

**INBSW: II/2019/Report**



**Food and Agriculture  
Organization of the  
United Nations**



# **Second Workshop of the International Network of Black Soils**

**Chișinău, Moldova, 4-5 October 2019**

**REPORT OF THE SECOND WORKSHOP OF THE INTERNATIONAL NETWORK OF BLACK SOILS**

**Chişinău, 4-5 October 2019**

**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS  
Rome, 2020**

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

## Table of Contents

Welcome and Opening Remarks .....	5
Item 1: Tour de table and Adoption of the agenda .....	5
Item 2: Progress on the Implementation of INBS activities .....	6
Item 3: National report on activities related to INBS .....	6
Item 4: Towards a Global Black Soils Map and review of the definition of Black Soils .....	9
Item 5: Preparation of the Global Status of Black Soils .....	9
Item 6: Towards a black soil monitoring network .....	9
Item 7: Preparation of an article about black soils and the network .....	10
Item 8: Chair and Vice Chair appointments.....	10
Item 9: Date and venue of the next workshop.....	10
ANNEX I   List of Participants.....	11

## Welcome and Opening Remarks

The second workshop of the International Network of Black Soils (INBS) was held in Chisinau, Moldova on 4-5 October 2019 hosted by the Institute of Pedology, Agrochemistry and Soil Protection “Nicolae Dimo” (the list of participants is attached in Annex I).

Dr. Gheorghe Jigau, President of the National Society of Soil Science of Moldova welcomed the participants on behalf of the host country. He presented the importance of black soils, such as Chernozems, for Moldova’s agricultural sector and highlighted the contribution of the soil science society of Moldova to black soil classification, which dates back to 150 years ago. He presented the challenges facing black soils in Moldova and suggested concrete activities under the framework of INBS to promote their sustainable management, in light of the alarming rates of soil degradation.

Prof. Guiqing Han, INBS Chair, welcomed the meeting participants and provided some background information on the network and its mandate. He highlighted the common goals shared between black soils member countries to fight its degradation and promote sustainable soil management for food security and climate change mitigation. He emphasised the need to raise awareness globally on black soils, as well as to reach a broader audience outside the network. Prof. Guiqing Han concluded by stressing the importance of cooperation among member countries of INBS in order to achieve these common goals.

Mr. Ronald Vargas, GSP Secretary, highlighted the great outreach of the latest workshop in Harbin 2018 and acknowledged the efforts of the network for its successful outputs. Mr. Vargas shared the main upcoming activities of the INBS, such as the Global Black Soil Distribution Map and the report on the Global Status of Black Soils, linking them to the UN Decade on Ecosystem Restoration.

### **Item 1: Tour de table and Adoption of the agenda**

Meeting participants introduced themselves, and the proposed agenda and timetable were unanimously adopted by participants.

## **Item 2: Progress on the Implementation of INBS activities**

Mr. Yuxin Tong, INBS Coordinator, briefed the participants on the progress made by the network since the last workshop. He highlighted the preparation of a chapter on black soils for the soil organic carbon manual, the preparation of inputs for preparing the distribution of black soils, and participation in different events and panels.

## **Item 3: National report on activities related to INBS**

Participants from member countries had the opportunity to present progress on activities incurred at national level under the framework of the INBS. These included black soil mapping, management and conservation policies.

### 3.1 Canada

Mr. Xiaoyuan Geng introduced their national soil database system and highlighted the important role of Black Soils in the agriculture of Canada. He underlined that significant impact of climate change on black soils and reported on the methods used for mapping soil properties in Canada. Mr. Geng proposed that the existing black soil monitoring station of Canada could serve as an example of a future Black Soil Monitoring Network of the INBS.

### 3.2 European Union

Mr. Luca Montanarella introduced the definition of Black Soils according to the soil types of WRB and the distribution of black soils in Europe. He highlighted the importance of black soil protection for future generations.

### 3.3 Hungary

Mr. Tamás Hermann presented the spatial distribution of black soils in Hungary and their management practices. He mentioned that the main threat to black soils in Hungary is salinization. He proposed that the national black soil monitoring station of Hungary be a member of the Black Soil Monitoring Network.

### **3.4 Kingdom of Thailand**

The representatives of Thailand, Mr. Nuntapon Nongharnpitak and Ms. Sumitra Wattana, introduced some background information on black soils and the existing policies for protecting agricultural land in Thailand. They highlighted the special characteristics of black soils in tropical regions.

