The GeoHazards Community of Practice (GHCP): Supporting Risk Management and Disaster Reduction With Earth Observations

A brief overview of the goals, scope, and activities of the GHCP



Geohazards are a challenge for a growing global population: In many regions, geohazards are a major threat to society, costing lives, disrupting infrastructure and destroying livelihoods. Urban settlements sprawling into hazards areas rapidly increased the disasters caused by these hazards.



Managing the risk and reducing disasters: The concept of the risk management cycle with the four phases of mitigation and preparedness, early warning, response, and recovery captures elegantly the necessary steps to reduce the number and scale of disasters. Without significantly improved risk management, societies will continue to face a growing number of major disasters that require international support actions. Integrating mitigation and adaptation into planning and development of settlements and infrastructure long before a specific hazardous event occurs is a prerequisite for resilience. All this depends on sufficient Earth observations supporting hazard detection and mapping, early warning, and disaster assessment.



The **GHCP supports** the implementation of a Global Earth Observation System of Systems (GEOSS) that provides the observations required in support of geohazards risk management. A major goal is the end-to-end link between those who provide Earth observations and the end users implementing risk management actions.





| Geohazards Community of Practice of GEO - SeaMonkey | | | | | | | | | | |
|---|------------------------------|-----------|---|----------|----------|---------|----------|-----------|-------------------|--|
| GEO GROUP ON EARTH OBSERVA | | | The GeoHazards Community of Practice (GHCP) | | | | | | About these pages | |
| Introduction | Introduction About GHCP GHCP | | EO News | Projects | Products | Library | Meetings | Workshops | Internal | |
| Back to GHCP workshop page | | e | | | | | | | ^ | |
| Workshop Infos: | | | Building a Geohazards Community of Practice in Support of GEO Work Plan Tasks and GEOSS | | | | | | | |
| Rationale, Goals, Participation | | | Implementation | | | | | | | |
| Venue, Registration, Abstracts | | cts | | | | _ | | | | |
| Committees, contacts | | | 1st Workshop of the Geohazards Community of Ist Workshop of the Geohazards Community of Practice of GEO Ist Workshop 18-21, 2010, Paris, France | | | | | | | |
| Deadlines | | | | | | | | | | |
| Session description | | | | | | | | | | |
| Program Overview | | | | | | | | | | |
| Detailed Program | | Wor | Workshop Rationale: Communities of Practice (CoPs) are a key element for the linkage of GEO to users of products and services provided by GEOSS. In many geographical areas, geobazards are a major threat to society. Understanding and comprehensive | | | | | | | |
| Outputs | | | knowledge of these hazards is pivotal for adaptation, reduction of vulnerability, and preparedness. The Geohazards Community of | | | | | | | |
| Workshop Notes: html | | Prac | Practice (GHCP) is therefore highly relevant for several of the nine Societal Benefit Areas (SBAs) addressed by GEO. Over the last few years initial steps have been taken by the IGOS-P Geobazards Theme Team to make progress towards a GHCP for GEO. In order to | | | | | | | |
| Roadmap Presentation: ppt, pdf | | pdf supp | support this progress, a comprehensive review of the current situation and the development of perspectives and strategies for the | | | | | | | |
| Work Area: | | | next five years appears timely. | | | | | | | |
| Draft Final Roadmap V0.4: doc, pdf | | , pdf Wor | Workshop Goals: The Workshop aimed at developing a roadmap for the GHCP that would lead to active support of GEO and GEOSS | | | | | | | |
| Comments on Roadmap | | by t | by the GHCP (see "GHCP and GEO" for more details on the Tasks), and the Workshop aimed to focus the roadmap to provide | | | | | | | |
| Comment Submission | | com | community support for these Tasks. | | | | | | | |
| Invitation: | | Part | Participation: Participation in this first Workshop was by invitation. In total, 21 representatives of Participating Organization in GEO, the GEO Secretariat, and international organizations took part in the workshop | | | | | | | |
| Invitation Letter | | 620 | Sectione: | | | | | | | |
| Pelevant Docum | onts: | Ses | sions: | | | | | | | |
| GEOSS Work Plan Site | | • | Session 1: Geohazards in the GEO and GEOSS Framework Session 2: Contributions of the GHCP to GEO (Breakout Sessions) | | | | | | | |
| Task Sheets | | | ◦ Breakout Session 2a: The GHCP and the GEO Work Plan, the GEO Task Teams, and the GEO Committees | | | | | | | |
| Fraccati Doclaration | | | O Breakout Session 2D: Science, lechnology, and infrastructure issues in relevant GEO Work Plan lasks Session 3: Perspectives of the GHCP (Broakout Sessions) | | | | | | | |
| | | | | | | | | | | |



