Science and Technology Committee

GGOS Retreat, Oxnard, Feb. 2007

GEO Science and Technology Committee

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Draft manuscript of the STC

Working title "The role of the Science and Technology in GEOSS"

After the Bonn STC meeting, a few contributions were received by the GEO Secretariat and STC Co-Chairs

- ***IAG (S. Zerbini, M. Pearlman, H.-P. Plag, new structure of document and road map to develop a plan for the development of GEOSS);***
- ***Swiss Federal Office for Environment (J. Romero, added value of GEO, improve scientific understanding Of Earth system, integrated approach, identify gaps in knowledge…);***
- ***Russia (clarify target audience of document);***
- ***South Africa (link between research and socio-economic aspects of GEO);***
- ***COSPAR (D. Halpern, interdisciplinary aspects of GEOSS; added value of GEOSS to enhanced prediction and forecasts of global integrated Earth system processes).***

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The IAG proposed document lays out the roadmap for the STC to a concise science and technology plan that would provide a solid basis for the development of GEOSS in compliance with the targets set out in the 10 Year Implementation Plan (10YIP) and the needs of the nine Societal Benefit Areas (SBA). The main milestones/landmarks of this roadmap included:

- *establishment of a Science Panel with experts representing the nine SBAs both in science and technology that would ensure the continuity of the scientific and technological expertise for GEO;*
- *identification of the central science issues that need to be addressed in order to meet the user requirements as listed for the nine SBAs in the 10YIP as well as others endorsed by the User Interface Committee (UIC) over the next few years;*
- *identification of technological developments needed to meet the challenges posed by the user requirements including but not limited to spatial coverage, data quality, new parameters, low maintenance and low cost infrastructure required particularly for developing countries and high hazard areas;*
- *identification of steps necessary to bridge the gaps between the observations and the information needs of the end users in the nine SBAs.*

On the basis of these suggestions, the co-Chairs prepared a new draft of the document.

The new draft was discussed and openly criticized by the participants in the STC writing team meeting that took place in Paris on Feb. 2nd (hosted by ICSU).

The criticism originated mainly by the fact the new draft was created by trying to merge the various suggestions, however, without following a clear scheme of ideas.

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Discussion (Paris mtg. Feb. 2nd, 2007)

G. Ollier (EU)

The STC document should help to get stakeholders inside GEO.

It will NOT be a political document (not for Ministries, GEO Plenary approval will not therefore be requested). However, it will be distributed during next Plenary.

The aim of the document should be to provide "responsible Organizations/Individuals" with a solid base from which to choose ideas to implement.

There are resistances to GEO within the ST Community (take away resources from the "usual" funding programs).

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Discussion (Paris mtg. Feb. 2nd, 2007)

J. Achache

The STC document should point out the added value of being part of GEO.

GEO will help solving problems that cannot be solved by groups or individuals.

GEO has a cross-cutting (CC) dimension. Develop science on CC issues (weather/climate, agriculture/water etc.); Develop technology on CC issues (simple interoperability requirements, user friendly, develop research on System of Systems. Real innovations needed? They must be identified and, if proved necessary, new tasks should be implemented)

GEO is a consolidation mechanism and should mainly improve coordination, NOT impose ideas. This should avoid prioritization (selection of only a few critical issues).

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Agreed upon new structure of the document

"The Role of Science and Technology in GEOSS"

Outline

(under current revision by Lead Authors)

1. Introduction

(David Halpern , Kevin Noone, Mike Manton, Susanna Zerbini)

1.1 Vision: "The vision of 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"....

1.2 Stress the dependence of GEO on ST

2. Science and Technology in GEOSS

(Einar-Arne Herland, David Halpern, Linda Manyuchi, Susanna Zerbini)

2.1 The key role of S&T for the development of GEOSS

2.2 The importance of GEOSS for the S&T communities

Both sections possibly also addressing: (i) Research on Data management and Architecture; and (ii) Socio-economic data for research and/or socio-economic applications.

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3. Science in the 10-yr Framework Document and the importance of international programmes in addressing the nine Societal Benefit Areas

(Pascal LeGrand, Gisbert Glaser, Linda Manyuchi, GEO Secretariat)

3.1 Brief section on each area (1/2 page) based on input from relevant international programmes

- *Disasters: ICSU Strategic Planning, IGOS-P Hazards, etc.*
- *Health: ESSP Health programme, WHO, etc.*
- *Energy: ISPRE, IIASA Global Energy Assessment, etc.*
- *Climate: WCRP*
- *Water: IHP, GWP, WCRP, IGBP, IGCO, etc.*
- *Weather: THORPEX and WWRP*
- *Ecosystems: MA follow-up, IGBP, etc.*
- *Agriculture: GECAFS-CGIAR, IAASTD, etc.*
- *Biodiversity: DIVERSITAS, GBIF, etc.*

3.2 Gaps (possibly addressing also research on data management and architecture, and socio-economic data for science)

4. Conclusions, Way Forward

Addressing socio-economic-aspects?

(Co-Chairs)

Note: Sections 1,2 and 3 will include one or two illustrations.

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Development Schedule (2007)

30/03 Draft version 1 to be circulated to all Drafting Team members;

13/04 Comments on Draft version 1 to be sent to the GEO Secretariat (for distribution to Drafting Team);

25/04 Draft version 2 to be circulated to Co-Chairs;

27/04 Co-Chair and Lead Author Teleconference to discuss possible changes;

02/05 Draft version 3 to be circulated to all S&T Committee members;

15/05 Comments on Draft version 3 to be sent to the GEO Secretariat (for distribution to Drafting Team);

31/05–
01/06 ST Committee to meet in Brussels and finalize Draft.