



THE OHIO STATE UNIVERSITY

International Union of Soil Science

Rattan Lal
Carbon Management and Sequestration Center
The Ohio State University
Columbus, OH 43210 USA

1



THE OHIO STATE UNIVERSITY

Carbon Management and
Sequestration Center



International Union of Soil Sciences

- IUSS (formerly ISSS) was created in 1924
- It is a link to the world's 60,000 soil scientists
- Centennial Celebration in Rome in 2029.

2

 **THE OHIO STATE UNIVERSITY** Carbon Management and Sequestration Center

PERMANENT ADMINISTRATIVE UNIT OF IUSS

The secretariat was inaugurated in January 2015, Vienna, Austria. It is staffed by:

- i. Secretary
- ii. Treasurer
- iii. Office associate

Dr. Sigbert Huber Secretary, IUSS
Email: iuss@umweltbundesamt.at
Address: Spittelauer Lande 5 1090 Wien Austria
Phone: 43-01-313
Website: www.iuss.org

3

 **THE OHIO STATE UNIVERSITY** Carbon Management and Sequestration Center

MISSION OF IUSS

IUSS IS THE GLOBAL UNION OF SOIL SCIENTISTS TO:

- Serve and reinforce the global soil science community
- Promote soil science and all its activities
- Engage with global stakeholders (e.g., GSP, GSW, UN, FAO, EU, OECD, G20, G27)
- Stimulate soil science initiatives inside and outside the IUSS
- Improve communication with other scientific disciplines and the general public
- Enhance the management of the organization

4



MAIN OBJECTIVES OF IUSS

Its objectives are to :

- Foster all branches of the soil science and their applications,
- Support soil scientists in pursuit of their profession.
- Promote soil science , and
- Bond soil scientists.

5



DIVISIONAL STRUCTURE

The IUSS has four Divisions:

1. Soils in Space and Time
2. Soil Properties and Processes
3. Soil Use and Management
3. The Role of Soils in Sustaining Society and the Environment

6

 THE OHIO STATE UNIVERSITY

Carbon Management and Sequestration Center

GLOBAL ACTIVITIES BEING PURSUED BY IUSS

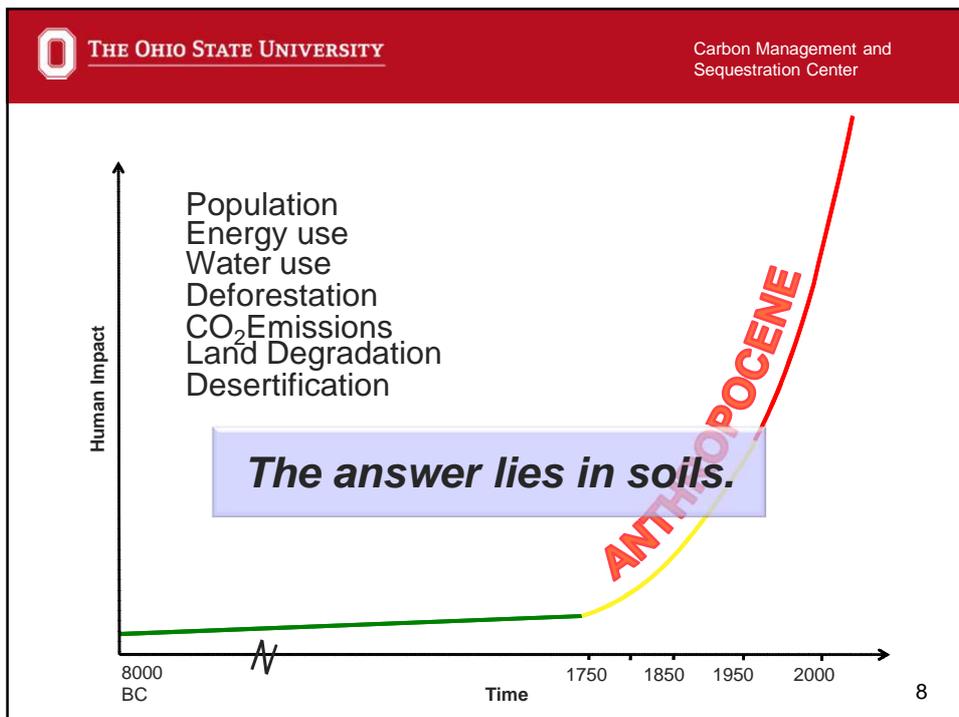
A. Development of:

- Soil functionality maps to quantify existing threat risks
- Sensitivity maps to minimize future degradation processes
- Scale dependent soil management scenarios- land and soil degradation discussions and mapping

B. Integration of biodiversity and global soil approaches

C. Soil C sequestration and climate change adaptation and mitigation

7



THE OHIO STATE UNIVERSITY Carbon Management and Sequestration Center

2025 - 2050
Extraterrestrial Soils & Agriculture?
 • Nutrition-Sensitive Agriculture
 • Pharmaceuticals
 • Synthetic Biology
 • Soil Microbiology
 • Climate-Resilient Agriculture
 • Hypogravity
 • Transformations & Adaptations
 • Space Change
Pharmaceuticals?

2015 - 2024
Sustainable Intensification
 • Phytobiome Management
 • Disease Resistance
 • Urban Agriculture
The IUSS-Decade of Soil & Agriculture
 • The Nexus Approach

SOIL IN THE 21ST CENTURY
IUSS

SUSTAINABLE DEVELOPMENT ROAD MAP GOALS SCIENCE

THE OHIO STATE UNIVERSITY Carbon Management and Sequestration Center

SOIL AND BREAD

"Es ist die Erde, die gibt uns das Brot."
It is the soil which gives us the bread.

10