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GLOBAL SOIL PARTNERSHIP

10th Plenary Assembly

Report on normative tools and global actions on sustainable soil management

Natalia Rodriguez Eugenio



23-25
May 2022

VIRTUAL
MEETING





Normative tools and global actions on sustainable soil management

- Voluntary Guidelines for Sustainable Soil Management and SSM protocol
- SoiLEX and soil governance
- International Code of Conduct for the Sustainable Use and Management of Fertilizers
- RECSOIL initiative
- Global Soil Doctors Programme



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Voluntary Guidelines for Sustainable Soil Management



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Protocol for the assessment of Sustainable Soil Management

itps

itps



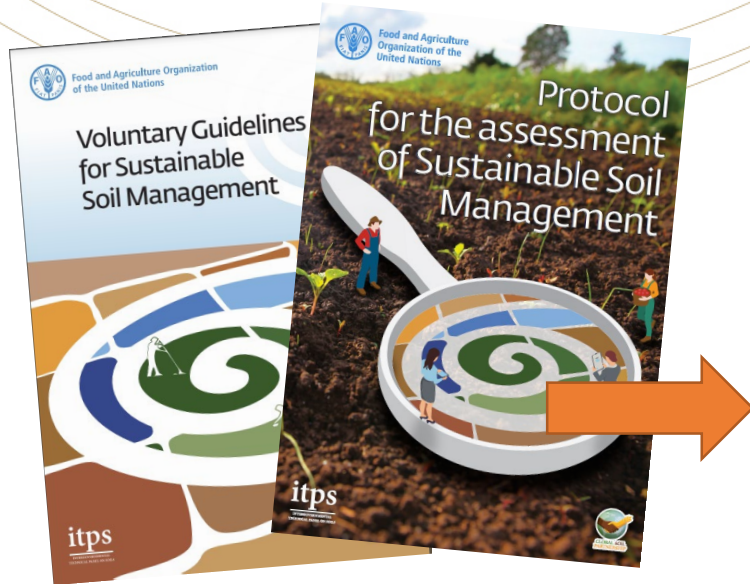
Voluntary Guidelines for Sustainable Soil Management and SSM protocol

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VGSSM and SSM protocol



Implementation manual

- Description of the study area and background information
- Data collection, sampling strategy and measurement of indicators
- Interpretation and evaluation of compliance with the VGSSM

Validation process

- Pilots in 8 countries in LAC: different land use types, practices, soil health
- Surveys on SSM practices
- Regional SSM practices database
- Model of soil respiration: spatial-temporal and data-driven

Way forward

- ⇒ Scaling up the survey to other regions
- ⇒ Development of a global database of SSM practices



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Soil governance and SoiLEX



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Advancing soil governance: SoiLEX



Soil Governance

☐ Editorial • Open access
Advancing soil governance for sustainable development
Lifeng Li, Dirk Messner
December 2021
Article 100021
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Part 1 International and Regional Soil Governance

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International soil governance
Ralph Bodle
March 2022
Article 100037
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Soil governance and land degradation
Ian Hannam
March 2022
Article 100030
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Oliver C. Ruppel
March 2022
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Dr. Irene Heuser
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Part 2 Dimensions of soil Governance – at international and national level

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Christopher Funwile Tamassang
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Soil governance: The case of implementation and enforcement

- ✓ The Soil Legislation Working Group participated in a special issue on soil governance in Soil Security journal.
 - ✓ 18 papers published
 - ✓ multiple topics relevant to soil governance
- ✓ A comparative analysis on soil legislation at global, regional, and national level ongoing
- ✓ A Model Soil Law under development to support countries develop comprehensive soil regulations

