



Food and Agriculture
Organization of the
United Nations

Launch of the **International Network on Soil Biodiversity**

in the framework of the
Global Soil Biodiversity Observatory

3rd December 2021 | 🕒 14:00 CET
Online meeting



GLOSOLAN and NETSOB

Ms Lucrezia Caon, FAO-GSP Secretariat
Mr Filippo Benedetti, FAO-GSP Secretariat



Why does soil analysis matter?



GLOSOLAN aims to harmonize soil analysis methods so that soil data is comparable and interpretable across soil laboratories in a country, between countries and regions, and globally.



Decision making is based on data AVAILABILITY and QUALITY

...there are **dAt@** and **DATA**

- Data should be reliable (accurate and precise)
- Data should be comparable



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Global Soil Laboratory Network (GLOSOLAN)

Established in 2017 to harmonize soil laboratory methods and data, and to build the capacity of laboratories in soil analysis. Three plus one major areas of work:



- Execution of external quality control (proficiency testing)
- Training on the execution of internal quality control



- Harmonization of Standard Operation Procedures (SOPs)
- Training on the implementation of GLOSOLAN SOPs
- Training on safety and health



- Training on equipment use, maintenance and purchasing
- Establishment of a donation/bartering system
- Spectroscopy



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**21, the network had 760
es registered**



On November 21, 2021, the network had 760 laboratories registered



Africa AFRILAB	Asia SEALNET	Europe & Eurasia EUROSOLOAN	Latin America LATSOLAN	Near East & North Africa NENALAB	North America	Pacific ASPAC
143	117	151	192	72	8	77

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GLOSOLAN contribution to soil biology

Soil biology is quite new to GLOSOLAN (2021 work plan) because the network focused on soil chemical and soil physical properties first.

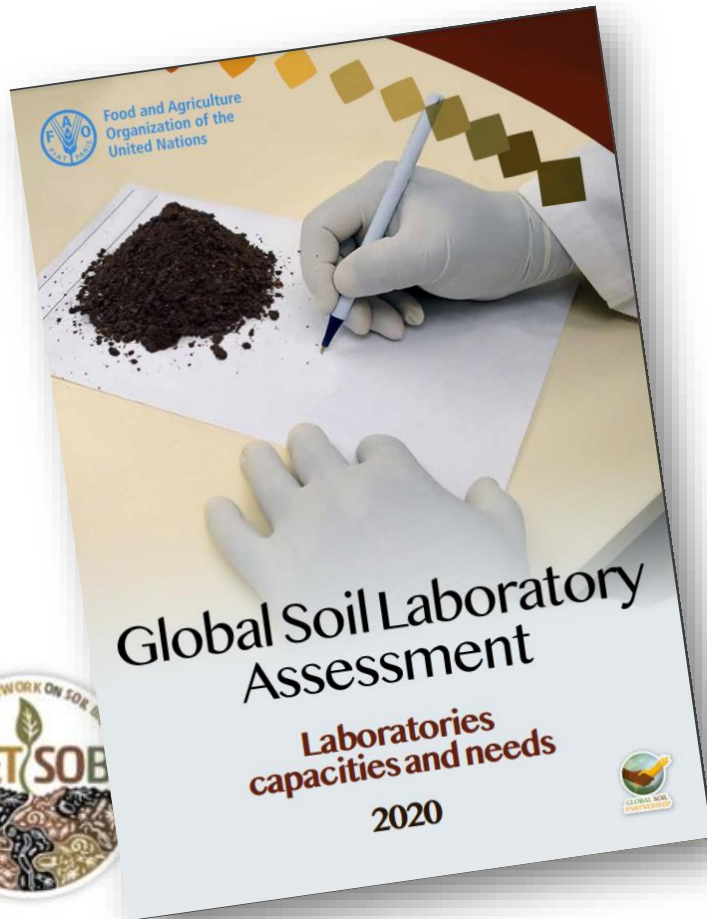


Table 3. Type soil analysis performed by laboratories at regional level (numbers indicate the number of laboratories).

