Per capita food supply variability

Overview

This indicator uses the data on dietary energy supply [1] from the Food Balance Sheet [2](FBS) to measure annual fluctuations in the per capita food supply (kcal), represented as the standard deviation over the previous five years per capita food supply. Food supply variability results from a combination of instability and responses in production, trade, consumption, and storage, in addition to changes in government policies such as trade restrictions, taxes and subsidies, stockholding, and public distribution (Lele et al., 2016 [3]).

Method of Construction

This indicator is part of the Food and Agriculture Organization (FAO) Suite of Food Security Indicators and can be accessed on the FAOSTAT [4] website by selecting "Suite of Food Security Indicators" under the "Data" tab. Users can produce this indicator for a given country and year (or span of years) by selecting "Per capita food supply variability (kcal/capita/day)" under the "Items" section.

Uses

Volatility in the food supply, presumably reflected in price volatility, affects vulnerable households' ability to plan effectively within their resource constraints. Understanding the degree of instability or volatility within a food system can help researchers, project managers, and policy makers advocate for measures to be taken to improve the food system's (and population's) resiliency to shocks.

Strengths and Weaknesses

One benefit of this indicator is its usefulness for observing trends in the stability of a food supply over time and its comparability across regions and countries. As this indicator is derived from the dietary energy supply [1], which is a national-level aggregate indicator, it does not measure the effect of changes in the food supply on individual or overall food prices or consumption. Nor does it measure the impact on households of bearing the risk of shocks due to instability in the food supply or of the shocks themselves. Furthermore, since this indicator reflects annual data, it cannot be used to assess the results of short-term shocks to the food system in a country, and is therefore more valuable for assessing long-term trends in a country.

Data Source

The main source of data for this indicator are the FAO FBS [2] data on the FAOSTAT [4] website. FAO disaggregates elements of utilization and supply, and estimates total food available for human consumption and pairs this information with food composition data to produce information on the national supply of energy and macronutrients (per capita/day).

Links to illustrative analyses

- Pemberton et al., (2016). "Food security: A comparison of indicators for the United States and the United Republic of Tanzania" [5]

Expert review conducted by:

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Food Security Dimensions

- Stability [7]

Data Collection Levels

- National [8]

Data Sources and Methods

- Food Balance Sheets (FBS)

Requires Food Composition Database

- No [9]

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