



Food and Agriculture  
Organization of the  
United Nations

# GLOBAL SOIL PARTNERSHIP

12<sup>th</sup> Plenary Assembly

03-05 June 2024

## International Network on Soil Fertility and Fertilizers- INSOILFER

Georges Ndzana  
INSOILFER Chair



**Insoilfer**

International Network on  
Soil Fertility and Fertilizers





# INSOILFER objectives



To address nutrient imbalances and promote the adoption of soils for nutrition concept for making soils healthy and fertile by 2030 as a contribution to the transformation of agrifood systems.

## Adopt

and implement sustainable and balanced soil fertility management

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## Ensure

global food security through the sustainable use of fertilizers and the promotion of soil fertility

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## Avoid

the underuse, misuse, and overuse of fertilizers

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## Reduce

environmental and human health impacts of unsustainable fertilizer use and soil management practices

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## Evaluate

and improve the safety and quality of fertilizers

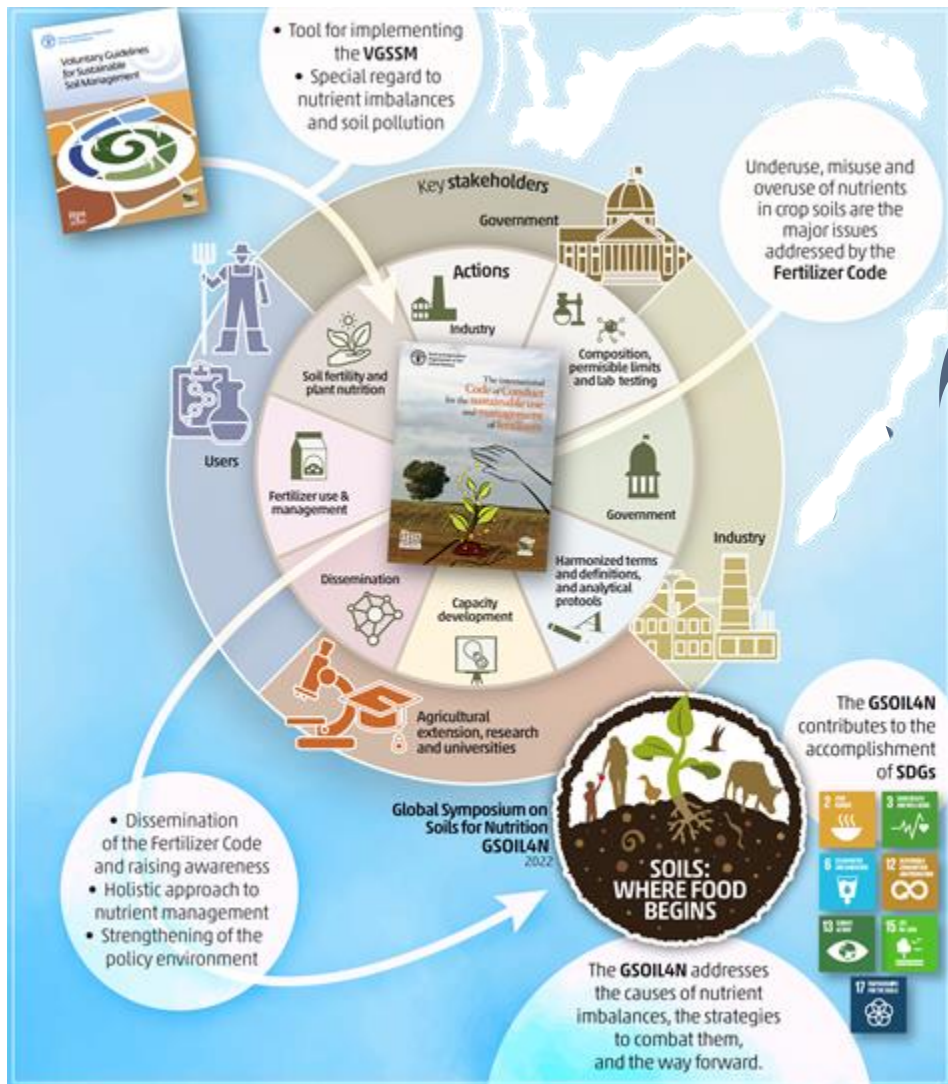
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## Promote

