**Session Proposal**

# Session Title

Land Use and Management Effects on Soil Health and Environmental quality

# Session Organizers

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# Session Description

This session will focus on consequences of land use types and management practices on soil health, specifically include: selection and measurement methods of soil health assessment and methods, soil health management practices. This session will also welcome experience and knowledge in improving soil health processes such as carbon, nitrogen and other nutrients cycles, soil source/sink functions, greenhouse gas emission, soil biotic health and biological indicators, soil physical and hydraulic properties, etc., as affected by weather forcing factors and agronomic management under different land uses or changes. Two case studies will be shared during the symposium on the impacts of land use changes from natural ecosystems into managed ecosystems on soil health. The symposium will also provide a networking opportunity for early-career soil scientists as well as established international soil scientists.

# Relevance

This session is highly relevant to the congress’s theme of “Soil and the Shared Future for Humankind” as it focuses on impacts of land use changes on soil health. Anthropogenic land use and land use change activities have had a significant impact on the Earth's terrestrial ecosystem and human societies, and research on the impacts of land use changes on soil health is critical in tackling global sustainability challenges such as food security, climate change, and biodiversity loss.

This session is organized with the auspices of Soils and Land Use Change Commission 4.3 – IUSS Division 4 –The Role of Soils in Sustaining Society and the Environment. The LEAD CONVENER is the chair of Commission 4.3 of Division 4.

# Format

Both oral presentations and Poster presentations.

# Proposed Speakers

**Confirmed invited speakers:**

Speaker 1, Francesco Morari, professor at University of Padova (Italy) and adjunct professor at University of Georgia (USA). He is a leading expert in the field of soil science and environmental impact assessment, mainly conducting research on sustainability of agricultural systems and soil and water quality, soil mapping and precision agriculture, best management practices, GHGs monitoring and mitigation. He has more than 280 scientific and technical papers, 2 patents and 1 book. He has over 4900 citations (Google Scholar), and an h-index of 41.

Speaker 2, Deli Chen, Redmond Barry Distinguished Professor at the University of Melbourne. He is an internationally recognised soil scientist conducting research on agricultural nitrogen use and its impact on global food security, the environment and climate change. He is the Discipline Leader of the Soil and Environment Research, University of Melbourne. He was the Director of Australian-China Joint Research Centre, Healthy Soils for Sustainable Food Production and Environmental Quality. He has more than 300 peer-reviewed journal publications (including Nature, Science, Nature Food, Nature Communications, PNAS, with H index of 70). He is a Fellow of the Soil Science Society of America, Soil Science Australia and Fellow of the American Society of Agronomy.

Speaker 3, Jinsong Yang, professor of Nanjing Institute of Soil Science, Chinese Academy of Sciences, is a leading professor in soil science. He has been the international partnership consultant expert of the FAO in management of salt- affected soils and salinization control for more than four projects. He has published more than 300 academic papers, including more than 50 papers indexed by SCI.