

A background image of a sunset over a hazy landscape. The sun is a bright yellow-white orb in the upper right, casting a warm orange and yellow glow across the sky. Below the horizon, there are dark, silhouetted hills and mountains, with some faint lights visible in the distance. The overall mood is serene and atmospheric.

# **FY2010 Soil Survey Division Priorities**

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Soil Survey Division

National State Soil Scientist's Workshop  
Columbia, South Carolina  
March 30, 2010

# Priorities - Initial Soil Mapping

- Complete First edition by September 30, 2011 on Non-Federal & Tribal Lands
- Complete the Waivers for Initial Projects
- Place all surveys on Web Soil Survey
- Move all activities to MLRA Update

# Priorities – Implement MLRA

- Establish Remaining Senior MO Soil Scientists
- Establish Remaining MLRA SSO's
- Staff MLRA SSO's with MLRA SS Leaders
- Staff MLRA SSO's with Soil, GIS & Vegetation Specialists
- Develop Long Range Plans, MLRA Project Plans and Annual Plans

# Priorities – Rapid Carbon

- Selection of 18 Soil Scientist (One for Each MO Region)
- Training on VNIR equip. & Sampling Procedures
- Selection of Plots w/History of Use & Management (Benchmark or Other Important Soils)
  - NRI (PSU Segments) or New sites w/o data
  - ARS (Gracenet Sites) or Other Federal Partner (BLM/FS)
  - University (Research Plots) or Other Studied Sites
- Goal is to have a statistically Valid Database for Base Stocks of Soil Carbon by September 30, 2011

# Priorities – Ecological Sites

## – Implement Ecological Site Inventories

- NSSC & S&T – develop Standards for:
  - Data Collection
  - ESD Development w/DSP & STM & Wildlife Habitat
  - Correlation Process
- Advertise & Select Positions
  - NSSC Coordination Team
  - MO Vegetation Data Quality Specialists
  - SSO Vegetation Inventory Specialists
- QA & QC for Existing and New ESD's

# Universal Soil Classification System

- Most Natural Sciences have
  - Common Classification System
    - Botany
    - Anthropology
    - Astronomy
- Natural Classification Systems are
  - Accepted & used Globally
  - “Soil Classification” is viewed as a National System yet to have international acceptance

# Universal Soil Classification System

- International Politics
  - Over last Century Personalities have “Mellowed”
  - Movement has been for more “Harmony”
  - Time is Ripe for Acceptance of
    - **Standard Soil Terminology**
    - **Linkages with current systems**

# Universal Soil Classification System

- Multi-Categoric Systems
  - First Step for A Global System
    - Develop Guidelines for number of “Categories”
    - A “Key” enables the selection of Taxa and
    - The Classification will consist of Categories

# Universal Soil Classification System

- Determine Standards for Terminology and Definitions
  - Common Data Dictionary
  - Common methods of Characterization & Soil Analysis
  - Common methods for Soil Descriptions
  - Scale of Observations **1:12,000 to 1:250,000**
  - A Focus on Use and Management should be the Ultimate Goal

# Universal Soil Classification System

- Build upon An Existing System
  - In United States “Soil Taxonomy” was built upon the 1938 soil classification system
  - The Soil Survey Bureau then the SCS then the NRCS became the Institutional Guardian
  - International Soil Scientists were Invited to contribute to a developing System
  - Individual Countries proposed Systems of their own and some have faded away into “Pedological History”
  - The FAO legend and WRB are also well known in most countries

# Universal Soil Classification System

- Considerations for a Universal System
  - Some Soil Classification Systems were:  
**“Theoretical Academic Exercises  
Developed by Individuals”**
  - Some Countries developed their own system:
    - Examples: Scotland, Australian, French, China, Russia, South Africa, Brazil, Argentina, Germany, Canada, United States, etc;

# Universal Soil Classification System

- Multi-Categoric Systems
  - WRB (ISRIC-Holland)
  - FAO (No Longer Maintained)
    - “Soil map of the World”
      - Three levels (Very Apt for Scale > 1:5,000,000)
      - There are Many Difficulties for National Mapping

# Universal Soil Classification System

- Considerations for a Universal System
  - Countries that have adopted “Soil Taxonomy”
    - Examples: India, Thailand, Columbia, United States, etc;
  - “Soil Taxonomy” already translated into multiple Languages
    - Examples: Dutch-ISRIC, Indonesia, French, British, Spanish, Arabic, etc;

# Universal Soil Classification System

- Considerations for a Universal System
    - Making and Interpreting Soil Surveys
      - Subtitle of Soil Taxonomy
    - Linkage to a National Soil Survey Program
      - Important Tool for Many to Buy into the System
- “National Cooperative Soil Survey”**

# Universal Soil Classification System

- Multi-Categoric Systems
  - **Soil Taxonomy**
    - Six levels or classes
      1. Series
      2. Family
      3. Sub Group
      4. Great Group
      5. Sub Order
      6. Order
    - 1960 – 7<sup>th</sup> Approximation
    - 1975 – 1<sup>st</sup> Edition
    - 1999 – 2<sup>nd</sup> Edition
    - 2010 – 11<sup>th</sup> Keys

# Universal Soil Classification System

- **Dr. Luca Montanarella, JRC, EC**
  - “Would like to make a joint Universal soil classification that would be adopted by stakeholders”
  - “We have a new common vision between the United States and the European Union”

# Universal Soil Classification System

- With Experience and Enthusiasm that  
“Exists Today”
  - A Universal Soil Classification System is Feasible
  - Will have International Acceptance
- The Generation that Developed the Current Systems are Leaving thru Retirements
- Today the Opportunity Arises for
  - The Current Generation to Collaborate and  
***“Realize this Dream”***

# Universal Soil Classification System

- International Committees formed:
  - 1976 Low Activity Clays – (Alfisols, Ultisols, Oxisols)
  - 1978 Oxisol Order
  - 1978 Soil Moisture Regimes
  - 1980 Andisol Order
  - 1980 Aridisol Order
  - 1981 Vertisol Order
  - 1982 Aquic Moisture Regime
  - 1982 Spodosol Order
  - Their Intent was to:
    - Create a **Universally Accepted System**

# Universal Soil Classification System

- **Next Steps**

- **2010 World Congress in Brisbane, Australia**

- **A decision “To Proceed” can be made**

- **Form an International Committee for:**

- “Universal Soil Classification System”**

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**Thank**

**YOU**

**for**

**YOUR**

**ATTENTION**