

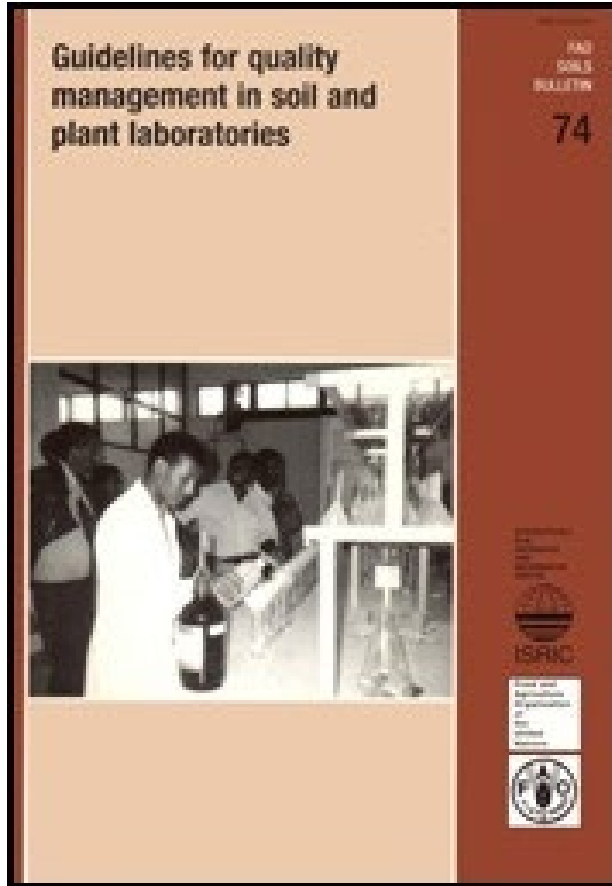
Progresses, needs and way forward

Ms. Lucrezia Caon
GLOSOLAN Coordinator

Ms. Natalia Rodriguez
GSP Secretariat

6th Meeting of the
**Global Soil
Laboratory
Network**
(GLOSOLAN)





Updates on the review of the FAO Soils Bulletin 74 – “Guidelines for Quality Management in Soil and Plant Laboratories”

<http://www.fao.org/3/W7295E/W7295E00.htm>

- This activity was included in a project : a consultant (GLOSOLAN expert) will be hired to work on the update of this publication
- The consultant will update the document keeping into consideration the suggestions made by GLOSOLAN over the years.
- Interested members of the GLOSOLAN’s Technical Committees will be involved in the review of the updated version of the document

6th Meeting of the **Global Soil Laboratory Network (GLOSOLAN)** | 22-24 November 2022

