



Food and Agriculture
Organization of the
United Nations

GLOBAL SOIL PARTNERSHIP

12th Plenary Assembly

03-05 June 2024

International Network of Black Soils INBS

Dr. Miguel Taboada
INBS Chair



BLACK SOILS MATTER



Photo Xingzhu Ma

Black soils constitute the food basket for many countries and for the world in general and are often recognized as inherently productive and fertile soils.



What are Black Soils?

Black soils are mineral soils which have a black surface horizon, enriched with organic carbon that is at least 25 cm deep (FAO/ITPS, 2019).



Black soils have the following five properties

The presence of black or very dark surface horizons; typically with a chroma of ≤ 3 for moist soils, and ≤ 5 for dry soils (Munsell colours);

The total thickness of black surface horizons ≥ 25 cm;

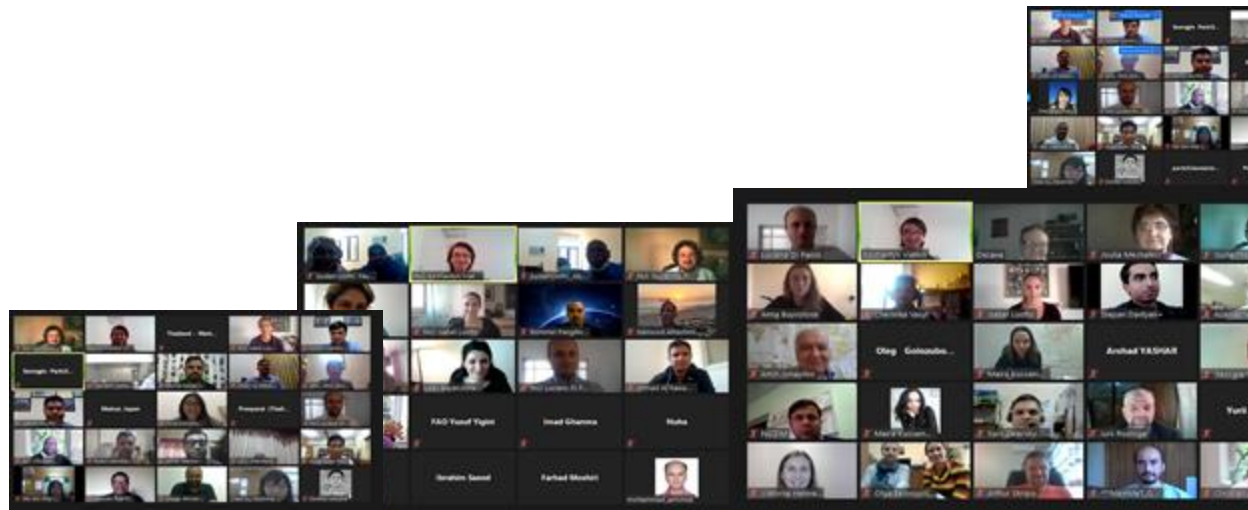
Organic carbon content in the upper 25-cm of the black horizons of $\geq 1.2\%$ (or $\geq 0.6\%$ for tropical regions) and $\leq 20\%$;

CEC in the black surface horizons ≥ 25 cmol/kg;

