



Soil and the Shared Future for Humanity
The 23rd World Congress of Soil Science
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IUSS

Bulletin 147



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International Union of Soil Sciences (IUSS)

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Free download on the IUSS website.

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IUSS Reports

Report from the President Elect



(Ph. B. Lascelles)

Report on the Activities of the IUSS President Elect, Dr. Bruce Lascelles, July - December 2025

As 2026 gets fully underway I have been reflecting on my first year in the role of President Elect and looking forward to 2027 when I will take on the role of President, following in the footsteps of esteemed colleagues. For those who do not know me I am a Soil Scientist from the UK working for a consultancy, Arcadis, as Director of Sustainable Land Management. I live in a part of the UK called the Cotswolds with my wife and two daughters (although my oldest is now at Sheffield University studying biochemistry so not home much of the time) and two dogs. I love the outdoors so the dogs are always a good excuse to get out into the countryside, and I can be found climbing (indoors as well as outdoors when the weather allows) as often as I can.

Stepping into the role of President Elect felt daunting and there is so much I have learned over the last year. I have stepped up to support initiatives, with a focus so far on our governance and how we operate on a day-to-day basis. This has included setting out what policies we, as an organisation, need to have in place and starting to draft key policies, including those around Health & Safety and Equality, Diversity, and Inclusion. It has also included work on guidance in relation to the organisation of events and I am currently setting up a Task Force to develop a clear implementation plan for our Strategy. This will be

critical to enabling us to identify resource requirements, prioritise and report on progress. Having clear governance in place will ensure we can operate efficiently and focus on the delivery of our Mission, to promote all branches of soil science and its applications, to promote contacts among scientists and other persons engaged in the study and the application of soil science, to stimulate scientific research and to further the application of such research.

I have also been honoured to be invited to speak at events on behalf of IUSS. Travel disruption meant I was unable to get to Bolivia in person last year for the XXIV Latin American Soil Congress, but I pushed myself to learn enough Spanish to be able to record a video address to the Congress in Spanish, and have done a similar video address for the celebration of 100 years of the German Soil Science Society in February 2026. I have been delighted to be able to speak at the last two conferences held by the Ukrainian Society of Soil Scientists and to be part of their discussions on what can be done to make a better future for all. If I can support any of your future events, please let me know.

My focus for the rest of this year will be working with the Secretariat to complete the drafting and approval of policies and the Implementation Plan for our strategy alongside playing my role in the day-to-day activities of IUSS. I will be in Nanjing for the 23rd World Congress of Soil Science. If anyone would like to meet, please do reach out as I am keen to get to know you and hear your views on our Union and how it can best support you. Whilst change can seem slow, I would say now is a wonderful time to be a soil scientist and as a community we can build on the current momentum and continue to drive positive change.

Dr. Bruce Lascelles
IUSS President Elect

Report from the Past President



Introducing the DSSSD at FAO (ph. I. Fabbri)

Report on the Activities of the IUSS Past President, Dr. Edoardo A.C. Costantini, July - December 2025

During 2025, the Past President focused on chairing the Research Forum, developing and strengthening linkages between IUSS and other international organizations, and supporting IUSS bodies and initiatives.

1) *Research Forum: The 2025-2034 Decade of Soil Sciences for Sustainable Development (DSSSD).*

The Decade of Soil Sciences for Sustainable Development, with the motto “Healthy Soils for Humanity,” was launched and has made noteworthy progress (<https://www.iuss.org/decade-of-soil-sciences-for-sustainable-development/>). A specific report is present in this bulletin.

2) *Strengthening linkages between IUSS and other international organizations.*

- i) The linkages between IUSS and the International Science Council (ISC) and the GeoUnions have been maintained, taking part in meetings and roundtables, reviewing, and voting on documents, approval of strategic plan and budget, and presenting the DSSSD within ISC initiatives. The collaboration with the GeoUnions and the ISC allows IUSS members to take part to the initiative “The Distinguished Lecture Series on Sciences for Sustainable Development” (see the specific report on this initiative in this bulletin).
- ii) The IUSS has been represented at the General

Assembly of the Global Soil Partnership, June 3-5, 2025, held at the FAO headquarters in Rome of FAO and facilitating the collaboration with the SUITMA (Soils of Urban, Industrial, Traffic, Mining and Military Areas) Commission for a joint conference.

iii) The collaboration with GSP of FAO also included the participation in the Evaluation team for the FAO contests “Tiny soil detectives” and “Soil in a minute” held for the WSD 2025.

iv) The cooperation with the Coalition for Soil Health (CA4SH) has been maintained, sharing information and participating to online meetings.

v) The partnership with VII EuroSoil 2025 has been practiced by serving on the Scientific Committee of the and maintaining contact with the Organizing Committee.

3) *Supporting IUSS bodies and initiatives:*

i) Co-chairing the Organizing Committee of the 23rd World Congress of Soil Science (WCSS), Nanjing 2026.

ii) Contributing to the activities of the Working Group dedicated to the World Soil of the Year.

iii) Participating in the IUSS task forces for secretariat evaluation, event guidelines, and website structure.

iv) Co-editing the books of excursions and proceedings from the Centennial congress of the IUSS.

v) Representing IUSS at the 13th conference of SUITMA, Pisa, 5-9 October 2025 and collaborating in the excursions and in the publishing of the proceedings.

vi) Serving as secretary of the Electoral Committee for the elections of IUSS new officers 2026

vii) Providing ongoing support to the Secretary and the Secretariat.

viii) Nominating candidate for the Distinguished Service Medal 2026 and collaborating with the Slovak Soil Science Society for the realization of the ceremony

to deliver the award.

ix) Facilitating the engagement of a company to sponsor the 23WCSS activities and IUSS awards

x) Representing IUSS during the Italian Knowledge Leaders event and ISSS assembly in December 2025, where the Honorary membership has been received.

Edoardo A.C. Costantini

Past President and Chair of the Research Forum



Dr. Costantini awarded as IUSS Honorary Member by Prof. C. Zaccone, President SISS (ph. I. Fabbri)

Activities of the Research Forum and the 2025-2034 Decade of Soil Sciences for Sustainable Development

The activities of the Research Forum have been focused on the launching of the new decade of the IUSS. In consideration of the need to prioritize production, dissemination, and use of actionable scientific knowledge to achieve the targets of the Sustainable Development Goals (SDGs), the IUSS has launched the 2025-2034 Decade of Soil Sciences for Sustainable Development (DSSSD). The DSSSD was launched at the beginning of the 2025, with the motto [“Healthy Soils for Humanity.”](#) and during the first months of activity has made considerable progress. The Research Forum of the IUSS, in collaboration with the Executive Committee and the Council, plays a crucial role in enabling activities, promoting research and innovation on sustainable soil management.

IUSS advocates for soil health to be included in all areas of sustainability research. We believe that progress towards achieving many of the SDGs targets is behind schedule due to insufficient attention to the impact of

human activities on soil health. Through structured activities, knowledge dissemination, and international cooperation, the decade will contribute to a future where healthy soils support resilient ecosystems, food security, and sustainable development worldwide.

The DSSSD is officially endorsed by the UNESCO and is part of its [2024-2033 Decade of Science for Sustainable Development](#), allowing the use of the UNESCO logo for related activities of the DSSSD. The DSSSD has been endorsed by the Global Soil Partnership of the FAO, The International Science Council (ISC), the Coalition for Soil Health (CA4SH), the European Society for Soil Conservation (ESSC), and the 4 per 1000 initiative.

The DSSSD is a strategic initiative highlighting the critical role of soil health in achieving sustainable global development. The programme aims to ensure that regenerative and sustainable soil management remains a top priority in global sustainability efforts.

In consideration of the need to prioritize production, dissemination, and use of actionable scientific knowledge, and promote solutions to support the achievement of the SDGs, the programme’s **key objectives** include:

- Create a strong science-policy-society interface on soil health and protection for sustainability.
- Advance practical understanding on soil sciences for sustainable development.
- Support scientific research and innovation in integrating sustainable soil management in all areas of social action.
- Promote initiatives which engage society with soil research, including citizen science, knowledge co-production, science communication, and soil in education.
- Foster meaningful cooperation between soil research and society to enhance trust in science
- Diversify and strengthen social, cultural, and artistic research on soils.
- Strengthen international collaborative and transdisciplinary and multidisciplinary research initiatives.

The Research Forum details the annual work plan in collaboration with partner organizations. Planned **specific activities during the decade** comprise the following:

- Publishing review papers, reports, and thematic books on the contribution of Soil Sciences to sustainable development and the targets of the SDGs.
- Issuing policy briefs on the recent advances in all fields of soil sciences.
- Promoting selected papers dealing with actionable scientific knowledge to achieve the targets of the SDGs.
- Hosting thematic Webinars on these topics.
- Organizing one or more Sessions on the connections between soils and SDGs at the next WCSS in Nanjing (China) 2026.
- Organizing one or more Sessions on the connections between soils and SDGs at the next WCSS in Toronto (Canada) 2030.
- Organizing one or more Sessions on the connections between soils and SDGs at the next WCSS in Leipzig (Germany) 2034.
- Working with UNESCO, FAO, ISC, and other organizations for the implementation of IDSSD initiatives at various levels, including national soil science societies.
- Collaborating with UNESCO's initiatives focused on leveraging the organization's designated sites as monitoring points for soil, water, landscape, and biodiversity impacts associated with climate change and land degradation.
- Proclamation of the World Soil of the Year (WSY). In recognition of the success of various national programs, the IUSS WSY program has been implemented to enhance soil literacy across numerous countries and on a global scale.
- Delivery of awards to champions of policy implementation, production of innovation, and

communication activities

- Educational activity and production of educative tools, also made in collaboration with partner organizations, such as the FAO-GSP.

The long-term impact of the 2025-2034 Decade of Soil Sciences for Sustainable Development is the realisation of a strategic initiative highlighting soil's critical role in achieving sustainable global development. By fostering scientific collaboration, advancing research, and engaging with policymakers and the broader society, the IUSS aims to ensure that soil management remains a top priority in global sustainability efforts. DSSSD will contribute to a future where healthy soils support resilient ecosystems, food security, and sustainable development worldwide through structured activities, knowledge dissemination, and international cooperation.

The four Divisions are currently planning activities for the DSSSD, including the World Soil of the Year 2026 and 2027 and an edited book on applied pedology. Division 1 will update descriptions of commissions and working groups, develop strategic goals in the SMART framework for a 5-year timeframe, and present an interim report at the 2028 inter-Congress meeting with a final report at the 2030 Congress. The goal is to have updated descriptions by the end of March and strategic goals by the end of May, aiming for a comprehensive document presentation at the Nanjing Congress. Division 2 will collaborate in involving national societies and countries that lack Soil of the Year soil programs into the World Soil of the Year initiative. Division 3 will organize webinars, a hybrid symposium with FAO, farmer training programs, travel grants for African researchers, and a special journal issue on acid sulphate soils. Division 3's contributions are aimed at building science-policy-society interfaces, fostering transdisciplinary research, and generating actionable knowledge. Division 4 proposes to include among topics for 2026 the impact of war on soil quality.

A call for an IUSS Scholarship for Evidence Collection on the Contribution of Soil Sciences to the SDGs has been launched, an evaluation team of the Research Forum has been established (Adrian Unc Division 1,

Silvia Imhof Division 2, Xin Song Division 3, Claudio Zaccone Division 4, and the Past President), they have been candidates examined in two steps, and finally the winner (Dr Xia Liang, Faculty of Science, University of Melbourne, Australia) has been selected and appointed.

The work will be conducted by Dr Xia Liang, Prof Deli Chen, Ms Chuanzhen Zhang and Prof Helen Suter from the University of Melbourne, with the collaboration of the Research Forum and will be aimed to systematically collect, analyse, and synthesise evidence demonstrating how soil science has contributed, and continues to contribute, to the achievement of the Sustainable Development Goals (SDGs). The work will focus on identifying actionable scientific knowledge and practical solutions derived from soil science that support SDG progress across different world regions. Within this scope, priority will be given to SDGs most linked to soil functions, including food security (SDG 2), clean water (SDG 6), climate action (SDG 13), responsible production (SDG 12), and life on land (SDG 15). The synthesis will adopt a global perspective while explicitly recognising regional diversity in agro-environmental and socio-economic contexts.

The work will be conducted with the collaboration of the Research Forum and will be aimed to systematically collect, analyse, and synthesise evidence demonstrating how soil science has contributed, and continues to contribute, to the achievement of the SDGs. The work will focus on identifying actionable scientific knowledge and practical solutions derived from soil science that support SDG progress across different world regions. Within this scope, priority will be given to SDGs most linked to soil functions, including food security (SDG 2), clean water (SDG 6), climate action (SDG 13), responsible production (SDG 12), and life on land (SDG 15). The synthesis will adopt a global perspective while explicitly recognising regional diversity in agro-environmental and socio-economic contexts.

Other activities related to the implementation of the DSSSD are:

- A collaboration with UNESCO to create “soil

stories.” The IUSS through some individual members, appointed by IUSS Divisions, are collaborating with the UNESCO-ISCRI initiative Soil Sentinels: Baseline soil health reports for UNESCO-designated sites.

- A collaboration with the International Science Council SCI2SDG project “Mapping Scientific Contributions of ISC members to UN SDGs (SCI2SDG)” (Feb – Mar 2026): Synthesise data to identify thematic strengths, gaps, and emerging opportunities.

- A collaboration with the GeoUnions and the ISC for taking part to the initiative “The Distinguished Lecture Series on Sciences for Sustainable Development.”

The Decade of Soil Sciences for Sustainable Development represents a pivotal commitment to advancing soil health as a cornerstone of global sustainability. By prioritizing the production, dissemination, and application of actionable scientific knowledge, the initiative aims to bridge the gap between science, policy, and society, ensuring that soil health is integrated into all areas of sustainable development. The DSSSD’s objectives, ranging from fostering international collaboration and supporting innovative research, to engaging society through education and citizen science underscore the essential role of soils in achieving the Sustainable Development Goals.

The distinguished lecture series on science for sustainable Development promoted by the GeoUnions of the International Science Council

The [GeoUnions](#) (GUs) is a network of representatives of the international scientific unions of the International Science Council ([ISC](#)) dealing with Earth and space sciences. The GUs established a Steering Committee in 2004 (in Paris, France) to promote the sciences worldwide, to communicate and to coordinate scientific activities of individual unions, and to speak on behalf of GUs members to ISC Governing Board, ISC Members and its interdisciplinary bodies and at international level, especially to the United Nations organizations and other global stakeholders. The current Members of the GUs are:

- [International Astronomical Union \(IAU\)](#)
- [International Cartographic Association \(ICA\)](#)
- [International Geographical Union \(IGU\)](#)
- [International Union of Quaternary Research \(INQUA\)](#)
- [International Society for Photogrammetry and Remote Sensing \(ISPRS\)](#)
- [International Union of Geodesy and Geophysics \(IUGG\)](#)
- [International Union of Geological Sciences \(IUGS\)](#)
- [International Union of Soil Sciences \(IUSS\)](#)
- [International Union of Radio Sciences \(URSI\)](#)
- [International Union of Speleology \(UIS\)](#)

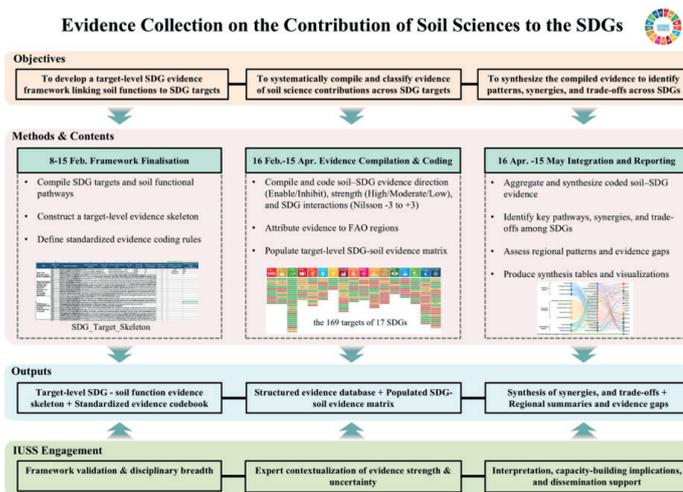
Sustainable Development (IYBSSD 2022). Recordings of these lectures are available on the [ISC YouTube channel](#)

Following the successful Distinguished Lecture Series launched in 2022 in support of the IYBSSD 2022, the ISC GeoUnions re-launched the distinguished lecture series in 2024 to mark the United Nations’ ratification of the International Decade of Sciences for Sustainable Development (2024–2033). The lectures aim to highlight the importance and role of science in achieving the Sustainable Development Goals (SDGs) and are intended for researchers, students, and other stakeholders; [Three lectures](#) have been held so far.

