RECOMMENDATIONS OF THE FIRST INTERNATIONAL WORKSHOP ON EVALUATION AND SUSTAINABLE MANAGEMENT OF SOIL CARBON SEQUESTRATION IN ASIAN COUNTRIES

Bogor, Indonesia, September 28-29, 2010

Key representatives invited by FFTC from a total of eight countries in East and Southeastern Asia (ESA) under the stewardship of the United States of America deliberated over a period of two days on the best methods to sequester and management related issues with regards to soil organic carbon in soils from their respective countries. The following recommendations ensured from the discussions:

- To develop reliable Soil Carbon databases at national levels
    - The need to use same units for communication among SEA countries was recognized as one of highest order of importance
    - Care should be exercised when dealing with the SOC distribution within the upper 30 cm for different soil Orders or other forms of groupings
    - Bulk density data has been recognized as an important property that needs to be present in soil data bases
    - Handling of soil properties from Legacy databases has to be done with minimal compromises on quality of the data
        - All countries in ESA to develop a common understanding on how to deal with special cases
- To monitor the effects of the various types of land use on soil C stocks
    - Focus is drawn on the effects of rice cropping systems in Asia on SOC stocks
    - There is a pressing need to collect information on soil carbon sequestration rates in different land uses or different soil groups
- To obtain a better understanding of the soil carbon dynamics under various land management practices
    - More data is needed on the emission of soil gasses under various management practices
    - Comprehensive data on
        - soil erosion
        - soil degradation, and
        - soil pollution

      is needed urgently
- To understand and utilize reliable models for accurate prediction of soil carbon distribution spatially and temporally
    - More detailed prediction in upper 30 cm depth by models is needed. This has to be complemented by ground truth where possible
    - Using GIS techniques for soil mapping and homogenizing boundaries of polygons
    - Using remote sensing databases to cover areas where information is difficult to procure
    - Special workshops can be organized for participants who wish to upgrade their skills in these areas of expertise
    - Using geostatistics models where possible to enhance the production of soil property databases
- To explore and implement site-specific strategies that will enhance soil C sequestration
    - Special attention was drawn to afforestration/reforestration/agroforestration techniques on a site-specific basis
    - Soil conservation/restoration/remediation techniques for soils at various stages of degradation is considered as needed urgently
- There is a need for various countries in ESA to combine their efforts to develop common research proposals that can be submitted to funding agencies such as the GlobalSoilMap.net project. This is to be treated with the highest priority.
- To impress upon National Policy Makers the significance and benefits of promoting the soil carbon stocks concepts in individual countries from a social, cultural and economic basis
    - This would include developing national-level capacity building programs for the general public, specifically the female gender, on issues pertaining to
        - Soil conservation
        - Agroforestration
        - Soil carbon changes/budget
        - Sustainable soil management
- The participants also saw the need to meet at least once a year to exchange information on critical soil properties. This also necessitates the need for the meeting venue to be located at various countries in SEA on a rotational basis.

In conclusion, the participants remained positive that the workshop achieved its mandates and many participants gained greater insight into possible ways of solving problems that were endemic to their countries.