

GlobalSoilMap and Soil Survey Uncertainty Workshop

100 Centennial Mall

Lincoln, NE

USDA-NRCS National Soil Survey Center

Room 397A

August 28-30, 2012

Optional (but highly recommended)

August 27, 2012 - 10:00-5:00-Introductory Short Course and Discussion on the Background of Uncertainty - Dr. Gerard Heuvelink, ISRIC World Soil Resources/Wagenigen University

This session will include the following topics

- What is error?
- What is uncertainty?
- What is accuracy?
- What are the differences between these three?
- How can uncertainty be represented statistically?
- How can the parameters of such statistical representations be estimated from observations and expert judgements?
- What about uncertainty of spatially distributed attributes? How does all this work out when applied to DSM products?

Discussion would include probability distributions, means, variances, correlations, semivariograms, etc. (basic knowledge of (geo) statistics is presumed).

Goal from this session-provide a common base so that same vocabulary, definitions and interpretations, commonly used methodologies are shared by all.

August 28, 2012

8:30-9:00 a.m. - Introduction, Overview, Expectations, logistics for the week - Jon Hempel

9:00-9:30 a.m. - Uncertainty Issues in Relation to GSM Soil Property Maps - Alex McBratney

9:30-10:30 a.m. - GlobalSoilMap Specifications for Uncertainty - Alex McBratney/Gerard Heuvelink/Linda Liburne/Brendan Malone, Dominique Arrouays, et. al.

Data presentations of specific case studies and discussion of possible directions for uncertainty calculation and potential solutions for preparing and reporting uncertainty estimates. Presenters should be prepared to provide in detail information about the data structure they will be using and proposed methodologies for producing data.

10:30-12:00 – Ross Searle, et. al-Australia

12:00-1:30 – Lunch

1:30-3:00 – Zamir Libohova-US

3:00-4:30 – Cristiano Ballabio-Eurasia

4:30-5:00 – Gerard Heuvelink, discussion and summary for the presentations

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8:30-10:00 – Nathan Odgers for Young Hong-South Korea

10:00-11:30 – Brendan Malone for Inakwu O.A. Odeh-Nigeria
11:30-1:00 – Lunch
1:00-2:30 – Markus Walsh-Africa
2:30-4:00 – Linda Liburne-New Zealand
3:30-5:00 – Glenn Lelyk-Canada
4:00-5:00 – Alex McBratney, discussion and summation for the presentations

August 30, 2012

8:30-9:30 – Alex McBratney
GlobalSoilmap version 2 specifications

From points to blocks

- Validating estimates of point estimates and their uncertainties
- Validating estimates of block estimates and their uncertainties.

9:30-10:00 – identify working groups to define and document background methodologies for each data type that is presented.

10:00-12:00 – working group breakout sessions

12:00-1:30 – Lunch

1:30-4:00 – working group presentations and final document plan for specifications

4:00-5:00 – Alex McBratney, Dominique Arrouays, Gerard Heuvelink

Wrap-up:

- Updating Standards and Specifications
- Follow-up
- how to proceed
- what's next
- assignments, who will do what