

**Scientific and Technical Advisory Panel of the Global Environment Facility
(STAP/GEF)
Special Session on Sustainable Land Management Delivering Multiple Benefits**

10 October 2013

This STAP special session focuses on various aspects of Sustainable Land Management (SLM) and management of land degradation. SLM may deliver global environmental benefits such as reduction in soil erosion, more efficient nutrient cycling, water conservation and protection to vulnerable ecosystems. Furthermore, SLM processes and practices not only have the capability to benefit agricultural productivity and soil health – aspects directly associated with the Land Degradation (LD) focal area of the GEF – but also have the potential to deliver multiple co-benefits. The special session is designed to highlight these vital linkages between SLM/LD and aspects such as biodiversity conservation, mitigation of climate change, protection of water bodies and, more widely, human livelihoods and well-being. The objective is to show the scientific evidence for the benefits of investing in SLM and why the GEF is now increasingly moving to multi-focal area projects. A secondary objective is to encourage a broader perspective by GEF agencies towards integrated approaches of soil and land management that specifically monitor key indicators of the co-benefits to be derived, including food security and water provision.

Three themes are covered that exemplify important linkages between SLM and multiple benefits for global agendas:

- (1) Soil biodiversity – the biodiversity agenda
- (2) Carbon sequestration – the climate change agenda
- (3) Food security and ecosystem services – the land degradation agenda

Session 1 – Soil, Biodiversity, and Global Environmental Benefits

9:15 – 10:00 a.m.

Dr. Diana Wall

Colorado State University & 2013 Tyler Prize Laureate

Soil organisms are responsible for sustaining the soil's capacity to produce food – presently and in the decades to come. They also are critical to nutrient cycling, soil structure stability, and for building soil resilience to anthropogenic disturbances, among a number of other roles. This session will highlight the functions of soil biodiversity relating to the supply of vital ecosystem services that underpin rural livelihoods, support the well-being of poor societies reliant on the soil and deliver global environmental benefits. In particular, the discussions will focus on the role of soil biodiversity within the context of global environmental change – meeting the challenges of land degradation and (climate change) while attempting to sustain the productivity of natural and managed landscapes. What role can the GEF have in integrating further the scientific knowledge on soil biodiversity and the services it provides in projects and at the policy level?

10:00 – 10:30 a.m.: Discussion

10:30 – 10:45 a.m.: Break

Session 2 – Soil organic carbon management

10:45 – 11:15 a.m.

Dr. Henry Janzen

Agriculture and Agri-Food Canada

The vast and dynamic reserves of carbon held in soils are a prominent component of the global carbon cycle. Preserving or replenishing these carbon stocks not only helps mitigate atmospheric CO₂ buildup, but also advances sustainable agriculture by favoring productivity, nutrient recycling and other ecosystem services. In turn, these aspects have potential for enhancing food security and biodiversity conservation. Yet, the role and importance of soil organic carbon management is often overlooked. This session features the role that the GEF can have in encouraging soil organic carbon management as a means of generating global environmental outcomes and food security. The discussions will emphasize bridging science, policy and development, as well as embracing initiatives between the multilateral environmental agreements to identify opportunities for the GEF on soil organic carbon management.

11:15 – 11:45 a.m.: Discussion

Session 3 – Food Security

11:45 – 12:15 p.m.

Dr. Cheryl Palm

Earth Institute, Columbia University

This session will examine the interactions between agricultural intensification and environmental sustainability: an analysis of the trade offs and complementarities between sustainable agriculture and global benefits (biodiversity conservation and climate change mitigation). The discussions will focus on guidance for the GEF on how to minimize potential negative impacts on ecosystem services while encouraging practices that contribute to food security and global environmental benefits.

12:15 – 12:45 p.m.: Discussion

12:45 – 2:00 p.m.: Lunch

