FEWS NET

THE FAMINE EARLY WARNING SYSTEMS NETWORK

Background

The Famine Early Warning Systems Network, FEWS NET, provides objective, evidence-based analyses to help government decision-makers and relief agencies plan for and respond to humanitarian crises as a result of acute food insecurity. Created in 1985 by the U.S. Agency for International Development after devastating drought-induced famines across sub-Saharan Africa, FEWS NET works with NOAA and other U.S. government science agencies, national government ministries, international agencies and non-governmental organizations to produce food security outlooks across 36 of the world's most food-insecure countries throughout East Africa, Southern Africa, West Africa, Central Asia and Central America and the Caribbean.

Outlooks and Capacity Building

FEWS NET produces food security outlooks by developing likely scenarios of the future by incorporating regionally-specific assumptions of forecast rainfall, temperature, harvests, labor, livestock and government assistance. Assumptions based upon forecasts of weather and climate extremes, such as drought, flood and heat, therefore shape food security outlooks.The construction and communication of robust assumptions are made possible by NOAA's commitment to advancing understanding of the physics of weather and climate and NOAA's continued development of advanced forecast tools.

FEWS NET also supports capacity building for national famine and drought early warning systems, weather services and other agencies through extensive collaboration and training by its science partners, including NOAA.

Humanitarian Assistance

FEWS NET food security scenarios advise food assistance programs for the U.S. Agency for International Development's Office of Food for Peace. The food assistance programs based upon FEWS NET food security scenarios in turn dramatically improve the timeliness of emergency responses, thereby reducing rates of malnutrition and mortality associated with acute food insecurity, and preventing humanitarian catastrophe.

NOAA Contributions

The Earth System Research Laboratory (ESRL), of the Office of Oceanic and Atmospheric Research (OAR), and the Climate Prediction Center (CPC), of the National Weather Service (NWS), collaborate to maintain NOAA's support of FEWS NET.

Building a Predictive Understanding of Weather and Climate

NOAA applies its expertise in weather and climate diagnostics to identify atmospheric, oceanic and land-surface processes responsible for fostering a predictive understanding of environmental extremes on monthly, seasonal and decadal time scales over regions of interest to FEWS NET. The knowledge gained through research infuses food security outlooks that depend upon expert interpretation of forecast weather and climate conditions.

Enhancing Tools to Monitor and Guide Prediction of Weather and Climate

NOAA enhances tools for environmental monitoring and forecasting, and the websites through which the tools are disseminated, to meet the needs of FEWS NET. The advancement of numerical modeling tools, such as the Global Forecast System (GFS) and North American Multi-model Ensemble (NMME), have helped to improve forecasts for the short and medium weather range to monthly and seasonal time scales, respectively.

The advancement of environmental monitoring tools, such as daily precipitation estimates, estimates of land-surface moisture and seasonal precipitation performance probability forecasts, has helped to improve understanding of current conditions.

Communicating Likely Weather and Climate Conditions

NOAA communicates likely weather and climate conditions to shape FEWS NET food security outlooks. NOAA leads a weekly weather hazards assessment to inform FEWS NET analysts of evolving weather and climate conditions, and a seasonal forecast review each month during which weather and climate assumptions used in future food security scenarios are presented.

Training

NOAA trains FEWS NET food security analysts, social scientists and external partners on the behavior of weather and climate. This training enhances the ability of analysts to make critical and proactive decisions to assess acute food insecurity.

Partners

Famine Early Warning Systems Network (www.fews.net)

National Oceanic and Atmospheric Administration (www.noaa.gov)

National Aeronautics and Space Administration (www.nasa.gov)

USAID (www.usaid.gov)

U.S. Department of Agriculture (www.usda.gov)

U.S. Geological Survey (www.usgs.gov)

Contacts for More Information

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