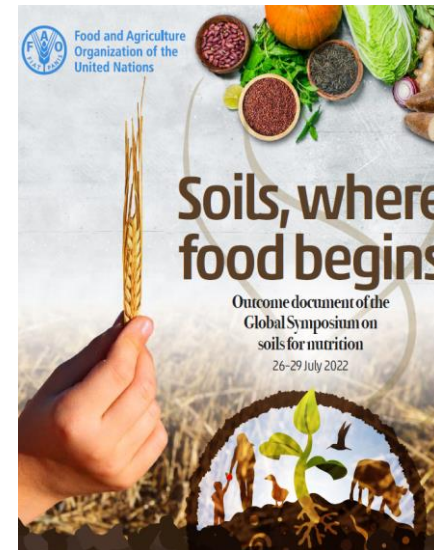
the soils for nutrition policy at national and global levels

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# INSOILFER operation supports the implementation of the Fertilizer Code



## Outcome Document recommendations

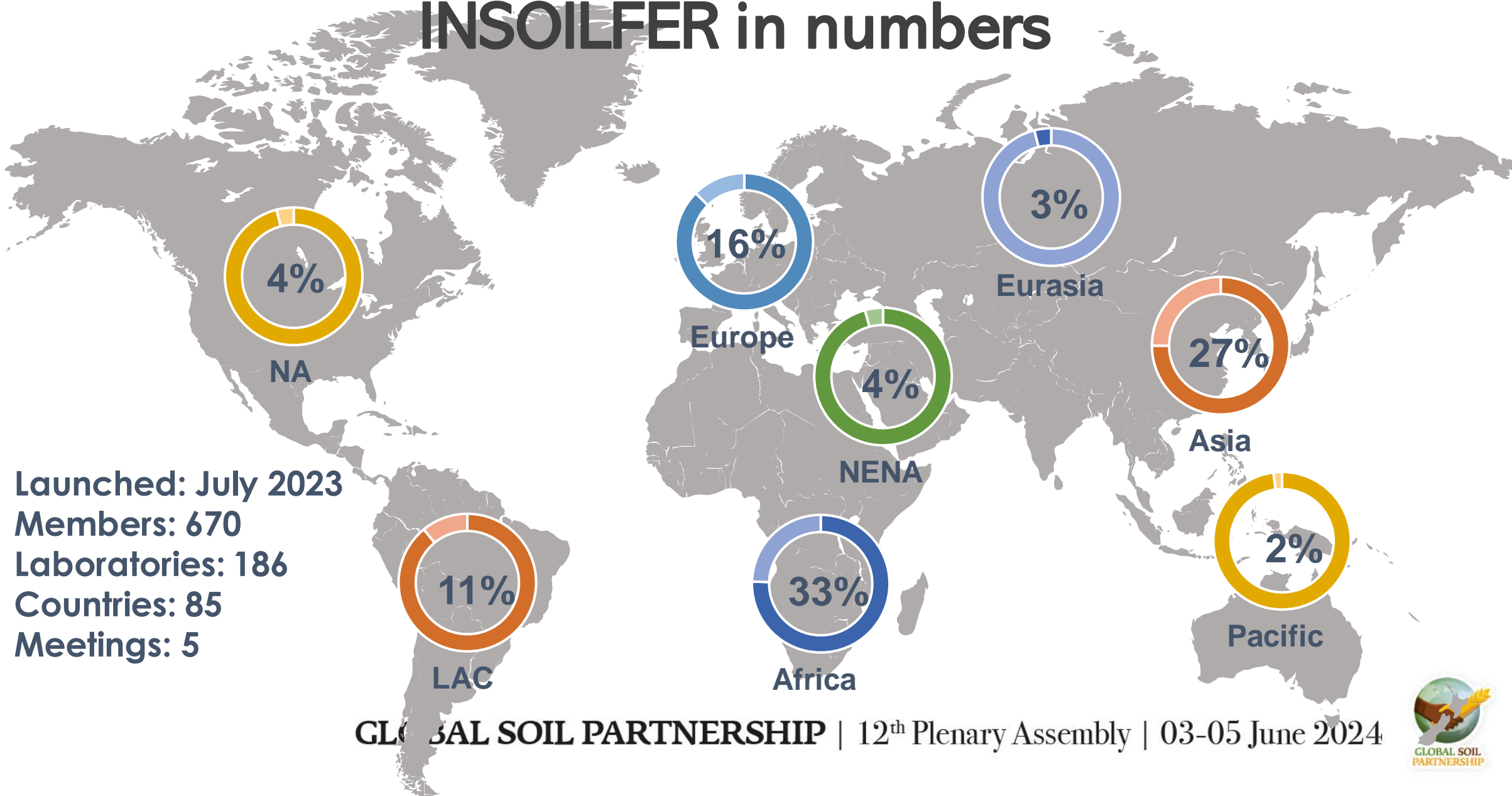


- ✓ GSOIL4N was held to support the implementation and adoption of the Fertilizer Code.
- ✓ The implementation of the Fertilizer Code continues with the launch and operation of INSOILFER

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# INSOILFER in numbers



Launched: July 2023  
Members: 670  
Laboratories: 186  
Countries: 85  
Meetings: 5