Based on this new development, the GeoUnions call on all Members of the International Science Council, particularly its Category 1 Members, to contribute to and support the ongoing successful ISC Distinguished Lecture Series on Science for Sustainable Development (ISC-DLS-S4SD), with the aim of making it more inclusive. ISC Members are invited to nominate lecturers for the ISC-DLS, as well as to nominate a representative to serve on the Selection Committee.

The IUSS has already participated in such initiative (to learn more click [here](#)) which is also in line with the goals of our Decade of Soil Sciences for Sustainable Development (DSSSD), which has been endorsed, among others, by the ISC and UNESCO; and this round is a great opportunity too for our Union to provide our community with a significant contribution. The research Forum of the IUSS has been mobilized to select the nominees for the lectures and the Selection Committee, and the IUSS community will be kept informed by the IUSS socials and media.

The Distinguished Lecture Series on Sciences for Sustainable Development stands as a testament to the power of scientific collaboration in addressing the world’s most pressing challenges. By actively participating and nominating outstanding lecturers, the IUSS community can further strengthen its role in advancing the Sustainable Development Goals and contribute to a more inclusive and impactful scientific dialogue. We encourage all members to stay engaged, share these opportunities, and help shape the future of science for sustainable development.



Adopted by the UN General Assembly in 2015, the 2030 Agenda for Sustainable Development represents a novel approach to linking science and education with global challenges such as climate and environmental change, food, water and energy security, ocean preservation, disaster risk reduction, and other related issues. It integrates social, economic, and environmental objectives into 17 Sustainable Development Goals (SDGs).

Science plays a significant role in contributing to and accelerating the implementation of the 2030 Agenda for Sustainable Development and other global agendas. At the ISC GeoUnions meeting held in Paris on 17 July 2022, the GeoUnions Steering Committee accepted to propose the organization of a new ISC programme, the “Distinguished Lecture Series on Basic Science for Sustainable Development” (DLSBS4SD), as a contribution to the International Year of Basic Science for

Report from the IUSS Secretariat

The last six months of the year 2025 have been buzzing with activities at the Secretariat headquarters, primarily the managing of the election process for the new Division and Commission Chairs, and Standing Committees members.

The Secretary managed the candidacies and arranged for the creation of a link for online voting, keeping the communication with the voting delegates always opened to support them in the registering and voting process. Alongside this activity, she continued the promotion and dissemination on social media of activities related to the [World Congress](#) of Soil Science, from abstract submission to post-congress tours and deadline updates. In addition, she carried out the same activities for the IUSS officials, to promote their sessions, as well as for the National Societies.

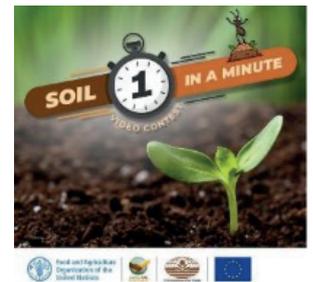
Moreover, the new Decade of Soil Sciences for Sustainable Development, launched by the Past President at the beginning of the year during the Thirteen session of the Global Soil Partnership Plenary Assembly, has entered its full mode after being endorsed as a project/programme of UNESCO International Decade of Sciences for Sustainable Development (IDSSD), a great outcome that puts soil science at the core of the global efforts to advance the SDGs through science, tech and innovation (more info [here](#)).

An intense effort was devoted to supporting the Committee on Prizes and Awards for the 2026 awardees and for the assignment of the Distinguished Service Medal. In October, the Secretariat took part in the celebrations of the FAO 80th anniversary and in the World Food Forum, an exceptional event featuring an outstanding lineup of guests, including His Holiness Pope Leo XIV, the President of the Italian Republic, the Prime Minister, the Queen of Spain, and many others.



Left: his Holiness Pope Leo XIV with FAO Director General Qu Dongyu (Ph. P.Pesarini). Centre: Queen Letizia of Spain with FAO Director General QU Dongyu (Ph. P. Pesarini). Right: IUSS Secretariat Micaela Conterio (left) and Secretary Irene Fabbri (right) (Ph. P. Pesarini)

On World Soil Day on December 5, the last engagement of the year, the Secretary, who also serves as IUSS focal point at FAO, worked with the communications group of the Global Soil Partnership (GSP) to design and promote [two initiatives](#) aimed at a young audience to celebrate this important date, a joint effort with FAO, the GSP and the European Union through its EU Mission, “A Soil Deal for Europe” .



The event, organized by CREA (where the IUSS Secretariat is hosted and managed) and FAO, took place at FAO in the morning, with the award ceremony for the Glinka prize, and then at CREA headquarters in the prestigious setting of the Celio hill in the centre of the eternal city, Rome. Seven round tables on soil and its many variations and issues, led by Prof. Giuseppe Corti, Head of the IUSS Secretariat and Director of CREA Centre for Agriculture and Environment.

“Soil - states Prof. Corti, represents the environmental sector responsible for managing the biogeochemical elements cycles. The proper performance of this role underpins the terrestrial ecosystem and constitutes the link between agriculture and all human activity.”



Prof. Giuseppe Corti, Head of the IUSS Secretariat (Ph. I. Fabbri)



2024 • 2033
International Decade of
Sciences for Sustainable
Development

The Secretariat in numbers

During the year 2025, the Secretariat has hosted and managed 12 Executive Committee meetings, 4 Research Forum meetings, 1 Council Forum meetings, 1 Council meeting, 5 Presidents Committee meetings, 5 Secretariat meetings (for Alert and Bulletin set up, internal management etc.), and 7 meetings with third parties for different reasons.

Moreover, the Secretariat has set up, edited and published 12 Alert and 2 Bulletin.

Percentage of the officers' presence at the Executive Committee Meetings at the Executive Committee meeting during the year 2025.

January	75%
February	83%
March	67%
April	92%
May	67%
June	58%
July	75%
August	75%
September	92%
October	75%
November	75%
December	75%

Percentage of single presence at Executive Committee Meetings

Victor O. Chude	President	100%
Bruce Lascelles	President Elect	92%
Edoardo A. C. Costantini	Past President	100%
Andreas Baumgarten	Treasurer	58%
Irene Fabbri	Secretary	100%
Jabao Zhang	Congress President	92%
Xin Song	Congress Vice President	100%
Richard J. Heck	Chair of Division 1	100%
Giuseppe Corti	Chair of Division 2	75%
Renfang Shen	Chair of Division 3	50%
Claudio Zaccone	Chair of Division 4	92%
Cristine Morgan	Chair of Prize and Award Committee	58%
Rainer Horn	Chair of Presidential Election Committee	83%
Cornie Van Huyssteen	Chair of Statutes and Structure Committee	58%
Kye-Hoon 'John' Kim	Chair of Budget and Finance Committee	50%

Irene Fabbri

IUSS Secretary

Social media and website

The IUSS social media channels live up to the expectations and keep steady in their followers' improvement. In the last six months of the year 2025, the social media channels, overall, gained almost 2.000 followers. LinkedIn is the social network that best performed with a gain of around 1.200 followers in 6 months.

	2025 (Jan-June)	2025 (Jul-Dec)
Facebook	15.658	16.321 (+663)
LinkedIn	2.182	3.362 (+ 1180)
X	4.969	5.055 (+86)

The Secretary manages the socials, supported by the Communication Team, working closely with the National Societies, to channel congresses, webinars, initiatives, and with the IUSS officers, promoting their activities within the different Commissions and working Groups.

In the last couple of years the promotion and dissemination of the IUSS activities through the social media has significantly improved our visibility in a vast and mixed picture; each channel, in fact, is designed for a particular parterre: Facebook to a mature one and non-necessarily academic, X to a much younger and fast audience, and LinkedIn to academic and, job wise, opportunities-seekers.

Moreover, this media communication has proven effective in advertising the WCSS, from the abstract submissions to the in-congress tours, being also a quick way to ask questions on the sessions or report mishaps of any kind. The Secretary has managed the promotion of the WCSS together with her colleagues in China, setting up a clear communication campaign that has proven a winning one.

The WCSS promotion through the social media channels has totalled - from July to December 2025 -64.733 views, with Facebook leading the way with 42.281 views, then LinkedIn with 17.670 and X with 4.782 views.

The dissemination of IUSS full Members activities is picking up well too, with 25.000 views circa per month for the three channels for these items alone.

The YouTube channel will need further improvements, and more videos will be uploaded in time for the election of the new President and the Awards.

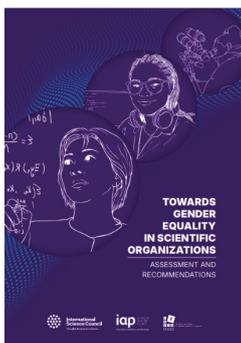
The website, although it needs further improvement, due to the social media activity and the Alert being sent via email link, has positively increased its traffic, totalling 6.280.580 between unique visitors, pages views etc.

To help our community grow, exchange knowledge and be updated on the latest news, visit our [website](#)

and social media accounts, you can find us on [Facebook](#), [LinkedIn](#), [X](#) and [YouTube](#), do not forget to leave a “like” and become “friends” of our pages to improve our visibility on the web.

Month	Unique visitors	Number of visits	Pages	Traffic
January	13.144	23.526	141.193	588.767
February	13.001	22.630	109.028	534.553
March	12.474	24.743	120.147	592.197
April	19.143	31.393	129.082	702.723
May	14.332	24.364	132.725	615.500
June	14.570	23.163	117.573	576.000
July	20.306	30.883	157.270	648.699
August	61.265	72.607	298.950	893.615
September	30.587	43.134	324.831	1.220.969
October	31.761	50.395	530.063	1.555.775
November	34.906	55.831	179.572	869.242
December	38.314	65.035	211.800	1.092.280
Total	303.803	467.704	2.452.234	9.890.320

Towards gender equality in scientific organizations



Gender equality in science means ensuring that people of all genders have equal access to education, funding, career opportunities, leadership roles, and recognition within scientific fields. Although considerable progress has been made in recent decades, women

and gender minorities remain underrepresented in many STEM disciplines, among others, particularly at senior levels and in decision-making positions.

Focusing on gender equality in science is important for several reasons. First, fairness and equal opportunity are fundamental principles of democratic societies. Talent is not determined by gender, and excluding or discouraging part of the population from scientific careers represents a loss of human potential. Second, diverse research teams produce better science. A wider range of perspectives leads to more creative problem-solving, more comprehensive research questions, and results that are more inclusive and applicable to society. Third, scientific knowledge directly influences policies, technologies, and healthcare systems; without gender balance, research priorities and outcomes may overlook the needs and experiences of large segments of the population.

Promoting gender equality in science is therefore not only a matter of social justice, but also a strategic investment in scientific excellence, innovation, and sustainable development. In line with the aims and objectives of the International Science Council (ISC), the IUSS has participated into a report launched by the ISC to assess gender equality in scientific organizations. The document is, to date, one of the most comprehensive global assessments on gender distribution and was carried out by the ISC together with the Inter Academy Partnership (IAP), and the Steering Committee for Gender Equality in Sciences (SCGES).

The analysis draws on institutional data from 136 organizations, survey responses from 600 scientists, and a dozen interviews with representatives of scientific

organizations. Together, these sources support a multi-level assessment of women's representation, participation, leadership, and recognition, combining structural analysis with lived experience.

Building on global online surveys conducted in 2015 and 2020, the study provides a ten-year perspective on progress and persistent gaps. It identifies structural barriers to gender equality and highlights areas where institutional policies and practices have contributed to measurable change. Some of the key findings highlighted how progress toward gender equality in scientific organizations has been real but uneven. Although women made up 31.1% of researchers globally in 2022, they remain underrepresented in academies and unions. In national academies, women's membership has risen from 12% in 2015 to 19% in 2025, with fewer institutions showing extremely low representation. International unions report higher participation, though disparities vary by discipline.

Most organizations have formally open, merit-based procedures, yet informal nomination networks continue to limit women's access to consideration. While women are elected at slightly higher rates once nominated, they are underrepresented in nomination pools, indicating barriers occur earlier in the process. Increased representation has also not consistently translated into leadership roles, with women still underrepresented in senior positions. Although women participate at similar levels once admitted, they face greater obstacles to advancement, are more affected by care responsibilities, and report higher rates of harassment and lower trust in institutional transparency. While many organizations have introduced gender equality policies, these are often weakly institutionalized, lacking dedicated resources or structural support, and therefore have limited impact.

The IUSS will keep working with the ISC for the next report and is committed to reducing the gender gap in its Union and advocating for scientific organizations too.

Learn more and download the report [here](#)

Irene Fabbri
IUSS Secretary

Stimulus Fund

The Stimulus Fund supports activities that promote and develop Soil Sciences through its Commissions and Working Groups with particular care for resource-limited regions. Funds may support meetings, travel (to help young scientists via organizers), websites, and other soil science initiatives. Proposals are reviewed by a Task Force, with final approval by the IUSS President. Approved projects require strict financial reporting, receipts for all expenses, and a final financial statement and activity report together with an activity one within two months of completion. Both calls are particularly successful, and require a careful work for the Secretary and the Task Force; the winners of the second call of the year 2025 are listed as follows:

XV International symposium and field workshop on paleopedology: Deciphering the ancient anthropic landscape transformation in the southern Maya lowlands in Mexico.

Dr. Maria Bronnikova

The academic sessions will cover a range of topics, including soil memory as a key guide for understanding past environmental and human impacts; micromorphology of key pedogenetic processes; classification of soils in archaeological sites; pedogenesis of anthropogenic soils and ecosystems; and novel methods, techniques, and quantitative approaches in paleosol studies. In addition, during the field workshop, we will visit the Palenque archaeological site to gain insights into how ancient settlers profoundly transformed the landscape. We will examine and discuss the construction materials in comparison with backfills and the surrounding natural soils near the site. Soil profiles from both slopes and hilltops will illustrate the erosional processes associated with the development of the ancient city. The visit to Budsilhá archaeological site and natural soil profiles in a karstic environment is also planned, showing soils in a karstic pocket, and soils with and without gypsum in the wetland. To finish the workshop, we will observe the soils of the Chaschoc-Seja lagoon system at the Usumacinta River, focusing on the modern and ancient land use.

Here, a high river terrace soil profile will be shown to demonstrate the contrast between young soils located in accumulative positions and the deeply weathered soils.

3-Day Workshop on Know Your Soil Program for Youth and Soil Judging Contest

Dr. Ajay Kumar Mishra and Dr. Anthony Fulford

The soil judging contest will provide a platform for diverse participants to learn, share, and upgrade their knowledge of soils in different land uses. This will be India's first contest on understanding the face of the Earth (soil) in forests, agroforestry, and agricultural land (anthrosols-paddy field). The training in Sonbhadra, Uttar Pradesh, India, will take place in an area with diverse soil composition, essential for agriculture:

1. Alfisols: These well-drained and fertile soils are prevalent, supporting a wide range of crops.
2. Red Soils: These iron-rich soils are found in hilly regions and offer unique growing conditions.
3. Alluvial Soils: Deposited by rivers, these fertile soils line riverbanks and are ideal for agriculture.
4. Lateritic Soils: Some areas feature acidic lateritic soils, requiring specific cultivation methods.
5. Black Soils: Though less common, pockets of moisture-retentive black soils can be found.