A base saturation in the black surface horizons $\geq 50\%$

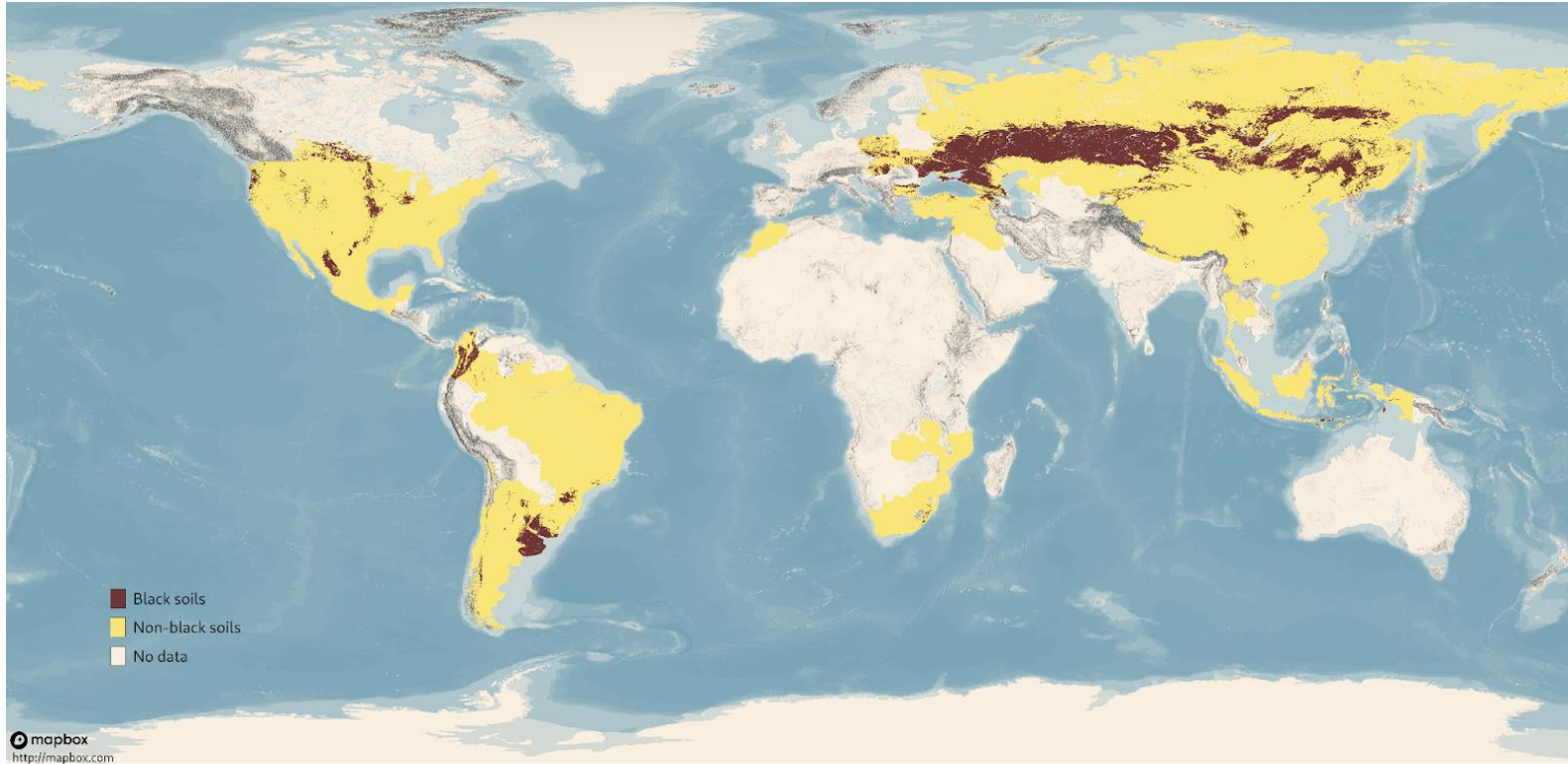
MAPPING BLACK SOILS

GBSmap Training INBS Countries + one-to-one support sessions



1. Argentina (probability map)
2. Brazil (probability map)
3. Bulgaria (detailed polygon maps)
4. Canada (probability map)
5. China (probability map)
6. Colombia (probability map)
7. Indonesia (detailed polygon maps)
8. Mexico (probability map)
9. Poland (probability map)
10. Russian Federation (detailed polygon maps)
11. Slovakia (detailed polygon maps)
12. Ukraine (probability map)
13. United States of America (probability map)
14. Uruguay (probability map)

Where are Black Soils?



