

# Economic and food supply chain disruptions endanger global food security

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COVID-19 has led to a global economic slowdown that is affecting all four pillars of food security—availability, access, utilization, and stability—according to a new article from researchers at the

International Food Policy Research Institute (IFPRI), published in the journal *Science*. Agricultural and food markets are facing continuous disruptions due to labor shortages caused by lockdowns, as well as large shifts in food demand arising from income losses and the closure of schools and restaurants. The key findings highlight the impact of COVID-19 on food systems, the global economy, poverty, health, and trade.

"The most important impact of the pandemic on [food security](#) is through income declines that put [food](#) access at risk", said article co-author and IFPRI Director-General Johan Swinnen. "This is especially a concern for the extreme poor, who spend on average about 70 percent of their total income on food."

The International Monetary Fund (IMF) projects a 5% decline in the [world economy](#) in 2020, a deeper global recession than during 2008-2009 financial crisis. Model-based simulations by IFPRI suggest that such a deep recession would push 150 million more people into extreme poverty; an increase of 24% from current levels. Most of the rise in poverty will be concentrated in sub-Saharan Africa and South Asia. "Disruptions in food systems both contribute to increases in poverty, by affecting a critical source of income for many of the world's poor, and also exacerbate the impacts of poverty by reducing access to food, particularly nutritious foods," said Swinnen.

The researchers note that income declines will particularly affect consumption of nutrition-rich foods, such as fruits, vegetables, and animal-source products. New evidence from Ethiopia confirms this impact and further indicates that it is expected to increase micronutrient deficiencies among its population, contributing to [poor health](#) and greater susceptibility to COVID-19.

Governments all over the world have made attempts to ensure

availability of staple foods and these supply chains have generally held up well, even in countries with strict social distancing requirements. But food supply chains differ across countries and crops, as do the impacts of COVID-19 on supplies. Capital-intensive food value chains that are highly mechanized (predominant in rich countries for staple crops such as wheat, maize and soybeans) have continued functioning with few disruptions. In contrast, food production in poor countries tends to be more labor-intensive; and production of many non-staples, such as fruits and vegetables, worldwide requires workers be in close proximity. These food value chains have shown more supply disruptions owing to the risk of disease transmission, labor shortages, and disruptions in transportation and logistics. Parts of food processing sectors in [rich countries](#) have also been susceptible to such disruptions, as evident in the case of United States and Europe, where 30,000 workers in meat processing tested positive for COVID-19, causing many plant closures.

"It is critical to exempt agricultural practices and actors from COVID-19 lockdown measures to ensure the adequate flow of food from farm to fork", said IFPRI's Markets, Trade and Institutions Division Director Rob Vos. The researchers point to the "green lanes" the Chinese government created to ease the transport, [production processes](#), and distribution of agricultural inputs and [food products](#) as an example.

Trade is also essential to address issues of availability and stability. It ensures diversification of supplies, reduces gaps in production and helps stabilize of world markets. Export restrictions on staple foods including rice and wheat, imposed by 21 countries in the early months of the pandemic, created volatility and upward pressure on world prices for food staples. "Fortunately, many of these export restrictions have since been lifted, and world market prices for rice, for instance, declined after the end of Vietnam's export ban," said article co-author and IFPRI Senior Research Fellow David Laborde. The researchers recommend governments avoid further use of disruptive policies like export

restrictions on food, keep policies consistent with rules agreed at the WTO and maintain open trade channels.

Fiscal challenges facing low- and middle-income countries could create strong international spillover effects for the economic consequences of COVID-19. Support and response from high-income countries and international organizations is crucial for poor countries with limited fiscal space. "Such support would not only aid global economic recovery but also mitigate the enormous humanitarian costs associated with the health tragedy of COVID-19 and the consequent food crisis," said article co-author and IFPRI Senior Research Fellow Will Martin.

**More information:** D. Laborde et al., "COVID-19 risks to global food security," *Science* (2020). [science.sciencemag.org/cgi/doi ... 1126/science.abc4765](https://science.sciencemag.org/cgi/doi/10.1126/science.abc4765)

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