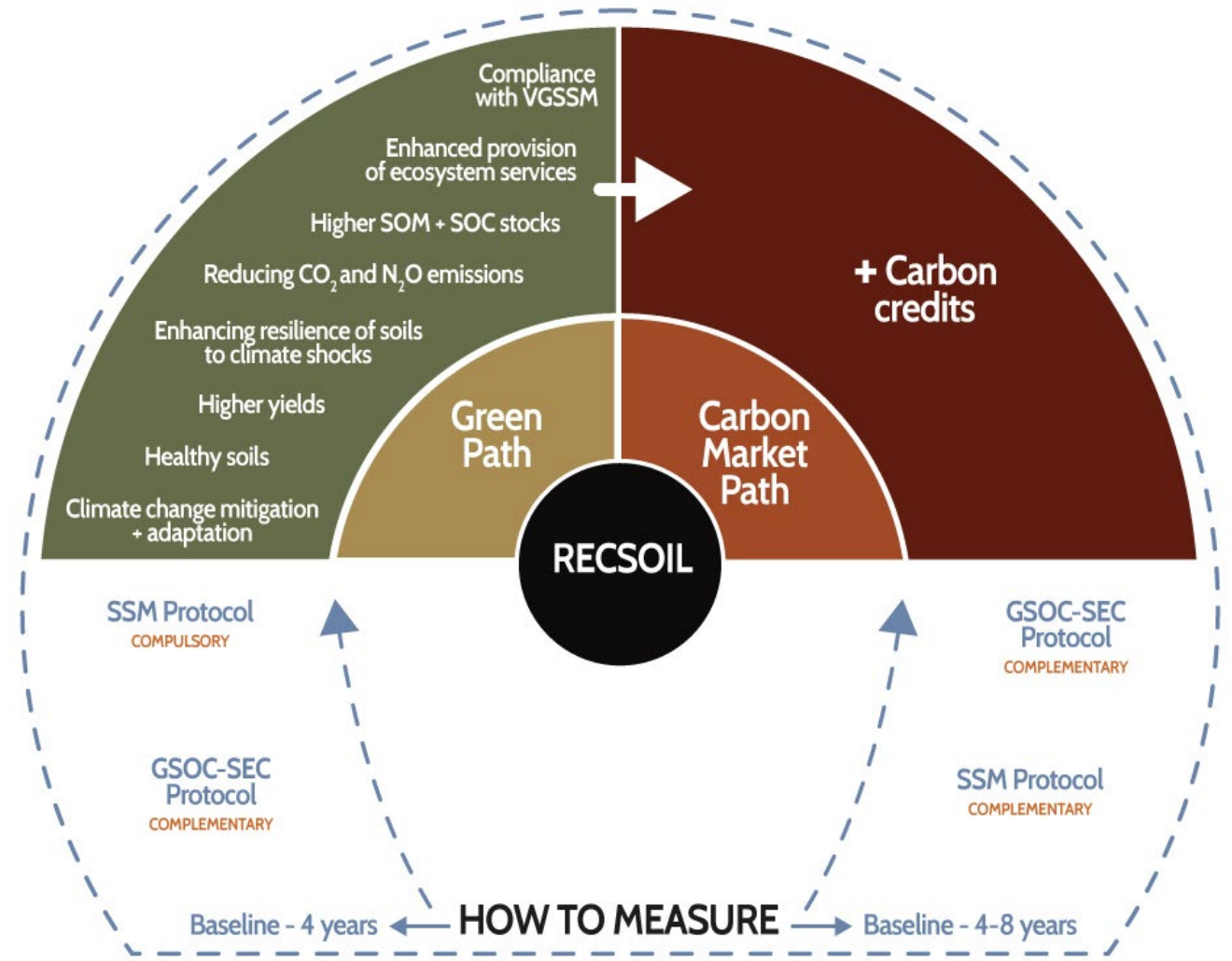


Transfer functions

Preparation of guidelines for the development of transfer functions within soil laboratories. **PENDING**

- Who can work on this? Any volunteer?

RECISOIL Framework



RECISOIL

STAKEHOLDERS AND RESPONSIBILITIES

- Project Supervision
- Project co-creation
- Technical support
- Following up the scaling up of RECISOIL

GSP SECRETARIAT



FAO NATIONAL OFFICE



- Project Supervision II
- Project co-creation
- Identification of stakeholders
- Lateral agreements documentation

- Project Manager
- Project co-creation
- Identification of stakeholders
- Sustainability
- Co-financing
- Project reporting supervision

GOVERNMENTAL REPRESENTATIVE

- Project members
- Project co-creation
- Farmer's engagement
- Support to decision-making
- Material purchase
- Supervision of field operations

FARMER'S ASSOCIATION

COMMUNITY LEADERS

NATIONAL TECHNICAL SUPPORT

- Project Coordinator
- Decision-making
- Financial administration
- Project co-creation
- Soil sampling campaigns
- Data curator (data collection & QC)
- Data analysis and Reporting
- Technical and extension services
- Coordination of capacity building and KE

SOIL LABORATORY/IES

- Project partner
- Soil lab analysis
- Lab quality assurance
- Lab results upload to the RECISOIL database
- Support data result interpretation

'SOIL DOCTORS' & FARMERS



Implementation steps of the RECISOIL GREEN PATH



Technical training and capacity building

- Farmers (Global Soil Doctor Programme)
- Soil laboratories (through GLOSOLAN)
- National technical support (through GSP Secretariat)