	Africa	Asia	Eurasia	Europe	Latin America	NENA	North America	Pacific
Total number of countries completing the survey	35	19	10	30	27	13	1	7
Soil chemical analysis	100 %							
Soil physical analysis	80 %							
Soil biological analysis	44 %							

* Note: the Bahamas did not reply this question

GLOSOLAN contribution to soil biology

What we are doing...

- Harmonization of Standard Operating Procedures (SOPs)
 - Soil respiration rate
 - Microbial biomass C and N by chloroform fumigation-extraction
 - Microbial enzyme activities
- Writing of guidelines on sample collection, transporting and storing guidelines
- Collection of soil import regulations worldwide ([SIMPLE Database](#))
- Connecting with networks on soil biodiversity (SoilBON, Fields4Ever, etc.)



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However...

- GLOSOLAN misses laboratories doing soil biological analysis
- GLOSOLAN counts on the support of few experts on soil biology

This is delaying the writing of SOPs and other training material (including video recording).

At the 5th GLOSOLAN meeting, **network members agreed on the need to cooperate with and seek the support of NETSOB experts !**



GLOSOLAN – NETSOB Collaboration proposal

1. NETSOB to spread the word on GLOSOLAN, to motivate laboratories doing soil biological analysis to join the network
2. NETSOB experts to contribute to the writing of GLOSOLAN material on soil biological parameters, including guidelines on soil samples collection, storage and transportation. Establishment of a **GLOSOLAN-NETSOB working group** on the topic



It should also decide on the SOPs for GLOSOLAN to harmonize every year, taking into consideration regional and GSP requests, and NETSOB priorities



GLOSOLAN – NETSOB Collaboration proposal

3. NETSOB and GLOSOLAN to prepare awareness raising material that can also promote the establishment of new laboratories, get projects and procure equipment to existing laboratories in need
4. NETSOB experts to provide training on the analysis of soil biological parameters (as per the GLOSOLAN SOPs)
5. NETSOB experts to support and advice laboratories as needed

Overall, GLOSOLAN can take care of NETSOB's work related to soil laboratories in order to avoid duplication of efforts





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Organización de las Naciones
Unidas para la Alimentación
y la Agricultura

