RENR Visiting Speaker Seminar

Renewing and Delivering Spatially Explicit Soils Data in Western Kenya

Speaker: Dr. Darrell G. Schulze, Professor of Soil Science, Agronomy Department, Purdue University

Date: Friday, November 16, 2018

Time: 3:00 - 4:00 pm

Location: 150 South Academic Building

Abstract:

Many developing countries have little or no soil survey information to guide planning or to provide information for agricultural development. Kenya, however, is an exception and has soil survey products produced in the 1970s and 80s that are lying idle and largely unused as paper maps and reports. I will describe three projects in which we are bringing some of this "legacy soil data" back to life and using it as a starting point for improved maps created using modern digital soil mapping techniques. First, we have made the Exploratory Soil Map of Kenya 1980 available online in Soil Explorer (SoilExplorer.net or Soil Explorer app for Apple iPad), allowing easy access to the map and the information in the descriptive legend. Second, for the Uasin Gishu Plateau around Eldoret, we have created digital soil type, effective soil depth, soil moisture storage capacity, and soil drainage class maps at 30 m resolution using available legacy data and data from our own field work. Finally, interpretation of the information available in the Reconnaissance Soil Survey of the Busia Area has allowed us to produce ten land quality maps for the area showing the ability of land to perform specific agronomic functions, and nineteen different crop suitability maps that were not available originally. Tabular and narrative data in the report provides inputs for ongoing efforts to create higher resolution maps using digital soil mapping techniques.