



Food and Agriculture
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19th Working Session of the Intergovernmental Technical Panel on Soils (ITPS)

Progress on soil fertility-related activities:
International Network on Soil Fertility and
Fertilizer (INSOILFER)

13-15 November 2023
Online meeting

Yuxin Tong
Vinisa Saynes

itps

INTERGOVERNMENTAL
TECHNICAL PANEL ON SOILS



Launch of the International Network on Soil Fertility and Fertilizers (INSOILFER)

17th July
2023

13:00 - 14:30 CEST

Online Meeting



Insoilfer

Goals:

- Adoption and implementation of sustainable and balanced soil fertility management.
- Over 1 200 registered participants.
- Keynote speakers' presentations
- Ensure global food security through the sustainable use of fertilizers and promote soil fertility.
- Technical presentation introducing the network, outlining its objectives, and prioritizing activities.
- The recording of the INSOILFER launch, the event agenda, and the presentations are available on the website
- Avoidance of the underuse, misuse, and overuse of fertilizers.
- Reduction of the environmental and health impacts of unsustainable fertilizer use and soil management practices.
- Evaluation and improvement of the safety and quality of fertilizers.
- Promotion of the soils for nutrition policy at national and global levels.



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Now...what is next?

Operability

- First meeting of the working groups
- Website construction
- Collaboration with other networks and institutions



Insoilfer
International Network on
Soil Fertility and Fertilizers

INSOILFER
Working Group Meetings

- Endorsement of goals and work plan
- Governance: Chair, Vice-Chairs
- Technical Committees
- Reference institutions
- Potential collaborations and joint working groups

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WG₁

Soil fertility and nutrient
monitoring system

WG₂

Sustainable soil fertility
and fertilizer
management

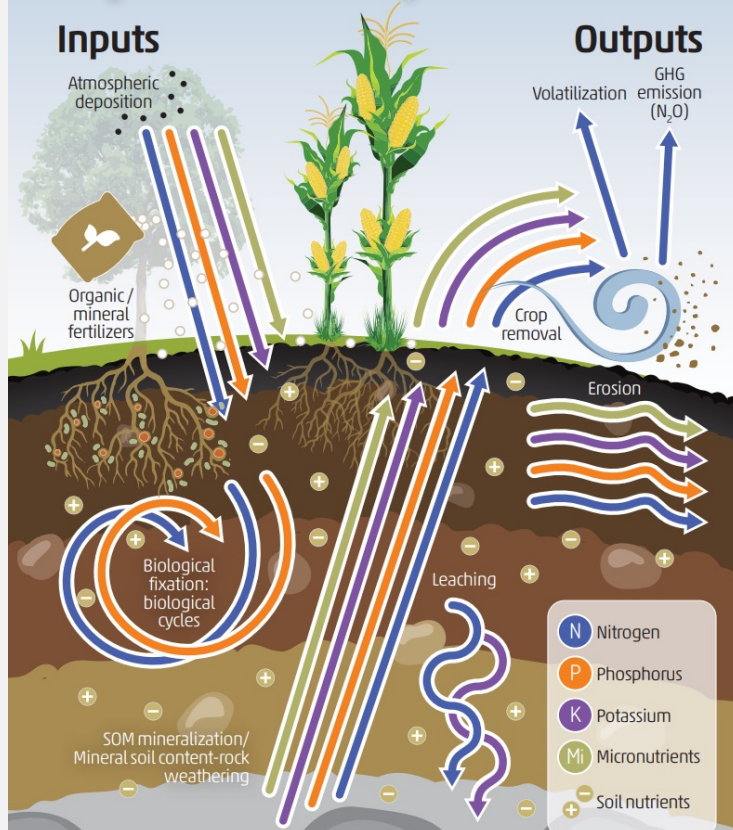
WG₃

Fertilizer safety and
quality assessment


InsoilferInternational Network on
Soil Fertility and Fertilizers
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WG1. Soil fertility and nutrient monitoring system

Nutrient budgets for a plant-soil system



Improving the knowledge of the dynamics of the soil nutrient budget

- Obtaining reliable, updated, and readily available information on soil nutrient dynamics.
- Key indicators for monitoring nutrient movement to serve as the basis for nutrient balance development and mapping

Supporting the decision-making on soil nutrient management, nutrient budget, and climate change mitigation

Soil nutrient and fertility monitoring systems, innovation development of tools for the monitoring and evaluation of soil fertility

Promoting collective ownership, openness, and innovation in creating novel data-sourcing pipelines

and analytical tools to make progress on the knowledge of soil fertility and fertilizers management.