725 million hectares

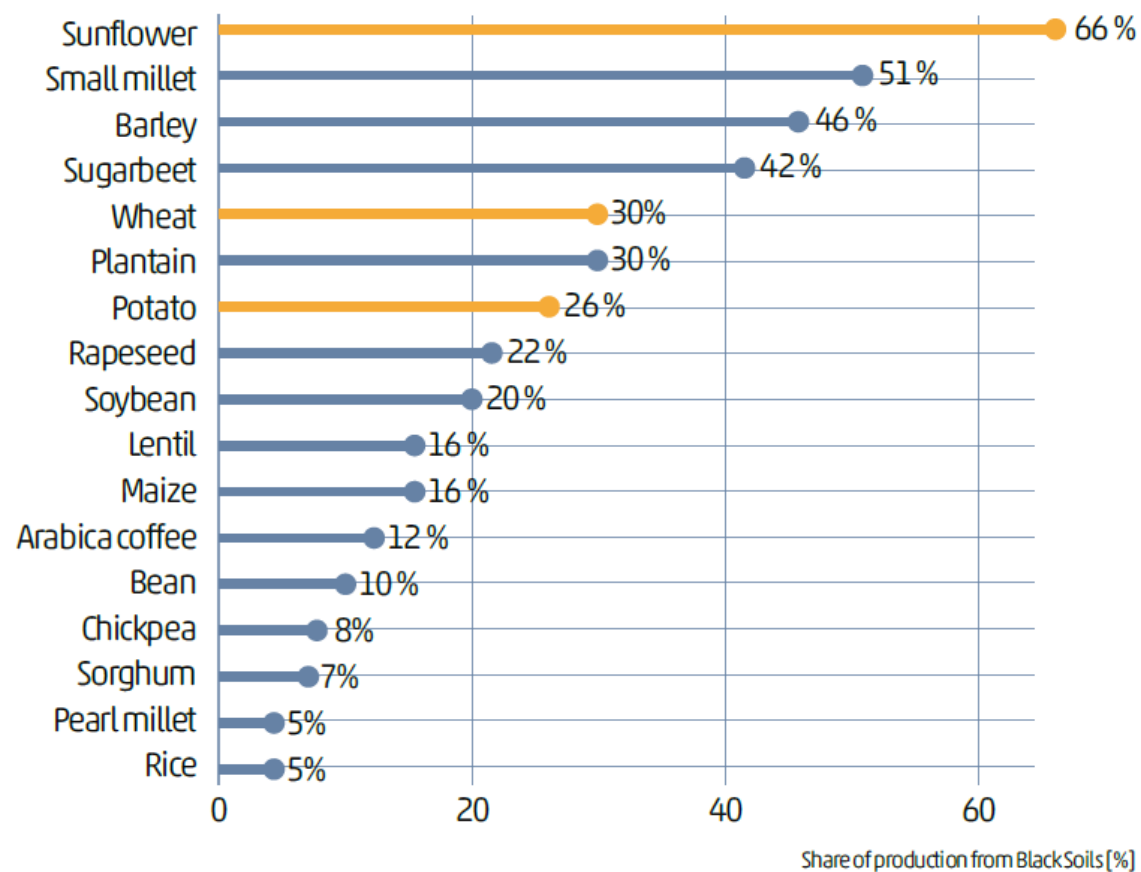
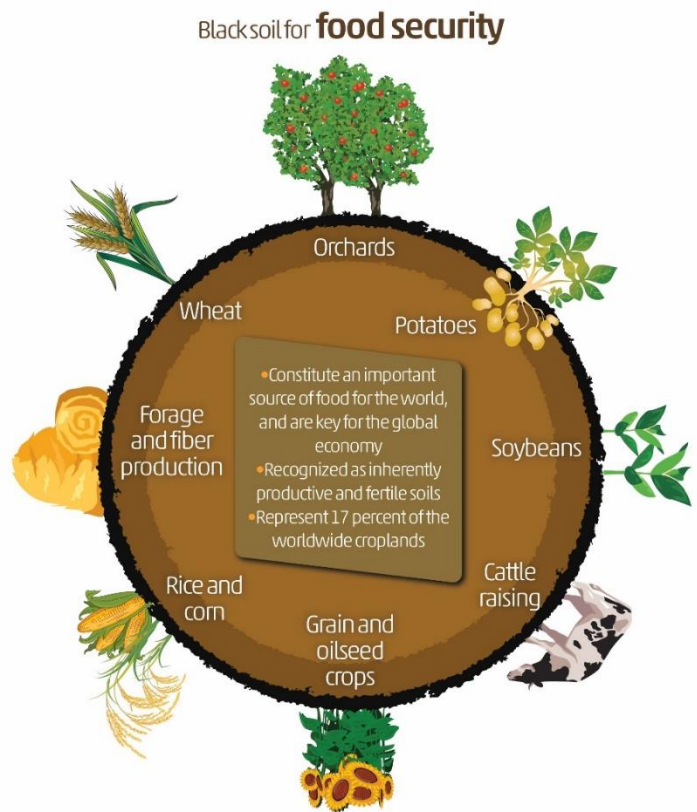
5.58% of Global Land Area

