



GSP and ITPS

Ongoing products, product requests, level of ESP-
country involvement



Rosa M. Poch - Chair

GLOBAL SYMPOSIUM ON SOIL BIODIVERSITY

10 – 12 March 2020

FAO HQ | ROME | ITALY



itps
INTERGOVERNMENTAL TECHNICAL
PANEL ON SOILS

- More than 5 000 participants connected from over 160 countries
- 28 renowned speakers
- Over 250 scientific abstracts submitted, 96 presentations given and 50 scientific posters posted.
- 8 hours of plenary sessions, 24 hours of presentations and interactive discussion held over 3 main themes organized in 6 parallel sessions.
- Over 50 dedicated articles in the international press between 16-20 April reached around 402 million people around the world.
- 37 million accounts reached on social media **#SoilBiodiversity**.



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Convention on
Biological Diversity



GLOBAL
SOIL BIODIVERSITY
INITIATIVE

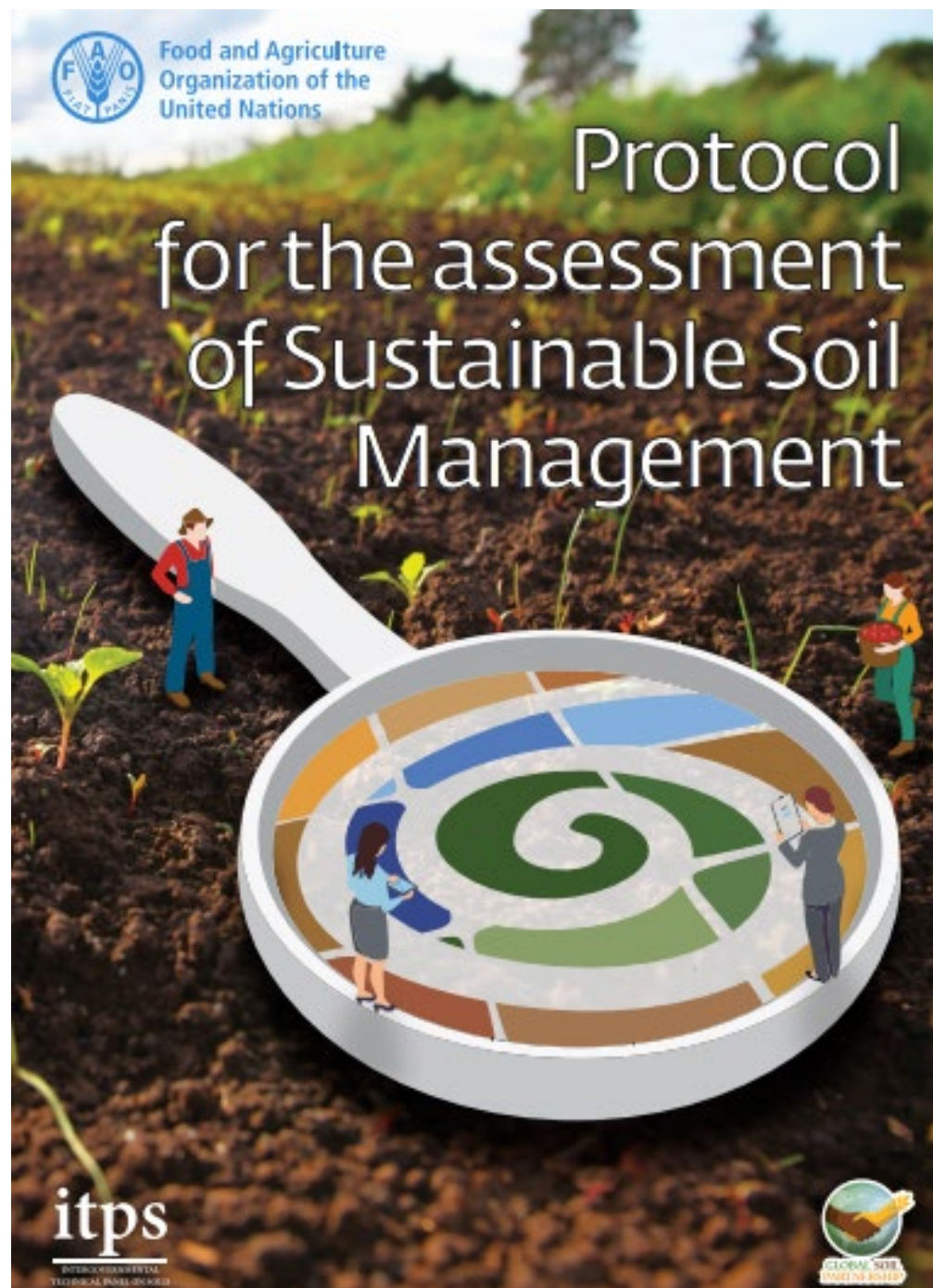
UNCCD **SP** Science - Policy
Interface

GSOB21 - Recommendations

- Establish a **Global Soil Biodiversity Observatory** (GLOSBO)
- Create a working group to develop **guidelines for MAM** soil biodiversity
- Develop a **capacity development programme** on soil biodiversity including national assessments, monitoring, good practices and restoration
- Develop a Field Manual on **Soil Biodiversity Management**
- Develop a Technical Booklet about the main **soil-borne diseases**
- Create a working group on the **economic valuation** of soil biodiversity
- Assess effective **policies** to control soil biodiversity loss

http://www.fao.org/fileadmin/user_upload//GSP/SSM/SSM_Protocol_EN_006.pdf

- Endorsed September 2020
- Methodologies, instructions and guidelines are being developed and released during 2021



Recommended set of SSM indicators

