



Food and Agriculture
Organization of the
United Nations

Working Group Meetings **International Network on Soil Biodiversity** NETSOB

7-10 February 2022 | 14:00 hrs CET

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**Best Practices to Conserve Soil Biodiversity and
Prevent Soil Biodiversity Loss**



Working Group 2

Objective:

Develop a field manual that identifies, explains and demonstrates good management practices to conserve soil biodiversity and limit soil biodiversity loss

- The manual introduces a set of principles, practices, and case studies that address conservation of biodiversity and considers the main threats.
- The manual will present a range of soil conservation practices to maintain (or restore) soil biodiversity.

Table of Contents

Best Practices to Conserve Soil Biodiversity and Prevent Soil Biodiversity Loss

- Section 1: Introduction
 - Mechanisms of soil biodiversity loss
 - Primary threats and stressors
 - Interactions and indirect effects
- Section 2: Best practices
 - Reducing soil disturbance
 - Maintenance of soil organic matter
 - Chemical changes to soil systems
 - Control of invasive species, pests, pathogens, and diseases
- Section 3: Capacity building



Section 2: Best Practices

2.1 Reduce soil disturbance, maintain soil structure, and prevent erosion

- Reduced, conservation tillage and no-till systems
- Reductions to compaction and soil sealing
- Use of cover crops and mulching
- Physical configurations to reduce erosion
- Integrated crop-livestock systems, strategies and practices

Case Studies for each with regional perspectives on challenges and successes.

Section 2: Best Practices

2.2 Maintain, enhance and diversify soil organic matter (SOM) inputs

- Use of cover crops, inter / multi / poly cropping, rotational cropping systems
- Organic and topsoil amendments
- Agroforestry

Case Studies for each with regional perspectives on challenges and successes.

Section 2: Best Practices

2.3 Reduce fertilizer, pesticide and other chemical changes to soil systems

- Bioinoculants and biofertilizers
- Mycotrophic cropping and symbiotic nutrient uptake crops
- Phytoremediation
- Maintenance of soil moisture to avoid irrigation-induced salinization and sodification

Case Studies for each with regional perspectives on challenges and successes.

Section 2: Best Practices

2.4 Prevent and control invasive species, pests, pathogens, and soil-borne diseases

- Use of poly cropping/inter-cropping, and rotational cropping systems
- Use of beneficial organisms and bioinoculants

Case Studies for each with regional perspectives on challenges and successes.

Capacity Building Approaches

Working group-1:

- Monitoring will promote conservation, provide a baseline, and establish trends

Working group-3:

- Economic and social incentives for the conservation of soil biodiversity

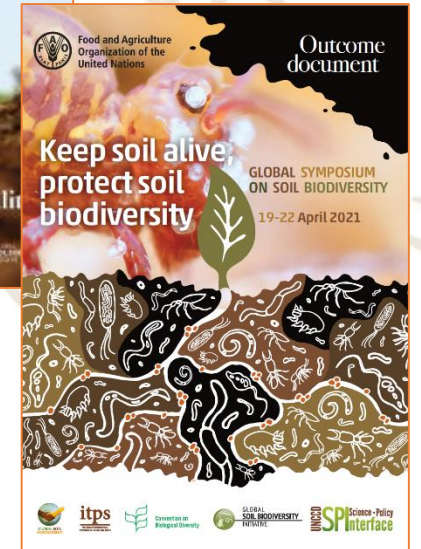
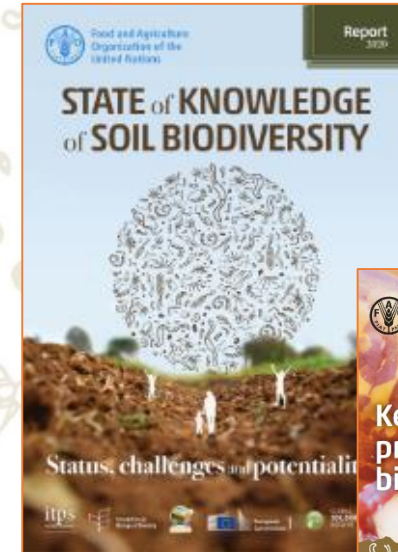
Working group-4:

- Linking to governmental and intergovernmental policies and agendas will be key

Table of Contents (ToC)

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NEXT:

- **Discussion of proposed ToC;**
- **Addition of sections / best practices**
- **Endorsement of ToC**