Global Black Soil Distribution Map (GBSmap), launched in 10th GSP Plenary Assemble on 23th May 2022

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Why do Black Soils matter ?



227 million hectares

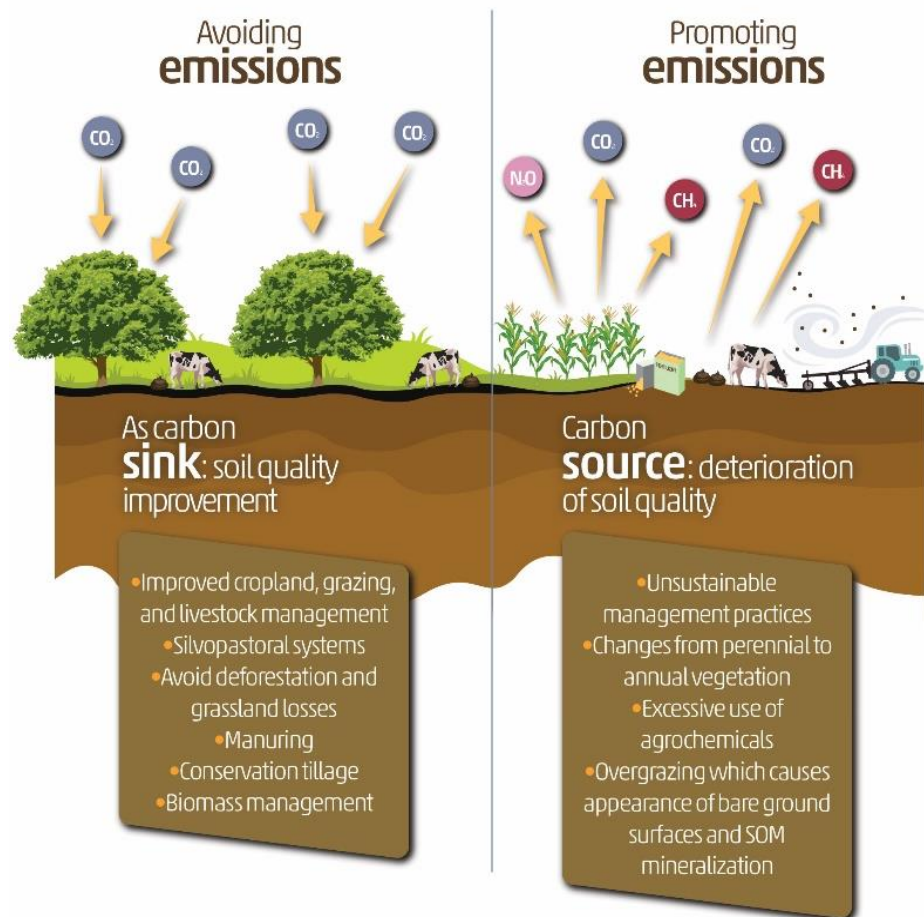
17% of the Global Cropland Area

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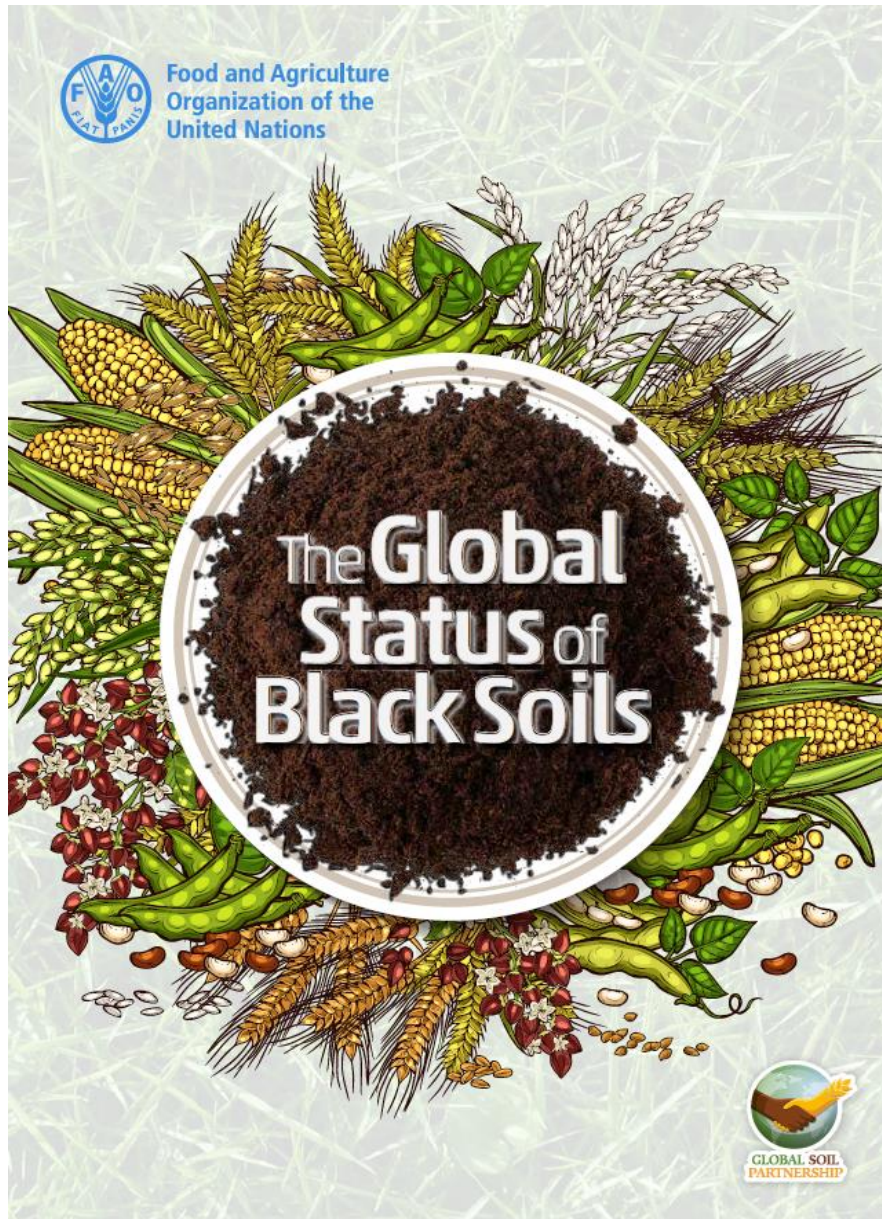
Why do Black Soils Matter ?

Blacksoils, a **sink** or a **source** of carbon?



56 PgC

8.2% of the global SOC stock



The intention of the global black soil report is:

- to raise awareness on the importance of this limited natural resource (black soils);*
- to understand black soils' distribution and status;*
- to provide key information that will give decision makers to promote the sustainable use and management of black soils.*

188 soil scientists from **31 countries** contributed to the report with their knowledge on status, challenges, management, conservation, and monitoring of black soils.

