



Food and Agriculture
Organization of the
United Nations

International Network on Soil Biodiversity & the Global Soil Biodiversity Observatory

Prof Peter de Ruiter, NETSOB Chair

GLOBAL SOIL PARTNERSHIP

11th Plenary Assembly

12-14 July 2023





NETSOB Objectives

Launched

December 2021

Members

978 NETSOB members
from around the world

Governance:

Chair
4 vice-chairs
NETSOB Board

Meetings:

Annual meeting and WG
workshops

- Strengthen the **knowledge** about soil biodiversity;
- Provide **critical mass** for the implementation of the **Global Soil Biodiversity Observatory (GLOSOB)**;
- Contribute to **monitoring of soil biodiversity** status and loss and develop internationally accepted **biological indicators**;
- Provide reliable evidence to support **decision-making** in at the policy level in sustainable use of soil biodiversity.

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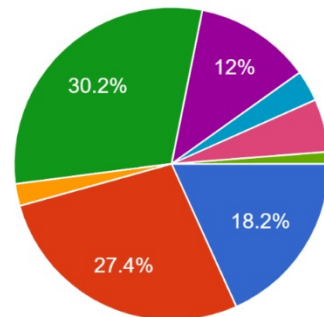
100 countries

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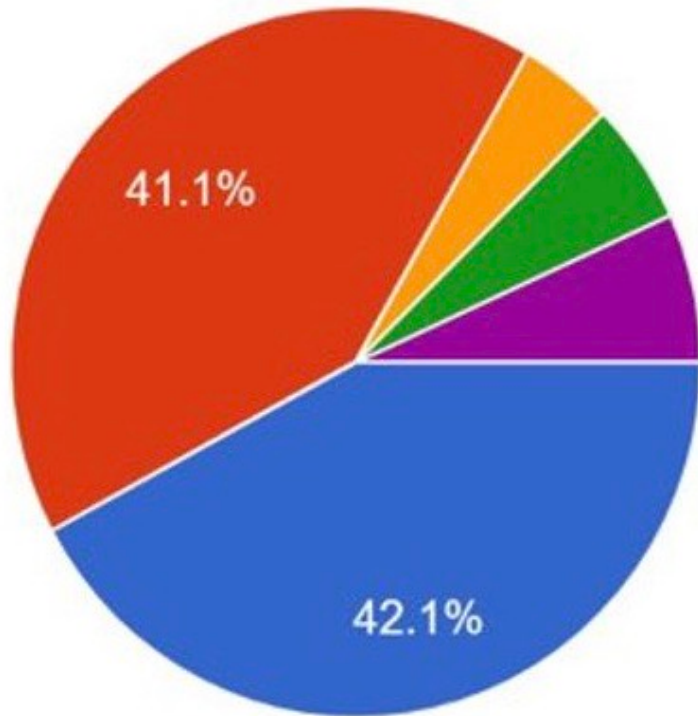
- Africa
- Asia
- Eurasia
- Europe
- Latin America and the Caribbean
- North Africa and Near East
- North America
- Pacific



