



Food and Agriculture
Organization of the
United Nations

14th Working Session of the Intergovernmental Technical Panel on Soils (ITPS)

itps

INTERGOVERNMENTAL
TECHNICAL PANEL ON SOILS

11 - 13 May 2021 | Virtual meeting





Food and Agriculture
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United Nations

Item 4a: SOC Manual – status and way forward

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Secretariat

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INTERGOVERNMENTAL
TECHNICAL PANEL ON SOILS



WHAT IT IS	WHAT IT IS NOT
<ul style="list-style-type: none">• The first attempt of gathering quantitative data• A living document• A compilation of practices/ case-studies showing an increase or a positive trend in soil carbon	<ul style="list-style-type: none">• A compilation of scientific papers• Not an edited book• Not a catalogue of certified practices

389 authors, peer reviewed
Targeting experts AND non-experts

Scientific board :

ITPS; 4p1000 STC; UNCCD SPI; FAO (LEAP, Forestry, Agroecology); 4 Guest reviewers

11 Hot spots / bright spots of SOC

(e.g. Drylands, Forests, Wetlands, Mangroves, Black Soils, Permafrost)

**About 80
practices**

- cropping systems *(e.g. crop rotations, no-till, intercropping)*
- grassland and pastures *(e.g. conservation of grassland, pastoralism)*
- forest management and silviculture *(e.g. Reduced impact logging, afforestation)*
- wetland ecosystems *(e.g. conservation of peatland, paludiculture, mangrove restoration)*
- urban soils management *(e.g. urban farming, green roofs)*
- Farming approaches and integrated systems *(e.g. crop-livestock systems, organic agriculture)*

+ About 80 case-studies from all regions (short, medium and long term studies)

Recarbonizing global soils: a technical manual of recommended management practices



Volume 1

Introduction,
Glossary and
methodology

Volume 2

Hot spots and
bright spots of
soil organic
carbon



11 areas of interest for high
SOC storage and/or
potential for SOC storage

Volume 3 & 4 :
Cropland, Grassland, Integrated
systems and farming approaches

Volume 3:
Overview
of practices

Volume 4:
Case-studies



49 practices described
49 case-studies

Volume 5 & 6: Forestry,
Wetlands, Urban Soils

Volume 5:
Overview
of practices

Volume 6:
Case-studies



24 practices described
31 case-studies

Summary table: Volume 3,4,5 & 6

Summary_SOC technical manual.xlsx - Excel

File Home Insert Page Layout Formulas Data Review View Tell me what you want to do...

Clipboard: Cut, Copy, Paste, Format Painter

Font: Calibri, 11, Bold, Italic, Underline, Color, Background Color

Alignment: Wrap Text, Merge & Center

Number: General, \$, %, .00, .00, .0

Styles: Conditional Formatting, Format as Table, Cell Styles

AG10

	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK
2	Potential drawbacks to the practice (tradeoffs with other threats to soil functions)									
3	Soil erosion	Nutrient imbalance and cycles	Soil contamination / pollution	Soil biodiversity loss	Waterlogging	Soil acidification	Soil compaction	Nutrient imbalance and cycles	Soil salinization and alkalization	Soil water manage
4	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no

Excel

CuevasCorona, Rosa

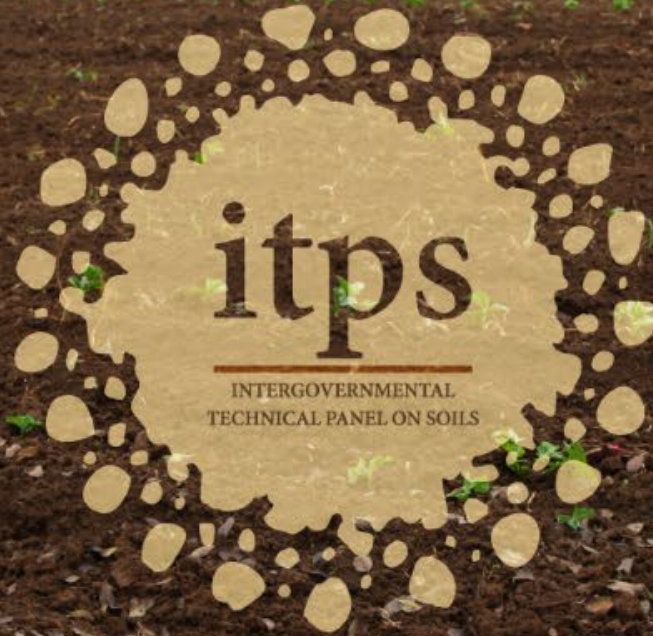
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	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
	More information	Reference	Minimization of threats to soil functions					Potential barriers to adoption					
			Soil erosion	Nutrient imbalance and cycles	Soil contamination / pollution	Soil biodiversity loss	Waterlogging	Biophysical	Cultural	Economic	Institutional	Knowledge	
	Treatments	Depth (cm)		yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no	yes/no

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
2	Lead author name	Land use system	Type of practice	Practice number	Location (region and country)	Climate zone			Soil type			Baseline C stock (tC/ha)	Duration	Additional C storage (tC/ha/yr)
3														
4						Zone	MAP (mm)	MAT (°C)	Soil type^b	Texture	pH			



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GLOBAL SOIL
PARTNERSHIP