

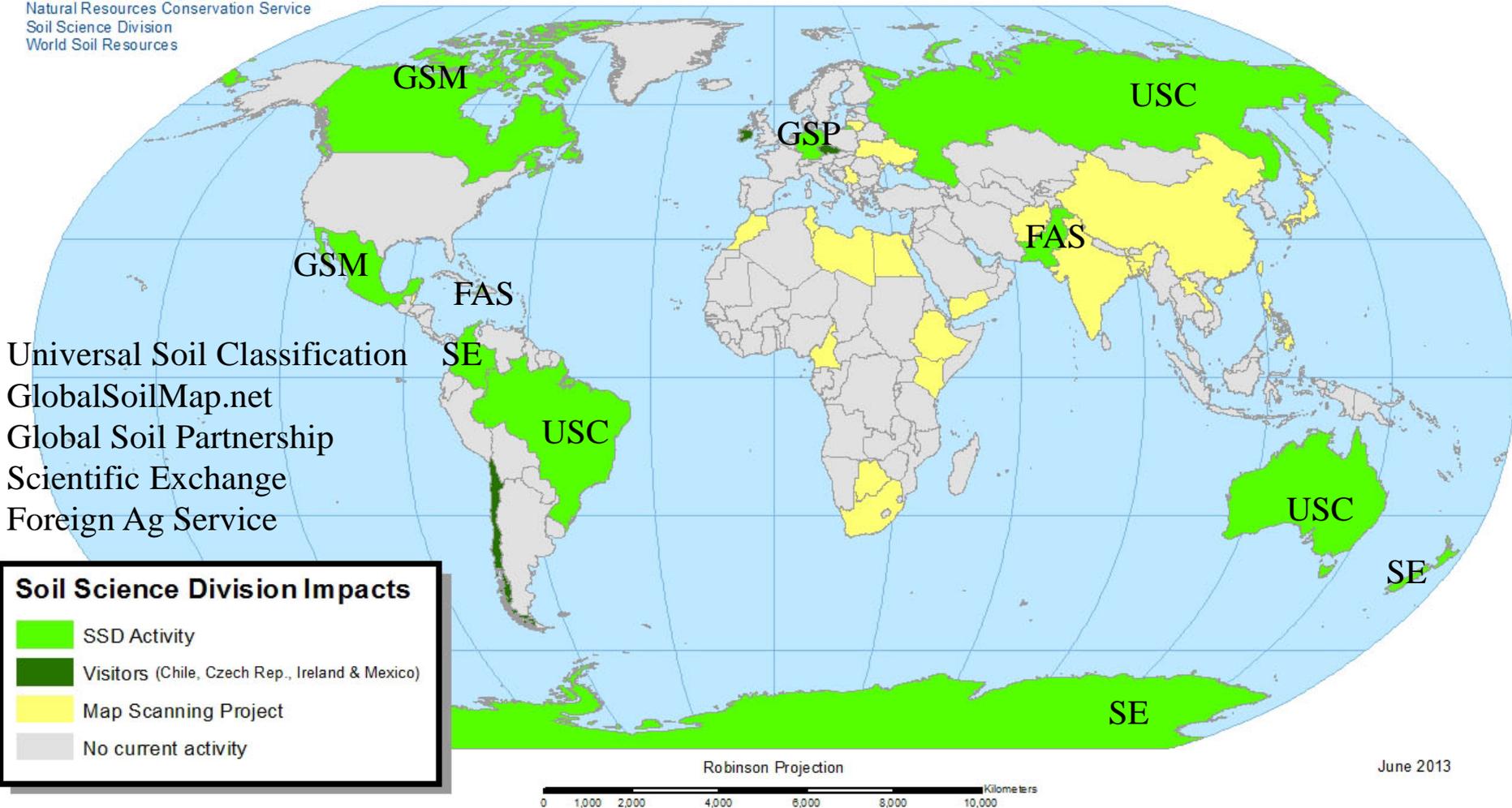
Soil Science Division World Soil Resources

Thomas Reinsch
National Cooperative Soil Survey
Conference

Annapolis, Maryland

June 16-20, 2013

Soil Science Division Impacts





JOINT RESEARCH CENTRE

European Soil Portal - Soil Data and Information Systems

European Commission > Joint Research Centre > Institute for Environment and Sustainability > Land Resource Management Unit

Soil Datasets > Maps > National Soil Maps (EuDASM)

NEW More Information about EuDASM: Panagos, P., Jones, A., Bosco, C., Senthil Kumar P.S. [European digital archive on soil maps \(EuDASM\)](#):