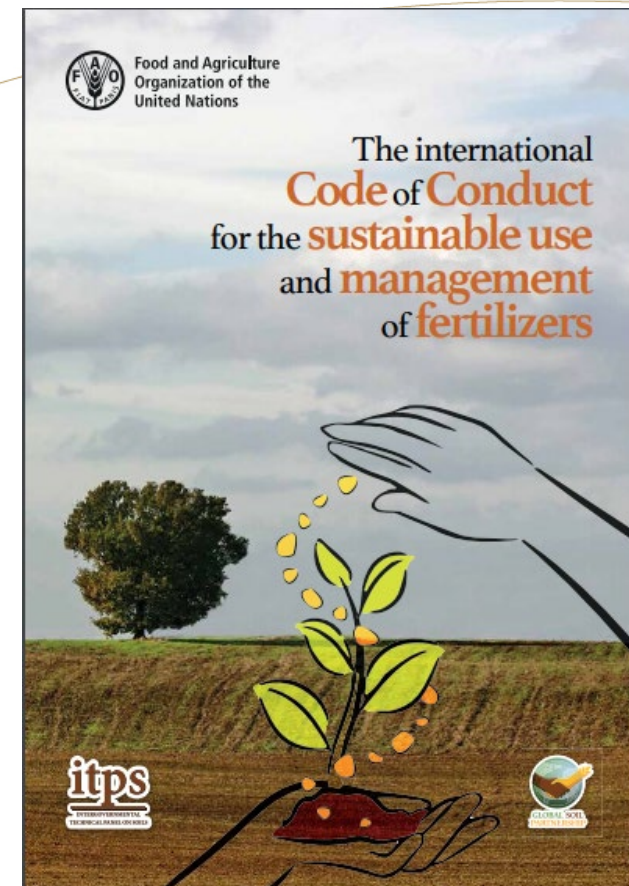
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International Code of Conduct for the Sustainable Use and Management of Fertilizers



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Fertilizer Code

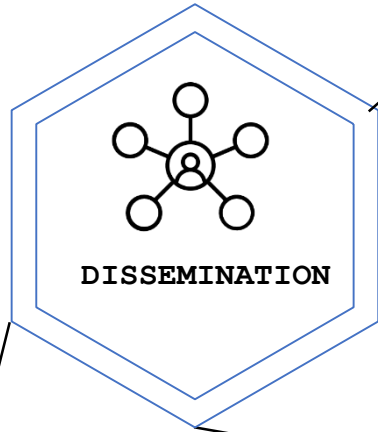
National Survey on the Use and Management of Fertilizers:
Launched in December 2021 in six languages.

To define priority areas for The Fertilizer Code implementation, gaps and main obstacles to sustainable fertilizer management in the participant countries.

Video: Launched in December 2021 in six languages.
Present the three main issues related to fertilizer use and management across world, together with the consequences and possible solutions

GSOIL4N

Address and support several aspects associated with the Fertilizer Code (best use, needs, quality)



**Collaboration with
INFA and fertilizer
sector**



Fertilizer Code





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RECARBONIZATION OF GLOBAL SOILS



A TOOL TO SUPPORT THE IMPLEMENTATION
OF THE KORONIVIA JOINT WORK ON AGRICULTURE



RECSOIL initiative

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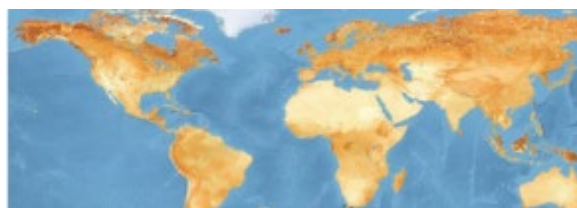


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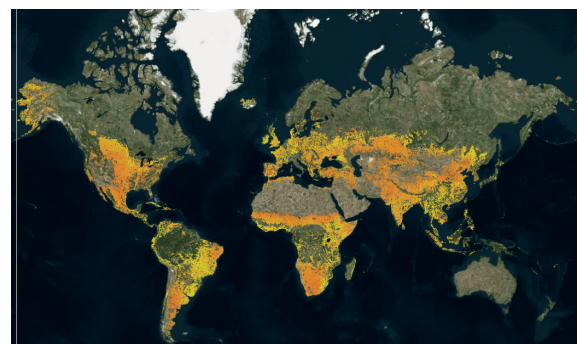
RECSOIL toolkit

Technical feasibility

Country-driven global data
products

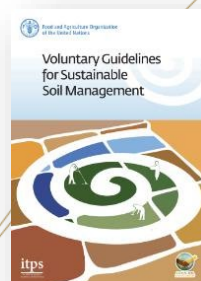


GSOCmap



GSOCseq

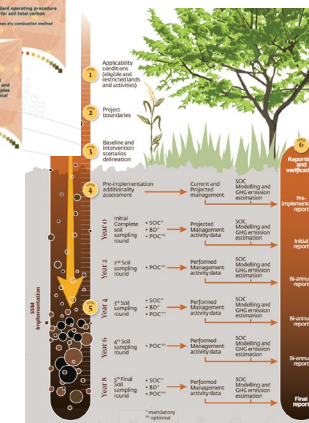
Technical Training and Capacity Building