This soil diversity in Sonbhadra influences crop choices and farming practices. This soil judging contest is expected to equip the participants with diverse knowledge that will help them understand soil characteristics and make them capable of managing it sustainably. Participants will also be exposed to different anthropogenic and natural soil-forming factors. We will also develop standard protocols based on ISRIC – World Soil Information and FAO.

International Soil Judging Contest at the 23rd World Congress of Soil Science (23WCSS), Nanjing, China, 2026

Prof. Xin Song

The Soil Judging Contest is an international academic competition that brings together students from universities and institutes worldwide to demonstrate their knowledge and practical skills in describing, interpreting, and evaluating soil characteristics in the field. This event follows the successful series of contests previously held in Jeju, Korea (2014); Seropédica, Brazil (2018); and Glasgow, United Kingdom (2022). For the 2026 contest, we anticipate approximately 100 participants, representing 18 teams (each with one coach and four students). To encourage broader participation from less developed regions, we intend to provide financial support for one team from Latin/South America and one team from Africa (tentatively). The IUSS Working Group on International Soil Judging Contest will collaborate closely with the local organizing committee to provide technical guidance and ensure compliance with international standards and guidelines.

Report from the projects carried out thanks to the Stimulus Fund 1 call of 2025.

10th International Acid Sulfate Soils Conference (IASSC)

Prof. Anton Boman

The 10th International Acid Sulfate Soils Conference (IASSC) was arranged by Luleå University of Technology in Sweden, in cooperation with the Acid Sulfate Soil Working Group (ASSWG) and took place 15–17 September 2025. The event gathered approximately 70 participants from around the world on-site, with a few joining online. Most presentations were delivered in person; however, due to last-minute issues, the organizers transitioned to a hybrid format.

The program featured four keynote lectures, 40 oral presentations (including four delivered virtually), and eight poster presentations. A complete programme and abstract book are found at the conference [website](#). The scientific programme was divided into six sessions covering characterization methods, biogeochemical and mineralogical processes, microbial and ecological interactions, management and mitigation strategies, policy and risk assessment, and geological and regional

perspectives on acid sulfate soils.

On 14 September, a pre-conference excursion brought 29 participants to sites around Luleå to examine typical acid sulfate soils of Northern Sweden. The three-day post-conference excursion (18–20 September) gathered 32 participants to explore geochemically diverse acid sulfate soils in coastal areas of Northern Sweden and Northern and Western Finland, within landscapes shaped by the last glaciation. The post-conference guidebook can be downloaded from the [ASSWG-website](#).

The ASSWG arranged two workshops: one focused on the classification of acid sulfate soils, and another dedicated to discussing content for the newly launched ASSWG-website. Since 2016, the Pons Medal has been awarded by the ASSWG to a researcher who has made outstanding contributions to acid sulfate soil science and practice. This year, the Pons Medal was awarded to Professor Leigh A. Sullivan from Australia. During the General Meeting of the ASSWG, it was discussed, among other topics, that the next IASSC could be arranged in Indonesia in 2028.



Professor Fitzpatrick is opening the conference with his keynote talk. (Ph. A. Boman)



Demonstration of risk assessment of acid sulfate soils in the field. (Ph. A. Boman)



Soil pit showing littoral beach deposits overlying of clayey black sulfidic sediments. (Ph. G. Lancaster)

Report from the projects carried out thanks to the Stimulus Fund 2 call of 2025.

Know Your Soil: 3-Day Workshop and Soil Judging Contest Soil

Dr. Ajay Kumar Mishra and Dr. Anthony Fulford

Know Your Soil: 3-Day Workshop and Soil Judging Contest Soil is a fundamental component of terrestrial ecosystems, functioning as a dynamic interface among the atmosphere, hydrosphere, lithosphere, and biosphere. A sound understanding of soil properties, soil-forming

processes, and their interactions with land use systems is essential for achieving sustainable agriculture, enhancing environmental resilience, and ensuring long-term ecosystem stability. In this context, the “Know Your Soil: 3-Day Workshop and Soil Judging Contest” was conceptualised as a structured capacity-building initiative aimed at strengthening practical soil evaluation skills through the application of internationally recognised soil assessment methodologies. The programme was jointly organised by the International Rice Research Institute - South Asia Regional Centre (IRRI-SARC), Varanasi, and the Department of Soil Science, Institute of Agricultural Sciences, Banaras Hindu University (BHU), Varanasi, with financial support from the IUSS Fund 2025. Objectives of the Programme:

- ✓ To enhance hands-on understanding of soil morphology, classification, and functional attributes under different land-use systems.
 - ✓ To train participants in soil judging using standardised ISRIC and FAO protocols.
 - ✓ To assess the effects of agricultural, forestry, and agroforestry land-use systems on soil development and soil health.
 - ✓ To promote scientific communication through group-wise reporting and oral presentations.
 - ✓ To foster leadership qualities, teamwork, and analytical skills among young soil scientists and professionals.
- Duration, Venue, and Study Area
- ✓ Duration: 13-15 December 2025 (Three days)
 - ✓ Workshop Sessions: BHU-IRRI platform

The programme followed a structured, multi-location format. The first day was conducted at the BHU campus, focusing on the inauguration, background of the workshop, and expert lectures. The second day was dedicated to intensive field-based soil judging activities in the Mirzapur district. The final day was held at the BHU campus, featuring group-wise report presentations, expert commentary, evaluation of results, award distribution, and the closing ceremony. The Workshop region represents

diverse physiographic conditions and land-use systems of the Indo-Gangetic Plains and adjoining Vindhyan landscapes, making it a suitable natural laboratory for applied soil evaluation and comparative soil studies. Participants A total of 30 participants was selected from across India, ensuring broad geographical and disciplinary representation. The participant cohort included: Research scholars, Undergraduate and postgraduate students, young professionals, Representatives from non-governmental organisations (NGOs), Progressive farmers. Selection was merit-based, considering academic background, professional experience, disciplinary diversity, and demonstrated interest in soil science and land management, thereby ensuring true pan-India representation. Resource Persons and Scientific Guidance The programme was conducted under the expert guidance of eminent soil scientists and academicians: Dr Anthony Fulford, Senior Scientist-I, IRRI-SARC, Varanasi, Dr Ajay Kumar Mishra, Senior Associate Scientist, IRRI-SARC, Varanasi, Prof Amitava Rakshit, Department of Soil Science, Institute of Agricultural Sciences, BHU, Varanasi, Dr Vinod Kumar Tripathi, Department of Agricultural Engineering, Institute of Agricultural Sciences, BHU, Dr K. S. Shashidhar, Rajiv Gandhi South Campus (BHU), Barkachha, Mirzapur, Prof Antarayami Mishra, Pedologist, Odisha University of Agriculture and Technology (OUAT), Odisha, Dr Satyajeet Arya, Sri Sri University (SSU), Odisha The lectures and deliberations covered soil formation processes, soil classification, soil governance, soil functionality, ecosystem services, and land-use-based soil health management.

Group Formation and Soil Judging Design For effective learning, assessment, and comparative evaluation, participants were divided into three groups, each comprising:

- ✓ One Group Leader (participant)
- ✓ One experienced expert guide assigned by the organisers.

Each group was primarily assigned responsibility for digging, preparation, and detailed examination of one soil profile under a specific land-use system. Subsequently,

all groups visited and examined the remaining sites to ensure cross-learning and comparative understanding. The three land-use systems evaluated in the Mirzapur district were: 1. Agricultural field system 2. Forestry field system 3. Agroforestry field system This design enabled systematic comparison of soil properties, processes, and functional attributes under contrasting land-use and vegetation systems. 7. Soil Judging Methodology Each group conducted on-site soil profile examinations following standard protocols soil judging protocols, which included:

- ✓ Soil profile description and horizon identification
 - ✓ Assessment of soil colour, texture, structure, and consistency
 - ✓ Evaluation of root distribution and biological activity
 - ✓ Observation of drainage conditions and landscape position
 - ✓ Interpretation of soil-forming processes under respective land-use systems Expert guides provided continuous scientific supervision to ensure methodological rigor, accuracy, and standardisation across all groups.

Examination Report Preparation and Presentation Following completion of field evaluations: each group prepared a comprehensive soil judging examination report summarizing observations, interpretations, and land-use implications. Reports included a comparative assessment of soil development, functional capacity, and sustainability potential. Groups presented their findings before a Judging Committee comprising senior scientists and subject-matter experts, followed by expert commentary and discussion.

Results and Observations Group B - Agricultural System (Winner): Group B excelled in the agricultural soil profile evaluation, demonstrating clear and accurate descriptions of soil horizons, texture, colour, and structure. Their soil classification was precise, and the interpretation of crop suitability and management constraints was comprehensive. Strong teamwork and clarity in presentation enabled them to secure the first position. Group A - Agroforestry System (Second Place):

Group A performed commendably in the agroforestry soil profile, highlighting root-zone dynamics, organic matter content, and soil aggregation. Their interpretation of tree-crop interactions and system resilience were insightful, though slightly less detailed than Group B, resulting in a second-place ranking. Group C - Forestry System (Third Place): Group C focused on the forestry soil profile, providing valuable descriptions of forest floor horizons and compaction features. Their interpretation of forest productivity and sustainability was scientifically sound; however, comparatively lower clarity and depth in presentation led to a third-place ranking. Final Ranking 1. Group B - Agricultural System (Winner) 2. Group A - Agroforestry System 3. Group C - Forestry System 10. Conclusion The “Know Your Soil: 3-Day Workshop and Soil Judging Contest” successfully demonstrated the practical relevance of soil functionality concepts across different land-use systems. Group B’s strong grasp of agricultural soil properties and management practices earned them the top position, while Groups A and C displayed commendable analytical skills in agroforestry and forestry contexts, respectively. Overall, the exercise reinforced the workshop’s central message: knowing your soil is the foundation for sustainable agriculture, agroforestry, and forestry systems. The programme effectively integrated theory with field-based learning, strengthened scientific capacity among participants, and contributed meaningfully to human resource development in soil and land management.

World Congress of Soil Science

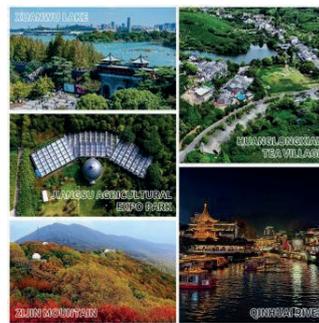
WCSS2026: Academic Feast & Exploration Journey

The 23rd World Congress of Soil Science (WCSS2026) will be held from June 7 to 12, 2026, at the Nanjing International Expo Center and Nanjing International Convention Center in China.

The Congress has already attracted strong interest, with over 2000 participants registered and more than 3,300 abstracts submitted. For the exhibition, over 50, close to half of the planned booths have been confirmed. The scientific program will feature 135 parallel sessions

across 29 dedicated meeting rooms, complemented by coffee breaks and a poster exhibition zone to encourage interaction.

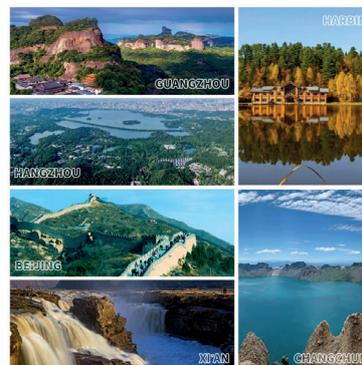
The Opening and Closing Ceremonies will take place in the Zhonghua Hall of the Convention Center. A variety of social events will be organized, including welcome receptions, a Gala Dinner, and in-/post-Congress field trips.



In-Congress Tours - Nanjing

On June 10, 2026, WCSS2026 invites you to explore Nanjing through its in-congress tours, themed “From Soil to Soul.” Choose from 5 unique routes that blend scientific exploration with cultural immersion:

Visit the state-of-the-art T-FACE research platform and Xuanwu Lake, explore the Institute of Soil Science and Jiangsu Agricultural Expo Park, or conduct soil profile surveys in Zijin Mountain’s national 5A scenic area. Stroll through Huanglongxian Tea Village, a living museum of Jiangnan tea culture, or wander along the Qinhuai River, Nanjing’s “mother river” with a 2,000-year history of cultural heritage. Each tour is the history and natural beauty of Nanjing.



Post-Congress Tours - China

A farewell marks a new beginning! The post-congress scientific expeditions offer 6 routes across China, from June 12 to 18, 2026, to explore the country’s diverse soil landscapes:

Investigate red soils in South China’s Danxiashan UNESCO Global Geopark, tea and paddy soils in the Jiangnan region, and soil environments in Beijing alongside iconic cultural sites like the Palace Museum and the Great Wall. Immerse yourself in the Loess

Plateau's unique soil and cultural heritage and explore the rich black soil regions of Northeast China, including Chernozem and volcanic ash soils. These expeditions combine professional soil research with unforgettable journeys through China's natural wonders and historical treasures.

2025-2034 Decade of Soil Sciences for Sustainable Development

2025-2034: Decade of Soil Sciences for Sustainable Development

Healthy Soils for Humanity

The [International Union of Soil Sciences](#) (IUSS) is the global organization of soil researchers. The IUSS aims to advance all areas of soil sciences and its applications, foster connections among researchers and practitioners involved in soil sciences, encourage and support the implementation of soil research, and promote soil in education. The IUSS states that healthy soils underpin healthy societies: healthy soils are the foundation of social, ecological, and economic sustainability. IUSS therefore advocates for soil health to be included in all areas of sustainability research. Societies depend on their sustainability on healthy and well-functioning soil ecosystems, which can underpin biodiversity and the quality of air and water. Soil provides essential ecosystem services such as flood and erosion control, pest and disease regulation, climate change mitigation, waste recycling, water purification, biodiversity support, cultural heritage preservation, food security, material provision, and development space. To ensure the continuation or restoration of those services, sustainable management of the soil needs to become part of all areas of social action. This means maintaining or enhancing soil health and protecting it from destruction, pollution, and exploitation in all social activities, including extensive urban development.

The IUSS has successfully concluded the Decade of Soils 2015-2024, culminating in the celebration of its Centennial. This period has led to various initiatives and publications, including those made in collaboration with the FAO and other international organizations and societies. The primary objective of the decade was to increase awareness regarding the significant roles that soils play in addressing contemporary environmental, health, and social challenges faced by humanity.

According to the United Nations and the Food and Agriculture Organization, the progress towards achieving

100-Day Countdown

As a cornerstone event for the global soil science community, WCSS2026 aims to deliver a high-level platform for academic exchange, knowledge sharing, and international cooperation. Whether you are in academic research, industrial practice, or policy formulation within soil science, this congress offers



unparalleled opportunities to connect with global peers, grasp innovative academic trends, and experience China's unique culture and diverse soil landscapes. We welcome you to Nanjing in June 2026—let us unite to shape the future of soil science, contribute to global soil health and sustainable development, and create lasting memories of academic exploration and cultural exchange!

Visit the official [congress website](#) for registration and more information. Early-bird registration will be available until March 7, 2026.

most of the Sustainable Development Goals is lagging. One contributing factor is the lack of sufficient focus on sustainable soil management and protecting areas from sealing and other forms of destruction. Regenerative and sustainable soil management is essential for sustainable development. Without addressing the impact of human activities on soil health, achieving most of the targets set by the United Nations Sustainable Development Goals is unfeasible.

