



22 MAY 2020
INTERNATIONAL DAY FOR
BIOLOGICAL DIVERSITY
Our solutions are in nature

Webinar Soil Biodiversity and Human Health

ICAR Indian Institute of Soil Science
Bhopal, India
www.iiss.nic.in



ICAR Indian Institute of Soil Science Celebrated “International Day for Biological Diversity”

The United Nations (UN) has proclaimed May 22, as the “International Day for Biological Diversity” or “World Biodiversity Day”. This day is observed every year to promote biodiversity issues, increase understanding and awareness of the significance of biodiversity. To commemorate the day, ICAR Indian Institute of Soil Science organized a webinar on **“Soil Biodiversity and Human Health”**. Honourable DDG (NRM) Dr S K Chaudhari was the Chief Guest of the Function. Director of ICAR-IISS Dr A K Patra, Director of ICAR-National Bureau of Agriculturally Important Microorganisms Dr A K Saxena, former Emeritus Scientist of the institute Dr DLN Rao, I/c All India Network Project on Soil Biodiversity Biofertilizer (AINP SBB) Dr S R Mohanty, all project coordinators, HODs and scientists of the institute participated in the program.



Dr Chaudhari highlighted the significance of soil biodiversity for ecosystem services and emphasized that soil biodiversity is crucial for agriculture, climate change, and our wellbeing. He suggested undertaking research on the assessment and conservation of soil biodiversity for improving agriculture and human health. Dr Patra related human gut microbiome with soil microbiome and explained interconnection among below ground soil biodiversity, above

ground biodiversity and disease outbreaks. He also defined that soil biota are essential for a range of key ecosystem processes. There were three key note presentations. Dr Mohanty conducted the webinar and also extended a presentation on “soil biodiversity for ecosystem services and human health”. He outlined the background of genesis of International biodiversity day and the objectives framed by UN. Ecosystem services driven by soil biodiversity, current scenario of biodiversity status and disease outbreaks were the focal points of presentation.

Dr Rao presented on “Actinobacteria-soil health-human health-continuum”. He underpinned the role of this bacterial group on soil biology improvement and crop productivity in relation to human health. Dr Saxena presented “microbial diversity and human health”. He highlighted various microbial products including inoculants, biomolecules, and food additives for possible application in industry and agriculture in the angle of human health improvement.

In the open session, project coordinators and HODs suggested new lines of research. For example, the relation between soil biodiversity and crop yield for establishing models to improve crop yield through manipulation of belowground diversity. Role of soil microbes in improving produce quality in terms of its nutritional values. Microbial approaches to control soil borne pathogens and pollutants for protecting environment and farmers’ health was also identified as a key issue for further research. Considering the objectives, key note presentations and inputs from participants, following points were emerged: (1) Soil biodiversity is one of the important natural resource and should be prioritized for its conservation. (2) There is need of mainstreaming the research linking soil biodiversity and human health considering the recent disease outbreaks. (3) Assessment of soil biodiversity at country level can strengthen knowledge on biodiversity and its conservation. Webinar was concluded with a vision to organize such programs involving different stakeholders empowering farming community through e-platform.
