

TASK-DA-09-03E: Global Soil Data

Task Description

Area	Data Management
Overarching Task	TASK-DA-09-03: Global Data Sets
Sub Task	TASK-DA-09-03e: Global Soil Data
Related Communities of Practice	-
Relevant Committees	-

Task Definition

Support the development of a global soil information system building upon the work of ongoing and completed projects. The system will incorporate data from global, regional and national soil data projects into a coherent system using a common dictionary – to support implementation of major multilateral environmental agreements (e.g. UNFCCC, UNCCD and CBD) and provide harmonized & policy-relevant information to users at the global, regional and national level. The system will deliver web-based services on soil information.

Leads

Type	Member or PO	Representing	Contact Name	EmailAddress
Task Lead (PoC)	Netherlands	ISRIC - World Soil Information	Vincent van Engelen	vincent.vanengelen@wur.nl
Task Lead	China	ISS-CAS	Ganlin Zhang	glzhang@issas.ac.cn
Task Lead	European Commission	JRC	Luca Montanarella	luca.montanarella@jrc.ec.europa.eu
Task Lead	United States	USDA / NRCS	Jon Hempel	jon.hempel@lin.usda.gov

Motivation/Background

(Why should this Task or sub-task be implemented? What relevance to society? What is the state of the art?)

Soil - the planet earth's living skin - is regulating several key global processes including carbon, oxygen, nitrogen and water cycling. Global and local development such as improvement of food security, mitigation of greenhouse gas emissions to curtail climate change, maintenance of biodiversity, supply of water and production of energy crops are heavily dependent on soils. Global soil information is mostly available in the form of area-class maps like for example the Harmonized World Soil Database (HWSD). Digital soil mapping (DSM) techniques offer great opportunities to enhance existing soil information. These approaches are being used in international and global projects like e-SOTER and GlobalSoilMap.net and also in several smaller national projects.

Current Status

Outputs

Description	By Date
(i) area-class products. Global methodology development and application in four e-SOTER window areas.	August 2010
(ii) soil property data and information Methodology development and proof of concept studies.	August 2010

Activities

Description	By Date
The first Task team workshop was held in Prague in 24-25 September, 2009	2009

Resources

Description	By Date
<i>e-SOTER</i> project is financed by EU FP7 funds.	2008
GlobalSoilMap.net is financed by the Bill and Melissa Gates Foundation and by AGRA.	2009

In Planning

Outputs

Description	By Date
(i) Global area-class soil data; Soil area-class datasets at scale 1:1 million based on the e-SOTER methodology, leading to a global product and incorporation into the HWSD.	December 2010
(ii) Global soil property data and information 90 by 90m resolution soil property maps for the whole world.	

Activities

Description	By Date
1 e-SOTERThe project consisting of a consortium of 12 European and 2 non-European partners started in September 2008; test window results will be available in 2010. Application of the methodology to the	

European continent as a contribution to a global SOTER (G-SOTER) is under discussion.

2 GlobalSoilMap.net

A global consortium has been formed with nodes (centres of excellence in each continent). The project has been officially launched in February 2009 in New York, USA. The E Asia node has been launched in Seoul, Korea in October 2009 whereas the L American node was launched in November 2009. The European node will be launched in Rome in May 2010.

The nodes have agreed on the final products that will be delivered including a set of properties, soil depths, assessment of uncertainties and resolution. These technical specifications do not prescribe the methods that should be used although they should be listed and communicated. Funds have been secured to map the soils of Africa, and for the coordination of the global effort. Activities at the node level have been made by in-kind contributions and further funding strategies are being developed.

Resources

Description

By
Date

Additional funding sought for application of e-SOTER methods to rest of Europe.

Cross-cutting Components

Architecture and Data

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

(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.

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

Global and Regional activities:

- Link to capacity building initiatives (European network of Soil Awareness)
- Input of partners to be added (Role of universities)

Science and Technology

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)

User Engagement

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

Contribution to Outputs and Activities Above

Participation

Type	Member or PO	Representing	Contact Name	EmailAddress
Task Lead (PoC)	Netherlands	ISRIC - World Soil Information	Vincent van Engelen	vincent.vanengelen@wur.nl
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