MRV Protocols



Indicator	Parameter/ metric
Soil productivity	Agricultural productivity or biomass in dry matter ($t\ ha^{-1} year^{-1}$)
Soil organic carbon	Organic carbon (%)
	Soil physical properties
	Bulk density ($kg\ dm^{-3}$)
	In some cases, bulk density can be complemented by available water capacity, or other relevant soil physical properties (See additional indicators)
	Soil biological activity
	Soil respiration rate ($gCO_2\ m^{-2}\ d^{-1}$)
	Ideally combined with at least one other biological indicator (See soil biological activity p. 4 and 5)



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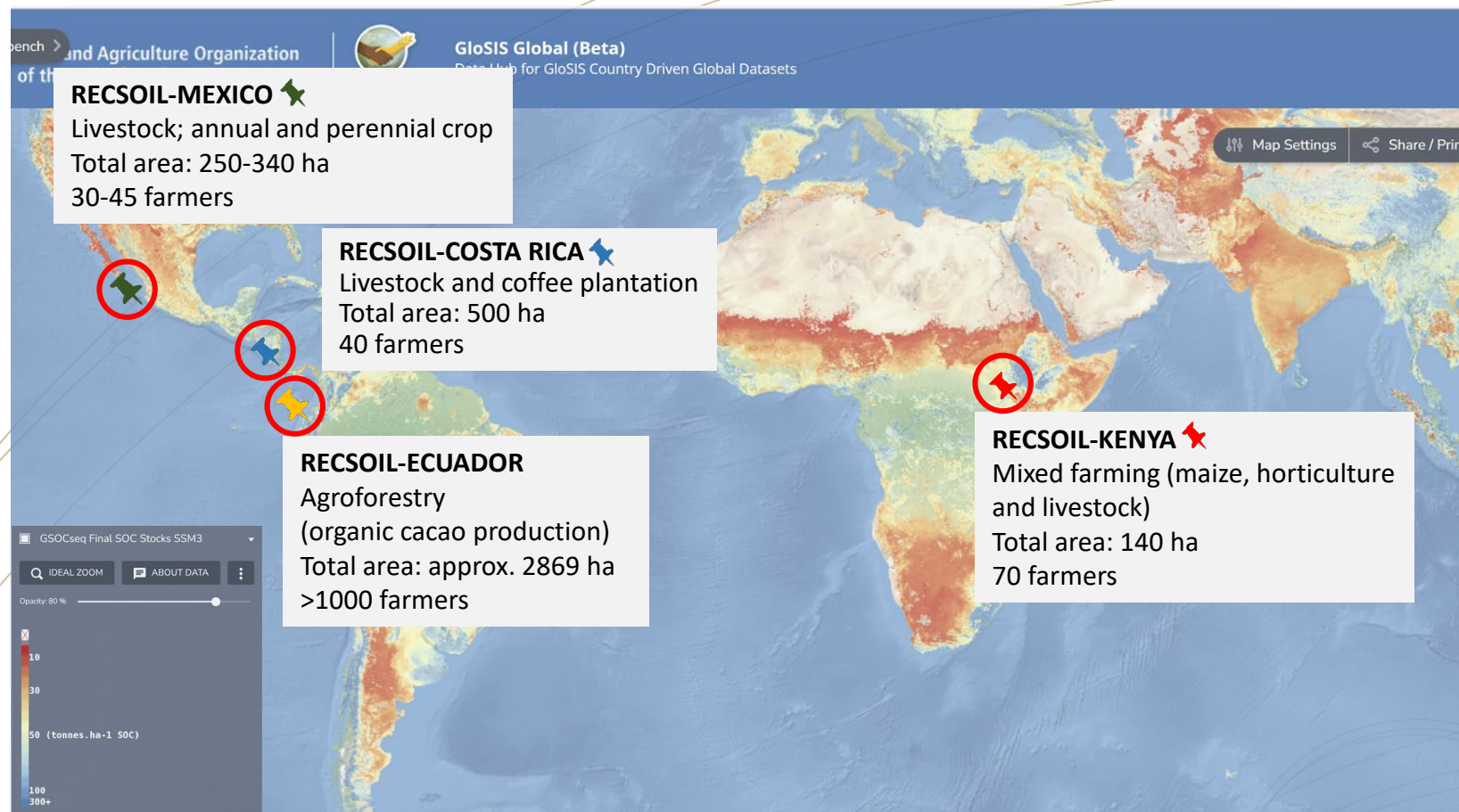