In August 2023, the United Nations General Assembly proclaimed the International Decade of Sciences for Sustainable Development (IDSSD) led by [UNESCO](#) aimed at strengthening worldwide scientific cooperation.

In consideration of the need to prioritize production, dissemination, and use of actionable scientific knowledge to achieve the targets of the SDGs, the IUSS has launched the 2025-2034 Decade of Soil Sciences for Sustainable Development (DSSSD). The Research Forum of the IUSS, in collaboration with the Executive Committee and the Council, will play a crucial role in enabling activities during this period.

The overall objectives of the decade are:

- Create a strong science-policy-society interface on soil health and protection for sustainability
- Advance practical understanding of soil sciences for sustainable development.
- Support scientific research and innovation integrating sustainable soil management in all areas of social action.
- Promote initiatives which engage society with soil research, including citizen science, knowledge of co-production, science communication, and soil education.
- Foster meaningful cooperation between soil research and society to enhance trust in science
- Diversify and strengthen social, cultural, and artistic research on soils.
- Strengthen international collaborative and transdisciplinary and multidisciplinary research initiatives.

Planned specific activities during the decade comprise the following:

- Publishing review papers on tracking the relationships between soil and SDG
- Issuing policy briefs on the recent advances in all fields of soil sciences
- Promoting selected papers dealing with actionable scientific knowledge to achieve the targets of the SDGs
- Hosting thematic Webinars on these topics
- Organizing one or more Sessions on the connections between SDGs and soils at the next WCSS in Nanjing 2026
- Publishing thematic books on the contribution of Soil Sciences to sustainable development
- Working with UNESCO, FAO, ISC, and other organizations for the implementation of IDSSD initiatives at various levels, including national soil science societies
- Collaborating with UNESCO's initiatives focused on leveraging the organization's designated sites as monitoring points for soil, water, landscape, and biodiversity impacts associated with climate change and land degradation.
- Proclamation of the World Soil of the Year (WSY). In recognition of the success of various national programs, the IUSS WSY program has been implemented to enhance soil literacy across numerous countries and on a global scale.

A milestone of the DSSSD is the 23rd World Congress of Soil Sciences which will be held in Nanjing, China in June 2026. The general theme of the Congress is "Soil Health for Humanity." Therefore, improving soil health for humanity is the first focus of the decade's initiative.

The 2025-2034 Decade of Soil Sciences for Sustainable Development is a strategic initiative highlighting soil's critical role in achieving sustainable global development. By fostering scientific collaboration, advancing research, and engaging with policymakers and the broader society,

the IUSS aims to ensure that soil management remains a top priority in global sustainability efforts. DSSSD will contribute to a future where healthy soils support resilient ecosystems, food security, and sustainable development worldwide through structured activities, knowledge dissemination, and international cooperation.

In line with the aims of the Decade, the IUSS in the beginning of 2026 has launched a competitive call for a Scholarship for Evidence Collection on the Contribution of Soil Sciences to the Sustainable Development Goals (SDGs). The scholarship will support the collection, analysis, and synthesis of evidence demonstrating how soil sciences have contributed, and are currently contributing, to the achievement of the Sustainable Development Goals (SDGs). The work shall focus on the use of actionable scientific knowledge and practical solutions supporting SDG progress, highlighting the role and impact of soil science across all relevant Goals and Targets. Thirteen applications were received and evaluated by the Selecting Committee; the winning proposal is the one by Dr. Emma Liang and her Team from the University of Melbourne.

The IUSS Decade, after a thorough application process, has been endorsed as a Programme of the International Decade of Sciences for Sustainable Development (IDSSD) by UNESCO on November 26, 2025.

For more information on the DSSSD initiative, visit the [IUSS](#) website and the IUSS social media channels.

Supporting partners

[UNESCO](#) [International Science Council](#) [Global Soil Partnership](#) [4per1000](#) [CA4SH](#) [ESSC](#)



IUSS Awards

Six awards were open for the 2025 award cycle, and we received a diversity of nominations. Full nomination

packets were reviewed by all committee members, and the Awards Committee is pleased to announce the following recipients to be awarded at the 2026 IUSS World Congress:

DOKUCHAEV AWARD: for major research accomplishments, resulting from basic research in any field of soil science. **Dr. Robert Horton, Iowa State**



University, USA. Dr. Horton is a Distinguished Professor of Soil Science and leading scientist on coupled heat and mass transfer in soils. His fundamental work has applications to several important

topics, such as surface energy partitioning; impacts of soil water flow and chemical transport on water quality; soil environment impacts on crops, microbes, and gas exchange; remediation of soil pollution; and soil heating/cooling systems. Among his many achievements, Dr. Horton has collaborated with former students and others to develop and validate a method to quantify dynamic soil water evaporation, to devise and validate a method to control fertilizer nitrogen leaching and develop and validate a comprehensive theory of coupled heat, water, and chemical transfer in soil. He has authored more than 400 journal papers and has presented at more than 100 invited international lectures.



VON LIEBIG AWARD: for outstanding contributions in applied soil science research, contributing to new discoveries, techniques, inventions, or materials that increase food security, improve environmental quality or conservation, land, and water development. **Dr. Cornelia**

Rumpel, National Centre for Scientific Research (CNRS), Paris, France. As Director of Research, she is internationally recognized for her pioneering work on soil organic carbon dynamics, investigating the mechanisms governing the formation, stabilization, persistence, and loss of organic matter across natural and managed ecosystems in temperate and tropical

environments. Her research integrates field investigations, laboratory analyses, and biogeochemical modeling to advance understanding of soil carbon cycling and its role in soil functioning and ecosystem service provision. Her achievements include demonstrating how land use and management influence soil carbon sequestration and developing soil management strategies to foster soil carbon sequestration and climate change resilience.



THE IUSS JEJU AWARD: for a young and mid-career soil scientist who has innovative and outstanding accomplishments in education, research, or extension in soil sciences

and has made a substantial contribution to IUSS missions.

Dr. Asim Biswas, University of Guelph, Ontario, Canada.

Dr. Biswas is OAC Chair in Soils and Precision Agriculture and Professor specializing in data-driven sustainable soil management. He focuses on enhancing the productivity and resilience of land-based agri-food production systems in an environmentally sustainable manner. His work revolves around using data to inform soil management practices, aiming to optimize agricultural outcomes while minimizing negative environmental impacts. With over 250 peer-reviewed publications, Dr. Biswas is the recipient of numerous awards, including the Steacie Prize, the Mahima Innovative Scientist Award, the Early Career Award of the SSSA, and the University Research Excellence Award.

EMMA MARIE ANTONIE TÄUBER AWARD: for an



early career soil scientist who has made an exceptional contribution to soil science through exemplary research and dissemination of that research. **Dr.**

Anna Paltseva, Purdue University, Indiana, USA. Dr. Paltseva is Clinical

Assistant Professor of Urban Soil Science, leading research and community-engaged initiatives on urban soil contamination, risk reduction, and safe land use in city environments. Her research focuses on heavy metal contamination, remediation, and urban soil health, advancing practical methods for soil assessment, risk mitigation, and sustainable land use in cities. She brings the issues and challenges of urban soil science beyond the classroom, laboratory, and conference halls, and

engages directly with the communities and stakeholders most affected by soil contamination and land use decisions. Dr. Paltseva founded the Delta Urban Soils Lab and authored *Urban Soil Guide: A Field and Laboratory Manual*.

IUSS INNOVATION AWARD: for a specific scientific innovation, research method, or device in soil science. **Dr. Deb Jaisi, University of Delaware, USA.** A Professor in



the Department of Plant and Soil Sciences, Dr. Jaisi is an environmental isotope biogeochemist specializing in high-resolution oxygen isotopic analysis of phosphate across various

scales and ecosystems. He developed a tandem mass spectrometry-based method on position-specific isotopes in intact phosphorus molecules and fragments, which now enables understanding of selective hydrolysis, synthesis, and transformation of P compounds in the natural environment. Dr. Jaisi has received several major awards, including the 2024 Jackson Soil Chemistry and Mineralogy Award from the Soil Science Society of America, which recognizes his contributions to soil phosphorus chemistry.

IUSS COMMUNICATION AWARD: for a scientific communication campaign or a demonstration of exceptional impact through social media, popular press, or any other media platform. **Dr. Laura Bertha Reyes**



Sánchez, National Autonomous University of Mexico. Dr. Reyes

Sánchez has dedicated over 36 years to advancing soil literacy worldwide through innovative educational programs, children's books, teacher training, and international awareness campaigns. She has co-authored FAO soil education resources and launched the global initiative *The IUSS Goes to School*, endorsed by 28 national soil societies. She believes it is crucial to educate and raise awareness among children, teachers, politicians, and policymakers about the importance of soil for life. Her outstanding impact is evidenced by the numerous honours and awards she has received for her work, including the Latin-American Soil Science Award, the Chinese Soil Science Society's Fellowship Award, and the IUSS' Distinguished Service Award.

News from National and Regional Soil Science Societies

2026 Soil Science Australia National Conference



Kaya! This is a common greeting used in the south-west region of Western Australia. I hope to convey this to many of you, in-person, later this year.

Western Australia is hosting the 2026 Soil Science Australia National Conference on Whadjuk Noongar Boodja in Boorloo (Perth), 1–5 November at the Pan Pacific Hotel, following the Australian Soil Judging Competition.

The biennial conference is Australia’s leading event for highlighting advances in soil science and soil-related policy, attracting experts and enthusiasts from across the country and overseas.

SUBMIT YOUR ABSTRACT: Now open – closing 24 April 2026

The theme for the 2026 conference is “Common Ground: Soils for the Anthropocene”.

The theme “Common Ground” embraces the multidisciplinary nature of the soils sector and seeks to leverage the breadth of skills, perspectives, and experiences necessary for the responsible management of “Soils for the Anthropocene.”

We are seeking oral or poster presentations conveying international insights on a broad range of topics.

The submission process is simple. There is further information on the sub-themes and a comprehensive guide available on the conference website.

REGISTER NOW: Early-bird rate closes 31 July 2026

The 2026 conference is expected to convene over 450

attendees and will serve as a platform for a diversity of voices across science, policy, industry, and community to explore a mutual understanding of soils as the foundation of productivity, security, community, and resilience.

There will also be opportunities for networking and relationship-building at social functions, and for hands-on experience during field tours.

The Conference is being held at an ideal time in this part of the world. Along with the professional development and networking opportunities, you will be treated to the magnificent wildflower season of Kambarang in the South-West of Western Australia, featuring the striking yellow flowers of the Moodjar (Australian Christmas Tree, *Nuytsia floribunda*) and still, balmy sunsets over the warm Indian Ocean.

Even if you do not plan to submit an abstract, I encourage you to register.

On behalf of Soil Science Australia, I look forward to seeing you on the lands (Boodja) of the beautiful south-west of our island continent.

[WEBSITE](#)



Dr George Mercer

2026 Conference Chair and WA Branch President,
Soil Science Australia

WA.President@soilscienceaustralia.org.au

Annual meeting of the German Soil Science Society in Tübingen 2025 - 13–18 September 2025

Under the motto “#HealthySoilsClimateProtection,” the Annual Meeting of the German Soil Science Society (DBG) took place from 13 to 18 September 2025 in Tübingen. A total of 692 participants attended a program featuring 24 sessions, 9 keynote lectures, around 300 oral presentations, 208 posters, and 17 excursions across the Swabian Alb and the Black Forest, complemented by activities organized by the Young Professionals in Soil Science (YPSS).

The Icebreaker offered a relaxed start to the week. Following the welcome address by T. Scholten, Y. Oelmann delighted the audience with a three-ball juggling performance symbolizing the logistical challenges mastered during the conference preparation. Our sincere thanks go to the organizing team for their outstanding work. For the second time, the “DBG Soil Profile Cake Contest” was part of the Icebreaker program; profile descriptions and recipes are available on the DBG website.

The scientific program, shaped by the DBG commissions together with the Young Professionals in Soil Science (YPSS), reflected the breadth of soil research while fostering exchange across career stages. Alongside oral presentations, poster sessions provided lively opportunities for discussion and exchange. Contributions addressed key topics including soil chemistry and physical processes, biodiversity, land use, soil protection, and pedogenesis, as well as advances in measurement and modelling, underscoring the conference’s role as a platform for scientific exchange within the soil science community.

A special focus this year was the historical examination of soil science during the National Socialist era. In a keynote presentation, Jan Arend outlined initial findings of ongoing research commissioned by the DBG on the historical context and assessment of Fritz Scheffer. The discussions marked a crucial step toward critically reflecting on the society’s history, a process that will continue in the coming years.

A highlight of the meeting was the ceremonial event on

Tuesday, which brought together the keynote lectures, the presentation of the Fritz Scheffer Prizes and Emil Ramann Medals, and the general assembly, including the appointment of new honorary members and the announcement of the joint bid by the German, Polish, and Czech Soil Science Societies to host the World Congress of Soil Science 2034. The evening concluded with a networking dinner and traditional “Stocherkahn” boat rides on the Neckar. Further information on the conference, awardees and the program is available on the DBG website.

Finally, we thank the DBG commissions for shaping a high-quality scientific program, the YPSS for their contribution to networking and community building, and all participants whose presentations and discussions made the Tübingen Annual Meeting such a success.



Einar Eberhardt, Peter Schad and Albrecht Bauriegel (from left to right) during the expert tasting of the soil profile cakes. In the foreground, the winning cake by Sascha Scherer (Ph. D. Schwindt)



The new honorary members of the DBG: Christian Ahl with the President Daniela Sauer and the former President of the German Soil Science Society Karl-Heinz Feger (left), and Heiner Flessa with Georg Guggenberger and Daniela Sauer (right) (Ph. D. Schwindt)

Rendzina – Soil of the Year 2025 in Germany

For 20 years now, the “Soil of the Year” has been selected by the board “Soil of the Year”, composed of members



of the German Soil Science Society (DBG), the Federal Soil Association (BVB), and the Engineering Association for Contaminated Site Management and Land Recycling (ITVA). Each year, the selected soil is officially presented on World Soil Day, December 5, during a ceremony in the capital Berlin. The German Environment Agency (UBA) also strongly supports the initiative.

The goal of the campaign is to raise public awareness of soils as vital natural resources. Through posters, flyers, brochures, websites, and exhibitions, it aims to engage a broad audience. Over the course of the year, a variety of events, including excursions and exhibitions, are organized by institutions at both regional and local level.

Over the past two decades, the focus of the campaign has shifted from a purely taxonomic presentation of specific soil types to a broader ecological perspective. It now highlights different land use systems and their interactions with soil. In 2023, the focus was on arable soils, emphasizing the importance of healthy food production. In 2024, forest soils were selected as “Soil of the Year”, drawing attention to carbon sequestration and water-related ecosystem services.

The Soil of the Year 2025 is the Rendzina a shallow, humus-rich soil type that forms on limestone, dolomite, or gypsum bedrock, corresponding to Rendzic Leptosols according to WRB. This year’s patron is Dr. Till Backhaus, Minister for Climate Protection, Agriculture, Rural Areas, and the Environment of the German federal state of Mecklenburg-Western Pomerania. Accordingly, special attention is being given to Rendzinas formed on Cretaceous limestone in the Baltic Sea region.

At the official presentation in Berlin, Dr. Backhaus highlighted that Rendzinas are more than just productive land for agriculture or forestry. They also serve as “habitats, geology you can touch, and a valuable part of our natural and cultural heritage.”

To explore these aspects further, a multi-day expert

excursion will take place at the end of May, including a visit to the UNESCO World Heritage Site of the Jasmund beech forest with its iconic chalk cliffs on the island of Rügen. The tour is being organized by the State Office for Environment, Nature Conservation and Geology of Mecklenburg-Western Pomerania together with the German and Danish Soil Science Societies. On the Danish island of Møn, the participants will also have the opportunity of cross-border comparisons of Rendzina sites.

