



GEOSS: Observe, Share, Inform

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Earth observations can help reduce the loss of life and property from natural and human induced disasters through increasing our understanding of complex environmental systems. In this context, the Global Earth Observation System of Systems (GEOSS) is being built through the coordination of efforts within the international Group on Earth Observations (GEO), comprised of 85 Member States, the European Commission and 61 Participating Organizations, established in February 2005. The 10-Year Implementation Plan defines a vision statement for GEOSS, its purpose and scope, expected benefits for nine “Societal Benefit Areas” (SBAs) (disasters, health, energy, climate, water, weather, ecosystems, agriculture and biodiversity), technical and capacity building priorities, and the GEO governance structure.

The full value of GEOSS lies in its ability to integrate information across disciplines. Thus, GEOSS is concerned with advancing activities in diverse areas such as: defining the data and systems needed for improved water-cycle forecasting; interlinking weather forecasting systems with other Earth observation systems; supporting efforts to advance sustainable energy; devising end-to-end information services and sustained observing systems essential for addressing climate variability and change; as well as establishing the Global Geodetic Observing System (GGOS). In the discipline of geodesy, the international collaborative framework of GEO enables experts to ensure the availability of accurate, homogeneous, long-term, stable, global geodetic reference frames as a mandatory framework and the metrological basis for Earth observation.

The current GEO Work Plan furnishes the blueprint for activities to implement GEOSS, and provides concrete examples of how decision makers can use the data and services available through GEOSS to address major global opportunities and challenges. In particular, the task devoted to implementing systematic monitoring for geohazards risk assessment has as one of its objectives to dramatically enhance access to SAR data and integration of InSAR & GPS data. Thus GEO strives to develop a GEOSS that would serve the needs of all SBAs through interconnecting existing and future Earth observation systems, interlinking observation systems, and promotion of open data sharing.