Motivations

The formation of WG1 responds to recommendations of the GSOIL4N Outcome Document, including "Monitor soil nutrients and soil fertility and deepen the knowledge about the soil nutrient budget."

Sustainable management and restoration of soil fertility requires a solid understanding of soil nutrient flows, stores, inputs and outputs, and the soil's physical, chemical and biological properties that regulate nutrient availability

Potential collaborations

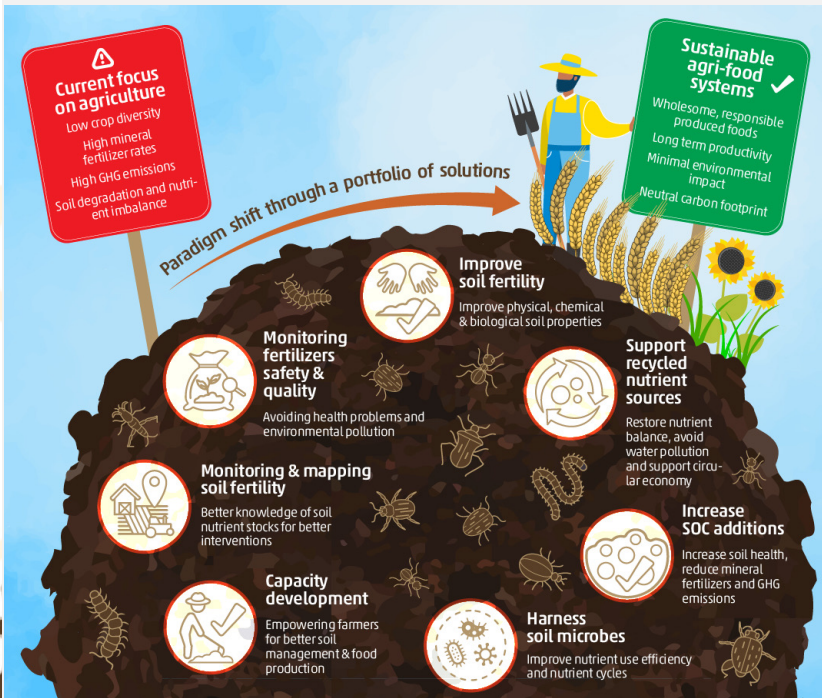
- INSII
- ITPS-soil mapping and monitoring
- GLOSOLAN (harmonization of methods for indicators)
- INSOP- Fertilizers' impacts on environmental pollution
- NETSOB- Fertilizers impacts on biodiversity

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WG2. Soil fertility and fertilizer management

Promote that sustainable soil management (SSM) and sustainable fertilization practices are widely known and disseminated at the farm scale, emphasizing innovations that optimize nutrient use efficiency



- ✓ With particular emphasis on innovations that optimize nutrient use efficiency.
- ✓ Linked to human nutrition and soil health

Identification, compilation, and promotion of **successful field-tested and calibrated soil management practices proven to increase fertility, crop nutrition, and crop yields in different types of soils, crops, and climates**

Identification and promotion of practices that, in addition to maintaining yields and preserving soil fertility, are aimed at **reducing greenhouse gases and atmospheric pollution, especially of water**

Establishment of an environmentally friendly and nutrition-sensitive (not exclusively yield-oriented) **fertilizer recommendation system**

Motivations

Objectives respond to **recommendation 4 of the GSOIL4N Outcome Document**, which advocates for adopting SSM practices since they are the most cost-effective solutions to increase soil nutrient content and fertility.