Digital Archive of Soil Maps - Continent Coverages: 5, Number of Maps: 384

[African continental coverage maps](#), 151

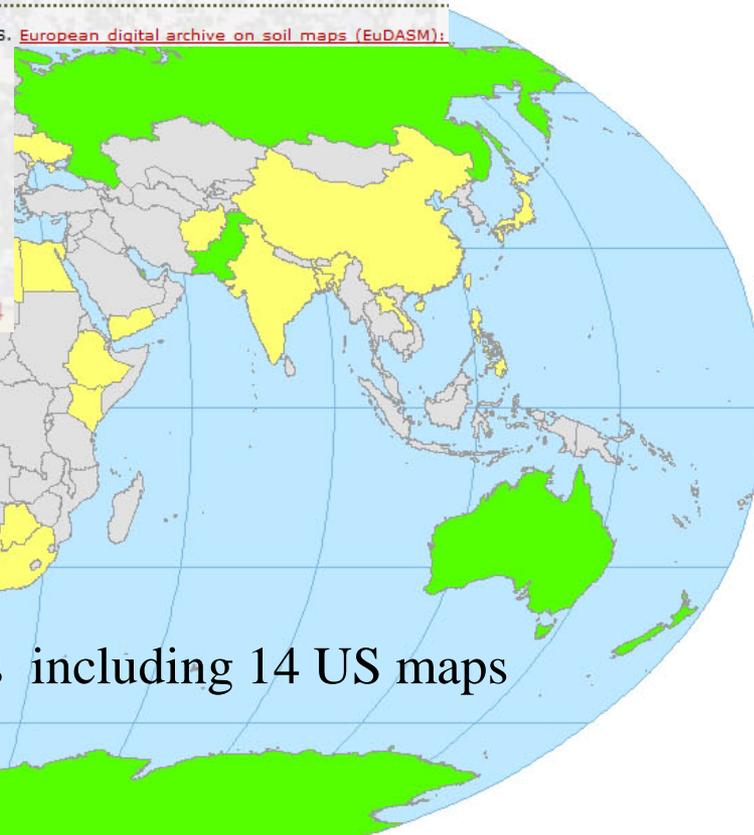
[Asian continental coverage maps](#), 67

[Central America - Continental Coverage](#), 4

[Europe - Continental coverage](#), 96

[South American - continental Coverage](#), 66

Digital Archive of Soil Maps - Number of Countries: 141, Number of Maps: 5394



Soil Science Division Impacts

- SSD Activity
- Visitors (Chile, Czech Rep., Ireland & Mexico)
- Map Scanning Project
- No current activity

Add 80 maps including 14 US maps

Robinson Projection



- Focus Areas

1. Participate as North America node of the GlobalSoilMap.net project
2. Collaborate on the Universal Soil Classification System with International Union of Soil Science
3. U.S. contribution to FAO Digital Soil Map of the World
4. Support USAID and FAS missions
5. Scientific exchange

Global Soil Map.net

About | Science Committee | Publications | Pictures

Specifications

0 – 5 cm
5 – 15 cm
15 – 30 cm
30 – 60 cm

A global consortium has been formed that aims to make a new digital soil map of the world using state-of-the-art and emerging technologies for soil mapping and predicting soil properties at fine resolution. This new global soil map will be supplemented by interpretation and functionality options that aim to assist better decisions in a range of global issues like food production and environmental degradation. This is an ongoing Working Group of the International Union of Soil Sciences (IUSS) for activities and discussion of science committee

Initiative of the Digital Soil Mapping Working Group of the International Union of Soil Sciences IUSS

100x100m grid of key soil properties



North America Node

Jonathan W. Hempel (*Node leader*)

: National Soil Survey Center, 100 Centennial Mall NE

James A. Thompson (*Scientific coordinator*)

: Geospatial Research Unit, West Virginia University,

Consortium led by ISRIC - World Soil Information
Supporting Institutions:

Partners and Representatives

- [Agri-Food Canada](#)
 - [Scott Smith](#)
- [Instituto Nacional de Estadística y Geografía \(INEGI\)](#)
 - [Eliseo Guerrero](#)
- [USDA-NRCS National Soil Survey Center](#)
 - [Jon Hempel](#)

Case Study Approach - Canada

- GlobalSoilMap.net: Canada-United States digital soil mapping case. Jon Hempel, Steve DeGloria, Walter Fraser, Xioyuan Geng, Amand Moore, Scott. Smith, James Thompson, Arnie Waddell, Tom D'Avello, pp. 13-16.