[Read more](#) and visit the Soil of the Year page and the UBA Soil of the Year page.

Soil-Landscape Relationships in Action: SASSO Field Workshop in Kruger National Park, South Africa

12–15 October 2025, Skukuza Research Camp

In October 2025, the Soil Science Society of South Africa hosted an advanced soil science field workshop and excursion in the Skukuza region of Kruger National Park. The event brought together professional soil scientists, geologists, agriculturists, and researchers for an intensive programme focused on soil–landscape relationships, catena development, and ecosystem processes within a semi-arid savanna environment.

Held at the Skukuza Research Camp, part of the Park’s Scientific Services platform, the workshop highlighted the value of protected areas as long-term natural laboratories for soil research, monitoring, and training.

The workshop was coordinated by Prof. Gerhard Nortjé, Associate Professor in Soil and Environmental Sciences at the University of South Africa and Vice President of the Soil Science Society of South Africa. Prof. Nortjé is a former student of retired Prof. Giel (Mike) Laker, whose pioneering field-based soil training initiatives in the Lowveld laid the foundation for excursions such as this one.

Prof. Laker attended the workshop and contributed two presentations, sharing his extensive theoretical and practical expertise. The local host was Dr. Tercia Strydom from Scientific Services in Kruger National Park.

A Globally Unique Pedological Transect

The centrepiece of the excursion was the Rietpan Firebreak Road transect, regarded as one of the most remarkable continuous soils–geology sequences in southern Africa. Over a short spatial distance, the transect traverses multiple geological formations, including granite, gabbro, Ecca shales, and basalt, offering an exceptional opportunity to examine contrasting soil systems within a single landscape framework.

On granite-derived terrains, participants observed strongly acidic, coarse-textured sandy soils on upper slopes, grading downslope into clay-enriched subsoils. In contrast, basaltic landscapes supported deep, well-structured red clay soils characterised by high aggregate stability. The clear expression of soil catenae across contrasting parent materials provided an outstanding field demonstration of how geology, topography, and climate interact to shape soil properties and vegetation patterns.

The scientific significance of the transect was strongly emphasised, with renewed discussion regarding its formal recognition as a national reference site for soil classification, calibration, and long-term monitoring.

Soil Degradation and Land-Use Lessons

A second focal point of the workshop was the Silolweni Dam area, which illustrates the long-term consequences of inappropriate infrastructure placement in ecologically sensitive savanna systems. Constructed in an area with inherently fragile soils, the dam and its surrounding landscape have experienced substantial degradation over time, including soil structural decline and vegetation loss.

The site now serves as a living case study in land-use planning, ecosystem resilience, and the importance of integrating soil knowledge into conservation management decisions. For international readers, the example underscores a universal lesson: soil properties must be central to sustainable development and environmental planning.

Field-Based Learning and International Relevance

The workshop combined scientific rigour with experiential, field-based training—an approach widely recognised as essential for advancing soil science globally. Discussions extended beyond local classification systems to broader themes relevant to the international soil science community, including:

- Soil–vegetation feedback mechanisms in savanna ecosystems
- Long-term monitoring in protected areas
- Soil degradation processes in semi-arid climates
- The role of reference landscapes in soil education and calibration

The 2025 Skukuza Soil Workshop reaffirmed the importance of collaborative field engagement in strengthening soil science networks and advancing applied pedology. By situating soil research within one of Africa's most iconic conservation areas, the event demonstrated how national initiatives contribute meaningfully to global soil science knowledge.

The Soil Science Society of South Africa (SSSSA) extends its appreciation to all contributors and participants and looks forward to follow-up workshops in the Kruger National Park, and to continued collaboration within the global community of the International Union of Soil Sciences.



BSSS Release New Podcast Episode on Old Knowledge

BSSS have just released the seventh episode of their podcast, *Soil Matters*, with contributors from Peru. In this powerful second part of the episode of *Old Knowledge – Indigenous Wisdom for Sustainable Land Management*, we explore how ancient wisdom can shape a more sustainable future for our soils, forests, and food systems. Guests Marioldy Sanchez Santivañez, Kleily Vargas and Jhon Guimaraes offer a compelling look into the deep-rooted relationship between indigenous communities and the

land—revealing how traditional knowledge, community governance, and a commitment to ecological balance have sustained landscapes for generations. Listeners will discover how indigenous farming practices—guided by ancestral understanding of seasons, biodiversity, and soil life—offer viable, chemical-free alternatives for modern agriculture. Juan highlights the importance of keeping forests as forests, managing land collectively, and honouring the natural rhythms of the environment. This episode shines a light on the transformative potential of indigenous agriculture as both a model and a movement for global sustainability. With collaboration between communities and professionals growing, and with renewed recognition of indigenous contributions, the future of sustainable land stewardship looks brighter than ever.

Available on the BSSS website, Apple Podcasts and Spotify, [listen here](#) to episode 7

Annual Conference “Resilient Soils for a Sustainable Future”



Date: 3–5 December 2025

Location: King’s House Conference Centre, Manchester

Dynamic, multi-disciplinary events will bring together researchers, practitioners, and policy makers across the built environment, agriculture, and natural sciences to explore the vital role of soils in supporting a sustainable future.

The overarching theme, *Resilient Soils for a Sustainable Future*, will guide three days of presentations, discussions, and networking opportunities. With global challenges such as climate change, food security, and biodiversity loss becoming increasingly urgent, the conference offers a timely platform to display innovative research and debate key strategies for strengthening soil resilience.

Researchers are encouraged to submit oral abstracts by **Sunday 31 August**, while poster submissions will remain open until **Friday 24 October**. Full details on submission guidelines and thematic focus are available on the BSSS website; [read more](#).

Soils For Our Future – A Gathering of Global to Local Perspectives



The SOILS FOR OUR FUTURE (SFOF) Conference has changed venues to the Delta Hotel from the Winnipeg Convention Centre. The change is to allow the RBC Convention Centre to temporarily house evacuees from northern Manitoba to whom wildfires have displaced. The venue change will not affect conference programming. The Delta Hotel is adjacent to the convention Centre and is the hotel where most attendees are staying. The province has assured the Delta Hotel that it will not be required to accommodate evacuees. Hotels across Manitoba, including those outside of downtown Winnipeg, will be used to accommodate evacuees. The SFOF organizing committee looks forward to a great conference event.

The SOILS FOR OUR FUTURE 2025 Conference brings together three conference events: **5th Global Soil Security Conference, Canadian Society of Soil Science Annual Meeting, and International Union of Soil Sciences Division 1 - Soils In Space and Time Meeting**. Hosted by the Soil Conservation Council of Canada and the Manitoba Soil Science Society. With over 700 researchers, industry members, leaders of farmer organizations, graduate students and other attendees, the SOILS FOR OUR FUTURE 2025 Conference provides a global perspective to today’s research to sustain our future. Spanning five days, the conference provides attendees of the events to meet in plenary/technical sessions with their individual organizations and for all to come together in person for keynote sessions, tradeshow, posters, workshops, and field tours. Because of the large number of attendees and concurrent activities, the

conference will be held in person only.” Read more [here](#)

Soils & Crops in Focus - Critical Resources from Coast to Coast

Joint meeting of the [Canadian Society of Soil Science](#) and the [Canadian Society of Agronomy](#), June 20-25, 2026, at the [University of Guelph](#)

We are incredibly pleased to invite you to the 2026 Joint Annual Meeting of the Canadian Society of Soil Science and the Canadian Society of Agronomy to be held in person at the University of Guelph.

This conference, with its theme of “Soils & Crops in Focus - Critical Resources from Coast to Coast to Coast” will address the importance of resilient and healthy food production throughout Canada. Spanning six days, this conference brings together researchers, academics, professionals, contractors, suppliers, and students for technical and scientific discussions, and to highlight the state of the art in soil and crops research.

The Local Organizing Committee is planning an exciting program of keynote sessions, tradeshows, posters, workshops, and field tours. Not only will we have an exceptional scientific program, but we will also make sure that your experience in Guelph is worthwhile!

We look forward to hosting CSSS - CSA - 2026 and to welcome you to Guelph in June! Read more [here](#)



AFES – Association Française pour l’Étude des Sols

WSD 2025

Date: July 7th – 11st, 2025

Location: Geneva, Swiss

The 2025 WSD, 17th Soil Study Days

Soil Study Days 2025: the meeting place for French-speaking researchers and practitioners

The 17th Soil Study Days (JES 2025) will take place in Geneva from 7 to 11 July 2025 at the [HEPIA](#) premises. These JES are open to all researchers and practitioners working in the field of pedology. These JES 2025 are organized by the Geneva School of Landscape, Engineering and Architecture (HEPIA) and the French Association for Soil Studies in close collaboration with the Swiss Society of Pedology.



For this edition, the main theme chosen is: “**Soils, functions, and transition.**” In view of recent news related to the state of soils and their functioning from a biophysical, legal and socio-political point of view, these days will focus on the importance of soils and their functions in our daily lives as well as the methods of evaluation, monitoring and sustainable management of these in a society in transition.



Beyond this main theme, and as is customary for the JES, the presentations on general knowledge of soils, those on soils in hot regions and proposals that go beyond the initial theme are also planned. A particular focus will also be offered on the role of the creative and artistic industries in raising awareness of the issues of knowledge and preservation of soils.

Main Theme

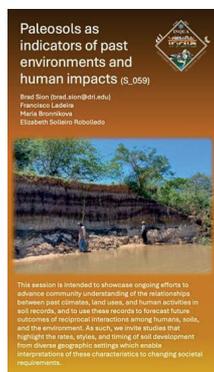
The central theme for this edition is: “Soils, Functions, and Transition”.

Considering current events related to soils from bio-physical, legal, and socio-political perspectives, this edition aims to focus on the role of soils and their functions in our daily lives, as well as methods for evaluating, monitoring, and sustainably managing soils in a transitioning society.

Scope

In addition to the main theme, as is customary for JES, contributions on:

- General soil knowledge,
- Soils in warm regions, and
- Proposals that extend beyond the initial theme, are also welcomed and encouraged.



Field International Workshop on Paleopedology “Deciphering the ancient anthropic landscape transformation in the southern Maya lowlands in Mexico”

Date: February 19th – 25th, 2026

Location: Palenque, Mexico

The objective of the workshop is to show different landscapes occupied by the ancient Mayas, from the northern alluvial plain of the Usumacinta River, where people developed small and rural towns, to the highlands at Sierra de Chiapas, where monumental and well-organized cities were constructed. The workshop will have two-day conferences and five days of field excursions. During the first two days of the workshop, oral and poster presentations will be conducted.

Conference Organizers:

- International Union of Soil Science, Division 1. Soil in Space and Time, Commission 1.6 - Paleopedology.
- International Union for Quaternary Research, INQUA Paleopedology Working Group.
- Instituto de Geología, Universidad Nacional Autónoma de México (UNAM).
- Instituto de Ecología A.C. (INECOL).

Contributors are invited to submit their papers electronically to solleiro@geologia.unam.mx. The abstracts must be received by September 15, 2025, at the latest. The workshop is limited to 30 participants. If you are willing to participate, we ask that you register in advance. The cost of the workshop is 1200 USD. This price includes Conference and field excursions. Double room accommodation at the hotels in various places

on the excursion. Refreshments during the conference. All breakfasts and lunches during the field excursion. Transportation to the site. In Budsilhá, dinners are also included (February 22-23). In other places, dinner is not included in the price. Read more [here](#)



Austrian Soil Science Society

International Symposium 2025 Molecular modelling in soil science – achievements and perspectives

Centre Européen de Calcul Atomique et Moléculaire (CECAM-AT)

Date: September 24th-26th, 2025

Location: BOKU University, Vienna, Austria

It is undeniable for the significant role of soils in ecosystem functions at quite different spatial and temporal scales (local and global) from microscopic to macroscopic phenomena. In view of the great demand for information regarding best practices for soil use and management, as well as remediation, new methods traditionally used in other areas have come into play to provide a better understanding of important soil processes and functions. With the arrival of powerful and more efficient computers, molecular modeling has become a valuable tool, offering insights into scales unattainable experimentally, and being able to simulate complex molecular systems. The application of such methods in soil science has proven success in understanding the interactions within soil at microscopic levels, key to determining the fate of pollutants.

This symposium represents an opportunity to bring together scientists of high prestige in different areas of molecular modeling applied to soil science to discuss the state-of-the-art, promote meaningful discussions and contrast in-depth points of view to determine future perspectives and challenges regarding molecular modeling applied to soil science. Furthermore, the symposium presents an opportunity to foster cooperation and dissemination of knowledge on methods for the simulation of representative soil models, according to

today's needs as well as the prediction of physicochemical properties.

Registration deadline: July 18, 2025

Read more [here](#)

Czech Society of Soil Science (CSSS)

“Pedologické dny 2025” conference (on the topic of Anthropogenically influenced soils)

Date: September 17th -19th, 2025

Location: Most, Czech Republic

Conference of the Czech Society of Soil Science and Societas pedologica slovacica organized, with the support of the Czech University of Life Sciences Prague, Forestry and Game Management Research Institute, and Research Institute for Soil and Water Conservation.

The topic of the conference is anthropogenic impacts on the soil environment, which can cause both positive and negative changes in soil properties and can affect soil quality and health or its ability to provide ecosystem services. Due to the location of the conference in an area that has long been significantly impacted by open-pit mining of brown coal and its combustion, the first two thematic areas are more specifically focused on the issues of the impacts of mining on the landscape and soil, as well as on the specifics of newly forming soils in reclaimed landfill areas. However, contributions from any part of the broad spectrum of impacts of human activity on agricultural and forest soils are welcome.

Read more [here](#)

News from the Divisions

Division 1 – Soil in Space and Time

[Division 1](#) deals with the soil body in the landscape context. The commissions and working groups coordinate, and harmonize research activities on observation, genesis, classification and mapping of the soil body and landscapes and communicate results to the soil science community, soil users, and the public.

Chair: Richard J. Heck/Canada

Past Chair: Erika Micheli/Hungary

1st Vice Chair 23rd WCSS: Ganlin Zhang/China

2nd Vice Chair 23rd WCSS: Ying Zhang/China

Summary of 2024 Scientific Activities & Events

“Soils For Our Future Conference: A Gathering of Global to Local Perspectives,” held in Winnipeg, Canada; July 20th to 25th, 2025:

This six-day joint conference of IUSS Division 1, the Canadian Society of Soil Science, and the Global Soil Security community, was hosted by the Manitoba Society of Soil Science



and the Soil Conservation Conference of Canada. Despite a last-minute venue change, due to the need to accommodate wildfire evacuees, the conference was a success with approximately 450 attendees from Canada and around the world.

The Conference program included three technical workshops (including the 6th Workshop of the International Network for Black Soils), 46 scientific sessions, 3 soil tours and a student soil judging contest. Keynote presentations were given by Dr. Budiman Minasny (Australia) on “AI and its Applications in Soil

Science,” by Dr. Fabio Terribile (Italy) on “Turning Knowledge into Action: Operationalizing Soil Science for Policy Impact,” and by the Honourable Penelope Wensley AC on “The Changing Landscape for Soil Advocacy.”

Six sessions were also organized by IUSS Division 1 under the theme of “Pedology 2025 & Beyond”. Representatives of each Commission and Working Group of Division 1 presented overviews of the state-of-the-art and emerging aspects of their science, techniques & technologies, as well as their challenges and opportunities, with specific consideration for the IUSS Decade of Soil Science for Sustainable Development. Special presentations were also delivered by Dr. Yuxin Tong (FAO, Italy) on “Boosting the Practice of Sustainable Soil Management”, by Dr. Alex McBratney (University of Sydney, Australia) on “Global Soil Security: Harness and Rethink the Power of Pedology”, and by Dr. Christine Morgan (Soil Health Institute, USA) on “Pedology and Soil Health”. Two discussion sessions focused on the “Challenges & Opportunities for the Next Generation of Pedology” and “Meeting the Needs for the Next Generation of Pedology.”