RECISOIL: recarbonization of global soils



RECISOIL is a mechanism for scaling up sustainable soil management implementation to **recarbonize** global soils

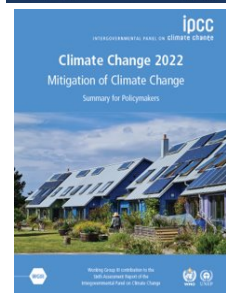
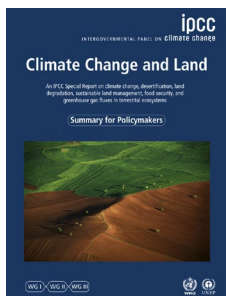
Green path focuses on enhancing soil health and the provision of ecosystem services



No regret option, as many benefits with one small investment!

“Soil organic carbon represents 25% of the full potential of natural climate solutions, equally divided between protecting existing carbon stocks and restoring depleted ones. **Improving soil health** comprises 9% of the mitigation potential of forests, 72% of wetlands, and **47% of agriculture and grasslands**

” UNCCD | Global Land Outlook 2 | 2022



“Soil organic carbon (SOC) sequestration is one of the most cost-effective options for climate change adaptation and mitigation strategies” (USD 45-100 tCO₂eq⁻¹)

IPCC Special Report 2019 and IPCC AR6 WG III, 2022

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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Global Soil Doctors Programme



Soil Doctors
GLOBAL PROGRAMME
GLOBAL SOIL PARTNERSHIP

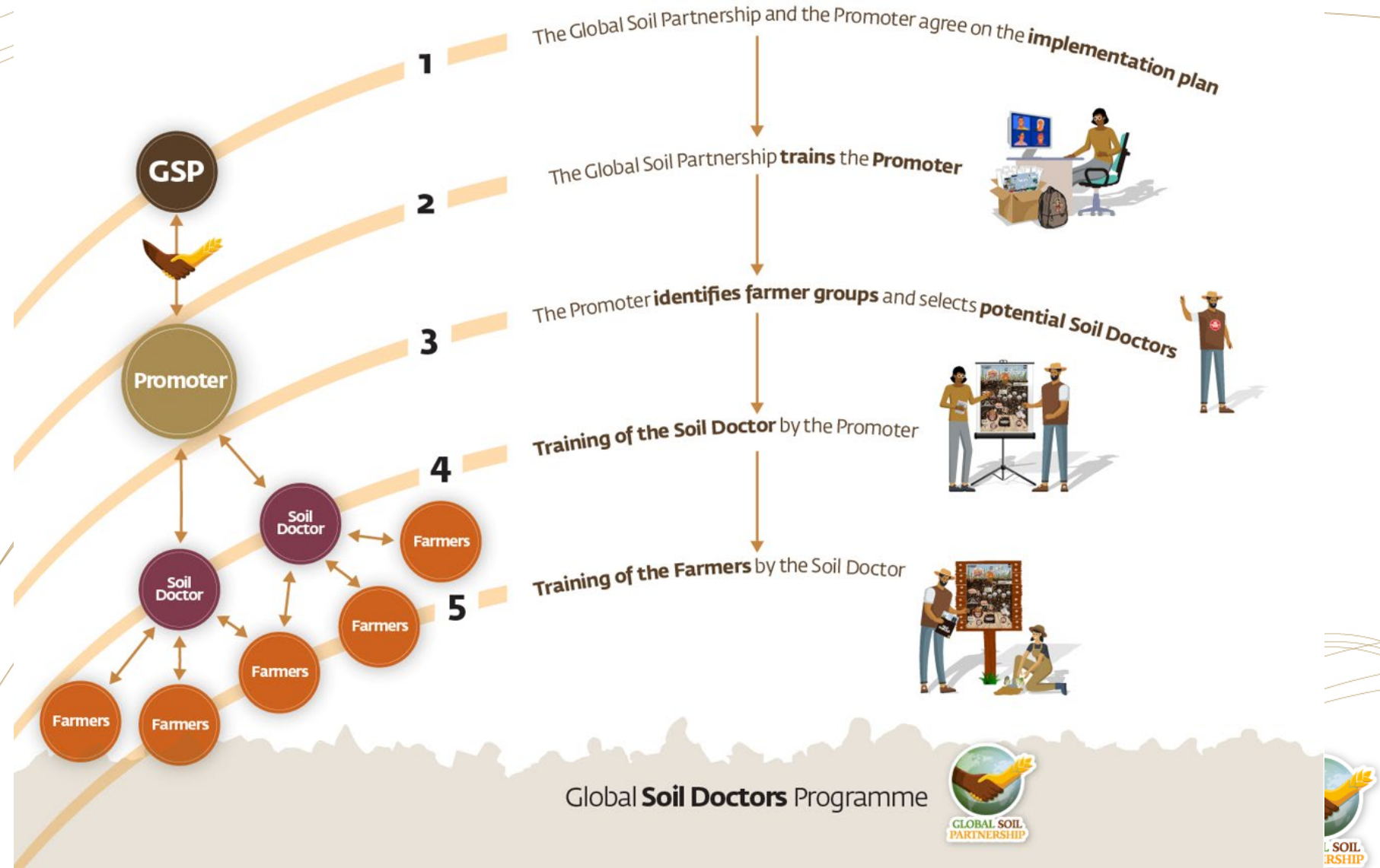
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Global Soil Doctors Programme