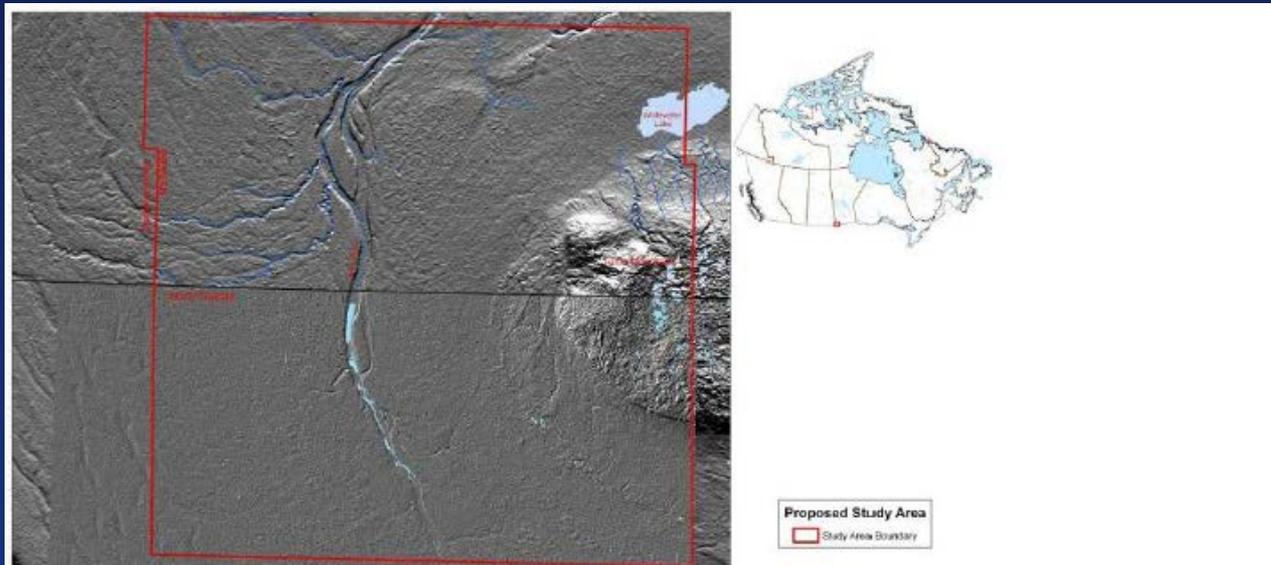
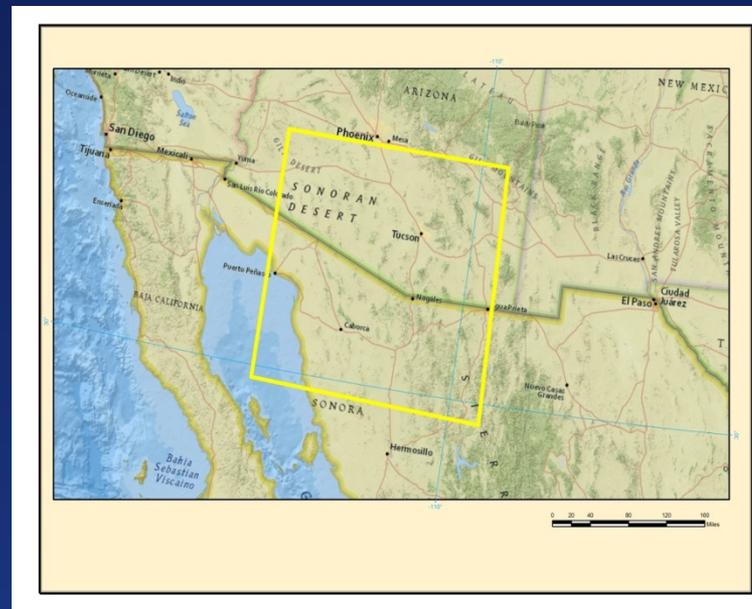


Figure 1. Study area location in southwestern Manitoba and north-central North Dakota within the northern glaciated plains region of North America (courtesy Soil Resources Group, AAFC).