During this conference, the 2025 IUSS Distinguished Service Medal was awarded to Canadian Senator Robert Black, for “Dedication and outstanding contribution to the promotion and development of legislation and public policies for the recognition, protection, conservation and enhancement of soils across Canada”.

The 2025 IUSS World Soil of the Year award was also presented to Dr. Endre Dobos, President of the Hungarian Soil Science Society, for the “[Gleysol of the Carpathian Basin, Hungary](#)”

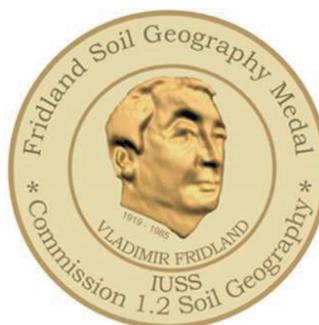
Commission 1.1 – Soil Morphology and Micromorphology (Chair: Fabio Terribile/Italy; Vice Chair: Adam Csorba/Hungary):

- “*Archaeological Micromorphology Short Intensive Course*” was held at the UCL Institute of Archaeology in London, UK; February 15th to 21st, 2025.

- “*Archaeological Soil and Sediment Micromorphology Course*” was held in the American School of Classical Studies at Athens, Greece; May 19th to 23rd, 2025.
- A perspective presentation on Commission 1.1 ‘*Soil Morphology and Micromorphology*’ presented by Dr. Rosa Poch, Spain, is available [online](#)
- April 2025 Newsletter of Commission 1.1 is available on the Commission website.
- “*There is Still Room for Soil Micromorphology? Unveiling the Invisible for a Sustainable Future*,” presentation by Rosa Poch at the ‘*Pedology 2025 & Beyond*’ session of the *2025 Soils For Our Future Conference* in Winnipeg, Canada.
- The soil thin section collection of Ghent University is now [online; website](#)

Commission 1.2 – Soil Geography (Chair: Sergey V. Goryachkin/Russia; Vice Chair: Eduardo Guimarães Couto/Brazil):

- “*Soil Geography: Advances and Prospects*,” recorded presentation by Sergey Goryachkin at the ‘*Pedology 2025 & Beyond*’ session of the *2025 Soils For Our Future Conference* in Winnipeg, Canada.
- Online webinar “*Soils of the world: typical and exotic soils of different countries and continents*.” Lecture of Pavel Krasilnikov “*What we know and don’t know about tropical soil formation*.” December 2025.
- The Vladimir Markovich Fridland Medal was introduced by IUSS Commission 1.2. – Soil Geography to commemorate Prof. Vladimir M. Fridland for his distinguished contribution to soil geography. This IUSS medal is awarded for outstanding and sustained contribution in the discipline of geography and cartography of soils.



Commission 1.3 – Soil Genesis (Chair: Endre Dobos/Hungary; Vice Chair: Yuji Maejima/Japan):

- “*Advances in Soil Genesis - potential contribution to the division-level strategy for roadmap development*,” presentation by Endre Dobos at the ‘*Pedology 2025 & Beyond*’ session of the 2025 Soils For Our Future Conference in Winnipeg, Canada.

Commission 1.4 – Soil Classification (Chair: Cornelius van Huyssteen/South Africa; Vice Chair: David Badía-Villas/Spain):

- “*Soil Classification for the Future*,” recorded presentation by Cornie van Huyssteen at the ‘*Pedology 2025 & Beyond*’ session of the 2025 Soils For Our Future Conference in Winnipeg, Canada.
- XIV Reuniões de Classificação e Correlação de Solos (16th Workshop on the Classification and Correlation of Soils), October 25th to 1 November 1st, 2025, in Bahia State, Brazil.

Commission 1.5 – Pedometrics (Chair: Alexandre Wadoux/France; Vice Chair: Simone Priori/Italy):

- “*Pedometrics- An Overview of the State-of-the-Art and Emerging Aspects*,” recorded presentation by Alexandre Wadoux at the ‘*Pedology 2025 & Beyond*’ session of the 2025 Soils For Our Future Conference in Winnipeg, Canada.
- Dr. José Padarian was selected as the recipient of the 2025 Margaret Oliver Award.

[Website](#)

Commission 1.6 – Paleopedology (Chair: Maria Bronnikova/USA, Russia; Vice Chair: Elizabeth Solleiro-Rebolledo/Mexico):

- Poster session “*Advances in pedology, paleopedology, and soil geography*” was led by Brad Sion, Guido Stefano Mariani & Lilit Pogosyan, during the European Geosciences Union (EGU) General Assembly, April 27th to May 2nd, 2025.
- “*Earth Surface Systems in Time: Why Study the Past?*” presentation by Maria Bronnikova at the

‘*Pedology 2025 & Beyond*’ session of the 2025 Soils For Our Future Conference in Winnipeg, Canada.

- Scientific breakout session “*Soils of the Past for Present and Future / Permafrost-Affected Soils: From Theory to Application*,” the 2025 Soils For Our Future Conference in Winnipeg, Canada. With Joint-Commission 1.7/3.8.
- Session “*Soils in Time from the Past to the Future I and II*,” by Commission 1.6 and the INQUA Paleopedology Working Group, chaired by Fabio Scarciglia and Fatima Kurbanova, during the VII EUROSOIL 2025 & X Congreso Ibérico de la Ciencia del Suelo, Seville, Spain, September 8th to 12th.
- Two Paleopedology Newsletters were published (02/25 & 08/25).

[Website](#)

Joint Commission 1.7/3.8 – Permafrost-Affected Soils (Chair: Aleksei Lupachev/Russia; Vice Chair: Adrian Unc/Canada):

- “*Problems of the Earth’s Cryosphere*,” international conference held in Puschino, Russia; May 12th to 16th, 2025.
- “*Commission 1.7/3.8: Permafrost Affected Soils*,” presented by Adrian Unc for the ‘*Pedology 2025 & Beyond*’ session of the 2025 Soils For Our Future Conference in Winnipeg, Canada.



(Ph. A. Lupachev)

Digital Soil Mapping Working Group (Chair: Alessandro Samuel Rosa/Brazil; Vice Chair: currently vacant)

- With Laura Poggio becoming Chair of the Global Soil Map Working Group, Alessandro Samu-

el Rosa was selected as the new Working Group Chair.

- 3rd Joint Workshop of the IUSS Working Groups on Digital Soil Mapping and GlobalSoilMap “*Soil Mapping for Sustainable Land Use Planning*”, Bengaluru, India, January 21st to 24th, 2025, organized by the ICAR-National Bureau of Soil Survey and Land Use Planning. Joint with Global Soil Map Working Group.
- “*Digital Soil Mapping: Actionable Knowledge for the Next Decade of Soil Science*,” prepared by Alessandro Samuel Rosa for the ‘*Pedology 2025 & Beyond*’ session of the *2025 Soils For Our Future Conference* in Winnipeg, Canada.

Digital Soil Thin Section Collections Working Group

(Chair: Richard J Heck/Canada; Vice Chair: to be determined):

This Working Group was officially established in 2025.

The goal of the DSTSC WG is “The establishment of an international framework for the digitization, characterization, archiving and sharing of soil thin sections collections.”

Global Soil Map Working Group (Chair: Laura Poggio/Netherlands; Vice-Chair Pierre Roudier/Netherlands):

- With the passing of Dominique Arrouays, Laura Poggio became the new Working Group Chair.
- 3rd Joint Workshop of the IUSS Working Groups on Digital Soil Mapping and GlobalSoilMap “*Soil Mapping for Sustainable Land Use Planning*”, Bengaluru, India, January 21st to 24th, 2025, organized by the ICAR-National Bureau of Soil Survey and Land Use Planning. Joint with Digital Soil Mapping Working Group.
- The IX Reunião Paranaense de Ciência do Solo, featuring sessions on “*Applied Pedometrics Workshops*” and “*New technologies in soil survey and pedometrics*”, was held in Curitiba, Brazil, May 13th to 15th, 2025.
- “*WG Global Soil Map*,” presented by Laura Poggio at the ‘*Pedology 2025 & Beyond*’ session of the

2025 Soils For Our Future Conference in Winnipeg, Canada.

- The SSSA Kirkham Conference “*Advancing Soil Physics: From Digital Innovation to Environmental Solutions*” was held in Fukushima, Japan, August 19th to 22nd, 2025.

International Accreditation Working Group (Chair: Michael Walker/Australian; Vice Chair: Dawn Gibas/USA):

- “*Developing an International Accreditation for Soil Science: Establishing global standards for soil science professionals*,” presented by Michael Walker at the ‘*Pedology 2025 & Beyond*’ session of the *2025 Soils For Our Future Conference* in Winnipeg, Canada.

Chair met with representatives of the Soil Science Society of China.

Working group has been developing *Terms-of-Reference* and *Standards* documents.

International Soil Judging Contest Working Group

(Chair: Brian Needelman; Vice Chairs: John Galbraith/USA & Minerva García-Carmona/Spain):

- Commission Officers have been working with organizers of the 2026 International Soil Judging Contest to be held in Nanjing, China, during the 23rd WCSS. This has included a site visit by Commission Vice-Chair John Galbraith. Call for registration for national student teams is open until December 31, 2025.
- “*Developing an International Accreditation for Soil Science: Establishing global standards for soil science professionals*,” presented by Michael Walker at the ‘*Pedology 2025 & Beyond*’ session of the *2025 Soils For Our Future Conference* in Winnipeg, Canada.
- Commission Vice-Chair John Galbraith participated in the 2025 student soil judging contest organized as part of the ‘*Soils For Our Future Conference*’ in Winnipeg, Canada.

- Commission Chair Erika Michéli and Vice-Chair John Galbraith participated in the 1st European Soil Judging Contest to be held in Alcoy, Spain, as part of EUROSIL 2025.
- Virtual Working Group meetings focussed on issues including simplified versions of Soil Taxonomy and WRB for soil judging contests, standard methodology, and communications.

Proximal Soil Sensing Working Group (Chair: Asim Biswas/Canada; Vice Chair: Abdul Mouazen/Belgium):

- “*IUSS Working Group on Proximal Soil Sensing: Evolution and achievements as a Working Group (WG) and Future as a Commission*,” presented by Asim Biswas at the ‘*Pedology 2025 & Beyond*’ session of the *2025 Soils For Our Future Conference* in Winnipeg, Canada.
- During the 2025 IUSS Council meeting, the Proximal Soil Sensing Working Group was converted to Joint Commission 1.8/2.6 *Soil Sensing*, with Division 2. Asim Biswas and Abdul Mouazen will continue as Chair and Vice Chair of this new Joint Commission.

[Website](#)

Soil Information Standards Working Group (Chair: Fenny van Egmond/Netherlands; Vice Chair: Rainer Baritz/Denmark):

- During the January 2025 GSP INSII meeting, ‘GloSIS WG’ was proposed within INSII to accelerate the work on this from a more intergovernmental entry point. Collaboration between the IUSS SIS WG and this FAO-GSP GloSIS WG is foreseen and promoted through double membership.
- “*WG on Soil Information Standards*,” recorded presentation by Fenny van Egmond at the ‘*Pedology 2025 & Beyond*’ session of the *2025 Soils For Our Future Conference* in Winnipeg, Canada.

World Reference Base Working Group (Chair: Cezary Kabala/Poland; Vice Chair: Stephan Mantel/

Netherlands):

- WRB WG members co-organized the Erasmus+ Blended Intense Course (BIP) “*Know Your Landscape, Know Your Soils (Geopedological Workshop*,” coordinated by Blas Repe, University of Ljubljana, Slovenia, June 30th to July 4th, 2025.
- “*World Reference Base Working Group*,” presented by Cezary Kabala at the ‘*Pedology 2025 & Beyond*’ session of the *2025 Soils For Our Future Conference* in Winnipeg, Canada.
- The WRB Documentation Centre was recently updated, this can be accessed [online](#)
- Lecture notes, Typifying pedons and Historical reviews of the WRB Reference Soil Groups are available through the WRB Documentation Centre [here](#)
- The WRB WG co-organized the thematic sessions “*Soil genesis, properties and classification challenges*” and “*Advances in soil mapping*” during the EUROSOIL congress in Seville, Spain, September 7th to 11th, 2025.
- The WRB WG participated in the 1st European Soil Judging Contest held as part of EUROSIL 2025.
- The 4th Edition WRB is now available in Catalan, English, French, Italian, Korean, Portuguese & Spanish.

[Website](#)

World Soil of the Year Working Group (Chair: Stephan Mantel/Netherlands; Vice Chair: José João Lelis Leal de Souza/Brazil):

- The 2025 *IUSS World Soil of the Year Award* recognized the “Gleysol of the Carpathian Basin, Hungary”, nominated by the Hungarian Soil Science Society. Information regarding this soil can be obtained [here](#)

[World Soil of the Year – 2025](#)

- “*World Soil of the Year Working Group*,” presented by Cezary Kabala at the ‘*Pedology 2025 & Beyond*’ session of the *2025 Soils For Our Future Conference* in Winnipeg, Canada.

Website

Universal Soil Classification Working Group (Chair: Budiman Minasny/Australia; Vice Chair: Jinhji Huang/USA):

- “*IUSS WG Universal Soil Classification*,” presented by Budiman Minasny at the ‘*Pedology 2025 & Beyond*’ session of the *2025 Soils For Our Future Conference* in Winnipeg, Canada.
- An R function is available to allocate any unknown soil profiles to the [Comprehensive Soil Classification System 2.0 system](#).

Activities Currently Scheduled for 2026**International Field Workshop on Paleopedology:**

On the theme of “Deciphering the ancient anthropic landscape transformation in the southern Maya lowlands in Mexico,” this workshop will be held in Palenque, Mexico, during the period of February 19th to 25th of 2026.

3rd Asian Conference on Permafrost (ACOP) 2026:

To be hosted by Institute of Geography and Geoecology of Mongolian Academy of Sciences and Mongolian Permafrost Association, will be held in Ulaanbaatar, Mongolia, from June 28th to July 2nd, 2026.

World Reference Base Working Group Field Workshop:

To be held in Fairbanks-Prudhoe Bay, Alaska, July 15th to 23rd, 2026. The aims of the workshop are (1) to discuss the suitability of WRB to classify the soils in the permafrost-affected environments, and (2) to increase the awareness of WRB system among the North American pedologists.

Pedometrics 2026:

This conference “*Pedometrics in Climate Change Research: Intelligence, Integration, and Innovation in Soil Science*” will be held in Bali, Indonesia, during September 2026.

Division 2 - Soil properties and processes

Division 2 deals with “how” the fundamental science behind our discipline and the understanding of fundamental processes

Structure and officers:

Chair: Giuseppe Corti, Italy

1st Vice Chairperson: Xiaoyuan Yan

2nd Vice Chairperson: Jianming Xu

Vice Chairperson Centennial: Stefano Mocali

The Chair is responsible for communication with the Commissions, Working Groups and Vice Chairs.

