



RESEARCH PROGRAM ON
Climate Change,
Agriculture and
Food Security



THE WORLD BANK

Enhancing investment in soil health and carbon storage: Frontiers for linking finance and carbon accounting

Background

Enhancing soil health can contribute to improve agricultural productivity as well as soil carbon sequestration. UNFCCC's Koronivia Joint Work on Agriculture, Sustainable Development Goal 15 and the Land Degradation Neutrality framework demonstrate the increasing attention of policy makers to the importance of soil carbon for land productivity and food security. In addition to that, the 4 per 1000 Initiative has been promoting a global partnership intending to facilitate efforts across multiple stakeholders to promote action at all levels to increase soil carbon stocks globally.

Despite the broad international attention, a large gap remains between the potential of soil carbon sequestration and implementation of practices on the ground. As the investment community seeks to improve its climate impacts, many organizations are now asking how to best support implementation of those practices. Diverse opportunities for public and private finance exist and are emerging. For example, the UNCCD set up the [Land Degradation Neutrality \(LDN\) Fund](#) as an "impact investment fund blending resources from the public, private and philanthropic sectors in support of achieving LDN through sustainable land management and land restoration projects undertaken by the private sector worldwide".

One major constraint has been the need of transparent, accurate, consistent and comparable methods for measuring, reporting and verifying (MRV) changes in soil carbon stocks, notably through the use of new technologies as well as to enable standardized verification protocols at low transaction costs. Promising approaches combine pragmatic and user-friendly tools with site-specific modelling, and making use of geospatial data sources and blockchain technology.

Purpose of the workshop

The purpose of this workshop is to support investment-oriented actions promoting soil health and carbon storage by improving the accounting of soil carbon sequestration. Participants will examine opportunities for action using novel methods and frontier technologies that enable linking technical practices and finance and policy for accurate and cost-efficient MRV systems for soil carbon storage. The workshop will also examine how improved MRV can support three priority lines for action ([Vermeulen, et al. 2019](#)): policy, business development and value for farmers to promote scaling up of investment in soil health and carbon storage.

The event will bring together MDBs and other funding agencies' representatives, implementing agencies, developers/providers of tools and project standards, as well as government representatives to share success experiences and develop solution pathways for enhanced investment and SOC accounting.

Facilitation and reporting

CCAFS, The Nature Conservancy, 4 per 1000 Executive Secretariat and The World Bank

Date

30th March 2020

Place

World Bank
1225 Connecticut Ave, N.W., Washington, DC 20036
Room C 8 150



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Program: Enhancing investment in soil health and carbon storage: Frontiers for linking finance and carbon accounting - 30th March 2020, World Bank, 1225 Connecticut Ave, N.W., Washington, DC

8:30 – 8:40hs	Introduction and welcome – Cornelia Rumpel, 4per1000 Initiative
Panel 1. Perspectives on investments and MRV models supporting Soil Carbon Sequestration	
8:40 – 8:55hs	Investing in soil carbon sequestration: overview on current and potential sources – Deborah Bossio, The Nature Conservancy
8:55 – 9:25hs	Investment needs: key institutional and technical arrangements for scale up: <ul style="list-style-type: none"> ○ Opportunity: Linking public support to agricultural producers to soil health - Martien van Nieuwkoop, World Bank ○ Technical accounting: essential aspects on MRVs and challenges (soil scientist) – Keith Paustian, Colorado University
9:25 – 9:40hs	Discussion (Q&A)
9:40– 10:00hs	Coffee-Break
Panel 2. Emerging experiences: exciting cases linking investment and accounting	
10:00 – 10:05hs	Introduction – Lini Wollenberg, CCAFS
10:05 – 10:15hs	Carbon Farming Initiative - Australian Government fund to credit, purchase and safeguard emissions reductions, including soil carbon credits eligible under a national target in line with the Paris Agreement. Beverley Henry, Institute for Future Environments-QUT
10:15 – 10:25hs	Ecosystem Services Market Consortium (ESMC) - leading US and international NGO's, companies, and experts. ESMC quantifies and generates assets and credits for improved soil carbon, net GHG emissions and water quantity. Debbie Reed, Executive Director
10:25 – 10:35hs	Verra – development and management of standards for sustainable development and climate action goals. Elijah Umek, Program Officer
10:35 – 10:45hs	Dagan, Inc – estimating soil carbon sequestration using remote sensing. William Salas, President of Dagan, Inc
10:45 – 10:55hs	Nori – blockchain-based two-sided marketplace to measure, verify and trade soil carbon sequestration. Aldyen Donnelly, Director of Carbon Economics
10:55 – 11:25hs	Discussion (Q&A)
Panel 3. Q&A - Possibilities, pros and cons and priorities for linking finance and carbon accounting, Ciro Costa Junior, CCAFS.	
11:25 – 12:10hs	<ol style="list-style-type: none"> 1. Best practice and indicators for enhancing soil carbon (Erick Fernandes, World Bank). 2. Modeling and next generation calculators (Keith Paustian, Colorado University) 3. Remote sensing frontiers (William Salas, Dagan, Inc) 4. Sensor-based methods, precision and digital agriculture (Henri Hekman, Soil Cares) 5. The role of public support (Beverley Henry, Institute for Future Environments-QUT) 6. Harnessing big data and machine learning? (Aldyen Donnelly - Nori) 7. Unlocking carbon markets through research and entrepreneurial community efforts (Dan Harburg, Indigo) 8. Building involvement and ambition of the private sector (Debbie Reed, ESMC)
12:10 – 12:20hs	Closing remarks – Nkulumo Zinyengere, World Bank
12:20 – 14:00hs	Lunch and networking
14:00 – 17:00hs	Mini-hackathon: Participants will address real-world MRV case studies from World Bank and TNC, and provide each organization with valuable implementation guidance.