Launch of INBS

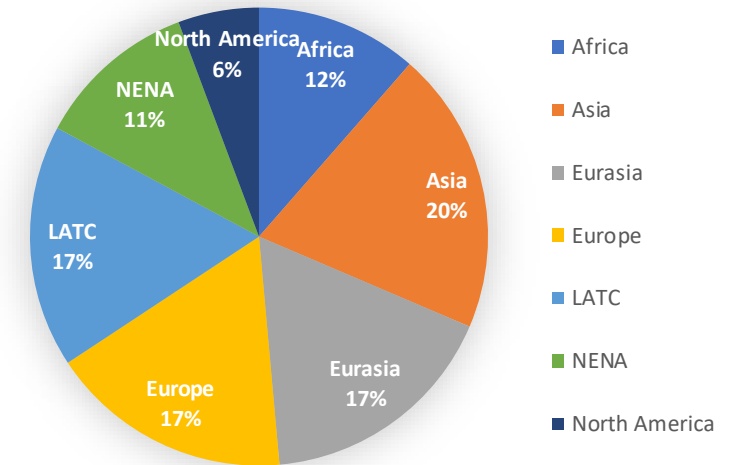
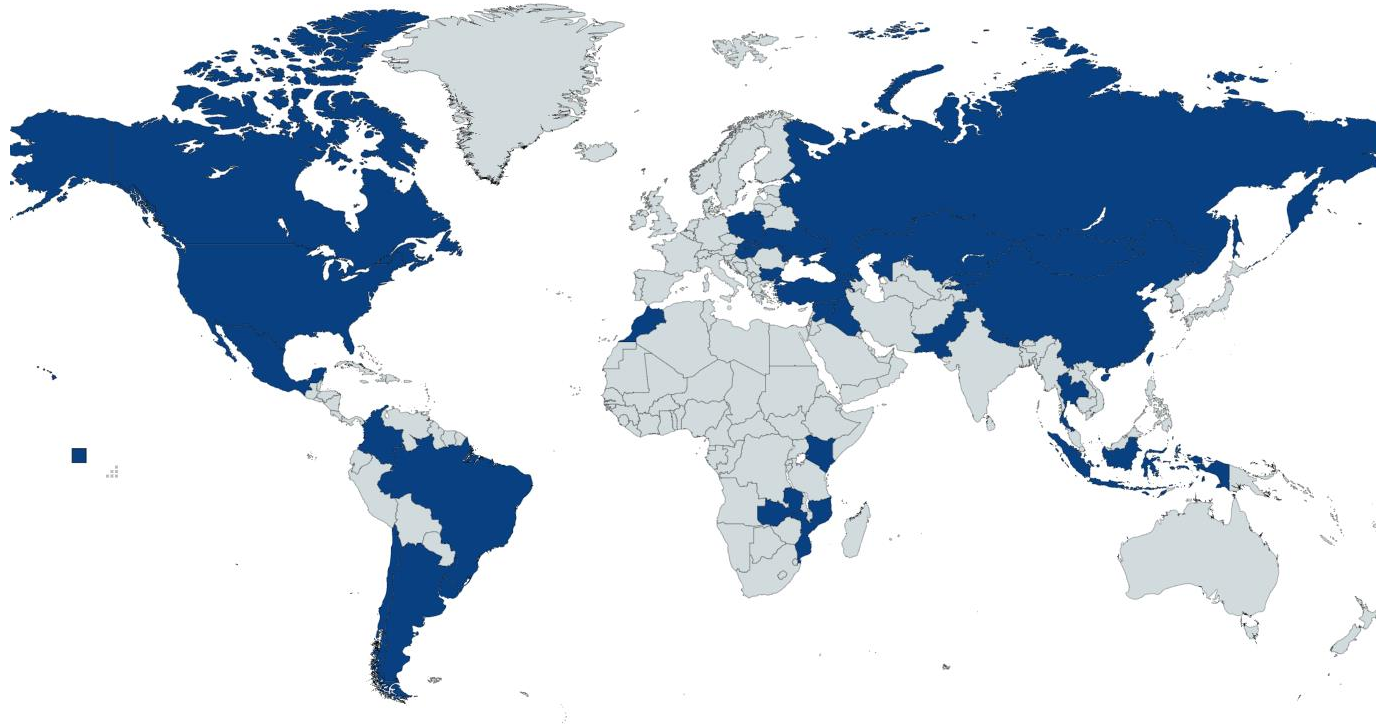
The International Network of Black Soil (INBS) was launched in Rome, in March 2017, on the basis of recommendation of the FAO's Global Soil Partnership (GSP) on the UN's Sustainable Development Goals (SDG), and the discussions and decisions from the Global Symposium of Soil Organic Carbon (GSOC 2017).