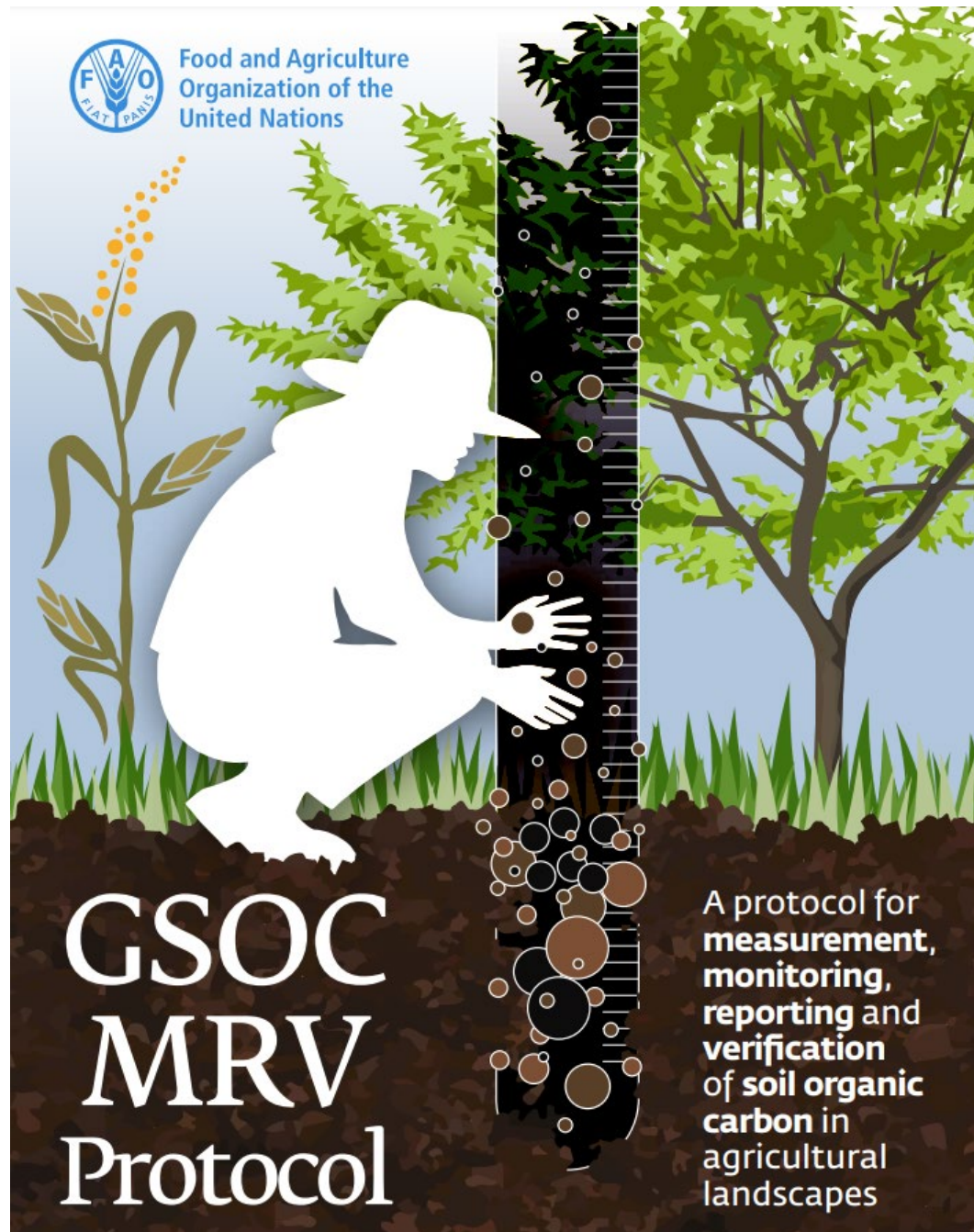
Indicator	Parameter/ metric	Measurement methods ¹	Sample characteristics ²
Soil productivity	Agricultural productivity or biomass in dry matter ($\text{t ha}^{-1} \text{year}^{-1}$)	Dry weight of vegetation quadrats, or yield measurements	Quadrat method or yield measurement
Soil organic carbon	Organic carbon (%)	Walkley- Black method http://www.fao.org/3/ca7471en/CA7471EN.pdf or Dumas method http://www.fao.org/3/ca7781en/ca7781en.pdf	Representative soil sample
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)	The Core Method	Undisturbed representative sample with known volume
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)	Laboratory based soil respiration measurement (static or dynamic) The most common methods will be presented in the annex.	Representative soil sample to be analyzed within hours or refrigerated