# The three working groups of INSOILFER

**WG<sub>1</sub>**  
23%



**Soil fertility and nutrient monitoring system**



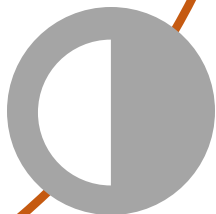
**WG<sub>2</sub>**  
27%



**Sustainable soil fertility and fertilizer management**



**WG<sub>3</sub>**  
50%



**Fertilizer safety and quality assessment**

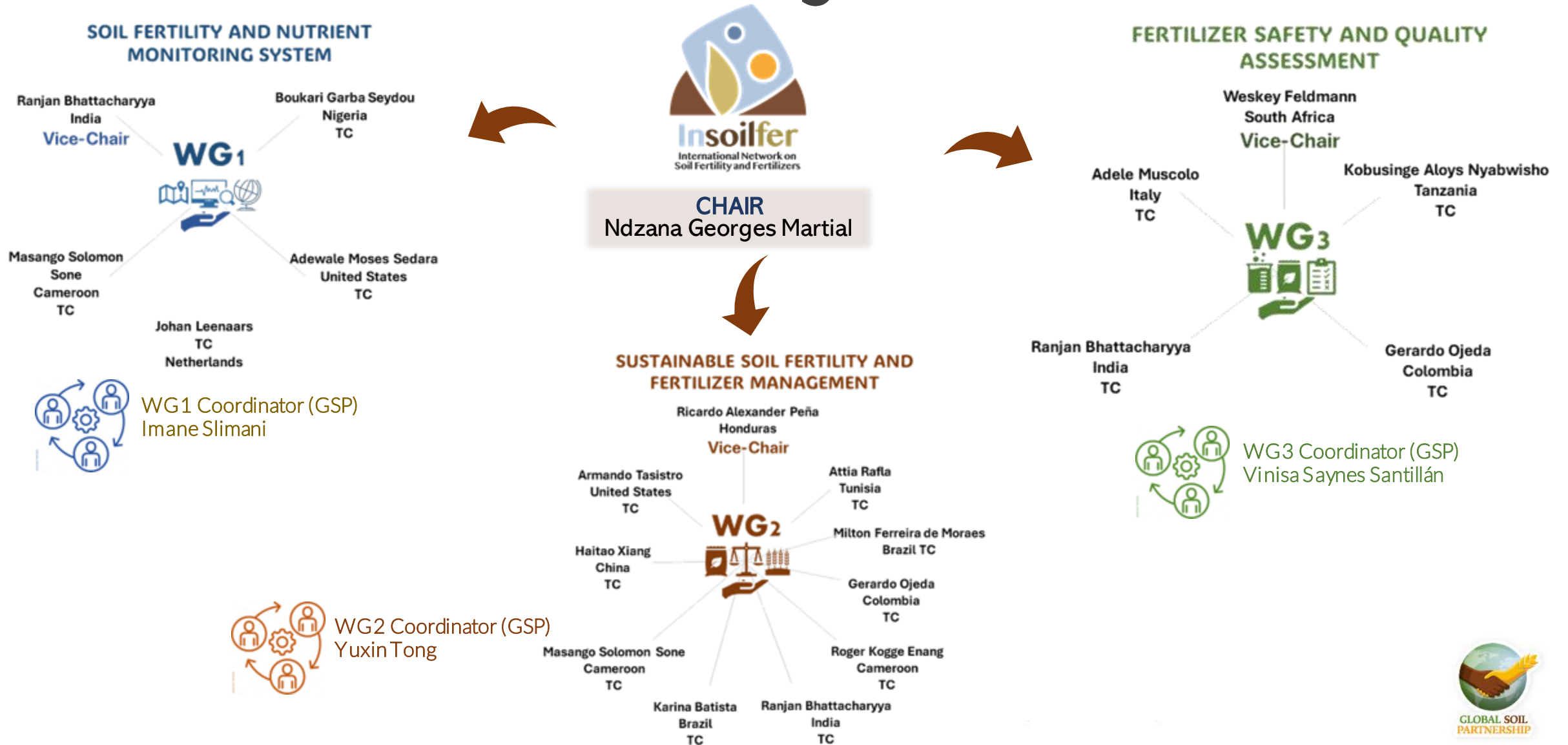


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# INSOILFER governance



# INSOILFER meetings

INSOILFER launch  
July 2023



First WG Meetings  
Nov 2023



First Webinar organic  
fertilizers Jan 2024



Inception Meeting  
February 2024

Second Meetings of the  
Working Groups  
April/May 2024



## 5 PRIORITY ACTIONS

CAPACITY DEVELOPMENT ON:

### AW1



1. ANALYZING SOIL HEALTH INDICATORS, MEASUREMENTS AND MONITORING
2. ON SOIL FERTILITY MAPPING-COLLAB INSII
3. SOC MEASUREMENT AND MONITORING-COLLAB RECISOIL TEAM
