

Sub-task Number: CB-09-02f

Sub-task Title: GLOBE/GEO Climate Education Project

Overarching Task: Building Individual Capacity in Earth Observations

Area: CAPACITY BUILDING

Relevant Committee: CBC

Related Targets: (to be included in 2009)

Sub-task Definition (as given in the 2009-2011 Work Plan):

Develop a student research campaign to foster the use of Earth observation and better prepare the future work force in dealing with changes in the global environment – through collaboration between the GEO community and the worldwide community of educators, students, and partners of the GLOBE (Global Learning and Observations to Benefit the Environment) Program. The GLOBE/GEO Student Climate Research Campaign (SCRC) will complete its planning in 2009 and implement the school-based pilot project in 2010. The latter will serve as a model for potential (future) GLOBE/GEO education-research campaigns on topics such as Water, Health, Biodiversity and Energy.

Leads (GEO Member or PO, Entity carrying out the work, Contact: e-mail):

GLOBE, Point of Contact: Ed Geary, egeary@globe.gov

South Africa (DST), Nhlanhla Nyide, Nhlanhla.nyide@dst.gov.za

Motivation/Background

This task will expand the user base for GEOSS data, engage students in using GEOSS and in situ data to conduct collaborative research on Climate, Weather, Water, Human Health and other GEO-SBAs, and promote environmental stewardship in schools and communities around the world.

Outputs (e.g. products and services which result from the activities of the Task/sub-task; outlined in the form of deliverables with timelines)

- Planned: Student Climate Research Campaign planning workshop, implementation plan, and potential sponsors list
- Pilot project for the Student Climate Research Campaign with accompanying assessment data

Produced (current status): Planning for the Global Climate Change Research and Education workshop (25-28 January 2009) at WMO headquarters in Geneva is complete. 30-35 scientists, educators, and organizational representatives are currently scheduled to participate in this workshop.

Activities

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|-------------|---|
| Jan. 2009 | <p>Student Climate Research Campaign planning workshop at the World Meteorological Organization (WMO) in Geneva with 20-25 climate scientists, GLOBE educators and Partners and representatives of key collaborating organizations.</p> <ul style="list-style-type: none"> • Develop a draft work plan for the GLOBE-GEO SCRC • Identify potential sponsors (governments, corporations, NGO's, foundations, individuals) • Identify a finite number of student research and implementation milestones for pilot student research investigations in 200-300 schools worldwide |
| Spring 2009 | <p>GEO member countries and organizations assist in the identification of Regional climate-related data sets and resources</p> |

- Summer 2009 GLOBE professional development workshops to facilitate climate change research in secondary schools. GEO members encouraged to participate and/or support GLOBE country coordinators to attend these workshops
- Fall 2009 200-300 GLOBE schools and teachers selected to be part of the pilot project
- Spring 2010: Support country/school participation in pilot research campaign.
Assess impact of pilot project on participating students and teachers and communities.
Use formative evaluation data to improve student research campaign design, tools, services, and outcomes
Report to GEO

Resources

GLOBE has contributed approximately \$50,000 to plan and convene the workshop in Geneva. The WMO has provided meeting facilities and helped with workshop planning.

Architecture and Data Component

1) Please briefly describe any task-related Earth observation resources (data set, system, website/portal) and any related Web Service interfaces that are contributed to GEOSS. State whether these items are or will be registered with the GEOSS Component and Service Registry for access via the GEO Web Portals, and whether any associated standards or other interoperability arrangements will be registered in the Standards and Interoperability Registry.

2) Please also describe what data and information your activity/system needs that you would request to be accessible through the GEOSS Common Infrastructure.

Capacity Building Component

This activity will build the capacity of individuals and organizations to engage in Climate research and environmental stewardship by

- Integrating GEOSS data into regional student research investigations on climate and related issues on disasters, human health, energy, water, weather, ecosystems, agriculture and biodiversity;
- Identifying schools to contribute to GEOSS through collection and submission of in-situ “green” observations (e.g. green up and down of plants, freeze up - break up of ice, etc.).
- Recruiting partners (e.g., scientific, educational, business, and philanthropic organizations, and/or community groups) and scientists in GEO countries and GLOBE Regions around the world to participate in and support the Student Climate Research Campaign; and
- Identifying and making available to secondary and undergraduate teachers and students relevant regional climate data, learning activities, equipment and/or materials to support student research investigations

User Engagement Component

(please briefly describe to what extent end users are engaged in this Task and influence the nature of the outputs produced)

Science and Technology (S&T) Component

1) Please briefly describe the elements of scientific research or technological development contained in this Task.

2) In relation to the S&T component(s) of this task, please describe gaps, priorities, continuity needs, barriers, scientific expertise and additional resource needs (this information will be used for developing a gaps and needs assessment in Task ST-09-01)

Members and POs' Contributions to Outputs and Activities above:

(Input is optional. This section gives the chance to Members and POs to provide more details (3-5 lines) on their individual activities, making a clear connection with the Outputs and Activities outlined above).

Portugal

Faculty of Arts of the University of Porto (FLUP). Applied climatology examples to Health, Agriculture, Architecture, etc.

GEO

GEO members suggested names of Climate scientists to participate in the meeting

Members of the GEO Secretariate, WMO and WHO will be participating in the workshop and it is expected that they and other GEO members will help with the design, planning, and implementation of the Student Climate Research Campaign in their countries and regions.

Participation (Table to be filled in 2009):

Type	Member or PO	Representing	Contact Name	EmailAddress
Lead(PoC)	GLOBE	GLOBE	Ed Geary	egeary@globe.gov
Lead	South Africa	Department of Science and Technology	Nhlanhla Nyide	Nhlanhla.nyide@dst.gov.za
Contributor	Portugal	Faculty of Arts of the University of Porto (FLUP)	Ana Monteiro	anamonteirosousa@gmail.com