

**Sub-task Number:** DA-09-01b

**Sub-task Title:** Data, Metadata and Products Harmonisation

**Overarching Task:** Data Management

**Area:** DATA MANAGEMENT

**Relevant Committee:** ADC

**Related Targets:** (to be included in 2009)

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

Facilitate the development, availability and harmonization of data, metadata, and products commonly required across diverse societal benefit areas, including base maps, land-cover data sets, and common socio-economic data.

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

CEOS (NOAA), Point of Contact: Ken McDonald, kenneth.mcdonald@noaa.gov

USA (USGS), Doug Nebert, FGDC/GSDI Secretariat, ddnebert@usgs.gov

**Motivation/Background**

This sub-task is a continuation of DA-06-04 with the same name and description. Under the original task, a number of GEO Members and Participating Organizations identified and described their own programs and initiatives that were aligned with the objectives of the task. At the same time, Task AR-07-01 was defining and implementing the GEOSS Common Infrastructure that provides repositories for members to register their components, services, standards and best practices. This reconstituted task will develop a process to analyse and assess the contents of the GEO registries and generate recommendations leading toward the goal of harmonization.

**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:

1. Assessment of Current Capabilities – a document produced by the task team that reports on the current state of the practice in providing Earth observation data and services. The review should include a summary of historic and on-going efforts at standardization/harmonization and the identification of issues or barriers that inhibit the effective discovery and use of EO resources.
2. Recommendations – based on the initial assessment, the task team shall produce a set of recommended steps that GEO and its members and participation organizations should take in addressing the issues. The exact contents of the report will be determined by the team but may present a set of guidelines that members should follow. In conjunction with that, the report should identify a process whereby GEO establishes and maintains such a set of guidelines and the relationship of this process to existing international standards bodies and related organizations.

Produced (current status): ...

**Activities** (operations or work processes through which resources are mobilized to produce specific outputs; outlined in the form of milestones including timelines)

Planned:

1. Form Task Team – the initial step in this task will be to issue a new call for participation to recruit new team members and to invite existing participants in task DA-06-04 to reaffirm their interest in contributing to DA-09-01b.

2. Develop Review Plan – the production of the initial assessment will involve the active participation of all team members. The starting point will be a review of the contents of the GEO registries and the efforts of the GEO Standards and Interoperability Forum (SIF). The work plan will divide this review into individual assignments.
3. Conduct Initial Assessment – task members will volunteer to accomplish a particular review assignment and will share the results with the other members. It is expected that the review of the registry entries will lead to additional assignments to follow up with providers for additional background information.
4. Complete Assessment Report – a subset of the task team (possibly 3-5 co-leads) will author the report for review by all members.
5. Develop and Publish Recommendations – this represents a series of activities that will be further defined as the task progresses.

*Progress (current status):*

1. GEO Task Team has been formed and an email list ([TASK-DA-09-01B@LIST.GEOSEC.ORG](mailto:TASK-DA-09-01B@LIST.GEOSEC.ORG)) has been established. Monthly telecons were initiated in May. Participation in telecons has been limited due to scheduling conflicts but discussions have confirmed task plan in principal.
2. The review of the contents of the GEO registries is underway and team members have begun to share initial findings.
3. The work plan for this task was briefed to the CEOS Working Group on Information Systems and Services (WGISS) at its May meeting in Toulouse. As a result, WGISS has formed a team and initiated an activity to discuss its positions on data, metadata and products harmonization and to generate the WGISS input to the GEO task.
4. A two-day workshop is being planned for the week prior to the GEO Plenary in Washington in conjunction with GEO Task DA-09-02a, Data Integration and Analysis Systems.

*[Note: Updates on outputs and activities will be formally provided twice a year, according to the GEO schedule for 2009]*

Phase 1 Milestone Schedule

Task Name	Start	Finish	Qtr 1, 2009		Qtr 2, 2009			Qtr 3, 2009			Qtr 4, 2009			
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 <input type="checkbox"/> GEO Task DA-09-01b	Mon 1/19/09	Mon 11/16/09	[Gantt bar spanning from Jan to Nov]											
2 <input checked="" type="checkbox"/> Form Task Team	Mon 1/19/09	Fri 1/30/09	[Gantt bar in Jan]											
3 <input checked="" type="checkbox"/> Develop Review Plan	Mon 2/2/09	Fri 2/20/09	[Gantt bar in Feb]											
4 <input checked="" type="checkbox"/> Present Task Way Forward at GEO ADC Meeting	Wed 2/4/09	Thu 2/5/09	[Gantt bar in Feb]											
5 <input type="checkbox"/> Conduct Initial Assessment	Mon 2/23/09	Mon 11/9/09	[Gantt bar from Feb to Nov]											
6 <input checked="" type="checkbox"/> Present status report at CEOS/WGISS Meeting	Mon 5/11/09	Fri 5/15/09	[Gantt bar in May]											
7 <input type="checkbox"/> Present status report at CEOS/WGISS Meeting	Mon 9/28/09	Fri 10/2/09	[Gantt bar in Sep]											
8 <input type="checkbox"/> Joint workshop with associated GEO Tasks and SIF	Wed 11/11/09	Thu 11/12/09	[Gantt bar in Nov]											
9 <input type="checkbox"/> Complete Assessment Report	Mon 11/16/09	Mon 11/16/09	[Gantt bar in Nov]											