The INBS aims at:

- Promoting conservation and sustainable use of black soils, considering their great importance and risk of severe degradation.
- Unlocking their potential to support food security while protecting the environment and mitigating climate change.



Members of INBS - 34 Countries and 1 Union



Global distribution of black soil member countries



- Endorsement of the renewed ToR of INBS
- Vote and announcement for the INBS chair and vice chair
- INBS activity plan 2023-2024 and discussion



Webinar series SUSTAINABLE MANAGEMENT BLACK SOILS

Case studies from Argentina | 24
November 2023
Case studies from China | 6
February 2024

Introduce

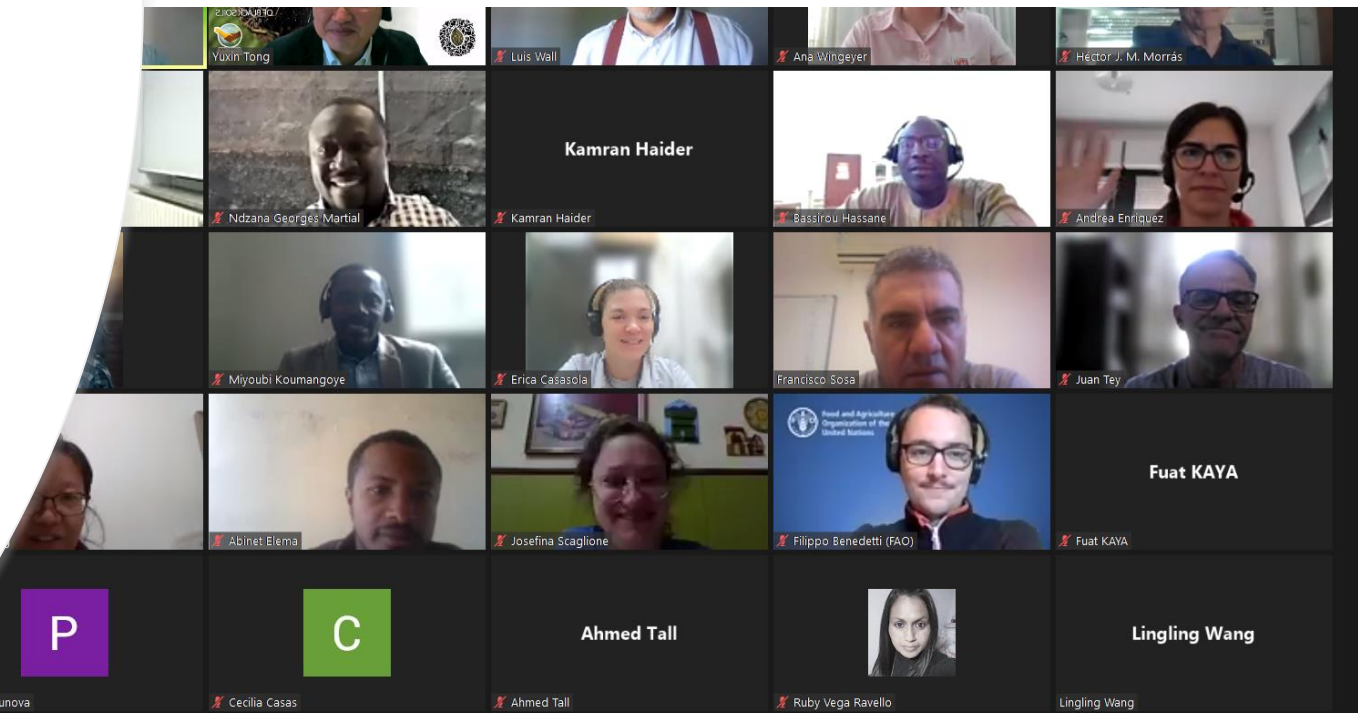
Introduce good practices on sustainable black soil management from Argentina and China

