



GEO Capacity Building Committee 9th Meeting

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2009-2011 Work Plan: OAT CB-09-03 Building Institutional Capacity to Use Earth Observations

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CB-09-03: Building Institutional Capacity CB Strategy

- **Institutional capacity building** is focused on developing and fostering an environment for the use of Earth observations to enhance decision making. This includes building policies, programs and organizational structures in governments and organizations aimed at enhancing the understanding of the value of Earth observation data and products.



Building National and Regional Capacity

- Description and objective of subtask
 - To build national capacity in developing countries for coordinating, accessing, using, and sharing environmental data information and services.
 - To develop and implement a participatory model for environmental networking, observing/monitoring, and data/information sharing at the national level, that would allow institutional coordination to access and utilise environmental Earth observation data to support decision-making.
- Goals, outcomes, outputs
 - Developing countries have the necessary human, technical and institutional capacity strengthened and built to facilitate access, utilisation and sharing of scientific environmental data, information and services, including those of Earth observations, to support sound decision making.
 - A participatory model for environmental networking, observing/monitoring, and data and information sharing at the national level, based on existing national mechanisms, which will integrate regional and global tools and mechanisms for environmental data access and utilisation, and implementation plan.
 - List of relevant national and regional existing environmental monitoring activities that could be part of the participatory model.
 - Funding proposal



Building National and Regional Capacity

- Gaps, challenges, risks
 - Clear assessment and establishment of needs in potential recipient countries.
 - Political and institutional will and interest to participate in collaborative capacity building activities for strengthening use of Earth observing data and services.
 - Funding and sustainability of activities.
- Current activities, schedule
 - Develop and implement the participatory model, based on existing national mechanisms and institutions, integrating regional and global tools and mechanisms for environmental data and observing systems, in particular the Earth observing systems.
 - Identify relevant national and regional environmental monitoring activities carried out by space agencies, research centers, UN agencies, global observing systems and the public/private sectors that could be part of the participatory model.
 - Investigate mechanisms for resourcing implementation.
 - Organise and conduct workshops in selected developing countries of Latin America and the Caribbean, Africa and the transitional countries of Europe (EECCA and SEE), for improving within country coordination amongst national environmental authorities and organisations, remote sensing agencies and/or programmes, and other relevant entities to create awareness and establish priorities for improving access to and management of environmental observing data, and networking.
 - Link activities to other relevant ones of the GEO/GEOSS implementation process; e.g. the GEONETCast.



CB-09-03b

Establishing Regional Capacity Building Networks

- Description and objective of subtask
 - Organize and reinforce int'l capacity building and training opportunity networks in EO sciences & Geo information provision, using GEOSS components i.e., the GEONETcast data dissemination system and the GEO Portal (internet), and distance & e-learning technologies
- Goals, outcomes, outputs
 - A global network of regional interconnected GEO CB partnerships
 - Reinforcing exchanges among national, regional and int'l science and CB initiatives in EO and Geo information sciences, incl. UN programs
 - Demonstration of EO solutions in the 9 Societal Benefit Areas of GEO through education & training initiatives



CB-09-03b

Establishing Regional Capacity Building Networks

- Gaps, challenges, risks
 - Capacity building services delivery in EO have advanced relatively faster the last decades in developed countries, then in certain developing regions around the globe (e.g. a number of countries in Africa, Asia and Latin America). Inter-connecting regional capacity building efforts between frontrunner GEO partners and others, can lessen this gap and can have a significant social & economic benefit. Exchanges of information, persons will also be stimulated by this process.
- Current activities, schedule
 - Inventory, reinforcement and extension of regional CB initiatives and networks
 - Development of distance education courses using GEOSS components (ITC and joint education partners)
 - Demonstration of EO applicability through education & training, and awareness building



Capacity Building Sub-task **CB-09-03c**

Building Capacity for Non-technical Decision-makers in the Use and Impact of Earth Observation

- **Task Description**
 - Build GEO community through GEOSS-focused web-based magazine for the general public and non-technical managers & decision-makers.
- **Established www.Earthzine.org in November 2007**
 - Publishes articles on social benefits of Earth observation
 - Structured to align with nine SBAs
 - ~2700 readers/month in >100 countries
 - Growing editorial staff and writers to cover SBAs, special topics and regions around the world.





Capacity Building Sub-task **CB-09-03c**

- Gaps, Challenges and Risks
 - Requires improved coordination with and across GEO for timely and accurate reporting of the great work being done
 - Expand readership and contribution base to be an effective voice for GEO community and to reach a sustainable level of contributions and sponsorship
 - Requires base funding for maintenance and operation
- Current Activities
 - Launched newsletter, actively expanding subscriber base
 - Expanding reach into developing regions of Africa, South America, and Asia with emphasis on greater coverage of GEO activities
 - Improving infrastructure/usability/accessibility of website





Capacity Building Sub-task **CB-09-03c**

- Topics for Discussion
 - How can Earthzine improve its coverage of GEO's capacity building activities?
 - What new features would best serve GEO's CB activities?
 - With what other GEO organizations/initiatives should Earthzine be coordinating activities and developments?
 - How can Earthzine better reach and serve communities in developing regions?
 - What is the appropriate technical level to effectively reach non technical decision makers and to serve as catalyst for cross-disciplinary and regional collaboration?