**Resources** (indication of resources – e.g. financial, human – contributed by GEO Members or Participating Organizations to produce outputs)

In volunteering to be a co-leader or contributor to this task, participants are agreeing to work on selected tasks according to a schedule established by the team. The expected level of effort for a contributor is approximately 1 person-day per month to work on review assignments and participate in discussions. Co-leaders and their support staff should expect to contribute twice that level of effort. During the assesement phase of the task meetings will be conducted as telecons. No dedicated face to face meetings are envisioned but may occur on an ad hoc basis at other regularly scheduled meetings (e.g. GEO-ADC, CEOS-WGISS).

**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**

(capacity building is defined to include the development of capacity related to: (i) Infrastructure and technology transfer (Hardware, Software and other technology required to develop, access and use EO); (ii) Individuals (education and training of individuals to be aware of, access, use and develop EO) and (iii) Institutions – building policies, programs & organizational structures to enhance the value of EO data and products).

1) In accordance with the above definition does this Task have a capacity-building component? If so, please provide a short description of this component including a description of end users.

The intended audience for the assessments, recommendations and guidelines that are the output of task DA-09-01b are both existing and future providers of EO data and services. This task should either have representation from the Capacity Building Committee or give periodic reports to the CBC to ensure that the outputs are useful and responsive to the needs of the provider community.

2) Have any additional CB needs for this Task been identified? Please provide a short description.

**User Engagement Component**

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

Task DA-09-01b is intended to address the issues users have in the discovery and effective use of EO data and services. The end users must be involved in the accurate portrayal of these issues and barriers as they are identified and described in the initial assessment and have a voice in how they are addressed in the recommendations and guidelines. The task team will fully determine ways to engage the user community but at a minimum a task discussion at a User Interface Committee meeting will be requested.

**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).

**Australia**

Contribute to discussions on data management and integration, global data sets and interoperable system.

**Germany**

DLR DFD-IT: DFD National Remote Sensing Data Library (NRSDDL) & harmonisation of interfaces with ESA and other European partners.

**Japan**

*GSI*: To contribute to the GEO framework by promoting Global Mapping Project which aims to develop fundamental geographic information of the whole land of the globe.

**USA**

*NOAA*: NOAA and CEOS Lead for coordination of input and development of products for this task.

**CEOS**

*NOAA*: Data, Metadata and Products Harmonization: Establish a WGISS project to focus its contributions to the subject task and to generate those contributions. The first deliverable of the GEO task is an Assessment of Current Capabilities

*CNES/INRA*: Land product harmonization: 1) Continue developing the strategy for generating consistent biophysical products from medium resolution sensors. 2) Evaluate global landcover classification at regional scale. 3) Update the BELMANIP, and intercompare the fAPAR products. 4) Publish the results.

**EC**

*EU-project HYPOX* : complying harmonisation of Hypox metadata and products.

*EuroGEOSS* will contribute the European experience related to the development of INSPIRE specifications for data, metadata, and services.

**ICIMOD**

*ICIMOD* is implementing a metadata management system that promotes systematic development/distribution of metadata adhering to international standards in the Himalayan region. Such a system aimed at promoting regional data sharing and network through standardized metadata. The system is deployed within a framework of Mountain GeoPortal - as a regional gateway to geo-information resources. The System is based on the GeoNetwork platform developed by the FAO in an open source software environment. Visit for more detail: Such a system can be relevant to other SB areas like ecosystems, biodiversity, wetlands and others.

**Participation** (Table to be filled in 2009):

Type	Member or PO	Representing	Contact Name	EmailAddress
Lead(PoC)	CEOS	NOAA	Ken McDonald	kenneth.mcdonald@noaa.gov
Lead	USA	FGDC/GSDI Secretariat	Doug Nebert	ddnebert@usgs.gov
Contributor	Australia	Geosciences Australia	Chris Body	Chris.body@ga.gov.au
Contributor	CEOS	CNES/INRA	Frédéric Baret	baret@avignon.inra.fr
Contributor	EC	EU-project HYPOX	Michael Diepenbroek	mdiepenbroek@pangaea.de
Contributor	EC	EuroGEOSS	Massimo Craglia	massimo.craglia@jrc.it
Contributor	Germany	DLR DFD-IT	Eberhard Mikusch	eberhard.mikusch@dlr.de
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