Discuss

Discuss the gaps and challenges on black soil management

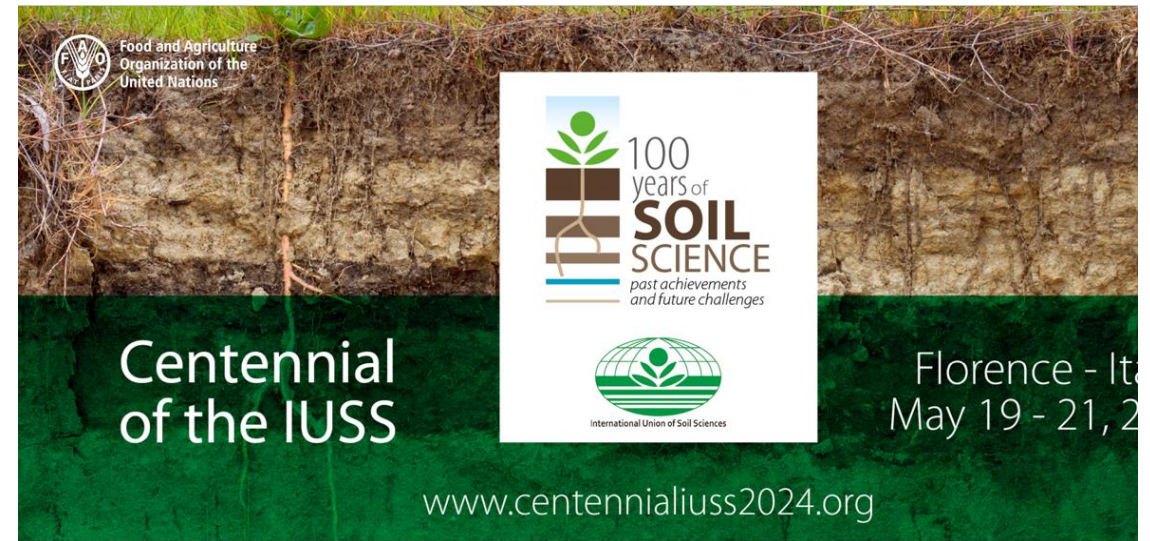
Exchange

Exchange knowledge and technology among black soil countries.



Co organized the session on Black Soils: Their Importance For Food Security And Carbon Neutrality in IUSS

Centennial of the IUSS Florence – Italy May 20



Sustainable Management of Black Soils: Urgent Need for Achieving Global Food Security and Climate Change Mitigation



Chair and Vice Chair of INBS



- Miguel Angel Taboada, University of Buenos Aires, Argentina
- William May, Head/Soil Scientist, Agriculture & Agri-Food Canada

Thanks to ITPS black soil working group

- Guillermo A. Studdert, Universidad Nacional de Mar del Plata, Argentina
- Michael Castellano, Iowa State University
- Lúcia Helena Cunha dos Anjos, the Federal Rural University of Rio de Janeiro (UFRRJ)
- Ndzana Georges Martial, University of Dschang in Cameroon



INBS work plan 2024

- Organize webinars on the topics of sustainable black soil management;
- Develop courses for sustainable black soil management under EduSoils platform.
- Update the Global Black Soil Distribution Map (GBSmap); and
- A report of good cases for sustainable black soil management (To be discussed);
- Protocol for the assessment of Sustainable Black Soil Management (To be discussed);
- Organize workshop of INBS on July 9-11, 2024.



Requests to the PA

Encourage	Encourage FAO members, national experts and stakeholders to join INBS
Support	Support and disseminate the endorsed work plan for the INBS
Provide	Provide resources for the sustainable management of black soils, especially in countries with financial and research difficulties

• BLACK SOILS are matter not only for the people living on them, but also for the achievement of food security and climate mitigation throughout the world.

• Please protect black soils, invest in the future.





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THANK YOU



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