

AN INTERGOVERNMENTAL ORGANIZATION
WORKING TO IMPROVE THE AVAILABILITY, ACCESS AND
USE OF EARTH OBSERVATIONS



Rice conditions for farmers such as this woman in Southeast Asia are assessed by the Crop Monitor for Early Warning for food security and by the Monthly Crop Monitor as part of the G20 Action Plan on Food Price Volatility.

**OUR VISION FOR THE FUTURE IS A WORLD WHERE
DECISIONS AND ACTIONS ARE ENHANCED BY COORDINATED,
COMPREHENSIVE AND SUSTAINED EARTH OBSERVATIONS
AND INFORMATION, FOR THE BENEFIT OF SOCIETY**



What is GEOSS ?

GEOSS is a global infrastructure which builds on national, regional and international observation systems and their thousands of ground, *in situ*, air-borne, ship-borne and space-based instruments.

Why GEOSS ?

No one country has the resources needed to collect the Earth observations data required for addressing the major global environmental issues of today. A global system of systems approach leverages the existing infrastructures used for Earth observations. This approach both fosters the continuity of observations and improves access to data, information, and services. GEOSS specifically targets spatial and temporal gaps in data sets, eroding or scarce technical infrastructure in many parts of the world; access to data and associated benefits globally; coordination of data integration and interoperability; support to relevant processing systems to transform data into useful information; and strengthening user involvement.

How to access data from GEOSS?

The GEOSS Common Infrastructure (GCI) links more than 140 different data catalogs containing more than 200 million open EO resources, accessible through an easy-to-use GEOSS Portal. There were more than 4.4 million enquiries to the GCI in 2016 alone.

www.geoportal.org

Societal Benefit Areas

Underpinning these Societal Benefit Areas (SBAs) is research pertaining to terrestrial, freshwater, ocean and atmospheric domains over a range of spatial and temporal scales that makes use of satellite, airborne and *in situ* Earth observations for monitoring and understanding the current state of the Earth's physical systems.

Flagship Initiative



GEO BON aims at improving biodiversity conservation by facilitating easy and timely access to data, tools and comprehensive information. GEO builds capacities required for the monitoring and management of biodiversity and ecosystem services, at national, regional and global scales.

Flagship Initiative



The objective of GEOGLAM is to produce and openly disseminate relevant, timely and accurate information and forecasts on agricultural production, to combat food price volatility and to improve policy decision-making on food security.



Global and Regional Initiatives and Flagships

Initiatives allow GEO Members and Participating Organizations to coordinate actions towards a common objective within an agreed framework with committed resources. Flagships focus on a policy-relevant mandate for a dedicated operational service for common needs for a well-defined user group.

Regional Initiative



AfriGEOSS is enhancing Africa's participation in, and contribution to, GEOSS. This participation will contribute to the continent's efforts to bridge the digital divide, and to build a knowledge-based economy using GEO networks and the GEOSS infrastructure.

Regional Initiative



The Asia-Oceania region has a large population and experiences the most impact from natural disasters and extreme events related to climate change. AO GEOSS aims to coordinate and make use of existing EO infrastructure and resources to develop integrated and sustained observations and data sharing.

Regional Initiative



AmeriGEOSS reflects local, national and regional interests of 16 GEO Member countries in the Americas for planning and implementing GEO activities and Initiatives. AmeriGEOSS increases institutional and individual capacity by engaging experts, stakeholders and decision makers at each level.

Priorities

GEO for the 2030 Agenda

Earth observations (EO) in Service of the 2030 Agenda for Sustainable Development enables the integration of EO and geospatial information into national development and monitoring frameworks, advancing societal benefits through achievement of the Sustainable Development Goals (SDGs). Prime users include national statistical offices and line ministries in charge of SDG implementation, UN SDG custodian agencies and UN and international financing institutions.

GEO-C for Climate

All GEO activities that harness environmental data are linked to climate. The GEO Carbon and GHG Initiative (GEO-C) is developing a coordinated system of observations and evaluation of changes in the carbon cycle and greenhouse gas emissions. GEO-C builds on existing initiatives and networks, supports continuity and coherence, facilitates cooperation and interoperability and fills in gaps for a globally coordinated analysis system for carbon and GHGs as they relate to human activities, climate change and the UN Framework Convention on Climate Change.

GEO for Disasters

The GEO Initiative on Data Access for Risk Management (GEO-DARMA) draws on institutions in Latin America, Africa and Southeast Asia for regional and national projects which can best use EO data for disaster risk reduction. Other GEO Initiatives such as Geohazard Supersites and Natural Laboratories (GSNL), the Global Wildfire Information System (GWIS), the Global Drought Information System (GDIS) and the water sustainability initiative, GEOGLOWS all support disaster resilience. Each of these activities link between the relevant SDGs and the broader global agenda under the Sendai Framework.

What is GEO ?

GEO is an Intergovernmental Organization of more than 100 member governments and 100 Participating Organizations. It includes national governments and the European Commission, as well as intergovernmental, international, and regional organizations with a mandate in, and/or use of, Earth observations and related activities.

What does GEO do ?

- we improve and coordinate global Earth observation (EO) systems;
- we promote the generation of EO products and tools for decision making;
- we foster increased use of open EO data, information and services;
- we develop synergies among sectors and across Societal Benefits Areas;
- we promote broad, open data sharing;
- we build capacity and promote collaboration.

How does GEO work ?

GEO Members and Participating Organizations work together to develop projects and initiatives to understand past and present conditions of the Earth's physical systems as well as the interplay among them. These tools and the improved knowledge they provide, together with socio-economic data describing the human dimension in the global environment, can help solve many problems, address and mitigate risks, and deliver skilful predictions of the future behaviour of these systems.

Earth observations are an indispensable component to monitor and achieve progress towards addressing societal challenges identified in international frameworks and Conventions such as the 2030 Agenda for Sustainable Development, The Paris Agreement on Climate, The Convention on Biodiversity and the Sendai Framework on Disaster Risk Reduction.

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