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NETSOB Working Groups

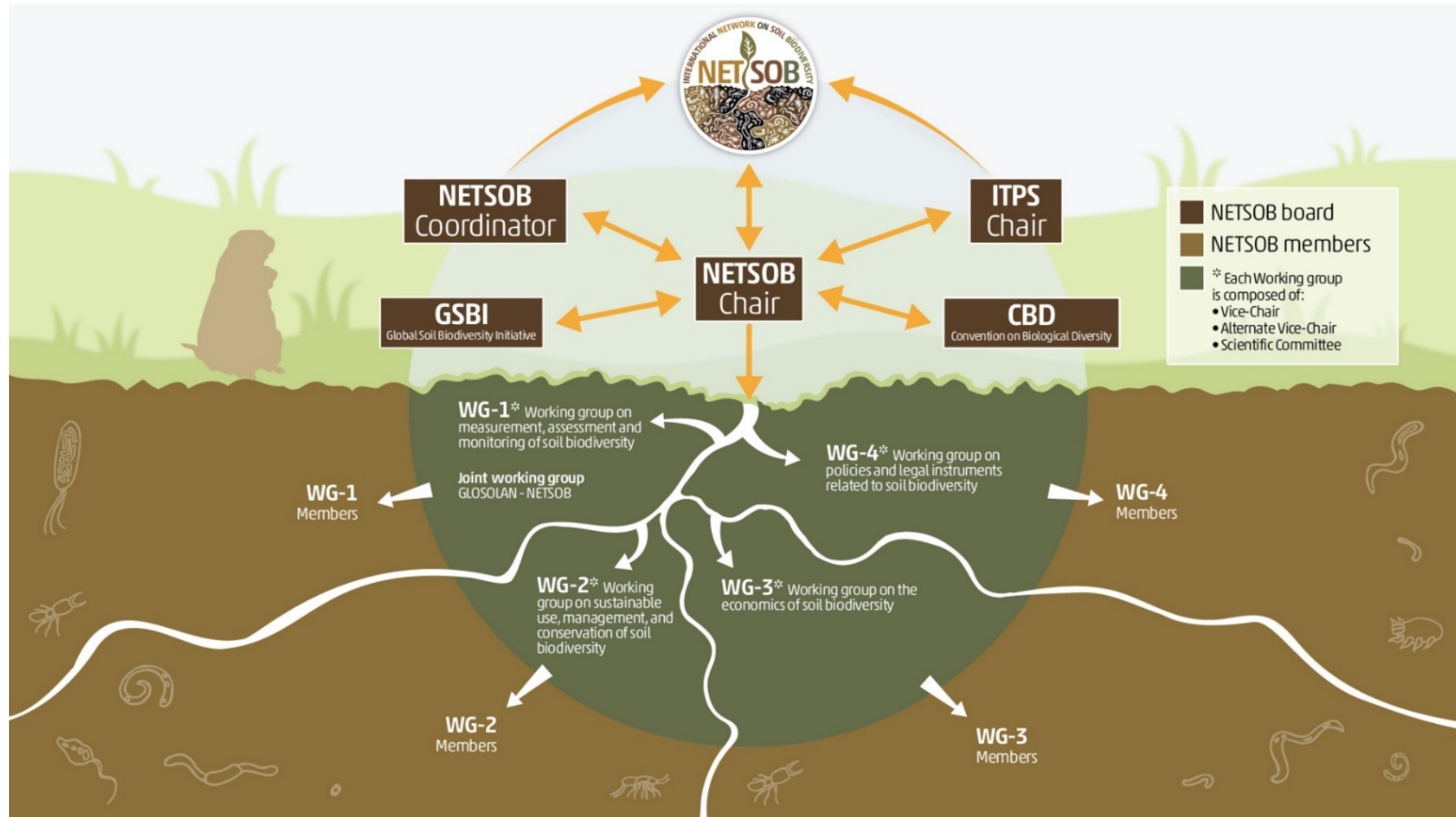


- **How to measure soil biodiversity:** Develop guidelines for measuring, assessing and monitoring soil biodiversity
- **How to manage soil biodiversity:** Compile a field manual on soil biodiversity management
- **How to economically value** soil biodiversity and the soil ecosystem services provided by soil biodiversity
- **How to develop effective policies** and legal instruments to protect soil biodiversity
- **No specific WG** has been selected

NETSOB working group outcome documents

- **WG 1** – Review and development of **Standardized Operational Procedures (SOPs)** on biological **soil health parameters** in close cooperation with GLOSOLAN (e.g. soil respiration, C/N biomass, microbial enzymatic activities, nematodes trophic groups by wet extraction, QBSar for mesofauna, TSBF for macrofauna)
- **WG 2** – Compilation of **best management practices**, particularly in agricultural systems, to protect and enhance soil biodiversity
- **WG 3** – Development of the methodology for the **economic valuation** of ecosystem services provided by soil biodiversity
- **WG 4** – Development of **Policy Briefs** on the Protection, Conservation and Sustainable Use of Soil Biodiversity