4. ON THE ASSESSMENT OF SOIL POLLUTION (HEAVY METALS/ PESTICIDE RESIDUES)- COLLAB WITH INSOP
5. ON SOIL SAMPLING METHODS TARGETING FARMERS AND DIFFERENT STAKEHOLDERS

## 5 PRIORITY ACTIONS

### AW2



1. CD ON SOIL NUTRIENT MONITORING AT DIFFERENT SCALE
2. PROMOTE RESEARCH AND EDUCATION ON SOIL SCIENCES AND RELATED MAJORS
3. CD FOR SOIL NUTRIENT BUDGET EVALUATION
4. DEVELOP ADOPTABLE METHODOLOGY FOR THE NUTRIENT BUDGET MAPPING
5. DEVELOP EXTENSION-TYPE PUBLICATIONS FOR GROWERS AND EXTENSION AGENTS, FOCUS ON REVIEWS OF CURRENT TECHNOLOGY

## 5 PRIORITY ACTIONS

### AW3



1. CLEARLY DEFINE THE DATA THAT SHOULD BE COLLECTED AND DEVELOP A LIST OF INDICATORS
2. DEVELOP A CLEAR PROTOCOL FOR DATA SHARING
3. PROMOTE THE COLLABORATION OF SOIL LABORATORIES
4. PROMOTE CAPACITY BUILDING ON DATA COLLECTION (WEBINARS, TRAINING)
5. MAKE SURE THAT THE DATA COLLECTED IS RELIABLE AND MONITOR QUALITY ASSURANCE