IUSS Division 2. Commissions and Working Groups:

•Commission 2.1 – Soil Physics: Silvia Imhoff - Cezary Sławiński

•Commission 2.2 – Soil Chemistry: Karen Vancampenhout – Boris Jansen

•Commission 2.3 – Soil Biology: Alberto Acedo Bécáres - Magdalena Frąć

•Commission 2.4 – Soil Mineralogy: Sofia Lessovaia - Edson Campanhola Bortoluzzi

•Commission 2.5 – Soil Chemical, Physical, and Biological Interfacial Reactions: Elke J. Noellemeyer - Pablo Cornejo

•Working Group on Hydropedology: Hans-Jörg Vogel – Johan van Tol

•Working Group on International Soil Modeling Consortium: Martine van der Ploeg – Teamrat Ghezzehei

•Working Group – Pedofauna (since 2025): Lorenzo D'Avino - Carlo Jacomini

Division Chair Report

Chair: Giuseppe Corti

Recent activities

Division 2 Chair and the Italian focal point for the Global Soil Partnership, Filiberto Altobelli, on behalf of CREA, participated in the international competition to host the FAO World Soil Day 2025 celebrations. The competition was won and on December 5th, 2025, in the morning, we attended the inauguration meeting at the FAO headquarters. For the afternoon, at the CREA headquarters, we organized a scientific meeting with four thematic working groups; each working group was made of 7 to 11 participants like scientists (soil, economy, agronomy), journalists, public administrators, politicians, influencers, representatives of trade unions, and, for the working group 4, also fashion brands. The title of the event was *Giornata Mondiale del Suolo: Nuovi Orizzonti* (World Soil Day: New Horizons) and the tables were:

1. Healthy soils for healthy cities: active participation, urban agriculture, and public green spaces (11 participants).
2. Management of organic waste and its fate (7 participants);
3. Italian land set up system: soil and water (8 participants);
4. Natural textile fibers (silk, cotton, hemp, linen, wool): how and why (8 participants).

The public was numerous, exceeding 70 people in presence plus hundreds online.

A booklet reporting the final report of each working group is in progress.

Division 2 has decided to help young scientists participate

in the World Congress in Nanjing. The help is 500 USD for each successful applicant. The rules are as follows:

1. Applicants must be 38 years of age top;
2. Applicants must not have received other help from any other source, being this inside or outside IUSS;
3. Each applicant must present a curriculum vitae to understand he/she backgrounds;
4. Each applicant must present a program of the session she/he wants to follow;

At the end of the Congress, each funded young scientist will be asked to write a statement on the Congress and on the session(s) that will be published in the IUSS Newsletter and on the website.

Applications must be sent to the Commissioners of Division 2, selecting the most appropriate Commission or the Working Group, by Monday 23 of March. Commissioners will provide the selection of applicants. One applicant for each Commission and Working Group will be founded. The results will be communicated by email to each winner by Monday 20 of April. The decision of the evaluation committee will be final, and no discussion on the outcome will be entered.

Vice Chairpersons

Xiaoyuan Yan, Jianming Xu, Stefano Mocali

The Vice-Chairpersons are involved in the organization of the next WCSS at Nanjing.

Commission 2.1 – Soil Physics

Recent activities

Silvia Imhoff – Cezary Sławiński

A series of activities have been organized by this Commission:

- A Workshop on *advances soil physic methodology*, in 2025;
- Several activities for the World Soil Day 2025: workshop, dissemination on social networks about soil conservation;

- The Argentina Soil Congress in Bariloche, in April 2026;
- The project *This is what the soils of my country are like*, an educational project that was born in 2017, promoted by CREA with the technical support of INTA, the Argentine Association of Soil Science (AACCS) and FAO Argentina;
- Collaboration with the project *Observatory of Soil of Santa Fe State*, a project aiming to determine areas that must apply conservation practices and promote agricultural good practices;
- The Soil Science Society of Poland organize organizes “*The soil of the year*” since 2018 and they are going to go farther. *The soil of the year 2026 – Black earths* is in progress.

[Soil Microorganisms](#), 15-19 June 2025, Helsinki, Finland;

- several projects implemented for Soil Biology.

Commission 2.4 – Soil Mineralogy

Sofia Lessovaia - Edson Campanhola Bortoluzzi

Together with the Chair, Commission 2.4 has organized two webinars on Geophagia during the year 2025.

Working Group – [International Soil Modeling Consortium](#) (ISMC) Working Group

Martine van der Ploeg - Yijian Zeng - Lutz Weihermüller

This Working Group has been working on:

- Two sessions organized at EGU 2025;
- Water Initiative (SoilWat) Workshop at Reading, July 2025;
- the organization of the 2nd International Summer School on Advanced Soil Physics “Soil-Plant-Water Flow”, held at UCLouvain, Belgium, from 8 to 12 September 2025;
- Several webinars were held throughout the year 2025.

Working Group – Pedofauna

Lorenzo D’Avino - Carlo Jacomini

- The first edition of the *Antonio Berlese Summer School on Pedofauna* was organised by the Pedofauna IUSS Working Group, the Italian Society of Soil Science (SISS), and CREA; the summer school was held from 1 to 6 of September 2025 at Fagna Farm, Scarperia e San Piero (Tuscany), Italy. The attendees were 17 from 7 Countries.

Commission 2.2 – Soil Chemistry

Karen Vancampenhout – Boris Jansen

This Commission has been working to promote Soil Chemistry and Soil Carbon research in European platforms:

- SUPERB network for forest restoration (Horizon 2020);
- SOB4ES project (Horizon Europe).

Most of the Commission is involved in the organization of EGU2026 and in the session proposal of both the WCSS2026 and EGU2026.

Commission 2.3 – Soil Biology

Alberto Acedo Bécares - Magdalena Fraç

Commission 2.3 has been working on

- The organization of conferences, seminars, and sessions on the topic of soil biology, including microBIOME and AGRO LIVING LAB initiatives;
- supporting the [Fifth Conference on the Ecology of](#)



(Ph. L. D'Avino)

- The second edition will be held in Brazil in December 2026, organized by George Brown, Marie Bartz, Miguel Cooper, from Embrapa. Future summer schools will be held every two years.
- Together with the Italian Soil Society, in late 2026 or early 2027, the Pedofauna working group will publish a [FAO standard operating procedure](#) for the QBS-ar index. The revised text was sent to the FAO on January 19, 2026. It is expected that IUSS will collaborate to promote global harmonization.

Division 3 - Soil Use and Management

Division 3 focuses on how we use the soil and how it links to the knowledge base of Divisions 1 and 2 to ensure that soils are used and managed in a sustainable manner. The Division is concerned with both soil use and management in terms of agricultural production, forestry, grazing lands, and the broader environmental context. Activities to remediate degraded soil, arising from the agricultural misuse of soil or contaminations resulting from agricultural or non-agricultural activities are part of the scientific area of this Division. The aim of this Division is to ensure that through our knowledge and understanding of soil properties and processes, and the distribution of soils within the landscape, soils and soil quality are maintained and improved.

Structure and Officers:

Chair: Renfang Shen, China

Vice-chair: Fusuo Zhang, China

Vice-chair Centennial: Giuseppe Lo Papa, Italy

Commission 3.1 – Soil evaluation and land use planning

Commission 3.2 – Soil and water conservation

Commission 3.3 – Soil fertility and plant nutrition

Commission 3.4 – Soil engineering and technology

Commission 3.5 – Soil degradation control, remediation, and reclamation

Commission 3.6 – Salt-affected soils

Commission 3.7 – Soils of urban, industrial, traffic, mining, and military areas (SUITMA)

Working Group 3.1 – Acid sulphate soils

Working Group 3.2 – Forest soils

Working Group 3.3 – Paddy soils

Divisional Engagement for session organization in WCSS2026:

301001: Better management of organic agro waste in response to various global environmental issues

301002: Soil evaluation and land use planning for sustaining productivity

302001: Changing the drainage target, balancing water control, and environmental effects?

302002: Managing water for managing soil health?

302004: Rethinking the planning of soil and water management under climate change

303003: Global Phosphorus Stewardship: Innovations and Strategies for Sustainable Soil Fertility

303006: Rhizobium for high nutrient use efficiency

304003: Can enhance rock weathering capture and store atmospheric CO₂? Its expectations and limitations.

307001: Past, present, and future of SUITMA (soils of urban, industrial, traffic, mining, and military areas)

308001: Health Maintenance and Sustainable Management of Acidified Soils

308002: Wetland soils, acid sulfate soils, and sulfidic materials

309004: Soil microbial diversity and functions in carbon and nitrogen cycling in response to tree diversity, wildfires, and climate change

309005: Soil organic matters dynamics and nutrient cycling in global forests under climate change

310002: Soil Health-Water-GHG Nexus for sustainable crop production in paddy soils

310004: Understanding paddy soil microbiomes for food and climate security

Commission 3.1 – Soil evaluation and land use planning

Chair: Jagdish Prasad, India

Vice-chair: Morihiro Maeda, Japan

Events:

Jagdish Prasad attended Research Council meeting (Kharif-2025) during June 20-23, 2025, at the Bihar Agricultural University, Sabour, India and interacted with the scientists and teaching staff and reviewed the ongoing projects.



29th Research Council Meeting (Ph. Jagdish Prasad)



Jagdish Prasad attended the 89th Annual Convention of the Indian Society of Soil Science held at Tamil Nadu Agricultural University, Coimbatore, India, during November 18-20, 2025, and chaired a technical session on Digital Soil Mapping.

Morihiro Maeda invited IUSS President Victor Okechukwu as keynote speaker to attend the Annual Meeting of the Japanese Society of Soil Science and Plant Nutrition in Niigata, Japan, on September 17-19, 2025.

Morihiro Maeda collaborated Japan-Vietnam surveys on antibiotic resistant genes in soils and composts, September 28-October 3, 2025.



Soil and compost survey by the Japan-Vietnam collaboration team (Ph. M. Maeda)

Commission 3.2 – Soil and water conservation

Chair: Lillian Øygarden, Norway

Vice-chair: Dorota Agnieszka Dec, Chile

Events:

Lillian Øygarden participated in the FAO/GSP-initiated International Network on Soil Erosion (INSER) Launch Event (hybrid, Rabat, Morocco, Sep 15, 2025); delivered online presentation on potential IUSS-INSER cooperation.

Dorota Agnieszka Dec contributed as author/co-author at VII EUROSOIL 2025 & X Iberian Congress of Soil Sciences (Sevilla, Spain, Sep 8-12, 2025).

Commission 3.3 – Soil fertility and plant Nutrition

Chair: Fernando O. Garcia, Argentina

Vice-chair: Luciano Colpo Gatiboni, Brazil

Awards:

Designation of Fernando O. Garcia as Honorary Member of the Soil Science Association of Argentina (AACS). November 2025.

Luke Gatiboni was recognized with the “Spirt of the Land-Grant Award – College of Agriculture and Life Sciences, North Carolina State University, April 2025. Designation as University Faculty Scholar in May 2025.

Events:

2025 Latin American Congress of Soil Science, June 24-27, Santa Cruz, Bolivia. Fernando joined with other representatives from Argentine Association of Soil Science.

18th International Symposium on Soil and Plant Analysis, June 9-13, Durham, North Carolina, USA. Luke joined as a moderator on session 5: soil fertility and plant nutrition.

Hosted IUSS Webinar “Advances in Soil Fertility and Crop Nutrition Status (China/India-North America)” in Zoom meeting with speakers from CAAS, ICRISAT, and 4RPN Consulting.

Commission 3.4 – Soil engineering and Technology

Chair: Yuanfang Huang, China

Vice-chair: Taku Nishimura, Japan

Events:

Co-organized symposium “Cultivated Land Productivity Improvement and Soil Engineering” (Mudanjiang, China, Jun 27-29, 2025) with Soil Engineering Working Committee of Soil Science Society of China; hosted by Heilongjiang Academy of Black Soil Protection and Utilization.

Field investigation of high-standard farmland demonstration site in Hailin City (during the Mudanjiang symposium) to study soil improvement technologies for productivity enhancement.



Field investigation during the symposium (Ph. Soil Science Society of China)

Commission 3.5 – Soil degradation control, remediation, and reclamation**Chair:** Stefan Norra, Germany**Vice-chair:** Anna Karczewska, Poland**Events:**

Co-organized 2nd Workshop on Soil Degradation Control, Remediation and Reclamation (Sofia, Bulgaria, Jun 9-11, 2025) with ISSAPPNP (Bulgaria) and Wrocław University; 50+ scientists participated.

Announcement of a new [homepage](#)**Planned Future Activities:**

3rd Workshop on Climate-Resilient Remediation (Jun 9-11, 2027, Potsdam, Germany).

Commission 3.7 – Soils of urban, industrial, traffic, mining, and military areas (SUITMA)**Chair:** Kye-Hoon John Kim, Korea**Vice-chair:** Przemysław Charzyński, Poland**Events:**

Hosted SUITMA 13 Conference (Pisa, Italy, Oct 5-9, 2025) – theme: “SUITMA from a One Health Perspective”; 125 participants (25% young scientists), 4 thematic tracks (pollutant sinks/sources, soil quality/biodiversity, ecosystem services, future challenges), and “Art & Soil” seminar.



Group photo for SUITMA13 conference (Ph. J. Kim)

Collaborated with FAO on hybrid symposium “Urban Soil and Sealing” (300+ online connections).

Planned Future Activities:

SUITMA 14 Conference to be organized in Guangzhou, China in 2027.

Newsletter and Web Presence:

SUITMA newsletter No. 8 – Published in June 2025

[Official website](#)

Working Group 3.1 – Acid sulphate soils**Chair:** Anton Boman, Finland**Vice-chair:** Vanessa Wong, Australia**Objectives:**

To facilitate knowledge exchange and collaboration among researchers focused on acid sulfate soils—globally distributed soils and sediments containing metal sulfides in coastal and freshwater environments that are deemed the “nastiest soils” due to their release of acidity and toxic metals when exposed to oxygen, which cause detrimental impacts to agricultural land, natural and managed ecosystems, watercourses, and urban infrastructure—promote advancements in the mapping and characterization of such soils, drive the development and dissemination of effective management and remediation solutions to mitigate their environmental and socioeconomic harms, and serve as a scientific exchange forum through organizing conferences, meetings, and collaborating with academic journals. Active members: 73 (16 nationalities, 2025).

Events:

Organized 10th International ASS Conference (Luleå, Sweden, Sep 15-17, 2025) with pre/post-conference excursions (Sep 14, 18-20); 4 keynotes, 40 oral presentations, and working group meeting.

Awarded Pons Medal to Prof. Leigh A. Sullivan (Australia) for outstanding ASS research contributions. Launched official [website](#)

Working Group 3.2 – Forest soils**Chair:** Zhihong Xu, Australia**Vice-chair:** Chris Johnson, USA**Objectives:**

To develop and advance the knowledge and understanding of soil biological, chemical and physical processes in forest soils in relation to climate change and land uses in space and time, examine and quantify the impacts of climate change and land management on soil biological, chemical and physical properties in different forest ecosystems and their implications for ecosystem productivity and ecosystem services, as well as develop and advance sustainable soil and land management for different forest ecosystems with multiple purposes of achieving economic, environmental and social benefits.

Planned Future Activities:

Two major sessions (309004 and 309005) of Forest Soils Working Group will be held during WCSS2026.

Working Group 3.3 – Paddy soils**Chair:** Mizuhiko Nishida, Japan**Vice-chair:** Bentlo Heru Purwanto, Indonesia**Objectives:**

To foster international collaboration and provide a platform for sharing and discussing innovative research findings on paddy soils. Ultimately, advance the science of paddy soils and contribute to sustainable global food security.

Events & Activities:

Mizuhiko Nishida organized international seminar “Growing Agroecological Rice near the Alps” (Tohoku University, Aug 5, 2025); invited Dr. Vaglia V. (University of Pavia, Italy) as guest speaker, emphasizing Europe-Asia paddy soil research collaboration for food security.

Bentlo Heru Purwanto delivered invited speech at 3rd International Conference on Organic Agriculture in the Tropics (Yogyakarta, Indonesia, Sep 1-4, 2025) – theme: “Organic Agriculture in the SDGs Framework”; 89 participants from 10 countries.



Group photo for 3rd International Conference on Organic Agriculture (Ph. B. H. Purwanto)

Planned Future Activities:

Organize thematic sessions at WCSS2026 (310002 and 310004); publish technical bulletin on paddy soil degradation control.