NETSOB Governance structure



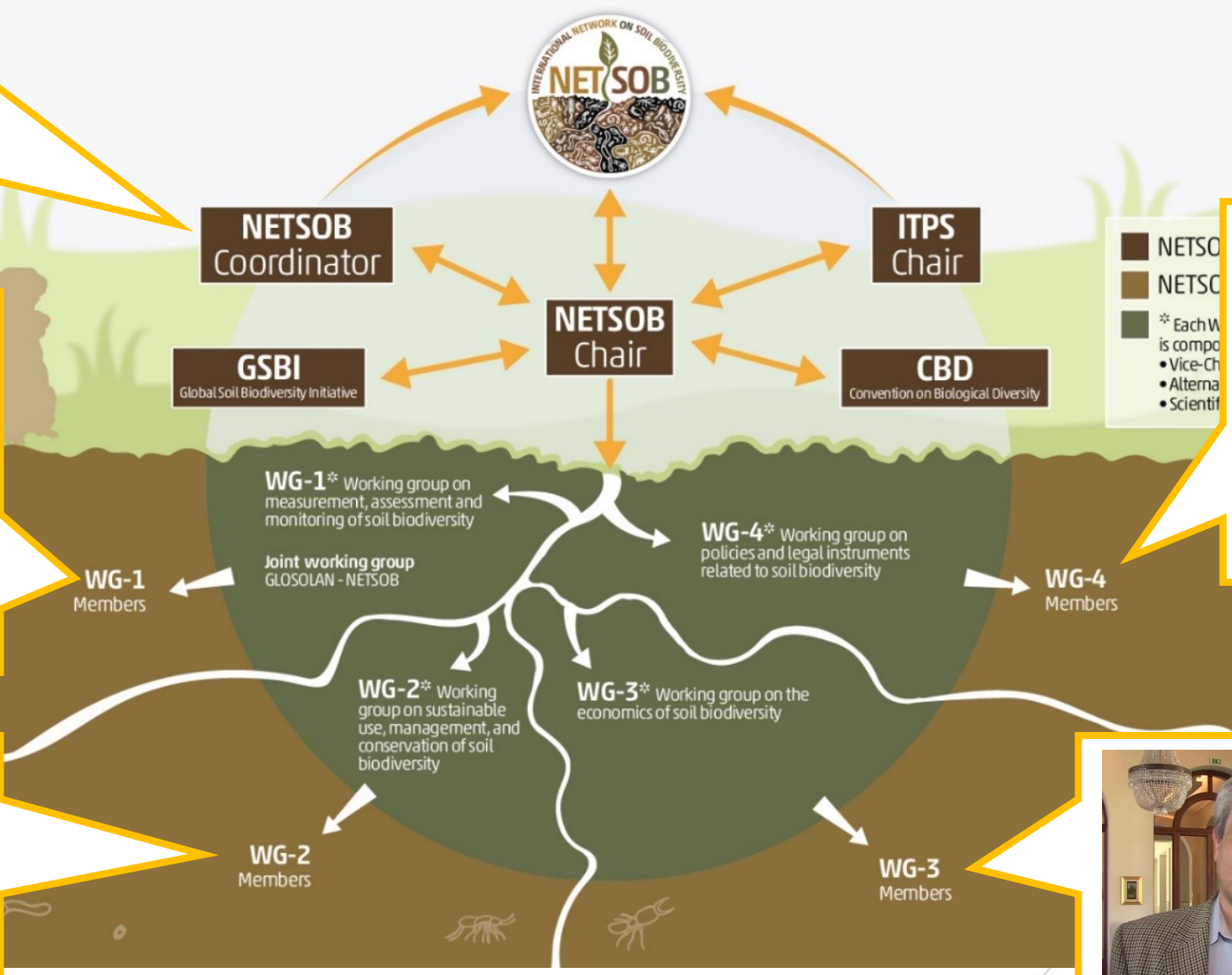
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NETSOB Governance structure



Natalia Rodriguez **Jacob Parnell**



Rosalina Gonzalez **Luca Montanarella**



George Brown **Carlos Guerra**



Zoë Lindo **Jeff Battigelli**




Gian Luca Bagnara **Giulio Malorgio**

NETSOB in action

- **WG1:** Launch of a **global survey** to assess the status of soil biodiversity initiatives and efforts that was responded to by nearly **2 700 stakeholders**. *Results of the survey are close to publication.*
- **WG2:** Launch of a **call for contributions** on current best practices to conserve soil biodiversity. To date, **40 case studies and 20 contributions to general chapters** have been received. *Production of the volume is now in progress.*

NETSOB in action





GLOBAL
SOIL BIODIVERSITY
INITIATIVE

THE 3RD GLOBAL SOIL
BIODIVERSITY CONFERENCE
Dublin, Ireland // 13-15 March 2023
WWW.GSB2023.ORG

NETSOB:
mainstreaming soil biodiversity to halt biodiversity
loss and ensure healthy soils for sustainable
development

WORKSHOP | 14th March, 14:00 – 17:00



Organization of a workshop during the third **Global Soil Biodiversity Conference** (Dublin, 13 - 15 March 2023). The workshop was useful to review the progress made by NETSOB and the structure and components of GLOSOB.

