

PRESS RELEASE

GEO to build Global Agricultural Monitoring “System of Systems” to promote food security and predict market trends

Launch responds to request by the G20 agriculture ministers

Istanbul, 16 November 2011 – The Group on Earth Observations (GEO) has announced that it is establishing a Global Agricultural Monitoring initiative to improve food security and market stability around the world, and particularly in vulnerable countries.

The GEO Global Agricultural Monitoring initiative (GEO-GLAM) will bring together existing national and regional monitoring systems to establish a “system of systems” for monitoring global agricultural production and food security. This will require making these systems more compatible and interoperable, promoting common data standards, and strengthening transparency and data sharing.

GEO-GLAM will focus initially on four key crops – corn, rice, soybeans and wheat – that are widely traded and whose production is dominated by the world’s main agricultural producers. Fluctuations in the annual production of these critical commodities can impact global food markets, cause price volatility and threaten food security in vulnerable countries.

The initiative will also address the particular priorities of countries at risk, such as, for example, sorghum production in western Africa. It will enhance national capacities for using Earth observations for monitoring crops and promoting food security. The Food and Agriculture Organization (FAO) estimates that 925 million people around the world lived with hunger in 2010.

“While critically important for human well-being, agricultural monitoring systems tend to be dispersed and uncoordinated,” said GEO Secretariat Director Mr José Achache. “Most data on crops are gathered at the local and national level, and they are not shared across borders. By linking existing systems together and promoting data sharing, GEO-GLAM will make it possible to monitor global production trends in key commodities. This will improve the ability of forecasters to predict future supplies and potential shortfalls,” he said.

A major supply disruption in a key producer country has the potential to impact global supplies and prices. For example Russia, in most years the world’s second largest wheat exporting country, suffered its worst drought in 130 years in the summer of 2010. As a result the wheat harvest declined from 97 million tons in 2009 to some 60 million tons in 2010, leading to a ban on wheat exports that was not lifted until 1 July of this year. As a result of this and other shocks, the global price of wheat increased by 80% between 2009 and 2010. Better forecasts of such pending market disruptions can assist efforts to anticipate and reduce volatility in global supplies and prices.

The Group on Earth Observations

GEO-GLAM will build on the Data Sharing Principles adopted by the GEO membership in 2005, which call for the full and open sharing of observation data. The United States implemented these principles in 2008 by extending its policy of granting full and open access to government data to include the Landsat images archives as well, thus providing a vital (and cost-free) resource for GEO-GLAM and other Earth observation initiatives. Also crucial to the initiative will be the engagement of all the world’s space agencies, which have been invited to provide the ongoing and coordinated satellite observations that are essential for comprehensive and timely coverage of croplands.

“GEO has already successfully teamed up with space agencies through the Committee on Earth Observation Satellites (CEOS), which is coordinating the collection and provision of the satellite data needed for monitoring changes in deforestation in tropical countries,” said Mr Achache.

The Group on Earth Observations (GEO) is a voluntary partnership of 150 governments and international organizations that is coordinating efforts to build a Global Earth Observation System of Systems (GEOSS). It provides a framework within which these partners can coordinate their Earth observation strategies and investments and share their data. In this way, GEO aims to ensure that decision makers have full access to the cross-cutting data and information that they need for addressing critical global issues.

A priority for G20 agriculture ministers

The launch of the GEO Global Agricultural Monitoring initiative was requested by the Group of Twenty (G20) Agriculture Ministers in June 2011. The initiative forms part of the [G20 Action Plan on Food Price Volatility](#), which also includes the Agricultural Market Information System (AMIS) initiative that will be led by the Food and Agriculture Organization (FAO). The G20 Action Plan explicitly recommends that the G20 proposals on AMIS and GEO-GLAM be linked together and coordinated. The Plan was reconfirmed earlier this month by the Leaders of the G20 in the [Final Declaration](#) of the Cannes Summit.

The G20 Ministerial Declaration that launched the Action Plan states that GEO-GLAM “will strengthen global agricultural monitoring by improving the use of remote sensing tools for crop production projections and weather forecasting.” By providing coordinated Earth observations from satellites and integrating them with ground-based and other in-situ measurements, the initiative will contribute to generating reliable, accurate, timely and sustained crop monitoring information and yield forecasts.

The initiative will build on GEO’s agricultural community of practice (CoP). Established in 2007, this global network now has over 300 members, including such key organizations and programs as the FAO’s Global Information and Early Warning System, the US Department of Agriculture’s Foreign Agricultural Service, the USAID Famine Early Warning Systems Network, the Institute for Remote Sensing Applications of the China Academy of Sciences (Crop Watch), the European Commission’s JRC/MARS unit, and Agri-Food Canada, to name just a few.

A first planning meeting held in Geneva in September started the process of developing a detailed implementation plan with core partners. The participants consisted of 33 experts from 13 G20 members (Argentina, Australia, Brazil, Canada, China, European Union, France, Germany, India, Italy, Japan, Russia, and the United States), three international organizations (Committee on Earth Observations – CEOS, FAO, and WMO) and the GEO Secretariat.

A progress report will be distributed to the G20 Agriculture national representatives in advance of this year’s G20 Presidential Summit, to be held 3-4 November in Cannes, France. GEO-GLAM will also be presented at regional and international events to create a larger awareness of the initiative among decision and policy makers. The detailed implementation plan will be available in early 2012.

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* <http://www.spacenews.com/commentaries/111031-food-security-earth-obs.html>