



International Union of Soil Sciences



**Joint FAO/IAEA Programme**  
Nuclear Techniques in Food and Agriculture

## **Vienna Soil Declaration**

### **“Soil matters for humans and ecosystems”**

Proclaimed at the Celebration of the International Year of Soils 2015

Achievements and Future Challenges

**December 7, 2015**

Vienna, Austria

The World's highly diverse and dynamic soils provide numerous functions and services required by humans and are essential to most aspects of our lives. As the umbrella organisation of more than 60,000 soil scientists, the International Union of Soil Science (IUSS), in cooperation with the Food and Agriculture Organisation of the United Nations (FAO) and the International Atomic Energy Agency (IAEA), organised the International Year of Soil (IYS) Celebration event “Achievements and Future Challenges”, held on December 7, 2015 in Vienna. The participants of the IYS celebration event hereby declare:

Soil is the environmental keystone, and the basis for microbial, plant and animal life,

Soil is a major reservoir of biodiversity, antibiotics for human health and a gene reserve,

Soil filters water, critical for supplying drinking water and other water resources,

Soil stores water for the use by plants and acts as a buffer to prevent rapid run off,

Soil stores and releases plant nutrients and is able to transform many compounds including pollutants,

Soil is the basis for most of the food produced globally,

Soil is necessary for the production of biomass such as wood, fibre and energy crops,

Soil captures carbon and can help mitigate climate change,

Soil is a finite resource and is essentially non-renewable over a human generational time scale,

Soil has been used productively and often impacted adversely by humans for millennia.

The importance of soil must be further emphasized. Thus, at the end of the IYS, we recommend the following for the future:

1. Relationships between human activities and soils and their effects on other components of the environment in particular on the landscape level should be a major focus of soil science in collaboration with allied sciences, but also with social, legal, economic and cultural disciplines.
2. Soil security should be a key topic tied to food and water security and the achievement of the UN Sustainable Development Goals.
3. As a major carbon pool of the globe, soil should be considered a key component to help mitigate climate change by including sustainable soil management as a solution for the implementation of mitigation actions under the renewed international framework on climate change.
4. Whenever possible, the urbanisation and sealing of soils should be limited to avoid losses of vast areas of the best agricultural soils and soil degradation processes such as soil erosion, soil compaction, nutrients depletion, salinization, soil pollution and loss of soil biodiversity should be avoided as much as possible by proper soil management.
5. Soil awareness should be enhanced throughout the global community at all levels emphasizing soil functions and services, soil protection as well as sustainable soil management for a more resilient future at all landscape scales.



2015

International  
Year of Soils