the challenge of today's food and nutrition crisis stand in the shadow of the COVID-19 pandemic. Food prices were already near historic highs during the pandemic due to logistical disruptions and other factors. And, by and large, world leaders, prompted by the global nature of the challenge, managed to limit the pandemic's effect on the food trade by taking expeditious, drastic action to keep ports operating, freight flowing, and labor working. There is no guarantee that the same urgency will continue in the coming years in relation to the food crisis. In fact, concerns about food availability due to Russia's invasion of Ukraine prompted many countries to impose export bans and other trade restrictions, the extent of which, in both absolute numbers and as a share of caloric intake, have been comparable with those during the 2008 food price spike.¹⁷





Elevated prices of energy commodities that serve as inputs to agricultural production have been driving up food prices. While increases in agricultural prices eased by the end of 2022 and are projected to further decline in 2023, the outlook is subject to numerous risks both in the short term and medium term. Higher-than-expected energy prices could feed through to non-energy prices, especially food, prolonging challenges associated with food insecurity. Moreover, currency depreciations in many countries have resulted in higher commodity prices in local currency terms compared to the price in US dollars.¹⁸

Fertilizer prices have declined from their peak in early 2022 but remain at historically high levels. Much of the decline can be attributed to weak demand caused by problems with affordability and availability. Supply-side challenges are also affecting fertilizer markets, including production shortages in Europe, disruptions caused by sanctions on the Russian Federation and Belarus, and trade restrictions in China.¹⁹

Debt levels that accumulated during prior crises will, without a forceful response, drastically constrain efforts to respond to the food and nutrition crisis. It did not start with COVID-19; between 2011 and 2019, public debt among 65 developing countries rose by an average of 18 percent of GDP.²⁰ Total debt among emerging markets and developing economies is at a 50-year high and Russia's invasion of Ukraine has added major new costs.²¹ Amid sharply rising global interest rates, the large fiscal demand on global capital by the governments of advanced economies points to a channeling of critical resources away from these countries, leaving them little room for fiscal support to combat overlapping crises.

The pervasive, indeed, all-encompassing effects of climate change will vex generations of policy makers grappling to ensure sufficient food production. Droughts and floods have increased in frequency and severity. In a relatively short period since 1982, the frequency of climate-related shocks in Sub-Saharan Africa increased from every 12.5 years to every 2.5 years.²² Food security declines by 5 to 20 percent with each flood or drought in Africa, and the number of calories produced through staple crops drops 1.4 percent.²³ No effort to improve food security will escape the influence of climate change.

Global estimates suggest serious rollbacks in child nutrition rates with an estimated 2.6 million more children to be stunted and 9.3 million wasted (low weight-for-height) due to the effects of food and health system disruptions caused by the COVID-19 pandemic,²⁴ in addition to the 149 million already stunted and 45 million wasted children in 2020.²⁵ However, the global response to the nutrition crisis has been muted as donor and national budgets/fiscal space were constrained, with available funds redirected to vaccines and pandemic containment.

Food insecurity remains a critical challenge in some emerging markets and developing economies, reflecting the high number of food trade restrictions imposed last year, weather-related events, and the impact of Russia's invasion of Ukraine and conflict elsewhere. Both globally and regionally, food insecurity has historically affected women more than men, and since 2019, this gender gap has only continued to grow.²⁶

Leaders must not underestimate the compounding nature of these challenges. The food and nutrition crisis will surely exacerbate the human capital losses experienced in the last two years due to COVID-19. Managing it under the strain of debt accumulated during the pandemic at a time when shocks travel through different transmission channels simultaneously—energy, climate, geopolitics—has created a compound challenge with few precedents. The only plausibly effective response will rely on short-term cyclical responses that transform, relatively quickly, into long-term structural changes.

