

Overview of the Data Sharing Action Plan

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for GEOSS and the Benefits of Data Sharing

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GEOSS Data Sharing Principles and 10-yr implementation plan

The GEOSS 10-Year Implementation Plan, ENDORSED by all GEO Members, states:

The societal benefits of Earth observations cannot be achieved without data sharing based on the following data sharing principles:

- **Full and open exchange** of data, metadata, and products shared within GEOSS, Recognizing Relevant International Instruments and National Policies
- Shared data, metadata & products available at **Minimum Time Delay** and **Minimum Cost**
- Shared data, metadata & products free of Charge, or **no more than cost of reproduction**, are encouraged for Research & Education



DS Action Plan

- Action Plan for Data Sharing within GEOSS
- Supporting Documents, including Case Studies

- Builds upon the crucial concept of the **full and open exchange** and on the Implementation Guidelines accepted by the GEO Plenary;
- Notes that the achievement of full and open exchange of and access to key datasets will require **actions** by
 - 1) GEO collectively,
 - 2) GEO Members,
 - 3) GEO Members and Participating Organizations;
- Specifies 8 actions to be pursued.



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Executive Summary

- **Introduction** – why share data fully and openly?
- **Background** – what is the status of GEOSS data sharing today?
- **Vision** – where do we want to be and by when?
- What are the **Benefits** of implementing this vision?
- What are the **Barriers** to implementing this vision?
- What **Actions** need to be taken?

Supporting Documents for background information

The 2010 GEO-VII Plenary is invited to accept this Action Plan for the Implementation of the GEOSS Data Sharing Principles



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1. **Introduction** – why share data fully and openly?

- Decision makers and managers must have access to the information they need, when they need, and in format they can use
- Observing, modelling and understanding are the keys to good decision making
- Decision makers around the world need a global, coordinated, comprehensive and sustained environmental information system that supports action to be taken whenever necessary



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2. **Background** – what is the status of GEOSS data sharing today?

- DSP set out by 10yr Implementation Plan
- Role of DA-06-01
- Cape Town Ministerial Summit in 2007 reinforced DSP
- DSTF established at GEO-V Plenary
- **ToR** of the DSTF to submit **IG** and AP



- Support the Group on Earth Observation (GEO) in its objective to reach a consensus at its 2010 Ministerial Summit on the practical steps to implement the GEOSS Data Sharing Principles
- Interact with GEO Committees and Task Teams on their data sharing needs and work to promote harmonization of data sharing procedures consistent with the Data Sharing Principles.
- Reconfirm the Cape Town Declaration that “the success of GEOSS will depend on a commitment by all GEO partners to work together to ensure timely, global and open access to data and products”.
- Promoting implementation of the principle of full and open exchange of data according to GEOSS DSP
- Encouraging GEOSS users to reuse and re-disseminate shared data, metadata and products
- Ensuring consistency in the implementation of the GEOSS Data Sharing Principles with relevant international instruments and national policies and legislation.
- Implement pricing policies consistent with GEOSS Data Sharing Principles.
- Reducing time delays for making data available through GEOSS.
- Promoting research and education uses of GEOSS data, metadata and products.



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3. **Vision** – where do we want to be and by when?

- in support of GEOSS Strategic Targets, before 2015 GEO aims to:
Provide a shared, easily accessible, timely, sustained stream of comprehensive data of documented quality, as well as metadata and information products, for informed decision-making
- The vision set out in the GEOSS Strategic Targets will, by 2015:
 - ✓ *Increase use of observations through advances in all aspects of life-cycle data management, integration, and data recovery and conversion.*
 - ✓ *Remove important data management deficiencies.*
 - ✓ *Enhance information extraction from historical, current and future source data.*
 - ✓ *Access to a core set of essential environmental observations and information products, supported by adequate metadata, by users across all GEOSS Societal Benefit Areas in accordance with the GEOSS Data Sharing Principles.*



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4. What are the **Benefits** of implementing this vision?

- Sharing data through GEOSS can lead to potential improvements in areas such as health, environment, poverty, and other public-interest priorities.
- Contribution toward providing transparency, leading to increased societal trust in the scientific findings on climate change
- Sharing data within GEOSS is also expected to contribute to improving market competition (e.g. private sector's positive reaction to INSPIRE)
- The GEOSS data sharing philosophy of "full and open exchange" is increasingly accepted as providing added economic and social value to the data.
- The potential benefits of exchanging data and information freely through GEOSS are expected to be significant.
- Improving data access and sharing should significantly increase data utilization by reducing the cost and reuse restrictions for the users. This should create innovative opportunities for new and existing players in the information sector to open and expand their activities.