- Farmer-to-farmer training programme which aims to build the capacity of farmers on sustainable soil management practices
- The new roadmap gives more visibility to the role of the promoter
- The promoting institution agrees on the Terms of Reference and registers in our database to strengthen our collaboration in the long-term.





Training modules

Topic	Specific soil topic (e.g., general soil properties, nutrients, salinity)
Posters	4 posters to be chosen among those available <div>     </div>
Field exercises	3- 4 field exercises related to the topic including physical, chemical and biological observations <div>       </div> <p>Soil educational toolkit →</p> <p>Soil pH kit donated by the government of Thailand →</p>
Evaluation	Final evaluation of soil condition and recommendations <div>   </div>

Pilot projects of the GSDP

Malawi

Mexico

Bangladesh

Kazakhstan

Botswana



- And many more to come
Bolivia, Colombia, The Gambia, The Philippines

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Actions for the Plenary

- Acknowledge and further support the advances in implementing **normative tools**.
- Adopt the **VGSSM** and the **Fertilizer Code** and report the outcomes to the GSP Secretariat.
- Foster **participation** of a wide audience on the main issues related to **fertilizer use and management** across the world.
- Financially support the implementation of prioritized activities focused on the scale-down of the Fertilizer Code through national and regional efforts, the synergies among GSP and other initiatives, and the actions derived from the survey.
- Encourage the development of a **model law** to protect and restore **soil health**.



Actions for the Plenary

- **Raise a political debate** within each government about the need to adopt **national legislation on protection and sustainable soil management**.
- Recognize **RECSOIL's** potential to implement SSM practices and promote **soil health**, while **compensating farmers** for their commitment.
- **Financially support** the scaling up of **RECSOIL** in other countries and regions.
- Welcome the **implementation** of the **Global Soil Doctors Program**.
- **Financially support** the broader adoption of the **GSDP** in other countries and regions.



Model Soil Act

Why a national Soil Act is needed?

- The model is proposed as a **general framework** from which different stakeholders can draw inspiration.
- It is not a regulation ready to be introduced into any legal system.
- It refers to **soil degradation** in the broadest sense. Soil threats that may affect the soil of individual states and/or regions and the locally adapted prevention and management measures should be included.
- It addresses soil degradation **prevention** and **restoration** and soil health **monitoring**.



Fundamental aspects of the Model Act

Soil regulation must be "**chronologically comprehensive**", considering the current state of the soil, past and current human pressures and possible future challenges.

Awareness-raising should be a complement to the enforcement of soil legislation. Engaging civil society and making them understand the fundamental role of soil is as important as the legal protection of soil itself.

Identify and involve all stakeholders, often with different and conflicting views and interests, in the development of national soil legislation.



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