Despite the abovementioned challenges, governments around the world have taken swift measures to counteract inflation of food, fuel, and fertilizer prices. As of December 2022, 1,016 social protection and related measures to counter inflation were announced or implemented across 170 economies (see Box 1).²⁷ Countries have spent over US\$710 billion for social protection measures covering 1 billion people, including approximately US\$380 billion for subsidies, half of which are untargeted, inefficient, and costly to already constrained governments. The overreliance on subsidies to date stands in stark contrast to the response to COVID-19 pandemic that relied more heavily on cash transfers.



Box 1: Social protection response to counter inflation in 2022

Overall, subsidies account for 34 percent of social protection and related measures aimed at countering inflation and take four main forms: fuel, food, fertilizers, and various fee subsidies. Social assistance makes up 29 percent of responses, with 78 percent of it being provided in the form of cash transfers. Tax and trade-related measures account for 21 percent and 6 percent of global responses, respectively. Active labor market policies and social insurance each make up 5 percent of responses. Data from 93 countries show that social protection programs cover or plan to cover 1.05 billion people or about 13.5 percent of the world's population. Based on expenditure data from 382 programs in 125 economies, US\$710.6 billion is being invested in social protection responses, resulting in an average spending of 0.74 percent of GDP by country. The average size of both social assistance and subsidy transfers represents about one-quarter of the daily median income, with an average duration of 4.7 months. Over half of social assistance transfers are new (53 percent) and are provided on a one-time basis (51 percent).

Source: Gentilini, Ugo, Mohamed Almenfi, Hrishikesh TMM Iyengar, Giorgia Valleriani, Yuko Okamura, Emilio Raul Urteaga, and Sheraz Aziz. 2022. "Tracking Global Social Protection Responses to Inflation-Living Paper V. 4." No. 178842, World Bank, Washington, DC.

In collaboration with partners, the World Bank Group (WBG) has acted swiftly, concentrating on averting a further deterioration in the food and nutrition crisis. A US\$30 billion food and nutrition security package spanning April 2022 to June 2023 is being provided by the World Bank, encompassing US\$12 billion in new projects, all of which have been committed ahead of schedule. This sum also features US\$3.5 billion in new financing specifically for food and nutrition security in hotspots. Moreover, the World Bank has designated US\$748 million from its US\$1 billion Early Response Financing arm of International Development Association (IDA)'s Crisis Response Window (CRW) to primarily address needs in hotspots while mobilizing additional funds for the CRW. The WBG's US\$6 billion International Finance Corporation (IFC) Global Food Security Platform assists farmers in accessing fertilizers and essential supplies while supporting private companies in making long-term investments, with a focus on enhancing the resilience of agri-food systems and fertilizer use efficiency.²⁸

Urgency of Social Protection Response in the Short Term

Social protection systems remain a vital tool for short-term responses to crises affecting human capital. They can help individuals, who can avoid sudden poverty and destitution as well as entire societies, by forestalling steep increases in inequality and political conflict. Social protection can also help complement macroeconomic interventions.

Social assistance support should be scaled up with a focus on food and nutrition security. This is crucial to help individuals and families, especially women and children, who are most vulnerable to the impacts of rising global food prices. Interventions can include supporting safety net institutions,



providing emergency income through cash transfers or in-kind food distribution, treating severe malnutrition, adjusting social protection programs for food price changes, and expanding scope of safety nets to reach vulnerable populations. Nutrition-sensitive safety nets can help address the root causes of malnutrition and food insecurity by incorporating nutrition education, health services, and support for local food production and markets. These programs seek to improve food and nutrition outcomes and promote long-term household food security and resilience.

Governments determined to design better social protection systems do have the wind at their backs in at least one respect. Countries—rich and poor—turned social protection measures into a first line of defense during the pandemic. Recent experience, data, and lessons learned are plentiful in the wake of the COVID-19 crisis.²⁹ A total of US\$3 trillion was invested in social protection responses, amounting to an average of 2 percent of GDP per country, but high-income countries spent about 90 times more per capita than low-income countries.³⁰

Cash transfers were used to mitigate the worst impacts but with uneven reach and limited duration. Cash transfers provided significant support in mitigating the effects of the pandemic but reached people unevenly across and within countries. While one out of six people in the world received at least one cash transfer payment, about half of the population of East Asia and North America, and only one-tenth in Africa, were covered.