PHASE III

Definition of project area and priorities to implement RECISOIL

PHASE II

- Selection of project area and land uses
- Definition of objectives: evaluation of SOC sequestration, addressing of other soil threats
- Identification of national stakeholders and distribution of responsibilities
- Gathering of spatial, management and socioeconomic data of the project area - Metadata
- Stratification of the project area
- Definition of the sampling design and density

PHASE IV

Baseline assessment and identification of soil management interventions

- Baseline assessment through three datasets
- Identification of soil management interventions

PHASE V

Implementation of SSM, monitoring, measuring, and reporting

- Implementation of sustainable soil management practices
- Annual monitoring
- Mid-term reporting

PHASE VI

Soil organic carbon sequestration and soil health final verification

- Final assessment of soil health status (4 years after the implementation of SSM practices):
- Final estimation of SOC changes
- Final project report

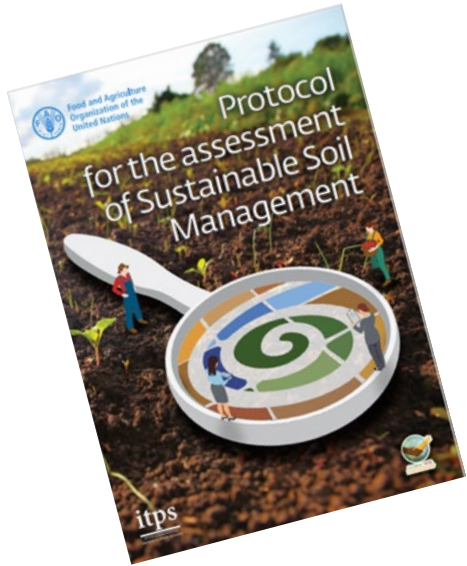
PHASE I

Identification of priority countries to implement RECISOIL

Based on the GSOCseq map and country readiness

1. SSM Protocol - Green Path -

4 Key indicators



Soil productivity

Agricultural productivity or biomass in dry matter ($\text{t ha}^{-1} \text{year}^{-1}$)



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 ($\text{gCO}_2 \text{ m}^{-2} \text{ d}^{-1}$)



Ideally combined with at least one other biological indicator

(See soil biological activity p. 4 and 5)

Green Path - SSM Protocol – Additional Indicators – depend on the main threats to soil health



Soil Nutrients
(P, N, K, etc)



Available water capacity
(FC-PWP)



Biological activity
(Enzimatic activity, microbial biomass, etc.)



Soil salinity
(EC- Electrical conductivity)



Water infiltration

Soil penetration resistance



Diversidad
(e.g. pitfall traps, etc)



