



Food and Agriculture
Organization of the
United Nations

Recarbonization of global agricultural soils: RECSOIL

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Global Soil Partnership -GSP

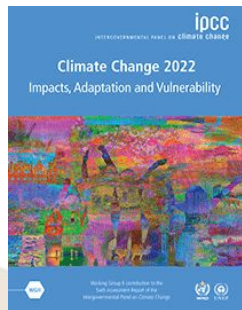
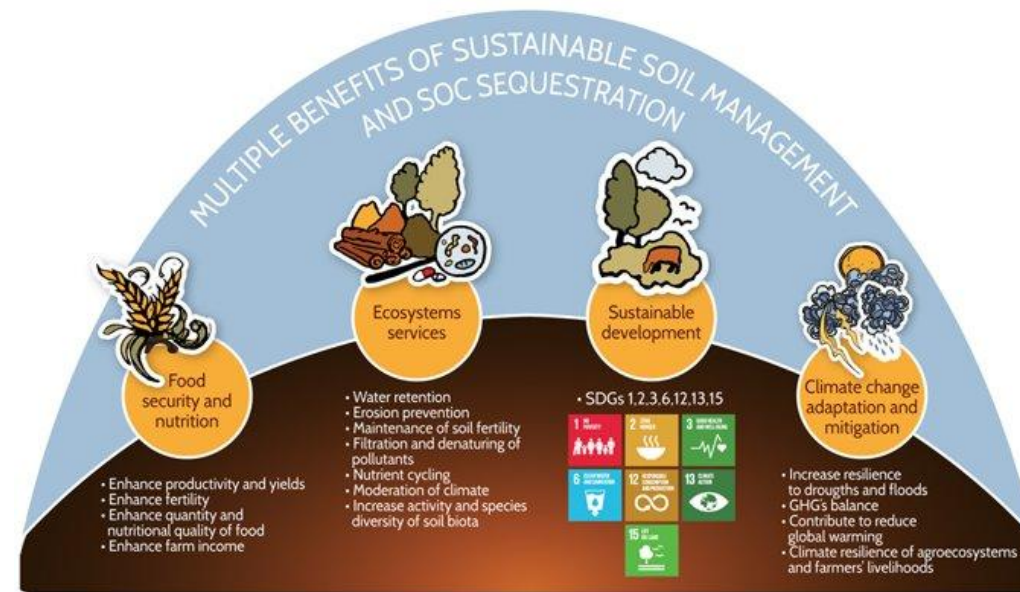
7th NENA Soil
Partnership
Meeting

22-23 March 2022



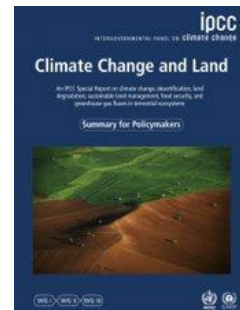
Global Challenges

Healthy SOIL: our hidden ally!



Starting today, every action, every decision matters

IPCC AR6 Climate Change 2022, WGII, on 28th of Feb. 2022



“The increase of soil organic carbon (SOC) stocks is one of the most cost-effective options for the implementation of climate change adaptation and mitigation strategies at National level”

IPCC Special Report AR5, 2019

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RECARBONIZATION OF GLOBAL SOILS

RECSOIL is an innovative initiative with the aim to scale-up the implementation of **sustainable soil management** practices (**SOC-centered**) while helping to decarbonize the economy and fostering sustainable development.

- To provide technical support and improve the national and regional capacities on sustainable soil management
- To catalyse financial investment to support farmers, namely *smallholders* farmers, to engage in the transition to a more sustainable food system production through the implementation of sustainable soil management (SOC-centered)

Goals:

- Stop further losses of SOC, maintain and increase SOC stocks*
- Increase farmers income and recognize farmers' contributions to a better environment*
- Enhance food security and nutritional value*
- Support the provision of ecosystems services*

RECSOIL Framework in 6 Steps



Step 1 – Identification of priority areas at regional level: supported by GSOCmap, GSOCseq (optional GloSIS maps) coupled with National Soil data information

Step 2 – Identification of Farmer Associations and stakeholders: description of roles and responsibilities

Step 3 – RECSOIL-Terms of Agreement (ToR), bilateral and multilateral agreements with Farmers Associations, Technical and Extension services/advisers

Step 4 – Commencement of capacity building: Soil Doctors Program, technical manual on MRV Protocols (SSM and SOC) and laboratory capacity development: GLOSOLAN training sessions

**Financial incentives, 1st payment: Implementation-Based approach: based on total costs of SSM implementation, X% total cost (annual fees over a period of 4 years, 1st at time 0)*


Step 5 – Implementation of good practices, SSM: supported by VGSSM + Fertilizer Code + RECSOIL Technical Manual + other GSP tools

Step 6 – MRVs: **Green Path**, SSM Protocol and **C-Market Path**, MRV Protocol and support from GLOSOLAN for laboratory analysis

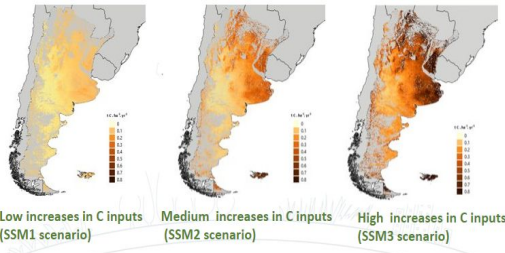
2nd payment: Result-Based approach: , **Green Path:** compliance with SSM (4 years after implementation) and **C-Market:** t CO₂e / year

REC SOIL Toolbox

Feasibility Assessment



Global Soil Organic Carbon Sequestration Potential Map
Projected Soil organic carbon annual increase for 2020-2040 after the adoption of sustainable soil management practices (SSM)



