



Food and Agriculture  
Organization of the  
United Nations

# 6<sup>th</sup> African Soil Partnership plenary meeting

26-27 April 2022  
VIRTUAL MEETING

**BOTSWANA'S BENEFITS AS GLOSOLAN MEMBER**

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**Soil and Plant Analytical Laboratory Coordinator**

**AFRILAB CHAIR**



# Presentation outline

- Brief introduction of GLOSOLAN, AFRILAB and NASOLAN
- Botswana National Soil Laboratory Network
- Soil and Plant Analytical Laboratory
  - Membership with GLOSOLAN
  - Benefits acquired through GLOSOLAN membership
    - 1) Participation in the PT scheme
    - 2) Support with laboratory equipment
    - 3) Capacity building

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# INTRODUCTION OF: GLOSOLAN

Established in 2017 to harmonize soil laboratory methods and data, and to build the capacity of laboratories in soil analysis with three major areas of action involving:

- SOPs
  - Harmonization of Standard Operation Procedures (SOPs)
  - Training on the implementation of GLOSOLAN SOPs
  - Training on safety and health
- Monitoring and Evaluation
  - Execution of external quality control (proficiency testing)
  - Training on the execution of internal quality control
- Technology transfer
  - Training on equipment use, maintenance and purchasing
  - Establishment of a donation/bartering system
  - Spectroscopy

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# GLOSOLAN cont.

Establishment: represented by 826 registered laboratories across the world organised in 6 regional networks including:

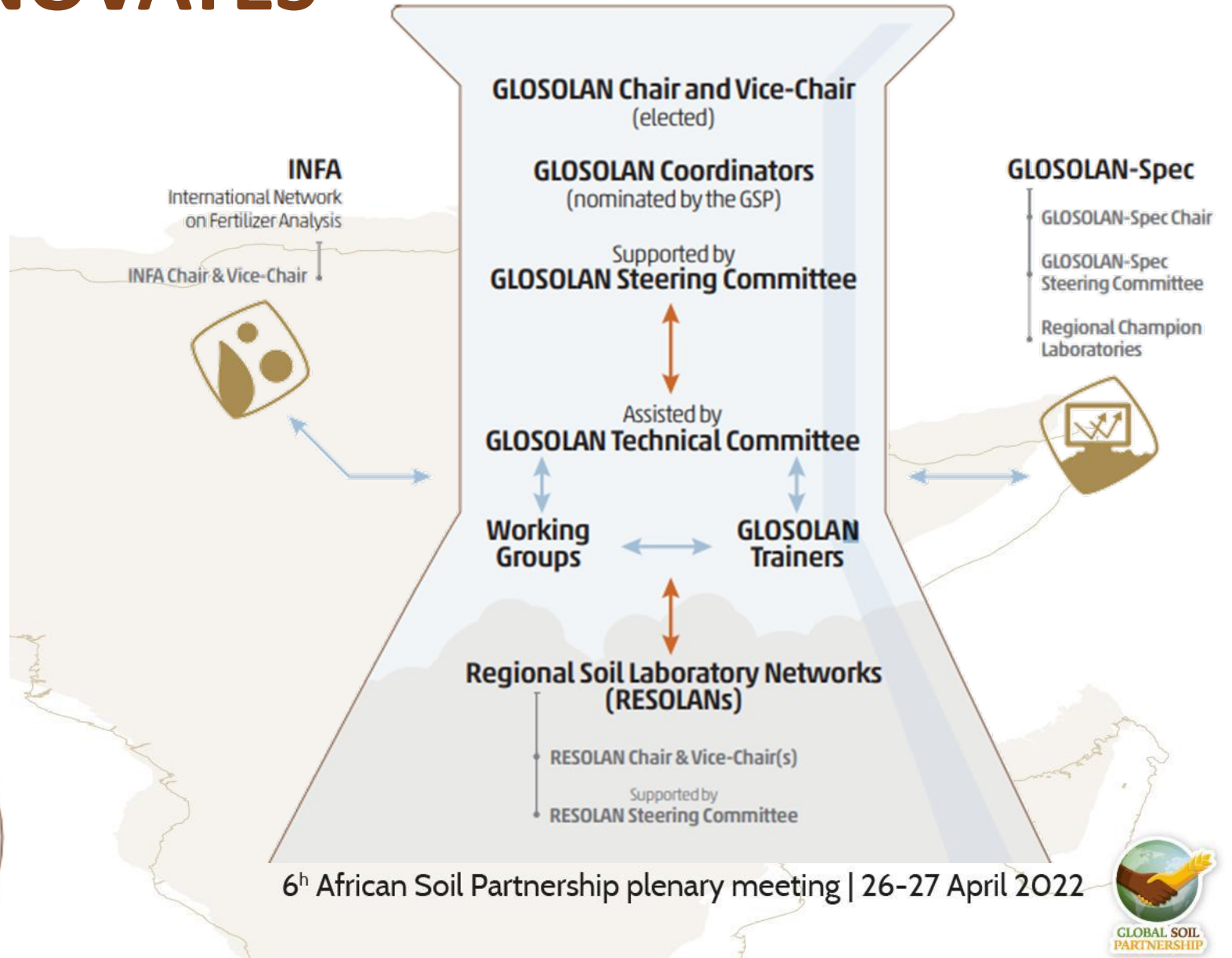
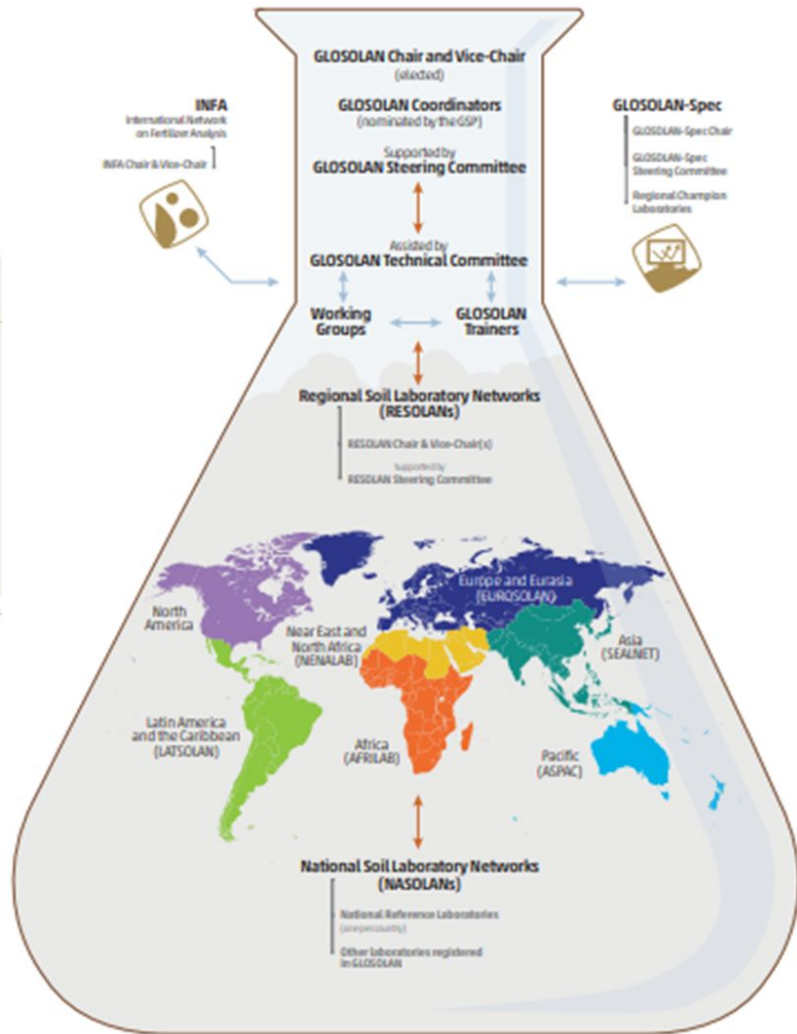
- Africa (AFRILAB) counting 144 laboratories;
- Asia (SEALNET) 123 laboratories;
- Europe and Eurasia (EUROSOLAN) 174 laboratories;
- Latin America (LATSOLAN) 206 laboratories ;
- Near East and North Africa (NENALAB) 89 laboratories;
- North America 13 laboratories;
- Pacific (ASPAC) 77 laboratories.

The next slide is about GLOSOLAN governance as the network is growing up

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# GLOSOLAN INNOVATES



# Registration of laboratories with GLOSOLAN

- **WHO:**

- All soil testing laboratories, irrespective of size, country or region

- **WHY:**

- GLOSOLAN is supportive and would like all laboratories benefiting from the initiative of networking

- **HOW:**

- Download form from GLOSOLAN website, complete it and send it to [GSP-Secretariat@fao.org](mailto:GSP-Secretariat@fao.org) and to [Lucrezia.Caon@fao.org](mailto:Lucrezia.Caon@fao.org)

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# AFRILAB

## Established in 2019 to:

- Connect partners and networks already operating within the African continent.
- To coordinate, participate and facilitate in the implementation of GLOSOLAN activities at regional level.