While there are many lessons learned, a few key lessons are important for tackling the food and nutrition crisis. First, governments should avoid resorting to universal subsidies. Targeted cash transfers designed to provide income security to vulnerable households proved quite successful in staving off far worse impacts. Universal subsidies, while politically popular, have several downsides.³¹ First and foremost, they are regressive—that is, they benefit richer families more than poorer families, and they are highly expensive. In addition, specific subsidies can have negative consequences. Subsidizing particular foods, such as bread, can backfire in terms of achieving balanced nutrition. Experiences during the pandemic and a wealth of knowledge on cash transfers show that targeted and temporary cash transfers should be the first line of response to price shocks.³²

Second, while the scale-up of social protection during the pandemic was generally successful, future crises responses may be enhanced by a wider use of automatic stabilizers for social protection. Such stabilizers connect early warning systems, scale-up triggers, protocols for program expansion, and prepositioned financing—to make a system truly ‘adaptive’ to crises. However, the wide uncertainty around the nature and duration of the pandemic led to social protection’s uneven responses relying heavily on discretionary choices—whom to cover, how much to provide, for how long—and to a limited extent on automatic stabilizers. Moving forward, the development of automatic stabilizers offers a precious opportunity for connecting social protection to other dimensions of human capital, for example, how leveraging health early warning systems could, in the future, inform the scale-up of cash transfers or better connect containment policies with social protection programs.

Finally, productive inclusion programs that go beyond cash benefits can help improve households’ resilience in the long term. These programs aim to improve the resilience of households by incorporating elements such as coaching, life skills training, access to credit and assets, and support for entrepreneurship. By helping individuals and families build livelihoods and assets, productive inclusion programs can help reduce poverty and increase food and nutrition security (see Box 2).

Box 2: Productive inclusion through safety nets in the Sahel

Between 2016 and 2020, social safety net programs in Burkina Faso, Mauritania, Niger, and Senegal augmented regular cash transfers with an integrated set of productive inclusion measures aimed at alleviating several key constraints that keep the poor from growing their economic activities. They were implemented both in rural and urban areas. Activities include boosting capital, skills, and planning of economic activities as well as fostering social dynamics and community cohesion. They were tailored to the needs of cash transfer recipients, most of whom are women.

The implementation of productive inclusion measures has already yielded positive results, with over 50,000 beneficiaries, mostly women, having benefited from such programs, with additional scale-up under way in several countries. By leveraging safety net systems for identification, targeting, and payment, these programs were able to keep costs low at approximately US\$300 per person on average. A collaborative approach involving government safety net agencies, nongovernmental organizations (NGOs), training experts, and local and international researchers led to tailored design and efficient delivery, even in low-capacity contexts. Beneficiaries were eager to participate, with high levels of participation observed, and effective monitoring systems were established to ensure efficient delivery. Several countries are now planning to scale up their productive inclusion programs to improve employment outcomes for youth, promote women’s empowerment, and support recovery from the COVID-19 crisis.

Results from Niger show that the productive inclusion measures strongly improve households’ economic diversification, resulting in greater welfare and food security. The program was highly cost-effective. Women’s empowerment and social cohesion were significantly improved in participating communities.

Source: Bossuroy, Thomas, and Patrick Premand. 2021. “Resilience at Scale: Productive Inclusion through Safety Nets in the Sahel.” World Bank Blogs, February 25, 2021. <https://blogs.worldbank.org/jobs/resilience-scale-productive-inclusion-through-safety-nets-sahel>.

Keeping an Eye on the Medium Term - Building Sustainable, Nutritious, and Affordable Food System

The urgency of the moment often shades imperceptibly into medium term, giving policy makers a chance to promote more lasting improvement. To the extent possible, targeting underlying drivers of food and nutrition insecurity as part of the crisis response can lead countries down the path of durable change for the better. The medium term will likely bring increases in maternal and child undernutrition. Some increase in obesity and obesity-related diseases also seems likely in the longer term. Without purposeful investment, working through social protection measures and the food and health systems, these problems will only grow.