Low increases in C inputs (SSM1 scenario) Medium increases in C inputs (SSM2 scenario) High increases in C inputs (SSM3 scenario)

Capacity building: soil data and mapping

Planning & Implementing Interventions



Voluntary Guidelines for Sustainable Soil Management

The international Code of Conduct for the sustainable use and management of fertilizers



Best soil management practices for SOIL ORGANIC CARBON MAINTENANCE and SEQUESTRATION TECHNICAL MANUAL

Soil Doctors GLOBAL PROGRAMME

Monitoring, Reporting & Verifying



Protocol for the assessment of Sustainable Soil Management

GLOSOLAN GLOBAL SOIL LABORATORY NETWORK Standard Operating Procedures (SOPs)



GSOC MRV Protocol
A protocol for measurement, monitoring, reporting and verification of soil organic carbon in agricultural landscapes

Supporting Materials



GLOBAL SOIL PARTNERSHIP

STATE OF KNOWLEDGE OF SOIL BIODIVERSITY

GLOBAL ASSESSMENT OF SOIL POLLUTION REPORT

GLOBAL STATUS OF SALT-AFFECTED SOILS



RECARBONIZING GLOBAL SOILS

INTRODUCING GLOBAL SOILS AND METHODOLOGY

CHOPLAND, GRASSLAND AND RANGELAND APPROACHES

HOT SPOTS AND BURNER SPOTS OF SOIL ORGANIC CARBON

FORESTED WETLANDS, URBAN SOILS

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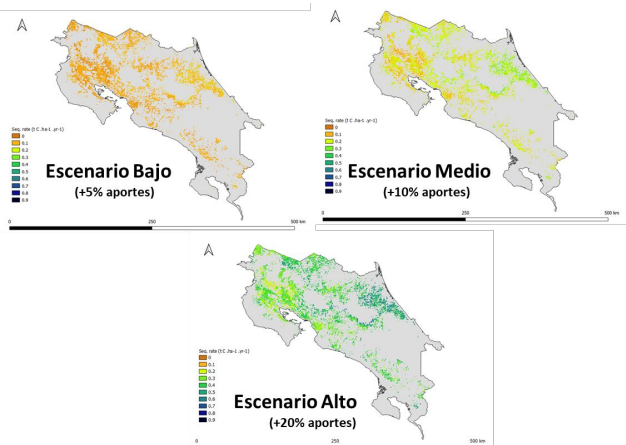
RECISOIL – Green Path piloting areas

Project developed and starting field activities in 2022

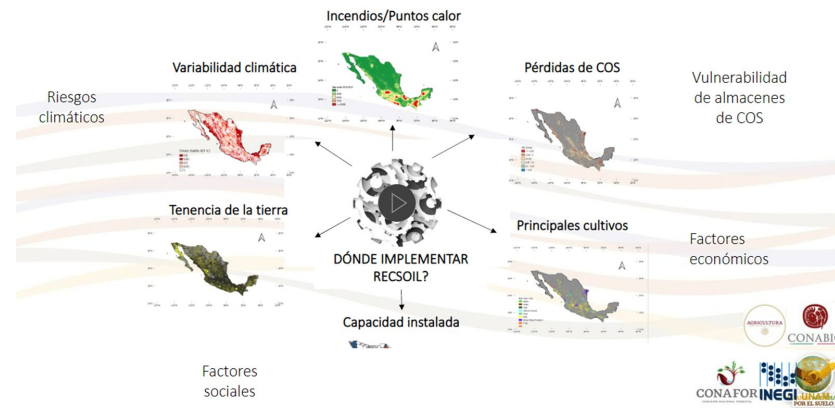


RECISOIL implementation and collaborative work under discussion

RECISOIL in Costa Rica



RECISOILMEX



RECISOIL in Ecuador

RECISOIL in Bolivia

RECISOIL in Togo

RECISOIL in Kenya

RECISOIL in Gambia

RECISOIL Zambia

RECISOIL in Philippines





Overall costs to implement RECSOIL

Administrative and operational costs

- Project co-design activities: meetings, field visits, data collation, mapping exercise (SOCseq)
- Project management and financial administration: formulating LoAs and ToRs, project supervision and reporting
- Project coordinator: field operations and reporting to project manager
- Technical and Extension program implementation: Soil Doctors and MRV-training
- Capacity building program: soil mapping training and GLOSOLAN if needed
- National/local services providers: technical and extension advisers and field monitoring activities
- Costs to perform soil sampling
- Costs of soil laboratory analysis (SOC: 6-8 USD per sample)
- ***Financial investment to implement SSM practices, investment in equipment and consumables**

*The cost associated to the RECSOIL Program is highly variable and depend on **country-local conditions**, for example: data availability; technical capacities; typical costs related to each farming systems operation etc.*



Benefits for the farmer

- Higher yields
- Higher income
- Less use of agro-chemicals
- More nutritious and safer crops
- More healthy and fertile soils and resilient farms

Benefits for the ecosystem, climate and agrifood system

- Enhanced soil health
- Enhanced water retention
- Enhanced soil and ecosystem biodiversity
- Increased soil organic carbon stocks
- Less Greenhouse gases emissions
- Soil degradation and erosion reduced
- Less soil, air and water pollution
- Increased environmental resilience to droughts and floods
- Natural soil fertility enhanced

Benefits for the Investor

- Contributing to decarbonizing the economy
- Contributing to offset emissions
- Complying with environmental and social responsibility
- Contributing to achieving the Sustainable Development Goals
- Investing towards healthy soils and supporting farmers

Benefits of RECSOIL and healthy soils





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Thanks for your attention!

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