

# Cuba's Deteriorating Food Security and Its Implications for U.S. Agricultural Exports

Steven Zahniser, Lila Cardell, Yacob Abrehe Zereyesus, and Constanza Valdes

## What Is the Issue?

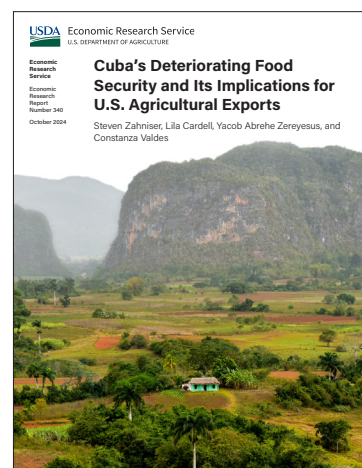
Cuba's economy continues to struggle following the Coronavirus (COVID-19) pandemic. Reductions in trade, tourism, remittances, and domestic food production have contributed to growing food insecurity in Cuba, although higher levels of Cuba-Russia trade have provided some respite. The deterioration in Cuba's food security has direct implications for the overall levels and product composition of U.S. agricultural exports to Cuba, which historically has relied on some agricultural imports to meet the nutritional needs of Cuba's population.

## What Did the Study Find?

Cuba's domestic production of many crops decreased substantially over the past 7 years, which is, in part, due to hurricanes and flooding in 2020 and 2021 and drought in 2023. Between marketing years 2016/17 and 2023/24, Cuba's annual corn production declined from 404,000 metric tons to 250,000 metric tons, a 38-percent decrease. Rice production fell from 335,000 metric tons to 140,000 metric tons (milled basis), a 58-percent decrease. In addition, Cuba's annual sugar exports (once an important source of foreign exchange that could be used to finance imports) plummeted from 1.1 million metric tons to 110,000 metric tons (raw value), a 90.5-percent decrease.

Because of lower domestic agricultural production, Cuba's ability to import food has assumed a more substantial role in the country's food security. The country's main agricultural imports are staple commodities, including chicken meat, wheat, and rice. This composition of imports reflects efforts to fulfill crucial dietary needs that cannot be satisfied by domestic production and to smooth variations in consumption across time through the periodic accumulation and depletion of stocks. Moreover, Cuba's current economic challenges make it difficult to earn the foreign exchange needed to import food or critical agricultural inputs, such as fuel and fertilizer.

Based on the USDA, Economic Research Service's (ERS) International Food Security Assessment (IFSA) model, nearly 12.8 percent (1.4 million people) of Cuba's population in 2023 was estimated to be food insecure. The food gap is defined as the difference between projected food demand and a caloric threshold of 2,100 kilocalories per capita per day.



ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

For 2023, Cuba's average estimated food gap was 225 calories per capita per day or the equivalent to an annual food gap of approximately 41,000 metric tons (in grain equivalents) for Cuba's food insecure population. This level of food insecurity reflects high domestic food prices, which reduce household purchasing power, particularly for lower income households in which food accounts for a larger share of total expenditures.

Cuba's grain production (rice and corn mainly) has been declining since 2016, with fewer than 400,000 metric tons produced each year from 2020 to 2023, according to estimates by USDA's Foreign Agricultural Service. With an estimated food gap of 41,000 metric tons in 2023, Cuba has depended on imports to fill the gap. Due to uncertainties regarding the measurement of Cuba's Gross Domestic Product (GDP), a scenario with adjusted per capita GDP was considered. In this alternative scenario, an estimated 37.8 percent (4.2 million people) of Cuba's population may have been food insecure in 2023.

Among the countries for which data on trade with Cuba are available, the European Union (EU), the United States, and Brazil were the first, second, and third leading suppliers of Cuba's agricultural imports during 2017–22, respectively. The EU, China, and Switzerland were the first, second, and third leading destinations for Cuba's agricultural exports, respectively. In addition, Russia was reported to have donated 25,000 metric tons of wheat to Cuba in 2023.

After U.S. agricultural exports to Cuba plunged to \$157 million in 2020, this trade rebounded to \$299 million in 2021, \$319 million in 2022, and \$337 million in 2023. Chicken meat accounted for 89.4 percent of U.S. agricultural exports to Cuba during 2020–23. This pattern of relatively low exports concentrated in a single commodity directly contrasts with the pattern of trade in the aftermath of hurricanes that hit Cuba in 2001 and 2008. U.S. agricultural imports from Cuba have remained at or near zero since the early 1970s due to U.S. restrictions.

## **How Was the Study Conducted?**

The authors drew upon publicly available information to profile Cuba's economy, food security, and agricultural trade. First, the authors analyzed economic and policy information, including GDP, population, exchange rates, inflation, number of foreign visitors, agricultural production, remittances, and foreign assistance, to develop an understanding of Cuba's economic situation and outlook. Second, the authors used the IFSA model to estimate the share of Cuba's population that was food insecure in 2023. Finally, the authors used trade data from the United States and other trade partners of Cuba to construct an overview of Cuba's agricultural trade. Missing from this analysis are several key trading partners of Cuba—Russia, Venezuela, and Vietnam—whose trade data are not fully reported. As a result, the available trade data may undercount Cuba's exports and imports.