

# **GEO** PORTAL

*A contribution to GEOSS offered by ESA – FAO*



## **The Gateway to Global Earth Observation: data, information and services**

Understanding the Earth system is crucial to enhancing our ability to adapt to global changes, whether they impact on human health, safety, welfare and environment, to reducing disaster losses, and to achieving sustainable development. Observations of the Earth are critical to advancing this understanding.

GEO's goal is to guarantee access to Earth Observation data, information and user services to all.

## Introducing the GEOportal

The GEOportal ([www.geoportal.org](http://www.geoportal.org)) is a joint contribution from the European Space Agency (ESA) and the Food and Agriculture Organization of the United Nations (FAO) to improve the accessibility to geospatial resources of the GEOSS, such as satellite imagery, spatial databases and interactive maps.

The GEOportal provides an entry point to access Earth Observation information and services. It will connect to a system of existing community portals operated by GEO members and organizations, addressing the GEO Societal Benefit Areas globally and providing national to regional perspective to achieve synergy and leverage.

Derived from ESA's Earth Observation Community Portal [www.eoportal.org](http://www.eoportal.org), the GEOportal puts the accent on remote sensing, geospatial-static and in-situ data, information and services.

## The GEOportal: an emphasis on GEO's societal benefit areas (SBA's)

The GEOportal aims at allowing each and every user to reap the benefits of the GEOSS by accessing the comprehensive, coordinated and sustained observations of the Earth system, in order to increase understanding of the state of the Earth and enhance prediction of the behavior of the Earth system.

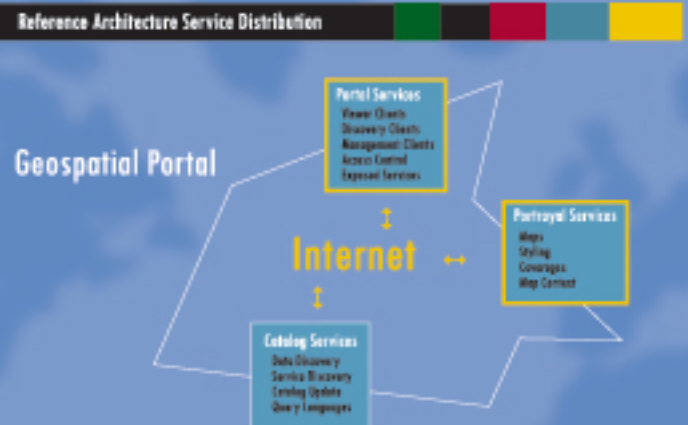
To that extend the GEOportal provides access to information, data and services to better understand, monitor, conserve, predict, or simply improve the management of:

- \* Natural or human-induced disasters e.g. earthquake, flood disaster.
- \* Health and well-being issues e.g. air or water pollution, food security.
- \* Energy resources e.g. renewable energy, energy exploitation.
- \* Climate changes and variability e.g. impact on vegetation.
- \* Water resources e.g. safe water, soil moisture.
- \* Weather forecasting and warning.
- \* Ecosystems e.g. impact on terrestrial, coastal and marine resources.
- \* Agriculture e.g. impact on poverty, land use, farm system, and desertification.
- \* Biodiversity e.g. conditions of ecosystems, evolution of species.

## What Services does the GEOportal provide ?

Based on GEO approved standards and following the Geospatial Portal Reference Architecture of the Open Geospatial Consortium (OGC) the GEOportal provides a variety of services:

- \* Portal Services providing the user interfaces for viewing, discovering and managing geospatial resources and other community portals
- \* Portrayal Services allowing the display and handling of maps and context information.
- \* Interfaces to Catalogue Services of the GEOSS Clearinghouse, allowing distributed catalogue search in an interoperable manner.



