Concept Note and Program Virtual Workshop

Scaling up Climate Actions in Asia Pacific

Estimating carbon stock changes from soil for climate-resilient and sustainable rice production systems

Wednesday and Thursday, June 29 & June 30 15:00 – 17:00 Bangkok time

Registration link;

https://fao.zoom.us/webinar/register/WN_uoA0sRbkRHu98j1zBFfNFQ

Language: English

Background

Climate resilient agrifood systems is a key for strengthening food security and nutrition in Asia and the Pacific region.

Soils play a key role in food production and climate change adaptation and mitigation. Soil conservation benefits efforts towards achieving biodiversity targets, land degradation neutrality objectives, and the Paris Agreement's long-term temperature goals through carbon sequestration.

However, despite the growing global support for capacity building to improve soil management, estimation and reporting of greenhouse gas emissions and removals from mineral soils in national GHG inventories is still very limited, even though the IPCC Tier 1 methodology is available.

FAO and the Institute for Global Environmental Strategies (IGES) jointly conducted a survey in 2021 to understand the reasons for these reporting difficulties, with view to provide targeted support toward filling developing countries' reporting gaps. The findings of the survey suggest that **improved data collection** coupled with enhanced **collaboration between Greenhouse gas inventory experts and soil scientists are key** for estimating carbon stock change (CSC) in soils.

Recognizing that this is a challenge in some countries, this **workshop will provide guidance and serve as a gateway for capacity building toward estimation of soil CSC in countries in need**. This would help countries **fulfil their Enhanced Transparency Framework reporting requirements, provide insights for developing targeted policies to encourage ambitious nationally determined contributions, boost capacity to track the results of climate policy actions**, and ultimately to scale up **good soil management for climate-resilient and sustainable agrifood systems** in the region.

Organizer:

> **FAO**, with financial support from the Ministry of Agriculture, Forestry and Fisheries of Japan and in partnership with the ASEAN Climate Resilience Network, the Global Soil Partnership and the Institute for Global Environmental Strategies.

Target audience: experts directly, indirectly or potentially involved in preparing national greenhouse gas inventories, soil scientists, anyone interested to learn or discuss about estimating soil carbon in paddy soils.

Objectives:

- Participants learn the benefits and opportunities of estimating soil carbon stock change (CSC), and how it can be used to track the policy implementation (NDCs).
- Highlight the dynamics of carbon in the rice paddy system, and potential synergies and trade-offs with greenhouse gas emissions (methane and nitrous oxide).
- Participants learn about the kind of data necessary as the first step, and available tools as well as opportunities of support to supplement lack of data.
- Share experiences including major challenges related to estimating CSC as well as overall measurement, reporting and verification (MRV) of emissions from paddy soils.
- Discuss and identify "ways forward" for countries to estimate and report on carbon stock change.

Program Day 1 Wed June 29, 15:00-17:00 in Bangkok time

(1700-1900 Tokyo, 1500-1700 Bangkok, 1000-1200 Roma)

- **Visualization of soil C and GHG emission from soil -** Dr. Yasu Shirato, NARO Japan
- **Country experience; Indonesia -** Dr. Yiyi Sulaiman, Senior Soil Researcher, The National Research and Innovation Agency, the Republic of Indonesia
- **Understanding countries' status and challenges for estimating carbon stock changes in mineral soil in national GHG inventories -** Chisa Umemiya, Institute of Global Environmental Strategies
- **The role of land representation in preparing the national GHG inventory for the LULUCF sector under the Enhanced Transparency Framework of the Paris Agreement -** Iordanis Tzamtzis, FAO

Program Day 2 Thu 30 June 15:00-17:00, Bangkok time

(1700-1900 Tokyo, 1500-1700 Bangkok, 1000-1200 Roma)

- **Analysis of new and updated NDCs in Asia -** Lapo Roffredi, FAO
- **Basics of Inventories and MRV in Agriculture -** Mirella Salvatore, FAO
- **Unlocking the potential of soil organic carbon -** Carolina Cardoso, Global Soil Partnership
- **Scaling up low methane rice production through digital measurement, reporting, and verification (MRV) tools in Thailand and Pakistan -** Dr. Marci Baranski, Programme Management Officer, Asia & Pacific Office, UN Environment Programme (UNEP)