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NETSOB in action



- **Montreal 2022** United Nations Biodiversity Conference of the Parties to the UN Convention on Biological Diversity (COP-15 CBD) → **milestone** for soil biodiversity
- Endorsement and implementation of the **Plan of Action** for the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity, **December 2022**.

NETSOB in action



Launch of the **Global Soil Biodiversity Observatory (GLOSOP)** at the COP15 Montreal (December 2022). The GLOSOP will monitor and forecast the condition of soil biodiversity and soil health.

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GOAL

Monitor and forecast the condition of global soil biodiversity and how human activities' impact its role in providing ecosystem services.

Monitor and forecast the condition of global soil biodiversity and how human activities' impact its role in providing ecosystem services.

HOW

Countries will be responsible for measuring, monitoring, and sharing soil biodiversity information of hotspots according to NETSOB's harmonised methodologies/protocols and country capacities (3 tiers).

GLOS

- **Land users:** an according to standard operating procedures (SOPs).
- **National experts:** interpretation of soil biodiversity data and information.
- **Institutions:** measure, map and monitor soil biodiversity
- **Land users:** sustainable use, and management and conservation of soil biodiversity for sustainable and resilient agriculture, bioremediation, and ecosystem restoration
- **Policy makers:** performing evidence-based decision-making.



GLOSOP
GLOBAL SOIL BIODIVERSITY OBSERVATORY

MISSION

Serve as the Observatory providing with global soil biodiversity data and information for guiding evidence-based decision-making.

GOAL

Monitor and forecast the condition of global soil biodiversity and how human activities' impact its role in providing ecosystem services.

WHAT

GLOSOB will strengthen national capacities of:

- **Laboratories:** use of state-of-the-art methods and tools to measure soil biodiversity according to standard operating procedures (SOPs).
- **National experts:** interpretation of soil biodiversity data and information.
- **Institutions:** measure, map and monitor soil biodiversity
- **Land users:** sustainable use, and management and conservation of soil biodiversity for sustainable and resilient agriculture, bioremediation, and ecosystem restoration
- **Policy makers:** performing evidence-based decision-making.

HOW

Countries will be responsible for measuring, monitoring, and sharing soil biodiversity information of hotspots according to GLOSOB's harmonised methodologies and country capacities (3 tiers).

Countries will be responsible for **measuring, monitoring and sharing** of soil biodiversity information.



GLOBAL SOIL BIODIVERSITY OBSERVATORY

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Serve as the Observatory providing with global soil biodiversity data and information for guiding evidence-based decision-making.





How?

Country-driven
(decentralized)

Establishment
of National Soil
Information and
Monitoring Systems
(including soil
biodiversity)

Identify and monitor
soil biodiversity
hotspots (in
managed lands and
natural ecosystems)

Countries
sharing/contributing
data and information
to GLOSOB

Development of
national capacities
(equipment and staff)

Development of
Standard Operating
Procedures (SOPs)
and harmonized
tools

GLOSOB
reporting global
status of soil
biodiversity and
issuing policy
briefs

Mainstreaming
of soil biodiversity
into conventional Soil
Surveys (modification
of the FAO's
Guidelines for Soil
Description)

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What are the next steps?

- ✓ Implement the **GSOBI21** Outcome Document recommendations.
- ✓ Implementation of the **Montreal 2022 Plan of Action** for the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity.
- ✓ Support the **GLOSOB implementation** through development of tools, manuals, and standardized procedures.
- ✓ Inclusion of soil biodiversity loss prevention and management in the **Global Soil Doctors** programme.
- ✓ Promote the inclusion of new members to the 4 technical working groups of NETSOB.
- ✓ **Resource** mobilization.



Convention on
Biological Diversity

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Requests to the Plenary Assembly

- Welcome the ongoing activities of NETSOB;
- Encourage countries and stakeholders to join NETSOB and participate in its different activities to strengthen knowledge on the measurement, assessment, monitoring and sustainable use of soil biodiversity; and
- Welcome the establishment of the Global Soil Biodiversity Observatory (GLOSOB) and encourage member countries and resource partners to support it.





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