+ Additional set of SSM indicators for specific cases

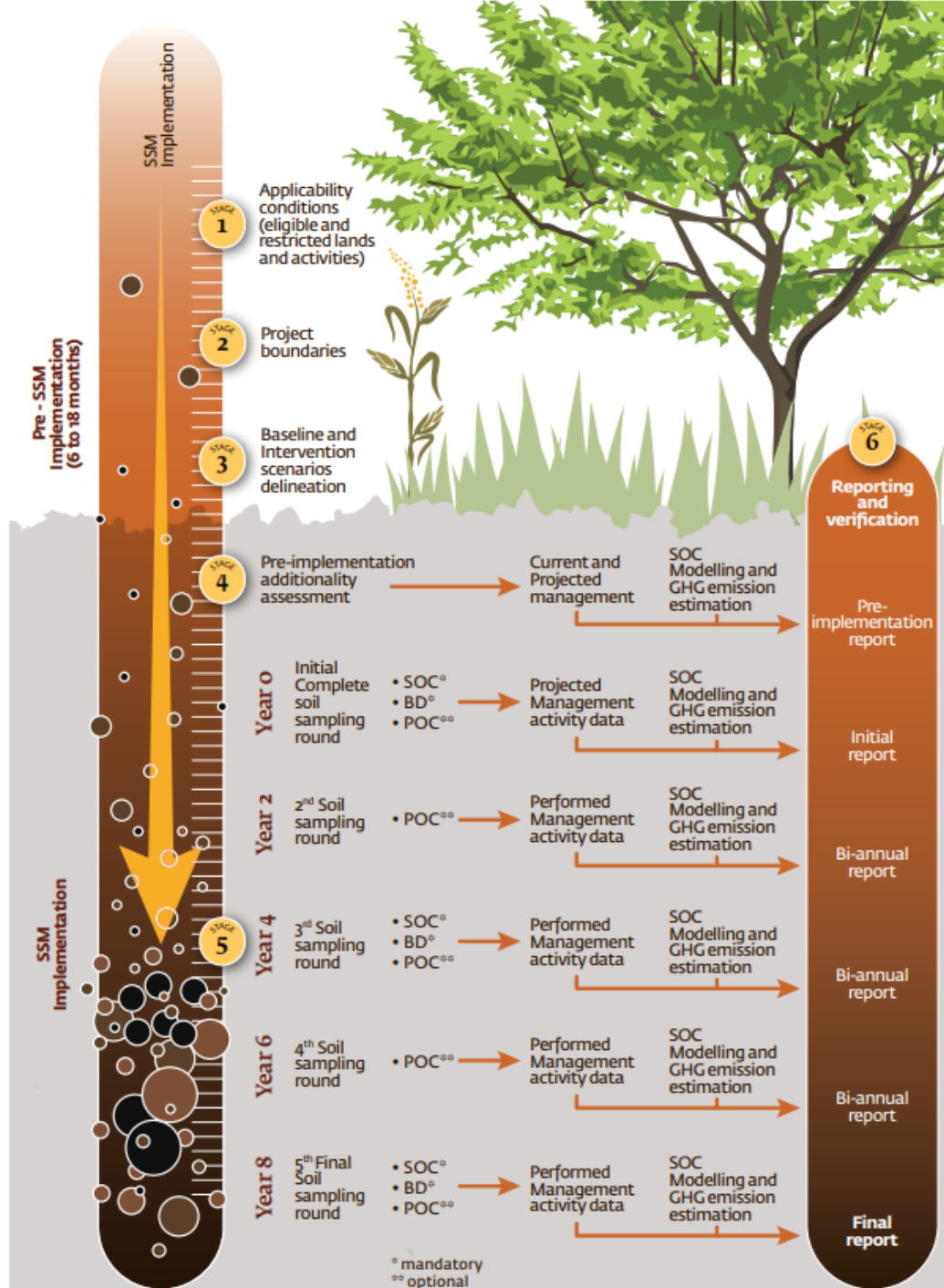
1. Soil nutrients
2. Soil erosion
3. Soil salinity
4. Soil biological activity
5. Soil biological diversity
6. Soil pH
7. Available Water Capacity
8. Soil infiltration rate
9. Soil penetration resistance
10. Soil pollution



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- <http://www.fao.org/3/cb0509en/cb0509en.pdf>
- Component of the RECSOIL project
- Applicable at farm-scale projects
- Based on detailed BAU / intervention scenarios
- Use of models for SOC seq and GHG emissions (annexes)
- Evaluation at 4-year basis
- Annexes on Soil sampling and SOC stock calculation and measurement sub-protocols



- Reporting by accredited FAO-participating national institutions
- Capacity Building material being produced by GSP



- 14 chapters, 900 pages
- Description of main sources of soil pollution
- Principal human and environmental health impacts
- **Regional status:** from identification and assessment to legal frameworks, management and remediation
- Summary of some of the best techniques for management and remediation

Responses to the GSP questionnaire on soil pollution

106
responses
from 75
countries



ITPS/GSP - Other activities

- Global maps: GSOC; GSOC seq; GSER; GSAS
 - **Recarbonization of soils: technical manual of soil organic carbon management practices** – September 2021
 - RECSOIL initiative: recarbonization of global soils
-
- Global Symposium on Salt Affected Soils (oct 2021)
 - International Network of SAS

ITPS/GSP - Other activities (ctd)

STATUS OF THE WORLD SOIL RESOURCES REPORT – 2025

- Dan Pennock (Canada) appointed as coordinating editor; Megan Balks (NZ) and David Lobb (Canada) ITPS members; editorial board with regionally distributed ITPS members.
- Workflow, tasks and assumptions being discussed now
 - More focused and shorter than SWSR 2015
 - Based (partly) on the compilation of soil threats by GSP/FAO post 2015.
 - Regional assessments by Regional Soil Partnerships