The GHCP Road Map, which was agreed during the GHCP workshop jointly organized with GEO and UNESCO in January 2010 in Paris, has the main goal to utilize Earth observations for the support of the full risk management cycle. It details actions geared to achieve the strategic goal of the GHCP by 2020.

GEO's goal for the Disasters Societal Benefit Area (SBA) is "reducing loss" of life and property from natural and human-induced disasters." GEOSS STRATEGIC TARGET OF THE DISASTER SBA: Enable the global coordination of observing and information systems to support all phases of the risk management cycle associated with hazards (mitigation and preparedness, early warning, response, and recovery).

STRATEGIC TARGET OF THE GHCP: By 2020 put in place all building blocks for comprehensive monitoring of geohazards and the provision of timely information on spatio-temporal characteristics, risks, and occurrence of geohazards, in support of all phases of the risk management cycle (mitigation and preparedness, early warning, response, and recovery), and as a basis for increased resilience and disaster reduction.



Implementation of the GHCP Road Map will be achieved by developing very few carefully selected core centers, which will provide focal points for a large geographical region where all building blocks of a value chain from observations to end users can be linked together and applied to the phases of the risk management cycle relevant for this region.



These core centers are high-level centers of expertise that can serve a continent by

These core centers are high-level centers of expertise that can serve a continent by conducting pilots building leading-edge links between observations, monitoring, knowledge, and decision making, as well as capacity building addressing all aspects of operational risk management. They will demonstrate the concept, enable scientific studies and technological developments, provide for capacity building and retention, and inform policy and decision making in the region.

Demonstration of the end-to-end links will utilize the concept of **tandem core centers**. Tandem core centers consist of one center located in a highly developed area with considerable infrastructure, where best practices and knowledge-based decision making are implemented, and another center in a developing region. The high-level risk management methodology developed and demonstrated at the developed centers will be transferred to the centers in developing countries where there is a lack of relevant information reaching end users.





The GHCP has submitted a proposal to the European Cooperation of Science and Technology (COST) program to obtain funding for the global coordination of the Road Map implementation.

If successful, the COST Action will link civil protection, emergency, and risk planning agencies with scientists and providers.



While IGOS objective was to define a strategy, GEO is in charge of the implementation of GEOSS. To implement GEOSS, GEO defines lasks that are endorsed by Members States or organisations, or even expert process. Each task reports to a specific committee





The Supersites have data for the study of natural hazards in geologically active regions, including information from Synthetic Aperture Radar (SAR), GPS crustal deformation measurements, and earthquakes. The data are provided in the spirit of GEO, ESA, NASA and the National Science Foundation (NSF), that easy access to Earth science data will promote their use and advance scientific research, ultimately leading to reduced loss of life from natural hazards.

Click on a site in the map below, or see the regions listed below in Phase 1 and Phase 2 Supersites.

This website is a prototype created by UNAVCO and WINSAR on behalf of the Group on Earth Observations (GEO) and the European Space Agency (ESA). The web site will attain an official design and move to a permanent home once a host is selected.







Vesuvius

Seattle-Vancouver

垂

Etna

main

documents

collaborators

apply for

access

links

contact

Hawaii

Los Angeles

Istanbul

Tokyo



18





Contacts: Stuart Marsh, <u>shm@bgs.ac.uk</u> Hans-Peter Plag, <u>hpplag@unr.edu</u>

email: <u>info@geohazcop.org</u> URL: <u>http://www.geohazcop.org</u>