



GlobalSoilMap.net Science Committee Meeting Agenda

Thursday, May 20, 2010, 08:30 – 17:30

Venue: CRA-CMA, Via del Caravita 7A Roma (multi media room)

Prior to the meeting:

- Data Model: Efforts will have been made to initiate a submission on SoilML to IUSS
- Prediction Methods: A effort will have been undertaken to initiate a project to apply, illustrate, document and access a variety of prediction methods in up to 4 proof of concept areas.
- Covariates: Efforts will have been initiated to identify, locate and obtain all major global covariates and to make them available to project participants.
- Cyber-infrastructure: Initial efforts will have been undertaken to identify and understand the options and capabilities available to support required cyber capabilities.
- Legacy Data: Data entry screens and underlying enterprise data bases will be in place and in use for collecting legacy profile data for AfSIS. Methods for using scanned maps to help produce harmonized soil maps for large areas will have been investigated and evaluated.
- End User Applications: A small working group will have begun to identify major application areas by category (e.g. Carbon Sequestration, Global Warming, Crop Growth, Hydrological Modeling) and will have started to identify their input requirements for soils information.
- Uncertainty: Methods for sampling for and calculating uncertainty will be ready for discussion.

Objectives

- To address and remove all major technical and scientific impediments to commencing operational production mapping of soil properties for large areas of the world.
- To identify and evaluate a number of prediction methods and data sources that have been demonstrated to be suitable for predicting soil properties at a fine spatial resolution.
- To begin to plan for how the output products generated by the GlobalSoilMap.net project will be used and how they can, or will, be made available for on-line access by any interested users.
- To qualify the role of legacy soil data (profiles and maps) in the *GlobalSoilMap.net* project and to specify how these data will be acquired, stored, disseminated and used.
- To demonstrate how uncertainty will be assessed and used in the *GlobalSoilMap.net* project.

Expected output

- An agreed upon set of scientific and technical priorities and a work plan for Science Coordination for the *GlobalSoilMap.net* project for the next 12 months.
- Establishment of any necessary task groups or sub-committees to ensure that progress is made with respect to addressing specific scientific and technical issues, such as:
 - Design and implementation of cyber-infrastructure
 - Identification and acquisition of global covariate data sets
 - Procedures for using or converting legacy map data to provide useful covariates
 - Completion of digital soil mapping comparison project (proof of concept studies)



Programme: **Thursday May 20, 2010 (Chair Alex McBratney)**

Morning Session

08:30 – 09:00

Welcome and introductions (Alex McBratney)

Administrative issues:

- a) Formal constitution of the *GlobalSoilMap.net* Scientific Steering Committee
- b) Establishment of membership, officers, schedule and rules for meetings
- c) Formal establishment of task group concept, structure, organization and membership

09:00 – 09:30

Specifications – Discussion: Is there a need for procedures and a schedule for updating specifications?

Covariates – Report on needs and plans for identifying, locating and obtaining global covariates (Bob)

09:30 – 10:00

Data Model – Outcomes and developments from the Data Model Workshop (Peter Wilson)

10:00 – 10:30

Prediction Methods – Initiation of activities for the proof of concept activities (Bob)

10:30 – 10:50

BREAK

10:50 – 12:30

Cyber-infrastructure (Requirements for Hardware, Software and Personnel)

- Scope of requirements and expectations for what will be offered (Sonya, Alfred or Prem)
- Short term needs and what has been done to address them (Bob, Tom Hengl)
- Longer term needs and possibilities (Sonya, Tom Hengl)

12:30 – 13:30

Lunch Break

Afternoon Session

13:30 – 14:30

Legacy Data (Profile and Map) – Report on what has been accomplished and what needs to be done.

- Profile Data – AfSIS Screens and databases for data capture. (Sonya, Markus, Bob)
- Enterprise data base for storing and managing AfSIS profile data (Sonya, Sri)
- Challenges and options for harmonizing profile data (Bob)
- Legacy Map Data – What has been scanned and captured? Do we convert or use it? (Bob)

14:30 – 15:00

End User Applications – Report actions taken to identify and analyze end user needs. (Phillip Owens)

- List and classification of main end user applications and input data needs (Bob)

15:00 – 15:30

Uncertainty – Progress to date and need for future work on methods of quantifying uncertainty

- Uncertainty versus accuracy or error – methods and options (Alex)

15:30 – 15:50

BREAK

15:50 – 17:30

Other items

- Operational Production Mapping: Goals, targets and plans. (Bob)
- Library of shared programs, utilities and methods. (Alex, Budi)
- Spline function – utilities for applying and using. (Alex, Budi)
- SRTM cleanup – Any interest in applying Australian methods elsewhere? (EROS – David?)
- SRTM 30 m data – Any interest in opportunity to obtain 30 m SRTM for rest of world? (David)
- Multiple resolution hierarchical analysis and mapping – is it truly a dead issue? (Bob)