Capacity building for operational oceanography

- Description and objective of subtask
 - Facilitate ocean data sharing and use by stimulating global cooperation on operational oceanography, especially in developing countries. In the first stage, establish a global operational oceanography network connecting advanced operational forecasting centres in developed countries and quasi-operational centres in e.g. Asia, Africa and Latin America. In the second stage, establish regional cooperation projects (between advanced and less-developed operational centres).
- Goals, outcomes, outputs
 - A global network of operational oceanography
 - Strategy for developing national operational oceanography programs in an international environment
 - Demonstration of regional sea operational ocean-wave forecasting systems through GEO cooperation



CB-09-03d

Capacity building for operational oceanography

- Gaps, challenges, risks
 - Operational oceanography and service have been advanced in the last decade in Europe and some other developed countries, but less developed in most of the developing countries in Asia, Africa and Latin America. Capacity building for operational oceanography in these countries is urgently required and has a significant social benefit. The ocean data exchange can also be stimulated by this activity
- Current activities, schedule
 - Build up a global network of operational oceanography
 - Categorizing funding for operational oceanography capacity building
 - Demonstration of operational oceanography in developing countries



CB-09-03: Building Institutional Capacity

OAT objectives / goals / targets for 2009-2011

2009-2011 GEO Work Plan version 1

Goals / Objectives (Current)

- Coordinate, strengthen and sustain existing capacity building networks within Earth observation communities. As appropriate, facilitate the construction of new networks.

Possible replacement

- Facilitate the strengthening of and cooperation between existing capacity building networks to improve the utilization of Earth information, products and services across regions and disciplines and as appropriate, facilitate the construction of new networks.



OAT outputs to CB Strategy & Strategic Targets

The TARGETS will be demonstrated by:

The OUTCOMES of the OATs;

a large part of which will be derived from the OUTPUTS of the sub-tasks.

So we need to start with the TARGETS and ensure that we are able to address “what will be demonstrated” in the Target document. The OATs will therefore have to have the required “outcomes”.

(WE NEED GOOD EXAMPLES of what we have done / achieved.)

There is a need of a ROADMAP that establishes how the tasks / sub-tasks will meet the targets.

Questions of timescales? What is the timescale to achieve the targets?



OAT dependencies & interactions with other tasks

- With all the other CB tasks;
- And with which other WP tasks?
- **THIS IS A Critical issue. If this is not properly addressed from the outset, FOR ALL CB TASKS, it has the potential to waste a lot of resources. (Duplication of effort, reinventing the wheel, etc.)**



OAT dependencies & interactions with other tasks

- Need to bring overarching activities - e.g. outreach, GEONETCast - together in a single place.
- **CB-09-01: Resource (or Seville Roadmap) Mobilization. Expand this to be “Resource mobilisation and UTILISATION”**
- How do we organise the synergies between the tasks?
- Who will map the inter-dependencies and interactions?



OAT dependencies & interactions with other tasks

- Matrix approach? (But this requires a lot of work and will be a huge matrix.)
- So can the matrix approach be applied at the OAT level? (Which would lead to a manageable matrix.)



Schedule for OAT

- This is initially dependent upon the schedule for the sub-tasks.
- In time, the OAT needs to develop its “own” schedule.



Reporting methods and guidelines (task sheets, CBC meetings)

- Co-ordination team – telecons, e-mails
- But what is the most effective way to transmit this to the CB community and beyond, SO THAT THEY BECOME ACTIVELY INVOLVED IN THE TASK?*
- Reporting & measuring is also in another OAT sub-task, CB-09-04.



Expectations of OAT from CBC

- Support ? But of what sort ?
- Direct involvement ?
- Direct engagement of institutes ?
- Who are the GEO people. * (GEO Principal has an important job – not always carried out.)
- Need good win-win examples – prioritise.
- Need to find a focus, find specific examples



Expected outcomes/potential GEOSS components for 2009-2011

- How do we adapt the outputs from the sub-tasks to that of the OAT?

CB-09-03a

- Developing countries have the necessary human, technical and institutional capacity strengthened and built to facilitate access, utilisation and sharing of scientific environmental data, information and services, including those of Earth observations, to support sound decision making.
 - A participatory model for environmental networking, observing/monitoring, and data and information sharing at the national level, based on existing national mechanisms, which will integrate regional and global tools and mechanisms for environmental data access and utilisation, and implementation plan.
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CB-09-03b

- A global network of regional interconnected GEO CB partnerships
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Expected outcomes/potential GEOSS components for 2009-2011

- How do we adapt the outputs from the sub-tasks to that of the OAT?

CB-09-03c

Build GEO community through GEOSS-focused web-based magazine for the general public and non-technical managers & decision-makers

CB-09-03d

- A global network of operational oceanography
- Strategy for developing national operational oceanography programs in an international environment
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Expected outcomes/potential GEOSS components for 2009-2011

- What are the potential components that can be contributed to the GEOSS?



OAT coordination SWOT (Strengths, Weaknesses, Opportunities and Threats)

- Strengths ?
 - Weaknesses ?
 - Opportunities ?
 - Threats ?
-
- Note: This may not be the most important issue for consideration at this time. The OAT may need to be more mature before this issue can be properly and fully discussed.