## 5 PRIORITY ACTIONS

### AW1



1. ESTABLISH BASELINE SOIL TESTING & ANALYSIS BEFORE FERTILIZER USE.
2. IMPLEMENTING PERIODIC SOIL ASSESSMENT TO MONITOR CHANGE AND EFFECTIVENESS OF SSM ACCORDING TO CROP NEEDS.
3. PARTNERSHIP WITH PRIVATE SECTORS AND ACADEMIC INSTITUTIONS TO WORK WITH FARMERS.
4. ORGANIZE CONFERENCES/PLATFORMS TO IMPROVE KNOWLEDGE.
5. ORGANIZE COMMUNITY MEETINGS AND WORKSHOPS FOR CITIZENS.

## 5 PRIORITY ACTIONS

### AW2



1. CD ON SOIL NUTRIENT MONITORING AT DIFFERENT SCALE
2. PROMOTE RESEARCH AND EDUCATION ON SOIL SCIENCES AND RELATED MAJORS
3. CD FOR SOIL NUTRIENT BUDGET EVALUATION
4. DEVELOP ADOPTABLE METHODOLOGY FOR THE NUTRIENT BUDGET MAPPING
5. DEVELOP EXTENSION-TYPE PUBLICATIONS FOR GROWERS AND EXTENSION AGENTS, FOCUS ON REVIEWS OF CURRENT TECHNOLOGY

## 5 PRIORITY ACTIONS

### AW3



1. ORGANIC AMENDMENT: BIOMASS MONITORING; COMPOST APPLICATION, BIOCHAR APPLICATION
2. INSTITUTIONAL ORGANIZATION OF SOIL AND FERTILIZER MANAGEMENT
3. PRODUCE NEW WITH RESIDUES AND BIOFERTILIZERS, BIOACTIVATOR.
4. AGROECOLOGY FARMING AND UPSCALING FRAMEWORK.
5. REGULATION ON FERTILIZER QUALITY
6. PRECISION FARMING: REMOTE SENSING FOR MONITORING ON FERTILIZER INFORMATION AND DATA.
7. CLIMATE SMART AGRICULTURE.

## PRINCIPAL ACTIVITIES

SOP HARMONIZATION REPORT

AW1



TOTAL NITROGEN BY THE KJELDAHL METHOD  
HEAVY METAL DETERMINATION IN PHOSPHATE FERTILIZER MATERIALS  
TOTAL NITROGEN BY THE COMBUSTION METHOD  
TOTAL PHOSPHORUS- ACID DIGESTION  
TOTAL POTASSIUM - WATER-SOLUBLE  
  
