



# International Food Security Assessment, 2020–30

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## What Is the Issue?

Income, food prices and economic inequality are major factors determining how much access people have to food. Agricultural production and market conditions affect how much food is available. Widespread food availability, rising income levels, and low food prices improve a country's food security, although the breadth of these gains can depend on the distribution of income within a country. Conversely, disruptions to income, prices, or food supply can increase food insecurity, especially for the poor. Understanding how these factors collectively influence food demand provides a measure of progress in assessing food security. This report looks at these factors to assess current-year levels of food security and to project changes in food security over the next decade for 76 low- and middle-income countries in Sub-Saharan and North Africa, and in Latin America and Asia. The report provides information for USDA and its stakeholders to estimate long-term projections of food security in these countries. It also analyzes the impact of an income shock associated with the COVID-19 pandemic on present and future food security.

## What Did the Study Find?

Given the rapidly evolving situation at the country level and the uncertainty of estimates of economic shocks from the COVID-19 pandemic at the country and global levels, the results presented in this report are representative of a baseline scenario based on macroeconomic trends up to April 2020, consumption and production data up to January 2020, and price trends over the period 2017–2019. Projections do not consider the potential impacts of future catastrophic weather, armed conflict, or political and economic instability events. For the 76 countries covered by this report:

- The number of food-insecure people in 2020 is estimated at 844.3 million, an increase of 83.5 million (11 percent) due to COVID-19 income shock. This implies that 22 percent of the total population of the 76 focus countries is unable to consume 2,100 calories a day, an average caloric level necessary to sustain a healthy and active lifestyle.
- Most of the increase in people estimated to be food insecure as a result of the COVID-19 pandemic are in Asia (41 million people) and Sub-Saharan Africa (35 million people).

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.

- Even with the income impacts from COVID-19, food security is projected to improve in all 76 countries over the next 10 years. By 2030, the share of the population that is food insecure in these countries is projected to fall to 10 percent (456.8 million people), a 46 percent drop from 2020 in the number of food-insecure people. Despite this sharp decline, the 2030 estimate of food insecurity is almost 13 percent higher than the pre-COVID-19 scenario.
- Improvement in food security is driven by income growth, relatively stable prices for major grains over the projection period, and lower population growth, particularly in Asia and in Latin America and the Caribbean.
- Per capita income in the following decade is projected to increase by almost 42 percent on average for the 76 countries, but this is 1.3 percentage points lower than the pre-COVID-19 estimate.
- The food gap, defined as the amount of food needed for all food-insecure people to reach the caloric target of 2,100 kcal/day, indicates the intensity of food insecurity. It can be expressed in calories per capita per day or in grain-equivalent quantities and is used to measure the intensity of food security at the aggregate level. For the 76 countries examined, the total food gap is projected to decline in all four regions from a total of 44.7 million tons in 2020 to 24.3 million tons in 2030.

## How Was the Study Conducted?

ERS's demand-oriented International Food Security Assessment (IFSA) model projects food demand and food gaps in 76 low- and middle-income countries through 2030. Food insecurity is evaluated for each country by estimating the share of the population unable to reach a caloric target of 2,100 calories per person per day. The intensity of food insecurity is measured by determining the gap between projected food demand for those falling below the threshold and the caloric target. Food demand is expressed in grain equivalents based on caloric content to allow aggregation across four separate food groups: the major grain consumed in the country, other grains, roots and tubers, and all other food. Average per capita food consumption data are from the Food and Agriculture Organization (FAO) of the United Nations' Food Balance Sheets and FAO's cereal balances. Observed domestic prices are from FAO's Global Information Early Warning System (GIEWS) Food Price Monitoring and Analysis tool. Tariff data are from the World Bank World Integrated Trade Solution (WITS). Incomes, exchange rates, and Consumer Price Indexes (CPI) are from the ERS International Macroeconomic Dataset. World prices are from USDA's Agricultural Projections to 2028. GDP shocks associated with the COVID-19 pandemic are taken from the International Monetary Fund's (IMF) April 2020 estimates.