

22nd World Congress of Soil Science

Policy Programme



Soils are a diverse, living component of all terrestrial ecosystems, providing a wide range of benefits and performing functions that are important for our environment, society and economy. Their ability to provide ecosystem services including food production, water regulation and climate regulation, however, has resulted in their overuse and exploitation from many different users globally, often exceeding the boundaries of the natural system.

Action is needed to not only reverse the degradation of soils globally but also ensure the future, sustainable use of all soils. This will rely on coherent soil governance with a holistic approach, across a variety of sectors.. It is important to adopt mechanisms which encourage practices to effectively control the usage of the soil resource to avoid degradation, promote soil health and importantly, avoid conflict between users. Complex and difficult decisions need to be made considering the users of soil, encourage adoption of existing best practices and acknowledge spatial differences in the nature and severity of threats.

The WCSS provides an unique opportunity for policy makers, land managers, regulators and scientists internationally to share experiences and suggest workable solutions. This session will provide a platform to discuss and explore the complexities, challenges and opportunities of achieving sustainable soil management and maintaining soil function. It will explore the role soil policy may have alongside other mechanisms, in the sustainable use of soils and contribution to environmental targets such as net zero; climate change mitigation and adaptation; food security and biodiversity.

We hope the session will help develop international knowledge sharing networks and solutions. Please take this opportunity to discuss experiences and ideas with others during the WCSS event and afterwards

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SUSTAINABLE NATURAL SYSTEMS AND EFFECTIVE GLOBAL POLICIES:
HOW TO PROTECT A RESOURCE THAT SUPPORTS LIFE ON EARTH

10:00 – 12:00 BST	Session chaired by Eleanor Reed (Natural England)	
10:00 – 10:10	WCSS Policy Session opening remarks	Francesca Osowska, NatureScot
10:10 – 10:45	Impacting Adoption of Soil Health Management in the US	Cristine Morgan, Soil Health Institute, USA
10:45 – 11:20	From advocacy on global soil governance to consolidation into national soil policies/legislation	Ronald Vargas, FAO
11:20 – 11:40	Soil in the European Green Deal	Arwyn Jones, Joint Research Centre
11:40 – 12:00	The Sustainable Soils Alliance raising soil's political profile	Elly Fay, Sustainable Soils Alliance

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15:30 - 17:30 BST	Session chaired by Jack Hannam (Cranfield Univeristy)	
15:30 - 16:05	From soil policy to soil protection: a matter of cooperation and communication	Elena Havlicek, Federal Office for the Environment FOEN
16:05 - 16:40	Effective land use policies in the information age	Johan Bouma, Emeritus Professor of Soil Science, Wag

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Contents

Johan Bouma
Elly

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Founder & Executive Director Sustainable Soils Alliance (SSA)

The Sustainable Soils Alliance (SSA) was launched in 2017 with the mission to see UK soils restored to health, through achieving sustainable management within a generation. Unlike other keystone environmental issues, there is no coherent policy framework for soil in the UK. Regulations are inadequate or unenforced, there is no long-term soils monitoring – or even consensus on the core tools or metrics to do this. Investment in soil education for farmers, advisors, specialists and the general public is minimal. Without these policy and outreach mechanisms, soils will continue to decline.

We are a campaigning organisation aiming to raise soil's political profile, but in reflection of the challenges outlined above, we also operate as a think tank – convening experts to devise solutions to the complex technical, practical and legal challenges to a viable soils policy – which we hope in turn will unlock investment in and standardisation of sustainable practices and approaches.

Brexit provided an opportunity to address the gap in agri-environmental policy, and much of our early work involved establishing soil as a priority within keystone pieces of legislation such as the Agriculture Act. We achieved this through Parliamentary events, responding to government consultations, targeted lobbying, and galvanising and aligning critical stakeholders from the science, farming and campaigning communities.

Having established soil as a policy priority, we have begun the process of addressing the issue according to the different policy pillars and mechanisms that drive behaviour change – regulations, incentivization, education, monitoring, the food supply chain, the carbon marketplace etc., through targeted research and engagement with policy-delivery organisations - to Am(st)6(o)-6(r)-(o)-6()-124(t)8(h)-n

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how the Statement could fit in to the Welsh policy landscape were identified. Finally, external representative soil stakeholders (I.e., farmers) were engaged in workshop and consultation events led by independent facilitators. The results of additional knowledge gained through the co-production was analysed and integrated into a final version of the statement. Despite the challenges of collaborating between policy-

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Joint Research Centre, European Commission

Healthy soils underpin the sustainable development challenges that are at the heart of the European Green Deal. The need for sustainable soil management is explicitly referenced in a number of policy areas ranging from biodiversity, climate change, agriculture and pollution. The vision of the EU Soil Strategy 2030 is to significantly improve the state of soils by 2050 and to protect soils on the same legal basis as air and water. The proposed Soil Health Law will specify the conditions for a healthy soil, determine options for monitoring soil and establish rules conducive to sustainable soil use and restoration.

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Chief Scientific Adviser (CSA) Environment, Natural Resources and Agriculture,
Scottish Government

In Scotland, soils are perhaps the most important reservoir of natural capital that we have, underpinning vital ecosystem services and therefore influencing policies related to net zero and the climate and biodiversity crises, agricultural sustainability, food production and environmental quality. And yet we have no full account of soil health and natural capital, nor a mechanism to monitor soil changes. Here I discuss the needs for a robust soil monitoring framework at national scale. I review how such a framework can help monitor and evaluate progress towards a range of key policy objectives. I discuss how such a framework might be designed, structured, implemented, analysed, curated and reported. I review the challenges to be overcome, including accuracy, accounting for history and scale, and linking to allied datasets. International collaboration and scientific innovation will be required for success.

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Global Soil Partnership (GSP), FAO