BIOFERTILIZER QUALITY AND SAFETY ASSESSMENT: AN EMERGENT  
GLOBAL NEED-COLLABORATION WITH NETSOB

## PRINCIPAL ACTIVITIES

AW2



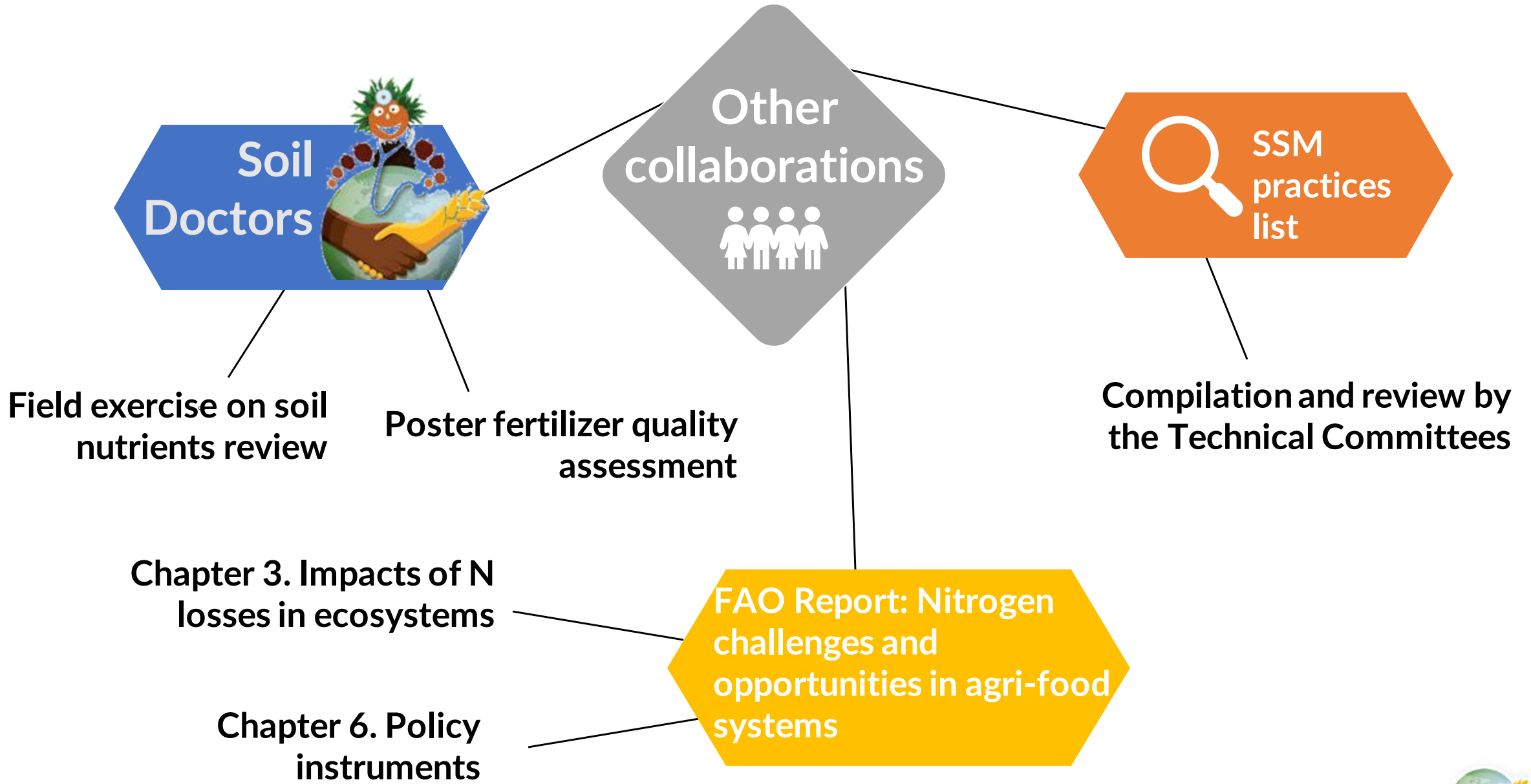
CAPACITY DEVELOPMENT FOR QUALITY ASSURANCE  
  
LAYING THE FOUNDATION OF FERTILIZER SAFETY AND QUALITY  
ASSESSMENT: TRAINING IN QUALITY ASSURANCE IN ANALYTICAL  
PROCEDURES  
SOP TRAINING: NPK ANALYSIS IN FERTILIZERS  
RING TEST

## PRINCIPAL ACTIVITIES

AW3



STANDARDIZED MONITORING OF HEAVY METALS: ACTIONS TO IMPROVE  
THE QUALITY AND SAFETY MONITORING IN FERTILIZERS  
POLICY BRIEF ON PERMISSIBLE LIMITS  
BUILD THE FOUNDATIONS OF A PLATFORM SIMILAR TO SOILEX





# Requests to the PA

- Encourage FAO members, national experts and stakeholders to join INSOILFER
- Support and disseminate the endorsed work plan for the three working groups
- Support INSOILFER in identifying resource mobilization opportunities



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# THANK YOU