Procedimiento operativo estándar para el análisis de carbono orgánico del suelo

Walkley-Black

Métodos de titulación y colorimétrico

GLOSOLAN

RED GLOBAL DE LABORATORIO DE SUELO



ALIANZA MUNDIAL
POR EL SUELO

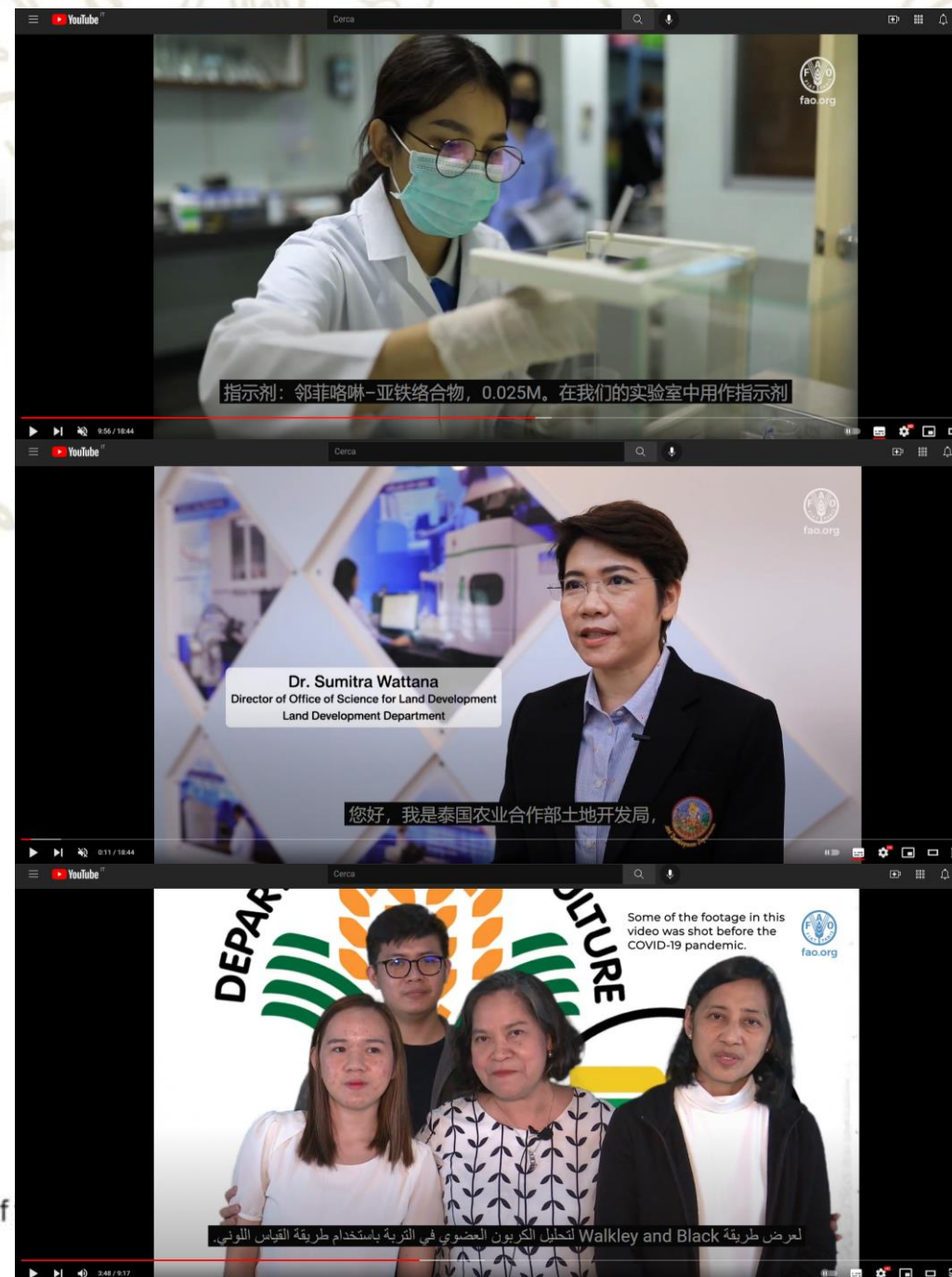
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Продовольственная и
сельскохозяйственная организация
Объединенных Наций

