Charter
Scientific Steering Group
National Soil Carbon Network

The Mission of the National Soil Carbon Network (NSCN) is *to improve the understanding of carbon dynamics in soils across the United States and internationally — including the spatial and temporal distribution and stability of carbon forms — through a national soil carbon network.*

INTRODUCTION

The National Soil Carbon Network (NSCN) is a multi-component, science-based network that will assemble databases, identify and fill gaps in data coverage, and through modeling and experimentation provide national spatially explicit assessments of soil carbon turnover and vulnerability. The magnitude of this effort necessitates an exceptional level of scientific cooperation. The formal network will provide (1) a framework for common scientific protocols and collaborative decision support tools, (2) shared scientific and logistical infrastructure, (3) products beneficial to stakeholders and scientists, (4) shared data and recognition, and (5) opportunities for synergistic interactions.

Why soil carbon? Soil is a vital national resource and soil carbon is an integral component of soil structure and function. Soil is the largest terrestrial reservoir of carbon, containing an estimated 1550 Pg of organic carbon in the top meter alone. Soil contains twice as much carbon as the atmosphere (800 Pg in 2007), and three times that in global vegetation (~500 Pg). Although the global stock of soil carbon is immense, it is not static: about 120 Pg of carbon moves annually between soil and the carbon reservoirs in the atmosphere and vegetation. Soil carbon may thus play a singular but uncertain role in climate forcing during the coming decades, with significant net losses contributing to positive feedbacks, or significant sequestration helping to mitigate climate forcing. Though important, climate regulation is not the only service provided by soil carbon. In fact, carbon held in soils provides a number of essential other services (i.e., ecosystem services) that either directly or indirectly support human well-being. For example, carbon held in soils plays a vital role in the improvement soil tilth, retention and supply of plant nutrients, isolation and decomposition of wastes and toxic substances, production of food and fiber, water retention and supply, flood protection, reduction of wind and water erosion, and maintenance of biodiversity. The loss of soil carbon or disruption of its cycling may impair the ecosystem services it provides, with consequent negative impacts on society.

GOALS OF THE NSCN:

1) Coordinate soil carbon observation, archiving, experimentation, and modeling.
2) Understand the relationship between soil carbon and ecosystem services.
3) Forecast soil carbon vulnerability under changing climate, land use, and other disturbance.
4) Contribute to organizing and communicating this information for land managers, modelers, and policy makers.

ROLE OF NSCN SCIENTIFIC STEERING GROUP (SSG)

The NSCN is self-chartered and is the result of the interest from research scientists associated with a variety of agencies and institutions. The NSCN SSG develops the scientific questions and structure of this network and provides its scientific leadership.

The responsibilities of the NSCN SSG are to:

- Provide scientific leadership and guide the direction of the NSCN

- Promote and organize workshops, synthesis activities, meetings and discussions that support the NSCN
- Define and strengthen the infrastructure of NSCN, through the use of mechanisms such as interagency agreements and memoranda of understanding
- Develop protocols for the soil carbon database, the soil archive, and the data sharing
- Guide the development of metadata standards and selection of appropriate methods for studies contributing to the NSCN
- Develop and maintain the content of the NSCN website
- Review and approve proposals that seek subsidy or other support from the NSCN
- Provide data in a useable form to strengthen support tools that inform decision and policy regarding soil carbon
- Communicate on the progress of the NSCN to the general public, stakeholders, scientific community, and leaders of key agencies and institutions

MEMBERSHIP

General membership in the NSCN is open to all scientists and users committed to documenting, evaluating, and sharing information relating to soil carbon dynamics in the United States and internationally. Members have access to NSCN databases and may apply for access to shared infrastructure. Membership will result from contributions to the network, such as sharing of data and information, laboratory and field-oriented infrastructure, soil archives, and the development of network synthesis products. Specific criteria for membership and guidelines for data and information sharing will be drafted by the NSCN SSG and posted on the web site for public comment before ratification and finalization by the SSG.

The NSCN Scientific Steering Group is composed primarily of research scientists active in the study of soil carbon cycling and includes scientists from academic, governmental, and private institutions. The role of the SSG is to guide the NSCN in meeting its mission and goals through a focused program that maintains the support of the stakeholder community through effective communication. Information on NSCN activities will be shared with all participating network members, agency representatives, and science panels involved in carbon cycle and ecosystem science. SSG membership and chair are based on staggered 3-year rotations. Positions are replaced by nomination and election by SSG members. One year prior to the expiration of the NSCN SSG Chair's term, a chair designee will be nominated and selected by majority vote. There are no term limits on SSG memberships or chairmanship.

NSCN SSG MEETINGS

The Scientific Steering Group of NSCN will meet annually to review policies and progress, plan activities, and set priorities. Notes from annual meetings will be posted to the NSCN website. Programmatic decisions will require majority vote by the SSG. Up to two invited guests may attend each meeting.

Based on SSG decisions, smaller groups of the SSG and NSCN members may meet more frequently to further progress of specific tasks. Actions or Motions raised by a sub-group outside areas of pre-approval will be communicated to the SSG via email, website, or conference call for approval.

PROCESS FOR AMENDING THIS CHARTER

Amendments to this charter may be proposed by NSCN general members and reviewed by SSG members for implementation once the SSG achieves a consensus vote on the changes.