There is no single solution to all soil fertility problems, but a portfolio of alternatives can be employed.

WG2 will direct its efforts towards developing and implementing a portfolio of solutions to avoid the underuse, misuse, and overuse of fertilizers, greenhouse gas emissions, and environmental pollution.

Potential collaborations

Soil Doctors Program
ITPS-fertility group
INSOP, NETSOB, INSAS, INBS
GLOSOLAN- harmonization of the soil test kit and field soil test and interpretation

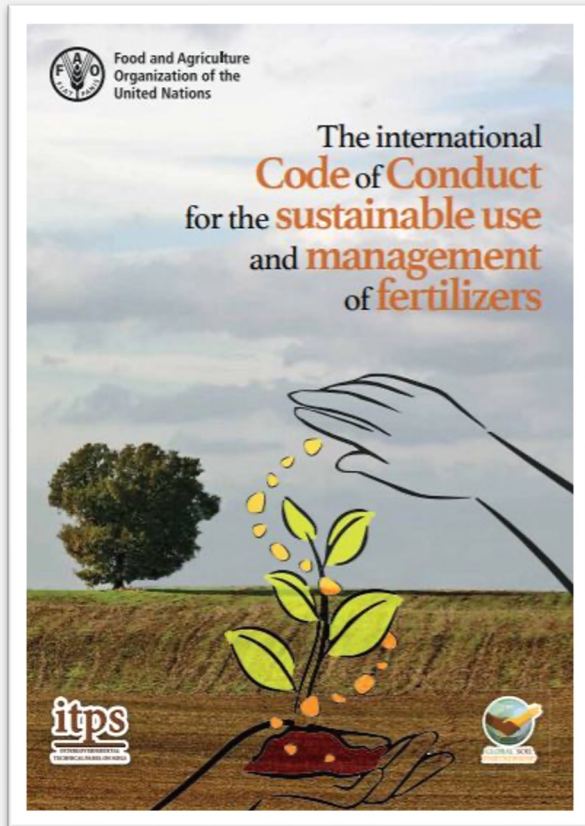
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WG3. Fertilizer safety and quality assessment

Monitor and improve the quality and safety of organic and inorganic fertilizers, and other nutrient sources



INFA becomes WG3-INSOILFER

The International Network on Fertilizer Analysis (INFA) has become the WG3.

Harmonizing methodologies and protocols for the quality and safety assessment of organic and inorganic fertilizers

Quality and safety assessment of fertilizers and alternative nutrient sources: biofertilizers, biostimulants, recycled nutrient sources

Building and strengthening the national capacities of laboratories

Fertilizer quality assessment



Recommendation GSOIL4N
The quality of fertilizers and their bioavailability ensure that fertilizers and recycled nutrients comply with **quality and safety standards**.

Potential collaborations

INSOP, NETSOB
ITPS-Soil assessment and lab harmonization

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The membership of INSOILFER

209 members registered
69 countries



INSOILFER registration survey

Welcome to the INSOILFER registration survey!

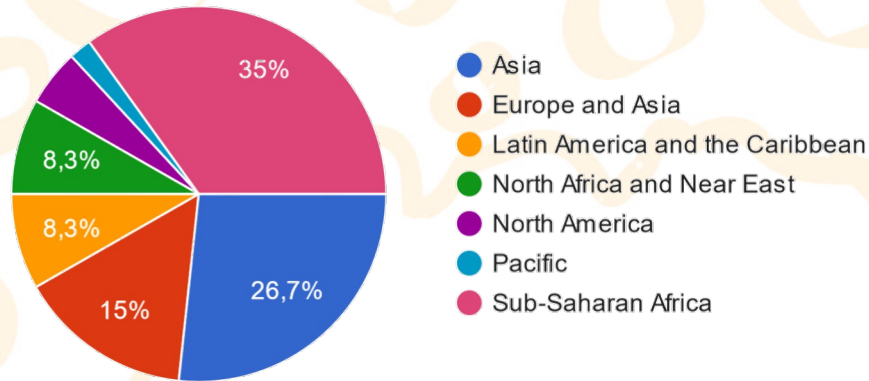
INSOILFER is delighted to welcome new members. To become a member, we kindly request you to complete the registration form provided below.