### **3.5 Republic of Moldova**

Mr. Jigau Gheorge mentioned that the black soils in Moldova consist of Chernozems. He highlighted the sustainable management practices of Chernozems for adapting to impacts caused by the agricultural sector as well as adapting to climate change.

### **3.6 Federal Democratic Republic of Nepal**

The representative of Nepal, Mr. Chandra Risal, presented background information on black soils in Nepal, as well as their distribution. He emphasized the specific threats to black soils in Nepal in terms of soil productivity decline, soil erosion, SOC decline, etc.

### **3.7 People's Republic of China**

Ms. Fan Yang presented the policies for the protection and use of black soils in China and the implementation measures according to the characteristics of different ecological regions. She introduced the key technologies and technical models used for the black soils mapping. She underlined that the main challenges facing black soil conservation are lack of scientific and technological support and shortage of long-term projects. Mr. Jiubo Pei reported on the distribution of black soils in China and on the progress and challenges for developing a national black soil distribution map.

### **3.8 Eastern Republic of Uruguay**

Mr. Carlos Clérici, presented the soil types and distribution of black soils in Uruguay. He introduced the Soil Management Use Plans (SMUP) Policy in Uruguay and the country's progress on the black soil distribution map.

### **3.9 Kyrgyz Republic**

Ms. Roza Orozakunova, presented the distribution and characteristics of black soils in Kyrgyz. She highlighted the challenges of sustainable management of black soils at the national level, such as soil erosion.

### **3.10 Republic of Poland**

Mr. Cezary Kabala presented the soil classification and soil types that are considered black soils in Poland. He introduced the soil characteristics of black soils in Poland and provided suggestions on the definition of black soils within the INBS.

### **3.11 Republic of Turkey**

Mr. Hakkı Emrah Erdogan presented the distribution of black soils in Turkey. He highlighted the challenges of black soils in Turkey, which include, but are not limited to lack of policy and lack of awareness raising.

### **3.12 Russian Federation**

Mr. Ivan Vasenev presented the distribution of black soils in Russia and highlighted the significant contribution of black soils to food security in the region. He emphasized the challenges of sustainable management of black soils and underlined the impact of climate changes on the agricultural productivity of black soils. He introduced the use of optimized management practices for black soils in Russia.

### **3.13 Syrian Arab Republic**

Mr. Hussam Hag Mohamed Husein presented some background information on black soils in Syria. He highlighted the importance of black soils within the region for food production and introduced the major soil degradation processes affecting black soils.

### **3.14 United States of America**

Ms. Skye Angela Wills presented the Soil Taxonomy in line with the black soil definition of INBS as well as the land cover or distribution of black soils in the USA. She provided suggestions on the definition regarding the base status and colors.

#### **Item 4: Towards a Global Black Soils Map and review of the definition of Black Soils**

INBS members appreciated the comments and suggestions from member countries on the definition of black soils and on the methodology for the development of a black soils distribution map. After an interactive session where participants suggested different elements for the definition of black soils, the INBS decided to request the Intergovernmental Technical Panel on Soils (ITPS) to suggest a sound definition of black soils and submit it for approval to the 11<sup>th</sup> ITPS working session; in doing so, it was highlighted that the definition should also serve black soils mapping activities. In regards to the mapping of Black soils, the network decided to request the GSP pillar 4 working group and the International Network of Soil Information Institutions (INSII) to develop a methodology for the preparation of such a map.

#### **Item 5: Preparation of the Global Status of Black Soils**

Mr Tong presented a draft structure of the report and how this could be developed. The network discussed the potential content and agreed that all members should contribute with the status of black soils in their countries. In order to achieve this, a first step is the preparation of the guidelines for mapping black soils by the P4WG and INSII. After this exercise, then, a global map can be prepared and a report could be prepared accordingly. Participants agreed that the report would be launched during the next workshop of the network, using the contributions from member countries.

#### **Item 6: Towards a black soil monitoring network**

Mr Tong presented the background on how this network could be established giving examples of countries who already have soil monitoring networks/frameworks. Participants considered that this could be a good initiative, however, they requested the Secretariat to prepare a draft concept note to be submitted to countries for their consideration.

**Item 7: Preparation of an article about black soils and the network**

The INBS appreciated the proposal from the Russian Federation on the preparation of scientific articles about black soils. The network Chair will lead the working group on the publication of an article.

**Item 8: Chair and Vice Chair appointments**

Mr. Ivan Vasenev from the Russian Federation and Mr. Mykola Miroshnychenko from Ukraine were nominated as Chairperson and Vice-Chairperson respectively, both to serve a two-year term.