Proposed Case Study Approach – Mexico

- Create soil property maps of soil depth, clay, sand, and silt for a Mexico and United States trans boundary pilot area using existing data and according to the globalsoilmap.net specifications within the bounded area.
- Database preparation
- Develop expertise
 - Spline functions
 - uncertainty



- *Global Soil Partnership*
 - *Food Security and Climate Change Adaptation and Mitigation*
 - *Rio +20 zero draft*
 - First Global Soil Week was held in Nov 2012
 - Terms of Reference Approved by FAO Council 5 December 2012
 - Plenary Assembly - First Session June 2013



GSP upcoming events

- Oct 2013 Second Global Soil Week
- Dec 5 World Soil Day
- 2015 Year of the Soil



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HOME

Soil Datasets

Data

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Atlases

SOIL ATLAS OF THE
NORTHERN
CIRCUMPOLAR
REGION



JRC
EUROPEAN COMMISSION
INTERNATIONAL 2007 - 2008
POLAR YEAR

EUROPEAN ATLAS OF
SOIL
BIODIVERSITY



SOIL ATLAS OF AFRICA

SOIL ATLAS OF
AFRICA



SOIL ATLAS OF
EUROPE

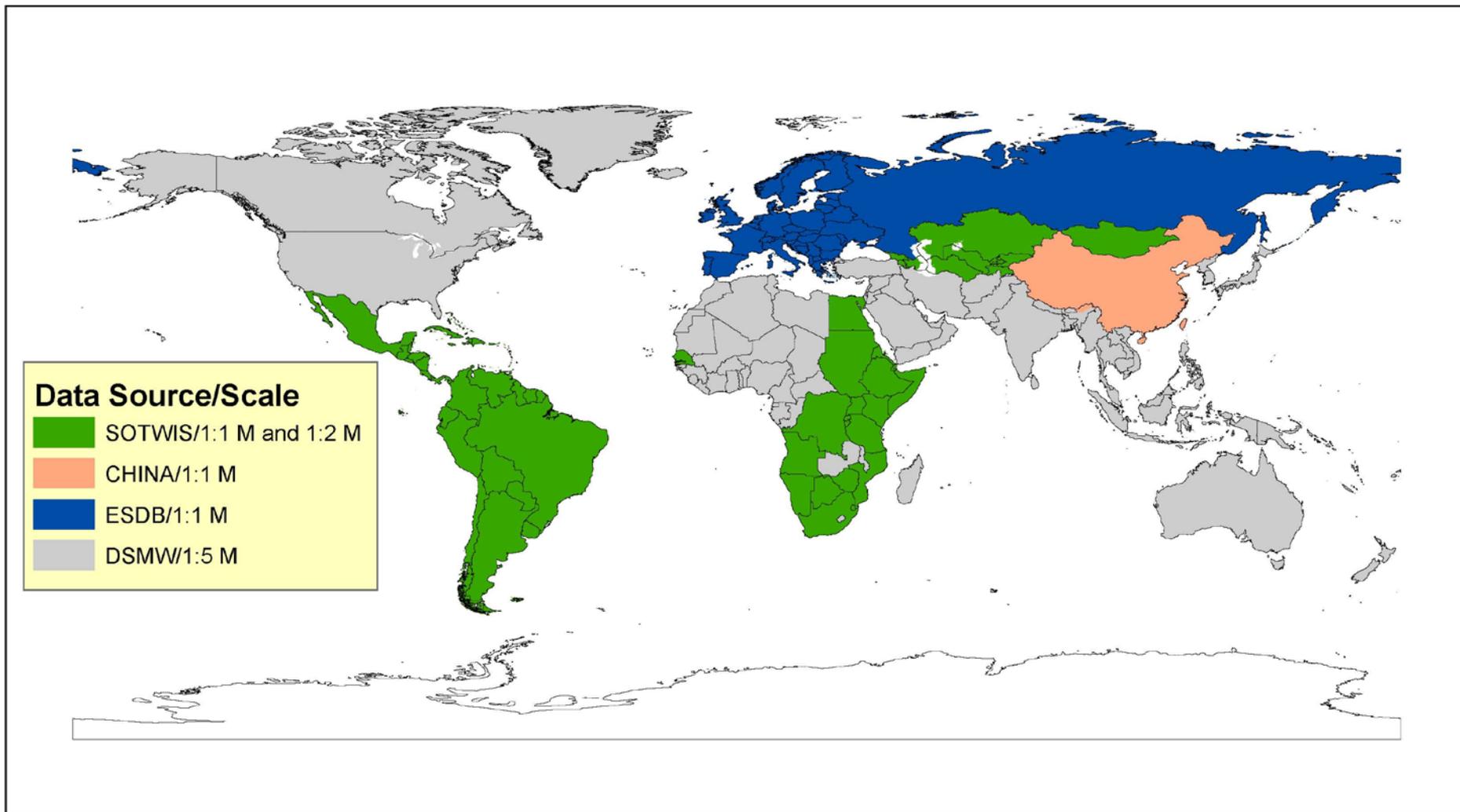


