Sustainable Black Soil Management: A Case Study from China

6 February 2024, 13:00 – 15:00 CET

Online Webinar (Zoom platform)

Background

Black soils have been prized for their rich organic matter content and the great natural fertility that results from this stored organic material. The inherent natural high fertility of black soils has led to the use of approximately one third of natural ecosystems (grasslands and forests) for crop production. Although only approximately 17 percent of global cropland occurs on black soils, 66 percent of sunflower seeds, 51 percent of small millet, 42 percent of sugar beet, 30 percent of wheat and 26 percent of potatoes were harvested globally from black soils. The importance of crop production from black soils has been highlighted by the disruption of the global food supply caused by the current conflict in the heart of black soils.

However, this rich treasure is under threat. Most black soils have already lost at least half of their soil organic carbon stocks and suffer from moderate to severe erosion, nutrient imbalances, acidification, compaction and soil biodiversity loss because of land use change (from natural grasslands to cropping systems), unsustainable use and excessive use of agrochemicals. This loss is further exacerbated by climate change.

FAO through its Global Soil Partnership is committed to the conservation and sustainable management of black soils. In this regard, it established the International Network of Black Soils, and recently published the Global Black Soils Distribution Map and the Global Status of Black Soils report, which provide for the first time a global overview of the status of the world's black soils. They highlight the benefits, challenges and opportunities of black soils, with recommended actions to support a sustainable future for black soils.

The International Network of Black Soils

The International Network of Black Soils (INBS) aims to provide a platform for knowledge sharing for countries with black soils to discuss common issues related to the conservation and sustainable management of these soils and the need to foster technical exchanges and cooperation. INBS was launched in March 2017 with aims to enhance collaboration and identify relevant research gaps and scaling up the sustainable use of black soils. Please find detailed information of INBS on the website here: https://www.fao.org/global-soil-partnership/inbs/en/

Objectives of the webinar:

- Introduce good practices on sustainable black soil management from China.
- Discuss the gaps and challenges on black soil management.
- Exchange knowledge and technology among black soil countries.

Connection Details:

Register here: https://fao.zoom.us/meeting/register/tJMrcemsrT0rG9F6aE2oa1dYk0PjlPeXZgwr

After registering, you will receive a confirmation email containing information about joining the meeting.

Facilitator

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Language

English

Draft Agenda

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13:00-13:10 | Opening remark

Mr Lifeng Li, Director, Land and Water Division, FAO. (TBC)

13:10–13:30 | Understanding the formation time of black soils.

Mr Ganlin Zhang, Institute of Soil Science, Chinese Academy of Sciences.

13:30–13:50 | No-till farming: A viable option for sustainable agriculture in the black soil region of Northeast China

Mr Tusheng Ren, China Agricultural University.

13:50–14:10 | The Query for High Fertility of Black Soils and Grand Challenges in China

Mr Zhongjun Jia, Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences.

14:10–14:30 | Manure and straw returning benefit for stability of soil microbial ecosystem.

Ms Xueli Chen, Heilongjiang Academy of Agricultural Sciences

14:30–14:50 | Open discussion with audience

14:50–15:00 | Closure Remark

Mr Miguel Angel Taboada, Chair of International Network of Black Soils

Moderator: Mr Yuxin Tong, FAO GSP