If you have any questions or need assistance, please don't hesitate to contact us at carolina.oliverasanchez@fao.org and vinisa.saynessantillan@fao.org.

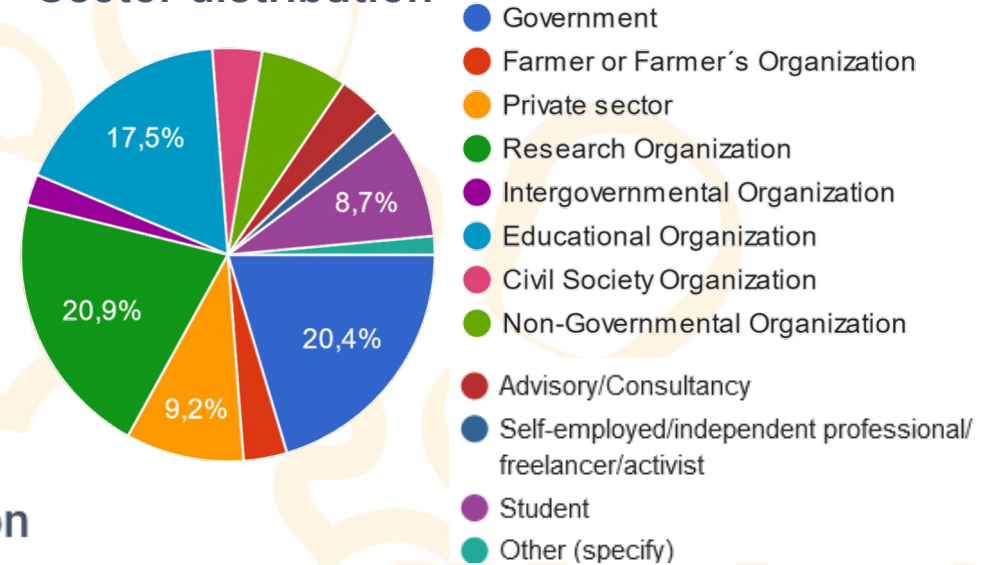
Thank you for your interest in joining INSOILFER!

The membership of INSOILFER

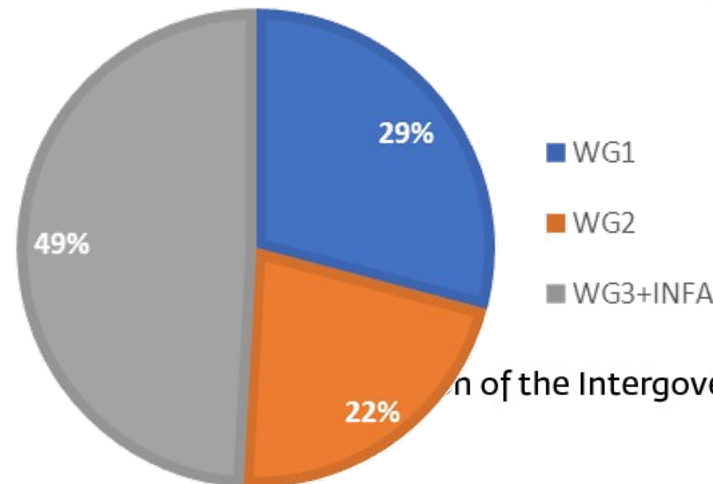
Regional balance



Sector distribution



WG distribution



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INSOILFER structure

INSOILFER Chair and Vice-Chairs
Members network



AGENDA

INSOILFER Coordinators
(Chair: Yuxin Tong, Vice-Chair: Vinisa Saynes)

INSOILFER
Working Group Meetings

Working groups



27-29
November
2023



Referen

Committee



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**Thank you for your
attention!**

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