Acidity – Alkalinity
pH

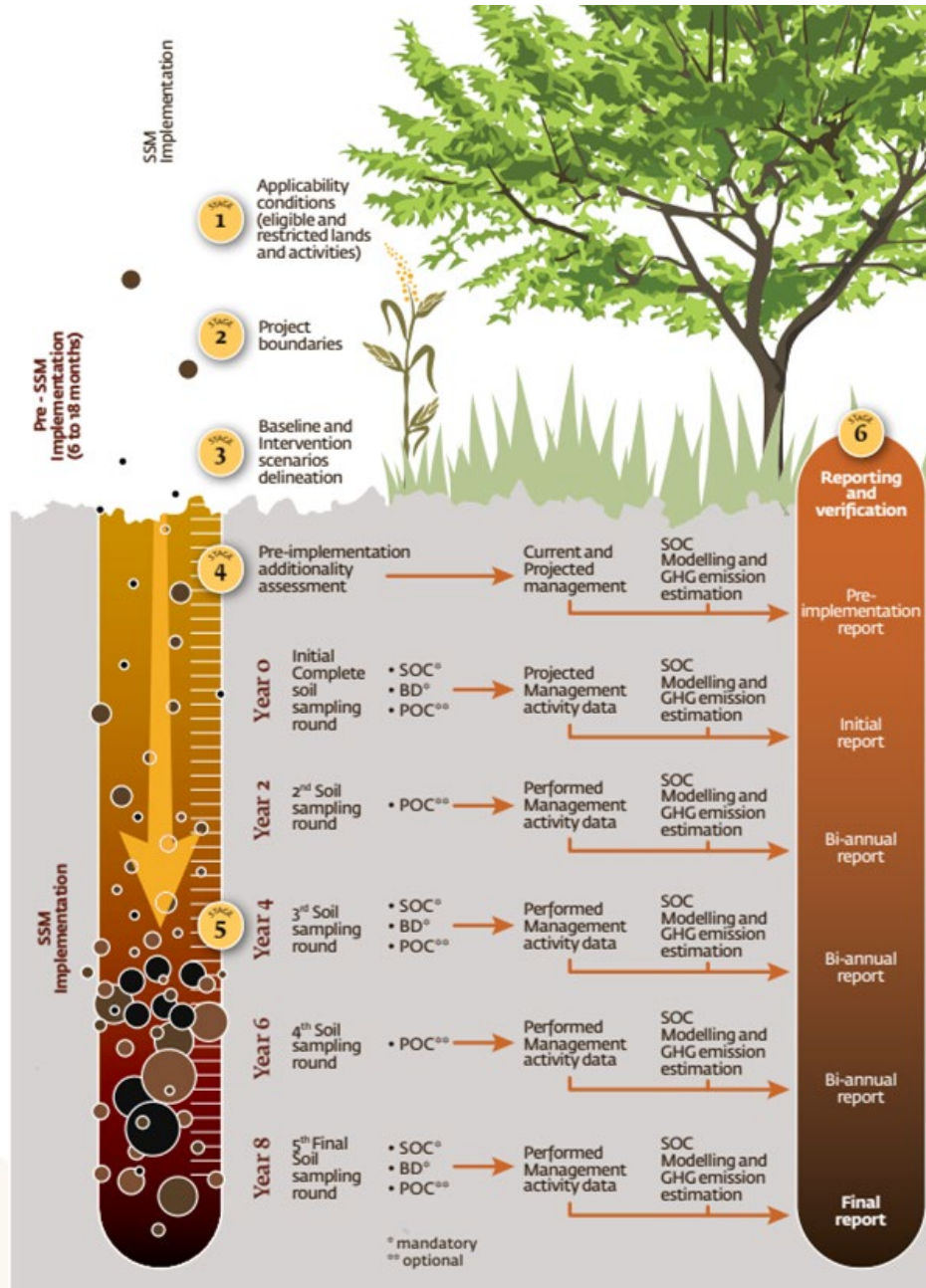


Erosion
(USLE, erosión pins, Gerlach boxes, etc)



Soil pollution
(concentration, trace elements, pesticides, etc)

GLOSOLAN role



- SOPs for indicators
- Capacity building for participating labs
- Analyse samples at year 0 (baseline), year 4 – Green path
- Analyse samples at year 0 (baseline), year 2, 4, 6 and 8 – Carbon path
- Strengthen relationships with farmer organization
- Support data interpretation (ranges at national level)

Soil Laboratory Network (GLOSOLAN) | 22-24 November 2022



Transfer functions between GLOSOLAN SOPs to support the implementation of RECOSOIL

- What transfer functions is it possible to develop?
- Who can do it?
- How much would it cost?

Transfer functions between GLOSOLAN SOPs to support the implementation of RECISOIL

- **CARBON:** move the discussion to the experts that worked on the harmonization of these methods.
Possibility to test the TFs through the PT?

	Walkley and Black	Tyurin	Dumas	Loss of ignition
Walkley and Black	-	it should be possible to get it using the TF between Tyurin and WB. Mathematical inverse	LDD (Thailand) already has a TF on this...but not on SOPs. LDD to take lead on this??	Under preparation by Russia already
Tyurin	Available	-		Under preparation by Russia already
Dumas			-	
Loss of ignition	Under preparation by Russia already	Under preparation by Russia already		-





GLOSOLAN
GLOBAL SOIL LABORATORY NETWORK

Thanks for your attention