Методика
анализа органического
углерода почвы

Методы
титриметрическим





**26 trainers from 16
different countries
(6 regions)**



GLOSOLAN procurement | Interactive map



← Philippines

Country

Philippines

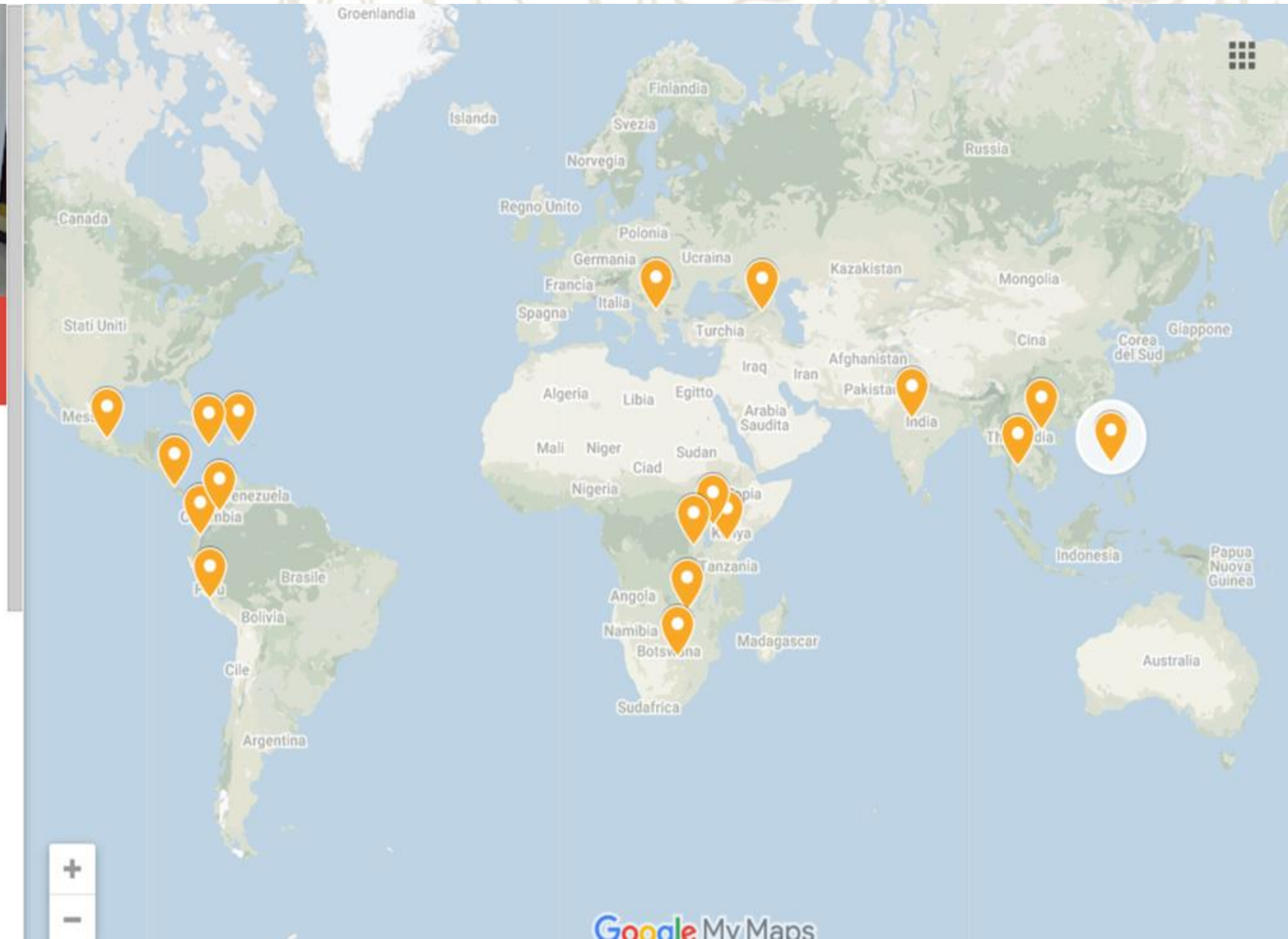
Laboratory

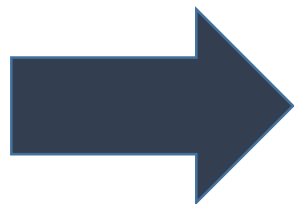
Bureau of Soils and Water Management Laboratory
Services Division

Participation in the GLOSOLAN PT
2019

Address

SRDC Bldg., Elliptical Road cor Visayas Ave., Diliman,
Quezon City





Organization of Inter-laboratory comparisons or proficiency tests (PTs)

- 2 Regional PT 2018 (Asia & Latin America)
- Global PT 2019 (approx. 80 laboratories)
- **Global PT 2021 (approx. 280 laboratories)**



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Welcome to the Global Soil Laboratory Network
(GLOSOLAN) platform for the online submission of
proficiency testing (PT) results

Why an online submission platform?

- To limit transcription errors
- To limit errors in the units of measure
- To further ensure the confidentiality of results and keep laboratories anonymous to experts analysing PT results

An initiative of



Thanks to the financial support of





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