European Commission

SOIL ATLAS OF
LATIN AMERICA



Harmonized World Soil Database - Data Coverage by Source and Scale



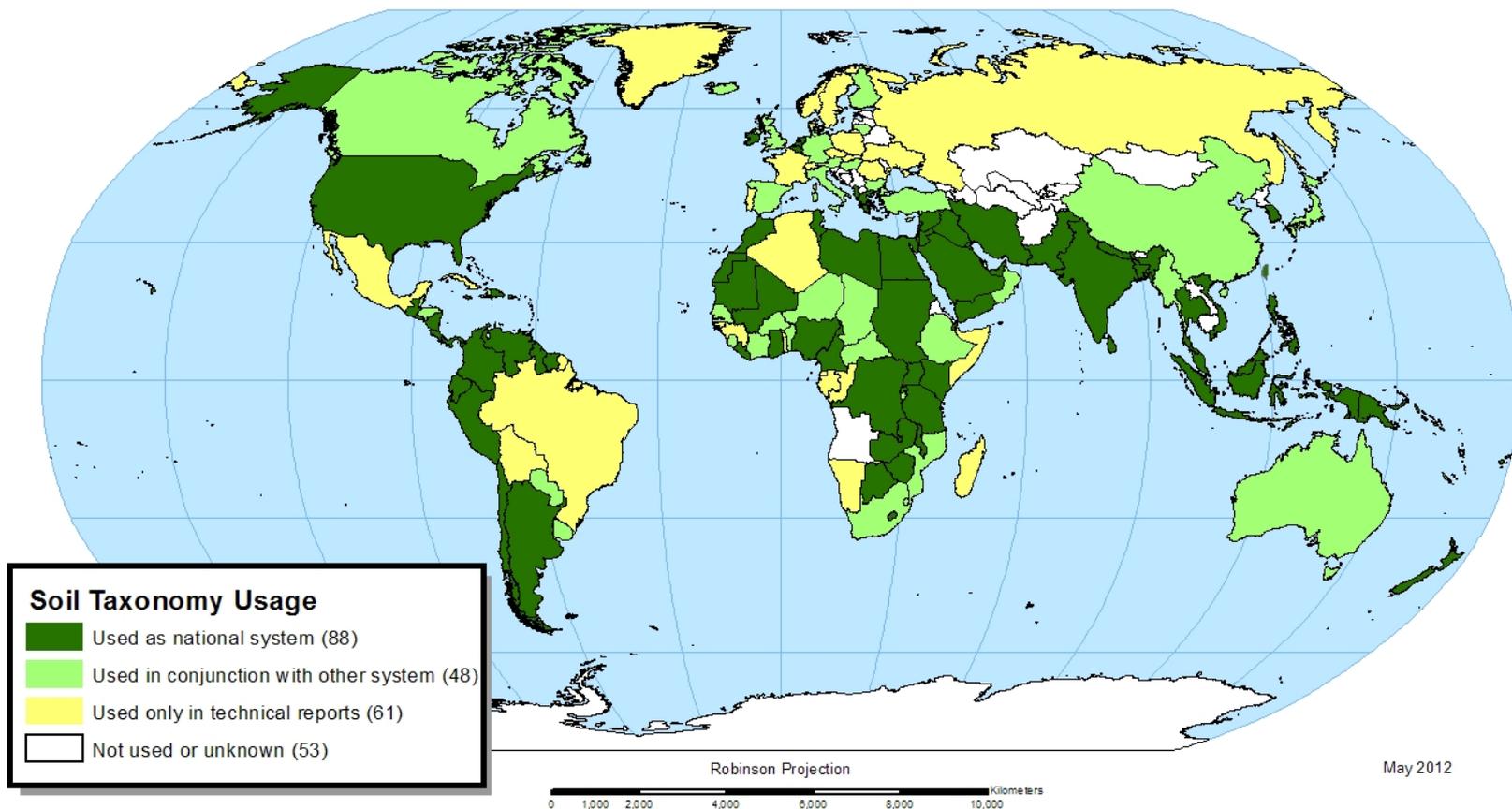
Delegation of Authority Final Rule: Soil Authority

- National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C 3291) authorizes the secretary to implement agricultural and related research, extension, and teaching activities with institutions and other persons throughout the world.
- Amend Title 7 of the Code of Federal Regulations

Delegation of Authority Final Rule: Soil Authority

- (xxiv) Cooperate and work with national and international institutions and other persons throughout the world in the performance of research, extension, and teaching activities related to soil surveys that promote and support the development of soil classification, soil mapping, and soil survey information systems that contribute to sustainable global agriculture (7 U.S.C. 3291(a)(1)-(5)).

World Soil Taxonomy Usage



Soil Science Division



Charles
Kome
Soil Scientist

Paul Reich
Geographer



Thomas Reinsch
National Leader