The imperative to minimize trade restrictions remains. One of every five calories consumed in the world has crossed at least one international border—up more than 50 percent from 40 years ago—and low- and middle-income countries are part of that trend. They account for around one-third of world food trade.³³ As of March 13, 2023, 23 countries had implemented 29 food export bans and 10 had implemented 14 export-limiting measures.³⁴ This persists even though multilateral organizations consistently urge nations to (a) avoid policies such as export restrictions, which can impede access to food for poor consumers in low-income food-importing countries; (b) support trade facilitation measures to improve availability of food and fertilizer; (c) support trade finance initiatives in a transparent and nondiscriminatory manner; and (d) adhere to the commitments made at the WTO's 12th Ministerial Conference.³⁵

General universal subsidies should be reformed and repurposed by countries toward temporary, more targeted programs for global food security and sustainable food systems, taking into account the key aspects of (a) efficiency, (b) cost and fiscal sustainability, (c) flexibility, (d) administrative complexity, (e) equity, and (f) enhanced resilience and sustainability. Comprehensive, actionable, and shock-responsive social protection strategies should be strengthened and implemented by countries with increased support.³⁶

A more sustainable agriculture system is also essential and entails a better allocation of governments' support toward agriculture, which averaged US\$639 billion per year between 2016 and 2018 and has increased since then. Much of the current support is inefficiently targeted—only 35 cents of every dollar spent reach farmers³⁷—and fosters unsustainable practices. There is a need to repurpose the support to incentivize environment-friendly policies and the adoption of climate-smart agriculture practices, including in fertilizer application efficiency and alternatives to synthetic fertilizers and promote more efficient and waste-free food systems. Better use of data and digital technology can also help connect farmers to consumers and reduce inequality and hunger. However, there is no one-size-fits-all solution—each country must have its own specific strategies backed by multi-stakeholder dialogues.³⁸

At the same time, food systems are rapidly changing and adapting to the crises in unwelcome ways. Unhealthy ultra-processed foods and beverages are increasingly accessible, including in developing economies. The reduced physical activity during the pandemic, compounded with



unhealthy eating habits, raises concerns that the incidence of overweight and obesity as well as diet-related noncommunicable diseases will further increase. The countries that are already facing an obesity epidemic are starting to take policy measures, such as imposing regulations on marketing, mandating food labeling, reforming school canteen menus, and taxing unhealthy foods and drinks.³⁹ Actions are also needed in countries that will bear a severe double burden of undernutrition and overweight/obesity in the face of the compounded crises.

Lasting food and nutrition security, amid crisis or not, remains the overriding long-term priority for developing countries. Responding to the food and nutrition crisis is not mutually exclusive to this goal. Building resilient food and nutrition systems is critical to improve nutrition outcomes that are key for building human capital. The world needs policies that can promote the production and consumption of nutritious foods, disincentivize unhealthy products, and raise real incomes of the poorest, all measures that maximize human capital formation and utilization.

Investing in nutrition is critical, not just for building human capital but also for climate resiliency since the 'syndemic'—a synergy of epidemics—of undernutrition, obesity, and climate change occurs together and poses one of the greatest threats humankind has ever faced.⁴⁰ However, given that both development finance and domestic resources are constrained, now is the time to develop new innovative financing solutions for nutrition that crowd-in the private sector and explore options, ranging from Sustainable Development Goal bonds and Environmental Social and Governance investment to nutrition-sensitive social health insurance to reformulation of food and beverage products for healthier diet.⁴¹

In summary, actions are already under way to address underlying structural challenges in social protection to provide more effective immediate protection to the vulnerable and enable their long-term resilience as well as advancing reforms in agricultural support toward building sustainable, nutritious, and affordable food system. However, more coordinated efforts across these crucial areas are necessary to avert a protracted crisis and enhance the response to future crises and enduring challenges.

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