

GROUP ON EARTH OBSERVATIONS (GEO)

1. INTRODUCTION ON GEO & GEOSS

The Group on Earth Observations ([GEO](#)) is coordinating efforts to build a Global Earth Observation System of Systems, or GEOSS.

GEO was launched in response to calls for action by the 2002 World Summit on Sustainable Development and by the G8 leading industrialized countries. These high-level meetings recognized that international collaboration is essential for exploiting the growing potential of Earth observations to support decision making in an increasingly complex and environmentally stressed world.

GEO is a **voluntary partnership of governments and international organizations**. It provides a framework within which these partners can develop new projects and coordinate their strategies and investments. As of March 2009, **GEO’s Members include 77 Governments and the European Commission**. In addition, 56 intergovernmental, international, and regional organizations with a mandate in Earth observation or related issues have been recognized as Participating Organizations.

GEO is constructing GEOSS on the basis of a [10-Year Implementation Plan](#) (*The purpose of this Plan is to summarize the essential steps to be undertaken, over the next decade, by a global community of nations and intergovernmental, international, and regional organizations, to put in place a Global Earth Observation System of Systems (GEOSS)*) for the period 2005 to 2015. The Plan defines a vision statement for GEOSS, its purpose and scope, expected benefits, and the nine “Societal Benefit Areas” of [disasters](#), [health](#), [energy](#), [climate](#), [water](#), [weather](#), [ecosystems](#), [agriculture](#) and [biodiversity](#).

The vision for GEOSS is to realize a future wherein decisions and actions for the benefit of humankind are informed by coordinated, comprehensive and sustained Earth observations and information.

GEOSS will yield a broad range of societal benefits, notably: Improving water resource management through better understanding of the water cycle, Improving weather information, forecasting and warning, Supporting sustainable agriculture and **combating desertification**, and Understanding, monitoring and conserving biodiversity.

Water-related issues addressed by GEOSS will include: precipitation; soil moisture; streamflow; lake and reservoir levels; snow cover; glaciers and ice; evaporation and transpiration; groundwater; and water quality and water use. GEOSS implementation will improve integrated water resource management by bringing together observations, prediction, and decision support systems and by creating better linkages to climate and other



data. In situ networks and the automation of data collection will be consolidated, and the capacity to collect and use hydrological observations will be built where it is lacking.

GEOSS, collectively, has several functional components:

- To address identified common user requirements;
- To acquire observational data;
- To process data into useful products;
- To exchange, disseminate, and archive shared data, metadata, and products; and,
- To monitor performance against the defined requirements and intended benefits.

The following are GEOSS data sharing principles:

- There will be full and open exchange of data, metadata, and products shared within GEOSS, recognizing relevant international instruments and national policies and legislation.
- All shared data, metadata, and products will be made available with minimum time delay and at minimum cost.
- All shared data, metadata, and products free of charge or no more than cost of reproduction will be encouraged for research and education.

2. MEMBERSHIP

To be recognized as Participating Organization of the GEO, entities must send a letter to the GEO Secretariat, requesting formal recognition as a GEO Participating Organization, and formally endorsing the GEOSS 10-Year Implementation Plan.

EMWIS can be as a full participating organization or an observer. In the second case, it can participate in all GEO activities, but will not have a voice in the Plenary - i.e., will have no say in any decision-making processes.

3. BENEFIT FOR EMWIS

The inclusion of EMWIS in such network will undoubtedly be very beneficial for many reasons. Among others: it will allow integrating its efforts in terms of regional water information system and data collection in a global context under GEO which is supported strongly by several governments, the EC and many important international organizations. That will facilitate also the exchange of data and know how with many international players. Some of the main participating organizations are: EEA, ESA, DIVERSITAS, EUMETSAT, FAO, GSDI, GLOBE, IEEE, IGBP, ISDR, UNEP, UNFCC, UNU-EHS, WMO, etc.

