

GEOSS Workshop XXX: Disaster Management and Humanitarian Assistance for the Global Earth Observation System of Systems - GEOSS

Makerere University, Kampala, Uganda
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Co-organizers:

ISPRS, ITC, Makerere University, UNEDRA, AARSE, IEEE-ICEO, IEEE-GRSS

Background

The Global Earth Observation System of Systems (GEOSS) is a complex system of sensors, communication devices, storage systems, computational and other devices used to observe the Earth and to gather the data needed for a better understanding of the Earth's processes. In addition, GEOSS includes models and processes to create information from the observational data. The 2003 Earth Observations Summit established the objective "*to monitor continuously the state of the Earth, to increase understanding of dynamic Earth processes, to enhance prediction of the Earth system, and to further implement our international environmental treaty obligations*".

The GEOSS Implementation Plan states that GEOSS will provide the overall conceptual and organizational framework for integrated global Earth observations to meet user needs. GEOSS will be a "system of systems" consisting of existing and future Earth observation systems, supplementing but not supplanting their own mandates and governance arrangements. It will provide the institutional mechanisms for ensuring the necessary level of coordination, for strengthening and supplementing existing Earth observation systems, and for reinforcing and supporting component systems in carrying out their mandates.

The emphasis of GEOSS is on societal benefits, initially in nine key areas. Sound management of the Earth system, in both its natural and human aspects, requires information that is timely, of known quality, long-term, and global. Interpretation and use of Earth observations requires information on drivers and consequences of change, including geo-referenced socio-economic data and indicators. The nine areas addressed in the implementation plan are:

- Disasters: Reducing loss of life and property from natural and human-induced disasters
- Health: Understanding environmental factors affecting human health and well-being
- Energy: Improving management of energy resources
- Climate: Understanding, assessing, predicting, mitigating, and adapting to climate variability and change
- Water: Improving water resource management through better understanding of the water cycle
- Weather: Improving weather information, forecasting and warning
- Ecosystems: Improving the management and protection of terrestrial, coastal and marine resources
- Agriculture: Supporting sustainable agriculture and combating desertification
- Biodiversity: Understanding, monitoring and conserving biodiversity

Although all of the above societal benefit areas of the Implementation Plan are important for GEOSS, this workshop will focus more specifically on the societal benefit area of disasters.

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This preconference workshop focuses on geo-information technology and methods for disaster management and humanitarian assistance in the context of GEOSS. It will provide background information on theme one of the AfricaGIS conference "Geospatial information for climate change, vulnerability and disaster risk reduction." The workshop will cover state of the art methods for disaster risk analysis. Tools will be presented for the risk analysis and damage assessment. Application of these methods will be supported by an inventory of the requirements for disaster management. Special attention will be given to the risk mapping and information provision during disastrous events through a simulation.

Workshop Objective

The workshop is aimed at people working in Africa in the area of Disaster Management and Humanitarian Assistance and will provide hands-on instruction in the use of the resources available in Africa to prepare and respond to disasters. It will prepare participants for further discussions at the Africa GIS conference and give them sufficient background to develop systems for use in their own organisations. Key representatives from industry, academia, and government will be providing invited talks on these and related issues that impact GEOSS implementation for disaster mitigation and relief.

Registration Information

The registration form for the disaster management workshop is online now. It is available through:

http://www.itc.nl/education/regforms/_registration_Uganda2/applicationform.aspx

Additional links have been made at the ITC website under course finder:

<http://www.itc.nl/education/courses.aspx>

and the course description:

http://www.itc.nl/education/courses/course_descriptions/C09-ESA-TM-06.aspx