

International Food Security Assessment, 2023–2033

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What Is the Issue?

Millions of people around the world lack access to sufficient, safe, and nutritious food. Several factors affect the prevalence of food security including food availability (agricultural production and market conditions), access to food (economic and physical), stability (price and income shocks), and utilization (food safety and nutritional knowledge). Among the major factors affecting the ability of people to access food are personal income, food prices, and economic inequality. Food security can be worsened by declining income levels, high food prices, and/or food supply shocks. This report focuses on the availability and access dimensions of food security. Using a demand-driven model that integrates income, food prices, and food supply, the International Food Security Assessment (IFSA) analysis helps the U.S. Department of Agriculture (USDA) and its stakeholders assess food security for 83 countries in 5 regions: Sub-Saharan Africa, the Middle East and North Africa, the Former Soviet Union, Asia, and Latin America and the Caribbean. The 2023 report is based on observed country-level domestic commodity prices up to December 2022 and macroeconomic and international agricultural commodity price projections completed as of August 2022, to estimate and project the potential impact on present and future food insecurity levels.



What Did the Study Find?

The 2023 food insecurity estimates reflect the global and country-level macroeconomic conditions and price observations at the time of estimation. The macroeconomic and international agricultural commodity prices for the 2023–2033 period are based on per capita Gross Domestic Product (GDP) and international price projections completed in August 2022. These factors account for the lingering effects of the Coronavirus (COVID-19) pandemic, higher inflation amidst Russia's invasion of Ukraine, and tighter global monetary policies that continue to dampen global economic output and affect agricultural commodity prices (USDA, 2023).

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.

The main findings for the 83 countries covered by this report are:

- Food security is estimated to improve in 2023 relative to 2022, due to an average of 3.7 percent growth in per capita GDP and relative easing of international and domestic food commodity price levels. In particular, the decline in the international price of vegetable oils in 2023 is estimated to decrease the real price of other foods (one of the four food groups in the IFSA model) in 98.0 percent of the IFSA countries.
- Despite improvements, food insecurity in 2023 remains elevated, with the prevalence of food insecurity estimated at 26.6 percent for the 83 countries included in IFSA. This number corresponds to 1.14 billion people potentially unable to consume 2,100¹ kilocalories (kcal) per day, or the average caloric threshold deemed necessary to sustain a healthy and active lifestyle. This number is 228.9 million fewer food insecure people in 2023 than estimated in 2022 (a 16.8-percent reduction from the 2022 estimate).
- Food insecurity is projected to significantly decline by 2033 in IFSA countries, with 385.9 million people projected to be food insecure (a 66.1-percent reduction from its 2023 estimate). The share of the population unable to consume 2,100 kcal per day is projected to fall to 7.9 percent by 2033 (a 70.3-percent reduction from its 2023 estimate). This share is driven by projected improvements in per capita GDP, particularly in the South Asia and South East Asia subregions that include India, Pakistan, and Indonesia.
- The food gap—defined as the amount of food needed for all food insecure people to reach the caloric threshold of 2,100 kcal per day—indicates the intensity of food insecurity. For the 83 countries examined, the average daily caloric food gap is projected to decline over the next 10 years by 7.8 percent, from 387 kcal in 2023 to 357 kcal in 2033.

How Was the Study Conducted?

The USDA, Economic Research Service (ERS) demand-driven IFSA model (described in appendix A) projects food demand and food gaps in 83 low- and middle-income countries through 2033. Food security is evaluated for each country by estimating the share of the population unable to reach a caloric threshold of 2,100 kilocalories per person per day. The intensity of food insecurity for those falling below the minimum caloric target is measured by the gap between projected food demand and this caloric threshold. Food demand is expressed in grain equivalents and is based on caloric content to allow aggregation across four separate food groups: the primary grain consumed in the country, other grains, roots and tubers, and all other food. Average per capita food consumption data are from the United Nations' Food and Agriculture Organization (FAO) Food Balance Sheets and FAO's Global Information Early Warning System's (GIEWS), Country Cereal Balance Sheet, February 2023 dataset. Observed domestic prices are from the FAO-GIEWS Food Price Monitoring and Analysis Tool. Tariff data are from the World Bank's World Integrated Trade Solution. Incomes, exchange rates, and Consumer Price Indexes are from the USDA, ERS International Macroeconomic Data Set (USDA, 2022). World prices are from the *USDA Agricultural Projections to 2032* report (USDA, 2023).

¹ The caloric threshold considered in the assessment is an average across sex, age, region, and activity level.