## What you will find in the GEOportal ?

The GEOportal will allow the users:

- \* To discover which data, information and services are available in GEOSS according to the nine GEO Societal Benefit Areas (SBAs) and/or to a country or region
- \* To receive up-to-date information on major events of relevance to GEO through the display of alerts and remote feeds
- \* To access the GEOSS Clearinghouse to initiate a distributed catalogue search for specific data sets
- \* To visualize geographical information, maps and imagery from various sources, e.g. from different GEO Societal Benefit Areas through WMS services
- \* To browse through a comprehensive directory of services providers and community portals from GEO Members and Participating organizations
- \* To retrieve Earth observation education, training and capacity building resources and services of many types. E.g. tutorials on Earth observation techniques, data analysis, interpretation, or use
- \* To access information from GEONETCast



## How can data and service providers make use of the GEOportal?

Data and service providers can make use of the GEOportal to make their data and services visible to the GEOSS and its communities. Providers can register at the GEOSS Registry and the GEOportal will be updated based on such registration information, including supplementary information about the provider as considered relevant and useful to the users.

Furthermore, for providers with portals based on GeoNetwork open source software, the GEOportal allows newly available resources from these portals to be harvested automatically and to become accessible to the users from the GEOportal.

Based on a number of open-source modules, the GEOportal has the capability to provide users with the option to obtain and customize the GEOportal according to their specific needs, e.g. to create a portal automatically linking to a particular SBA or world region.

## Who should go to the GEOportal?

The GEOportal is addressed to a wide range of users from policy makers and managers in the targeted societal benefit areas, scientific researchers and engineers, civil society, governmental and non-governmental organizations and international bodies such as those assisting with the implementation of multilateral environmental agreements. The GEOportal is inviting users from developing countries to participate in the portal to enhance the understanding of their needs in support to their continuous effort to monitor and improve societal, environmental and economical issues.

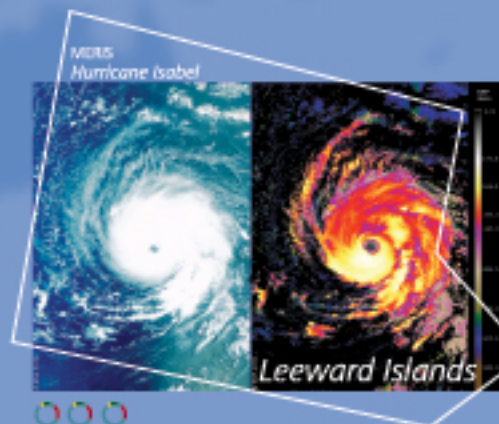
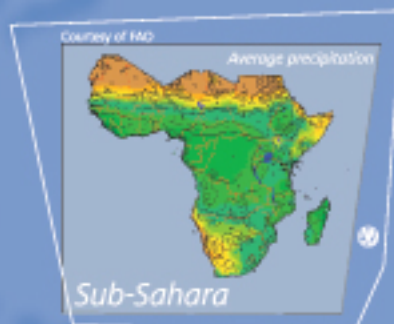
## GEOportal Operations

The GEOportal operations are part of the Initial Operating Capabilities of the GEOSS. They are under the responsibility of the GEO Secretariat, with the day-to-day operations typically being provided by an organization on behalf of the Secretariat. ESA's GEOportal contribution includes the operations of the GEOportal for an initial period from 2007-2009, with a quality of service equal to that of ESA's own earth observation user services.

## Future for GEOportal

With the number of components of GEOSS growing, the amount of resources becoming accessible through the GEOportal will increase, and with it the number of users and the frequency of access is expected to grow. The GEOportal open source software may be taken up by GEOSS communities to create their own portals, lowering the entry barrier in particular for developing countries to become part of the GEOSS and contributing to the establishment of an interoperable GEOSS.

The GEOportal is now open to serve the GEOSS and to further evolve taking into account the requirements of its users.





“ Prediction is a difficult art when addressing the complexity of Earth processes ... how do we account for phenomena as diverse and poorly understood as seismic fault dynamics, climate variation, or the ecological intricacy of a wetland? Observations are the cornerstone for deciphering nature's complexities ”

*José Achache, GEO Secretariat Director*

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