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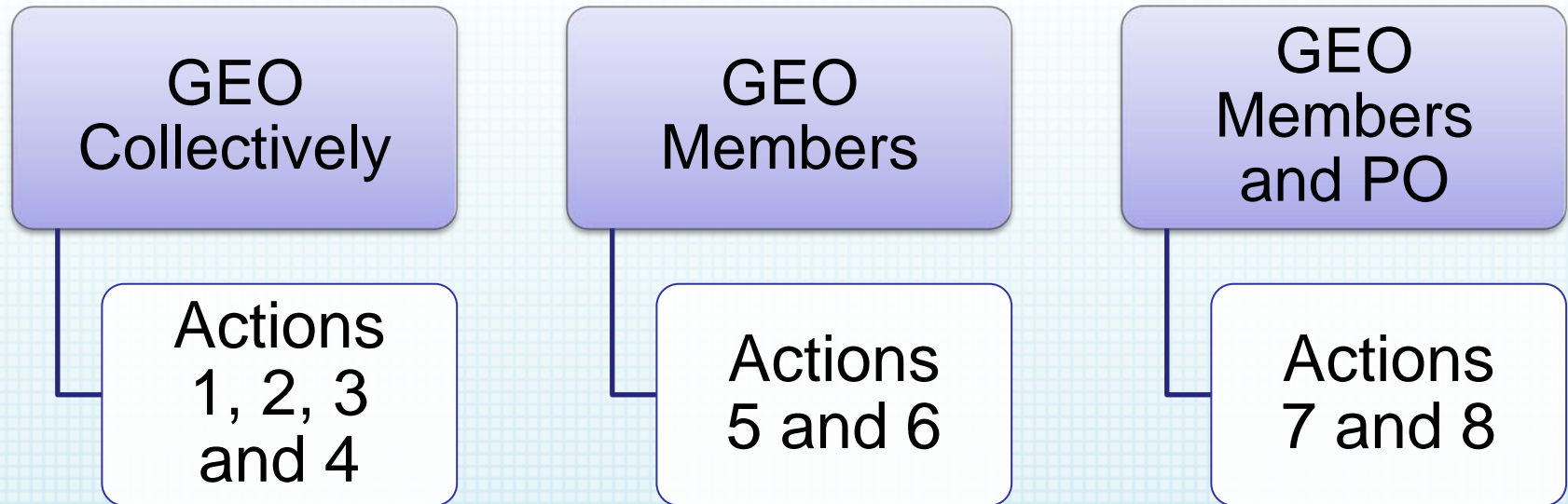
5. What are the **Barriers** to implementing this vision?

- Data providers have the perception that the implementation of the full and open exchange of data, metadata and products in GEOSS could pose challenges to their development, resulting in limited revenue
- Legal frameworks in different countries also need to be adapted in order to remove legal barriers that could slow the implementation of the GEOSS Data Sharing Principles → principle of full and open access is currently inconsistent with many national policies
- different disciplines, sectors and countries have different legal and socio-cultural approaches to data sharing
- The GCI must therefore provide efficient and effective support to the implementation of the GEOSS Data Sharing Principles → long-term operation of GCI → resources needed



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6. What **Actions** need to be taken? (1)





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6. What **Actions** need to be taken? (2)

GEO collectively

1. Create the GEOSS Data Collection of (Full and) Open Resources for Everyone (GEOSS Data CORE) to address GEO Societal Benefit Areas.
2. Establish a Task Force within GEO to:
 - Monitor the use and impact of resources made available with full and open access.
 - Promote the efficacy of the Data Sharing Principles in delivering societal benefits.
 - Evaluate the outcomes of this Action Plan and recommend further actions, particularly in liaison with GEO Committees
3. Maintain the GEOSS Common Infrastructure (GCI)
 - Categorization of Data Access Conditions.
 - User registration.
 - Data Tagging
4. Integrate implementation of the Data Sharing Principles, as appropriate, into the responsibilities of GEO Work Plan Tasks and GEO committees



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6. What **Actions** need to be taken? (3)

Actions for GEO Member States

5. Take leadership to establish national coordinating mechanisms
6. Develop flexible policy frameworks to ensure the implementation of a more open data environment

Actions for GEO Member States AND Participating Organizations

7. Maximise the number of documented datasets made available on the basis of full and open access.

When no information about usage rights and restrictions is provided, the presumption within GEOSS will be that the data are fully and openly available with no restrictions on use and dissemination.

8. Promote with data providers within their territories the benefits of full and open access to data



Supporting Docs to Action Plan

1. **Implementation Guidelines for the GEOSS Data Sharing Principles (accepted GEO-VI)**
2. **Benefits of Implementing the Data Sharing Principles**
 - Societal drivers
 - Improvements in the development and implementation of laws and policies
 - Enhancing private sector competition and innovation
 - Research and Education Benefits
 - Developing Countries Benefits
 - Broad Stakeholder participation needed to realize the benefits of data sharing
3. **Considerations and Actions for the GEO Community to Improve the Data Sharing Culture and to Populate and Promote the Use of the GEOSS Common Infrastructure and GEOSS Data-Core;**
4. **Considerations Arising from the Data Sharing Action Plan for the GCI**
5. **Case Studies**
 - ARGO Floats
 - ASTER Global Digital Elevation Model
 - CBERS Satellite Imagery
 - Forest Carbon Tracking
 - Global Biodiversity Information Facility
 - International Polar Year
 - Landsat
6. **Glossary**



DS Action Plan at GEO Ministerial Summit

The Ministerial Declaration currently :

- Notes with particular satisfaction:
 - a) the GEOSS Data Sharing Implementation Guidelines and Action Plan
 - b) the establishment of the operational GEOSS Common Infrastructure (GCI), which significantly improves access to global Earth observation data and resources (**DS AP action 3**)
- Commits to:
 - a) Maximise the number of documented datasets made available on the basis of full and open access (**DS AP action 7**)
 - b) Create the GEOSS Data-CORE (**DS AP action 1**)
 - c) Develop flexible national and international policy frameworks to ensure a more open data environment is implemented (**DS AP action 6**)
- Requests:
 - a) the establishment of national GEO coordination mechanisms (**DS AP action 5**)
 - b) the adoption of national measures to promote and monitor engagement with the implementation of GEOSS Data Sharing Principles

5 actions out of 8 included into the Declaration