## Establishment:

- Number of member countries = 48
- Number registered laboratories = 144

## • Governance

- The network is coordinated by a chair with the support of two vice-chairs.
  - CHAIR: Lesego Mooketsi-Selepe (**Botswana**)
  - Vice-Chair Francophone countries: Dr. Sougueh Cheik (Djibouti)
  - Vice-Chair Anglophone countries: Mr. Takesure Tendayi (Zimbabwe)

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# National Soil Laboratory Network (NASOLAN)

National networks are established at country level to break language and cultural barriers.

## Establishment:

- National reference laboratory
  - Identified and recommended by GSP national focal point
- Other registered laboratories
  - Recruited by national reference and other registered laboratories

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# NASOLAN cont.

## Tasked to:

- Facilitate in the implementation of GLOSOLAN activities at national level
- Advertise GLOSOLAN activities and events to motivate national laboratories to take part in them.
- Contribute towards the growth of the network by motivating other soil laboratories in the country to register with GLOSOLAN and national network.
- Organise national trainings and meetings to:
  - To transfer knowledge and skills acquired
  - Discuss challenges and needs
  - Explore financial resources mobilization opportunities
- Organise national inter-laboratory comparison exercises

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# National Reference Laboratory

## Tasked to:

- Lead in the establishment of their national soil laboratory network.
- Organise national trainings and meetings to transfer knowledge and skills acquired.
- Implement GLOSOLAN standards and decisions.
- Attend regional and global trainings on implementation of good laboratory practices and other GLOSOLAN/RESOLANs initiatives.
- Attend GLOSOLAN and own RESOLAN meetings to make contributions in decision making.
- Promote GLOSOLAN
- Produce and submit annual report on national activities to GSP national focal point and GLOSOLAN coordinator.

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# Botswana National Soil Laboratory Network

- Established 2022
- Name: BOSOLAN
- Establishment : 6 laboratories
  - a) National reference laboratory:
    1. Soil and Plant Analytical Laboratory
  - b) Registered laboratories:
    1. Botswana International University of Science and Technology (BIUST)
    2. University of Botswana- Okavango Research Institute (ORI)
    3. Lisbeth investments
    4. Betach
    5. Soil Lab Botswana



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# Soil and Plant Analytical Laboratory (SPAL)

- Registered to GLOSOLAN in 2019
- A member of AFRILAB and BOSOLAN

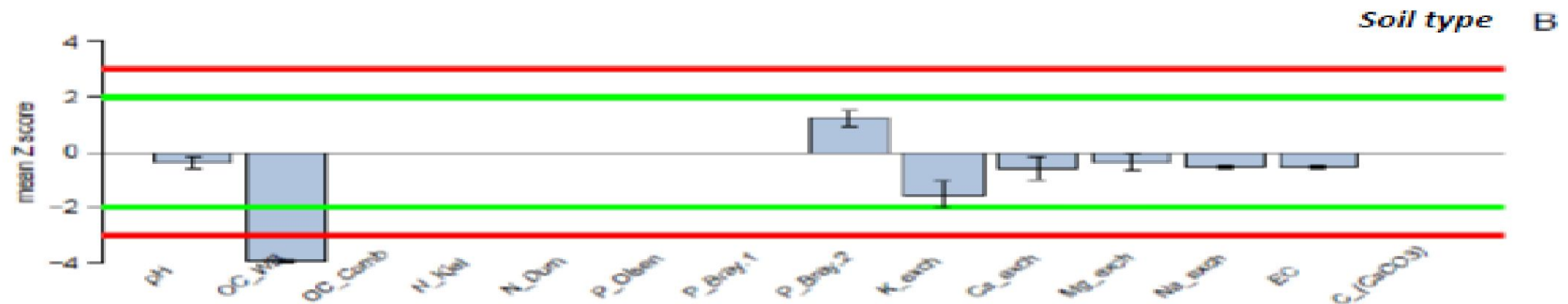
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# SPAL cont.

- Benefits acquired through GLOSOLAN membership
  - 1) Opportunity to participation in the PT scheme
    - SPAL participated in the 2019 and 2022 proficiency test scheme
    - The results were good except for colorimetric test (OC)



# SPAL cont.

## 2) Support with laboratory equipment

- The laboratory participated in Global Assessment on laboratory capacities and needs. From the assessment responses GLOSOLAN identified our need and sourced a new Shimadzu UV-Vis 1900i for our laboratory.



7 April 2022



# SPAL cont.

## 3) Capacity building

- GLOSOLAN offers this opportunity to every staff member of the registered laboratories
- SPAL staff participated in webinars and trainings on laboratory related topics such as:
  - Implementation of the SOP for organic carbon
  - Implementation of the SOP for electrical conductivity
- At personal level I had the opportunity to:
  - Organise and facilitate trainings
  - Participate in harmonization and writing of SOPs
  - Hold governance roles at regional level

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