**Item 9: Date and venue of the next workshop**

The INBS endorsed the proposed date of mid- September 2020 for the next workshop, to be held in Ukraine.

## ANNEX I | List of Participants

### INBS members

Country	Participants	Institution
Canada	Xiaoyuan Geng	Head/Soil Scientist, Agriculture & Agri-Food Canada,
The European Union	Luca Montanarella	Joint Research Centre (JRC) Commission of the European Communities
Hungary	Tamás Hermann	University of Pannonia
	Gergely Tóth	University of Pannonia Georgikon, Faculty Department of Soil Science and Environmental Informatics
Kingdom of Thailand	Nuntapon Nongharnpitak	Office of Land Use Planning and Policy, Land Development Department, Ministry of Agriculture and Cooperatives
	Sumitra Watana	Office of Land Use Planning and Policy, Land Development Department, Ministry of Agriculture and Cooperatives
Moldova	Mosoi Iurie	Institute of Pedology, Agrochemistry and Soil Protection "Nicolae Dimo"
	Jigau Gheorghe	Institute of Pedology, Agrochemistry and Soil Protection "Nicolae Dimo"
	Cerbari Valerian	Institute of Pedology, Agrochemistry and Soil Protection "Nicolae Dimo"
	Leah Tamara	Institute of Pedology, Agrochemistry and Soil Protection "Nicolae Dimo"
	Ciolacu Tatiana	Institute of Pedology, Agrochemistry and Soil Protection "Nicolae Dimo"
Nepal	Chandra Risal	Soil Management Section, Department Of Agriculture
People's Republic of China	Guqing Han	Chairman of the International Network of Black Soils of FAO
	Rong Li	Cultivated Land Quality Monitoring and Protection Center, Ministry of Agriculture and Rural Affairs

	Jing Lu	Farmland Construction Management Division, Ministry of Agriculture and Rural Affairs
	Fan Yang	Cultivated Land Quality Monitoring and Protection Center, Ministry of Agriculture and Rural Affairs
	Changai Lu	The institute of Agricultural Resources and Regional Planning of Chinese Academy of Agricultural Sciences
	Ziling Xu	Beijing Zijing Innovation Agricultural Research Institute
	Lei Sun	Institute of Soil Fertilizer and Environment Resources, Heilongjiang Academy of Agricultural Sciences
	Jun Ren	Jilin Academy of Agricultural Sciences
	Hongguang Cai	Jilin Academy of Agricultural Sciences
	Meng Wang	Jilin Academy of Agricultural Sciences
	Jiubo Pei	Shenyang Agricultural University
The Republic of Kazakhstan	Saparov Abdulla	U.Uspanov Kazakh Research Institute on Soil Science and Agrochemistry
Poland	Bożena Smreczak	Institute of Soil Science and Plant Cultivation, State Research Institute
	Cezary Kabata	Institute of Soil Science and Plant Cultivation, State Research Institute
	Beata Łabaz	Institute of Soil Science and Plant Cultivation, State Research Institute, Poland
The Eastern Republic of Uruguay	Carlos Clérici	Director General of Natural Resources (DGRN) of the Ministry of Livestock, Agriculture and Fisheries (MGAP) for Uruguay
The Kyrgyz Republic	Roza Orozakunova	Chairman of the teaching methods Commission
The Republic of Indonesia	Destika Cahyana	Center for Agricultural Land Resource Research and Development Ministry of Agriculture Indonesian
The Russian Federation	Ivan Vasenev	Russian Timiryazev State Agricultural University

	Pavel Krasilnikov	Moscow Lomonosov University
	Vyacheslav Vasenev	Peoples' Friendship University of Russia
The Republic of Turkey	Hakki Emrah Erdogan	Ministry of Food, Agriculture and Livestock/Turkish Soil Science Society
The Syrian Arab Republic	Hussam Hag Mohamed Husein	the General Commission for Scientific Agriculture Research
The United States of America	Skye Angela Wills	USDA-NRCS-National Soil Survey Center, Dynamic Soil Properties
Ukraine	Mykola Miroshnychenko	National Scientific Center Institute for Soil Science and Agrochemistry Research named after O.N.
	Arkadiy Levin	National Scientific Center Institute for Soil Science and Agrochemistry Research named after O.N.
FAO	Yuxin Tong	Global Soil Partnership
	Ronald Vargas	Global Soil Partnership