Group on Earth Observations (GEO)

- 77 member governments
  - plus the European Commission
- 56 international organizations

A major benefit of the GEO process is bringing together data, individuals, and institutions—each of which hold a piece of the larger puzzle.
Global Earth Observation System of Systems

- The Global Earth Observation System of Systems (GEOSS) promises to revolutionize our ability to understand and manage the planet. This emerging global public infrastructure will allow managers and decision makers to respond more effectively to the many environmental challenges facing modern civilization. It is already starting to generate a variety of comprehensive, cross-cutting and near-real-time environmental data sets and information services.

- GEOSS is being constructed on the basis of a 10-Year Implementation Plan for the period 2005 – 2015 by the Group on Earth Observations.
USGEO: Support Sustainable Agriculture and Forestry, and Combat Land Degradation
USDA Representation on USGEO

• Forest Service:
  – **Greg Reams**
    • National Leader of Forest Inventory and Analysis
  – **Ken Brewer**
    • National Research and Development Remote Sensing Leader

• USDA:
  – **Charlie Walthall**
    • National Program Leader, ARS
  – **Glenn Bethel**
    • USDA Remote Sensing Advisor
Progress Report of the US Group on Earth Observations
GEO VI Plenary
17-18 November 2009

• Global Agricultural Monitoring

• The U.S. does not currently have operational space-based capabilities optimized for monitoring global crop production and agricultural sustainability. The biggest gap in the observations for an Agricultural GEOSS is a system to provide consistent 3-5 day global imaging at moderate spatial resolution (10 - 60m).
The Obama Administration believes in the vision of GEOSS.

- It represents a commitment to three important principles this government intends to champion both at home and abroad:
  - science-based decision making, open access to data information
  - increased international cooperation on science
  - technology to help address the great global challenges of our time.

Dr. John P. Holdren, Director, Office of Science and Technology Policy
Obama Administration

• This administration sees global environmental and resource issues – above all:
  – Mitigating and adapting to climate change
  – Supporting global food security through sustainable agriculture

• As among the most important and demanding of those challenges, and we see integrated Earth observations as the indispensible foundation for addressing them.

Dr. John P. Holdren, Director, Office of Science and Technology Policy
GEO Plenary Remarks

• Dr. John Holdren, Office of Science and Technology Policy.
• Dr. Jane Lubchenco, Under Secretary of Commerce for Oceans and Atmosphere

• Agriculture Mentioned 7 times
• Food mentioned 9 times
Sentinel Free Data

- ESA Member States approve full and open Sentinel data policy principles. From the announcement: "The Sentinels comprise five new missions being developed by ESA specifically for the operational needs of the Global Monitoring for Environment and Security programme (GMES). [...] The new data policy ensures free-of-charge access to all Sentinel data as well as the products generated via the Internet to anyone interested in using them, mainly for GMES data use but also for scientific and commercial use."
Testing GEO Portals

• The ESRI GEO Portal: http://geoss.esri.com/geoportal
• The ESA/FAO GEO Portal: http://www.geoportal.org
• The Compusult GEO Portal: http://www.geowebportal.org
• The GEO Portal provides a web-based interface for searching and accessing the data, information, imagery, services and applications available through the Global Earth Observation System of Systems (GEOSS).