

DATA & APPLICATIONS ONLINE

Agriculture

Overview

The NASA Socioeconomic Data and Applications Center (SEDAC) offers a variety of data sets on agriculture and food security. Data and maps are available for download at sedac.ciesin.columbia.edu/theme/agriculture.

Selected Data

Food Insecurity Hotspots consists of gridded data identifying the level of intensity and frequency of food insecurity over ten years (2009–2019), and hotspots of consecutive food insecurity events, for five regions: Central America and the Caribbean, Central Asia, East Africa, Southern Africa, and West Africa.

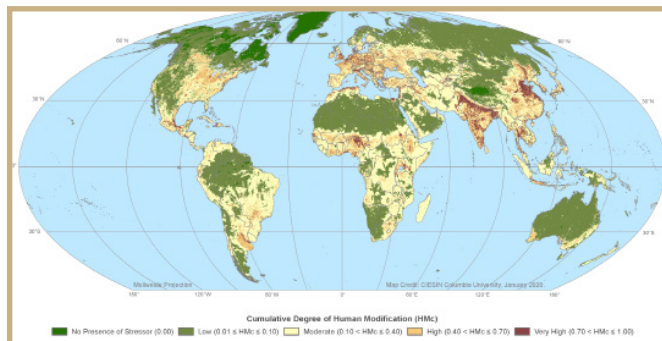
Global Pesticide Grids provides comprehensive data on the 20 most-used pesticide active ingredients, on six dominant crops and four aggregated crop classes, at 5 arc-minute resolution; for the year 2015 and projected to 2020 and 2025.

Last of the Wild contains updated Global Human Footprint data sets for 1993 and 2009, using more recent inputs and methodology to measure cumulative human pressure on the environment.

Global Agricultural Inputs is a collection of data sets on nitrogen and fertilizer application rates to cropland; and on manure's production of Nitrogen (N) and Phosphorous (P), and its presence on land.

India Annual Winter Cropped Area utilizes the NASA MODIS Enhanced Vegetation Index for the winter growing season (October–March) for most of India from 2000/2001 to 2015/2016.

Trends in Global Freshwater Availability measures changes in the terrestrial water cycle by assessing small changes in Earth's gravity field. Based on NASA GRACE satellite data 2002–2016, the data can help evaluate emerging threats to water and food security.



Global Agricultural Lands shows the proportion of land area used as cropland and pasture for the year 2000, by combining MODIS and SPOT Image Vegetation Sensor data with agricultural inventory data.

The Development Threat Index maps global threats by sector, including potential agricultural expansion.

The Environmental Performance Index (EPI) biennially assesses country performance of environmental goals. The 2020 EPI uses 32 performance indicators across 11 issue categories, including agriculture, to compare 180 countries.

Effects of Climate Change on Global Food Production investigates the spatial implications of climate change on world crop production, 1970–2080; it is an update to a crop modeling study by the NASA GISS. SEDAC produced the extensive map gallery.

Mapping Resources

The **SEDAC Map Viewer** enables visualization of all SEDAC data set map layers, organized by approximately 15 interdisciplinary topics, with a four-window map view option. Also perform simple to advanced visualizations and analysis via **SEDAC Map Services**.



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EODIS DAACs
SEDAC is one of twelve NASA Earth Observing System Data and Information System (EODIS) Distributed Active Archive Centers (DAACs)