Division 4 -The Role of Soils in Sustaining Society and the Environment

Division 4 takes the responsibility for making the connections, transfer, and outreach of our soil knowledge to society where soil and soil science needs to be understood and appreciated. It takes the information generated in the other three Divisions and the developing new scientific information, addressing the public literacy in soil science, its education, international conventions, consequences of human activities on soil ecosystem services, policy issues, food security, and history of the discipline. As the capstone Division it integrates the science, scientists, policy makers, and the wider community to become more aware of soil as an essential natural resource.

Structure and officers**Chair:** Claudio Zaccane, Italy**1st Vice Chair:** Yongguan Zhu, China**2nd Vice Chair:** Xin Song, China

IUSS Division 4. Commissions and Working Groups:

- *Commission 4.1 – Soils and the Environment*
- *Commission 4.2 – Soils, Food Security, and Human Health*
- *Commission 4.3 – Soils and Land Use Change*
- *Commission 4.4 – Soil Education and Public Awareness*
- *Commission 4.5 – History, Philosophy, and Sociology of Soil Science*
- *Working Group - Cultural Patterns of Understanding*
- *Working Group - Young and Early Career Scientists*

Division Chair Report

Chair: Claudio Zaccone, Italy

All Division, Commission and Working Group (WG) Chairs and members actively contributed to the organization of the [23rd World Congress of Soil Science \(WCSS2026\)](#) (June 7-12, 2026, Nanjing, China). This resulted in the submission of almost 40 scientific sessions, covering the topics reported in table below:

Code	Topic	Number
401	Soils and the environment / Soil Environment / Soil Ecology	3
402	Soils, food security, and human health	5
403	Soils and land use Change	2
404	Soil education and public awareness/Soil Science Education	3
405	History, Philosophy, and Sociology of Soil Science	4
406	Young and Early Career Scientists/Youth	2
407	Nitrogen	1
408	Soil Health	3
409	Carbon Neutrality and Global Change	13
502	Cultural Patterns of Soil Understanding/Soil Science Popularization	3

Most of them were successful, receiving an exceedingly high number of abstracts. Division IV members acting as conveners were thus involved also in the reviewing of submitted abstracts and in the selection of orals vs. poster presentations.

Members of Division IV also supported the organization of the [EUROSOIL 2025](#) (September 8-12, 2025, Sevilla, Spain), both as Scientific Committee members and/or in terms of session/abstract submission, and session chairing. Eurosoil 2025 also provided the opportunity to advertise the [23rd World Congress of Soil Science \(WCSS2026\)](#).



Division IV Chair, Claudio Zaccone, and Vice Chair, Xin Song, at the IUSS & SSSC booth at Eurosoil 2025 (Ph. C. Zaccone).

Division IV also sponsored the [10th International Nitrogen Conference \(N2026\)](#), to be held in Kyoto in November 2026, focusing on the theme “*Sustainable Nitrogen Management for Future Generations*”. Bringing together scientists - including soil sciences - along with policymakers, industry, and civil society, N2026, promoted by Commission 4.1 and 4.2, will present the latest knowledge on nitrogen and the environment.

Division IV members are working on some open access publications (e.g., reviews, position papers, letters, guidelines) on broad topics to engage all Commissions and WGs Chairs/Vice Chairs. Division IV is scientifically and economically supporting the editorial initiative “*The Language of Soil – A Handbook for Transdisciplinary Soil Research*,” promoted by Commission 4.5. This book is proposed as a glossary of concepts and tools for transdisciplinary collaboration in soil research, addressed at scholars and students of social sciences, humanities, arts, and natural sciences interested in soils; soil practitioners; transdisciplinary researchers; soil educators; communicators; and policy makers. Although its objectives are clearly in line with the overall remit of Division IV, this book will be a novel and highly influential publication and will increase the recognition of and engagement with the IUSS across disciplines.

Planned future activities

- Further contribute to the organization and success of the [23rd World Congress of Soil Science](#) to be held in Nanjing, China, on June 7-12, 2026. Division IV will support such a meeting both in terms of session/abstract submissions and sponsoring the registration fees for 1 invited speaker for each commission/WG (7 in total). The same approach was used also for the IUSS Centennial meeting in Florence, Italy (May 19-21, 2024).
- Sponsor some open access publications (e.g., reviews, position papers, letters, books) on broad topics to involve all Commission/WG Chairs/Vice Chairs.
- Sponsor events at national and international level.

Commission 4.1 – Soils and the Environment

Chair: Miriam Muñoz Rojas, Spain

Vice Chair: Nobuhide Fujitake, Japan

This Commission looks at the soil as part of the ecosystem. Human activities have a strong impact on the ecosystems and the soil and environment interactions in relation to humans are particularly important. Soils – a major component of the biosphere at the interface between the lithosphere, atmosphere, and biosphere – are investigated through several international programs such as IGBP; in the same way the soil plays a considerable role in the carbon sequestration (UN Convention on Climate Change) and is the habitat for a number of species covered by the Biodiversity Convention.

Recent activities/events

- Members of Commission 4.1 were involved in the Scientific Committee of [EUROSOIL2025](#) and organized a dedicated session (“*Soil Biology and Microbiology*”) opened by the plenary lecture “Soil Biodiversity and Ecosystem Function Under Global Change.” The session brought together researchers working on soil biodiversity, microbial ecology, and plant–soil interactions, providing a platform for interdisciplinary exchange. Contributions address emerging molecular approaches, links between microbial communities and ecosystem functioning, and applications of soil biology to sustainable land management and restoration.
- Participation in the special symposium “*Soil matters: effective restoration via improved harnessing of soil biodiversity*” during the [Ecological Society of Australia Conference](#) held in Adelaide, Australia. Commission 4.1 members contributed to discussions on the role of soil biodiversity in ecosystem recovery, highlighting recent advances in microbiome-based restoration, nature-based solutions, and the importance of integrating belowground processes into restoration planning. This participation

strengthened international visibility and fostered new collaborative opportunities.

- Participation in the VII International Congress on Biodiversity and Nature Conservation (Seville, Spain) in September 2025, where Commission 4.1 members presented recent findings on soil biodiversity and ecosystem functioning. The congress provided an important forum to disseminate advances on soil–environment interactions, strengthen links with the broader biodiversity research community, and promote the integration of soil biological indicators into conservation and restoration frameworks.

Planned future activities

- Participation of Commission 4.1 members in major international meetings, including the 23rd World Congress of Soil Science (WCSS2026, Nanjing, China), the EGU General Assembly 2026, and the BIOCRUST Conference (China, September 2026), through session organization, scientific presentations, and networking activities focused on soil–environment interactions.

- Development of a science communication video for International Women’s Day led by IRNAS-CSIC. This outreach initiative will highlight the role of women in soil science and environmental research while increasing public awareness of soil biodiversity and ecosystem restoration. The video will build on the mission of the Institute of Natural Resources and Agrobiology of Seville (IRNAS-CSIC), a CSIC research centre focused on the sustainable use and conservation of soil, water, and plant resources, particularly in vulnerable environments. The activity will target students, early-career researchers, and other non-academic audiences through digital dissemination channels and institutional networks, contributing to improved soil literacy, gender visibility in soil science, and broader societal engagement with soil-related environmental challenges.

- Participation in the RENS 2026 meeting (National

Soil Science Meeting), in liaison with the Andalusian Territorial Delegation of the Spanish Society of Soil Science (SECS), to strengthen coordination between national and international soil science communities. This scientific meeting brings together researchers and practitioners working on different aspects of soil science in Spain and provides an important platform for knowledge exchange, networking, and dissemination. The activity will contribute to increasing the visibility of soil–environment research and reinforcing alignment with IUSS priorities through joint events and collaborative initiatives.

Commission 4.2 – Soils, Food Security, and Human Health

Chair: Taru Sandén, Austria

Vice Chair: Takuro Shinano, Japan

In most countries soils are essential for food production. Consideration that one third of the land area is presently used for agriculture, and the world population is increasing, creating additional pressures on agricultural land, providing enough safe and nutritious food will be an ongoing challenge. Amount the conservation of agricultural land, the role of the soils in a changing world in relationship to human health.

Recent activities/events

- 13th Conversation on Agroecology - Food System Transformation in the UK – (September 24, 2025).

- 14th Conversation on Agroecology - Engagement of value chain actors in agroecology Living Labs (October 29, 2025).

- 15th Conversation on Agroecology - The potential of digitalization in agroecological farming system transformation (November 26, 2025).

- Recording is available: [Conversations on Agroecology - AGROECOLOGY Partnership](#).

Planned future activities

- Organization of the [10th International Nitrogen Conference \(N2026\)](#), to be held in Kyoto in November 2026, which will focus on the theme “*Sustainable Nitrogen Management for Future Generations*”. Bringing together scientists—including soil sciences—along with policymakers, industry, and civil society, N2026 will present the latest knowledge on nitrogen and the environment.

- Monthly (except July and August) Conversations on Agroecology, organised as part of the AGROECOLOGY Partnership: Conversations on Agroecology — Agroecology Partnership. The Conversations on Agroecology will enhance the strengthening of agricultural knowledge and innovation systems (AKIS) for agroecology transition by facilitating linkages actors across regions and scales. They enable online mobilisation and networking of agroecology actors across.

Commission 4.3 – Soils and Land Use Change

Chair: Gary Feng, USA

Vice Chair: Felipe Andrés Zúñiga Ugalde, Chile

Soils play a significant role as source and sink of greenhouse gases. In a context of global sustainability. This Commission will investigate how the source/sink functions of the soils can be managed and controlled to mitigate the impact of climate change. Of interest to all are significant changes in land use, including the effect of urbanisation, forest conversion and productive land being allocated to other uses. Such changes fall under the auspices of this Commission.

Recent activities/events

- Commission 4.3 Chair Gary Feng and Vice-chair Felipe A. Zúñiga, along with Dr. Tingting Chang, proposed the Special Issue “[Mitigating the impact of land use and its change through conservation management](#)” in Soil Use

and Management Journal, in accordance with the sessions proposed for the [23rd World Congress of Soil Science](#). The selected papers will report the latest achievements in research focused on conservation, restoration and improvement of land use and its change through conservation managements, focused on promoting the sustainability of managed and natural ecosystems.

- Training talks for rural farmers and indigenous communities in the Los Ríos Region ([July](#), [August](#) and [October](#) 2025)

- Between August and October 2025, in Universidad Austral de Chile, Valdivia, Dr. Felipe Zúñiga coordinated the [exhibition of monoliths ‘With Feet on the Ground’](#) a displaying soil profiles from the central region and highlighting the richness and complexity of Chile’s soil ecosystems.

- Vice-Chair Dr. Felipe Zúñiga participated in [XV Chilean Soil Science Conference](#) held in La Serena (October 27 to 30, 2025) with the lecture “*Soil quality in a transect in Western Patagonia*”. He also participated as a Secretariat in the II Chilean Soil Judging Contest developed in the context of the Conference.

- Participation in Organizing Committee [World Soil Day](#) celebration in Valdivia, 2025.

- The 2025 ASA, CSSA, and SSSA International Annual Meeting ([CANVAS 2025](#)) was held in Salt Lake City from November 9 to 12, 2025. Jointly organized by the American Society of Agronomy, the Crop Science Society of America, and the Soil Science Society of America, this annual international conference brought together leading scientists, researchers, educators, and industry professionals in agronomy, crop science, and soil science.

- The American Geophysical Union (AGU) Fall Meeting 2025 was held in New Orleans from December 15 to 19, 2025, under the theme “*Where Science Connects Us*”. The meeting brought together more than 20,000 participants

from over 100 countries and regions to share innovative research findings and engage in scholarly exchange. The conference aimed to advance understanding of our planet and environment, foster new pathways for scientific exploration, and enhance global awareness and action in addressing climate change. More info at [AGU25 Annual Meeting | AGU](#).

- The Soil Health Institute's 10th Anniversary Meeting was held virtually from December 3 to 4, 2025. Organized by the Soil Health Institute, the meeting brought together more than 1,000 participants representing 75 countries and 780 organizations, including farmers, ranchers, landowners, researchers, industry professionals, and policymakers. The conference provided a platform for sharing experiences, presenting recent research, exploring new tools, and discussing best practices in soil health and regenerative agriculture. More info at [Anniversary Meeting Gathers Global Leaders in Soil Health](#).

- The 80th SWCS International Conference was held in Costa Mesa, California, from August 3 to 6, 2025. Hosted by the Soil and Water Conservation Society, the conference focused on the theme "Protecting Coast to Coast." More info at [2025 Annual Conference | Soil and Water Conservation Society](#).

Planned future activities

- Participation in Antarctic Scientific Exploration #62 in the frame of Antarctic Ring PENGUIN which evaluates and diagnostic the human footprint in Antarctica (January 17 to February 12, 2026).

- Invitation as key speaker in the [4th International Environmental Science Conference](#) to be held in San Juan de Pasto, Colombia (March 18 to 20, 2026).

- Participation in the [30th Argentinian Soil Science Conference](#) to be held in Bariloche, Argentina (April 14 to 17, 2026).

- Participation in the [23rd World Conference of Soil Science](#) to be held in Nanjing, China (June 7 to 12, 2026).

Commission 4.4 – Soil Education and Public Awareness

Chair: Martha M. Bolanos Benavides, Colombia

Vice Chair: Juan C. Rey, Venezuela

This Commission deals with teaching methods and the development of soil scientists – but also how soil-related knowledge is presented to other interested parties, as well as the information provided to the public and related public awareness. A well-informed public is needed so that all understands the importance of soils.

Recent activities/events

- The 1st European Soil Judging Contest was held from 1 to 5 September 2025 in Alcoi, Spain. Participants applied field methods to describe, classify, and interpret soils, providing an exemplary hands-on model for soil education, innovative teaching methods, and the training of soil scientists.

- The 4th Colombian Congress of Ecology (CCE2025), titled "*Traces of Biodiversity, Sustainability, and Development*", was held in Cali, Colombia, from 2 to 5 September 2025. Organized by Arasarí Conservation & Research, the congress featured keynote sessions, symposia, and workshops. Although ecological in scope, it offered a relevant platform for strengthening public awareness of soils through discussions on ecosystem services, landscape integrity, and sustainability.

- The "2025 Back to School CURIOSOIL Community of Practice" was held on 9 September 2025 (online). The meeting convened educators and practitioners around soil literacy initiatives, directly advancing soil education and public awareness strategies.

- The XXXIX Brazilian Congress of Soil Science (XXXIX CBCS) was held from 21 to 27 September 2025 in São Luís, Maranhão (Brazil) at UFMA's Convention

Center, under the theme “*Soil Use and Climate Change*”. The congress combined scientific exchange with structured learning and outreach formats, such as short courses, workshops, technical visits, round tables, a technology showcase, and oral and poster sessions, that help translate soil knowledge to students and broader stakeholder audiences. A key capacity-building highlight was the 1st Brazilian Soil Competition, where student and professor teams conducted field-based soil description, classification, and interpreted soil attributes to propose management recommendations, an explicit learning-by-doing approach aligned with modern teaching methods and the training of soil scientists.

- “*Making Soil Science Stick: Communicating with Impact Across Audiences*” took place on 2 October 2025 (online). It focused on science communication training to translate soil research for farmers, students, policymakers, and media, highly aligned with public awareness and outreach methodology.

- #CONEXIÓNVerde+ (AL-INVEST Verde annual event) was held in Medellín, Colombia, from 7 to 11 October 2025, serving as a European Union-backed platform to promote sustainable growth and job creation in Latin America through knowledge exchange and collaboration. Within this event, AGROSAVIA delivered a “Sustainable Agriculture” panel led by Dr. Martha Marina Bolaños Benavides, highlighting good practices, challenges, and successful cases in sustainable production, with emphasis on safeguarding natural resources—especially soils—while improving resilience and social inclusion. The presentation aligned with Commission 4.4 by translating soil-related knowledge for diverse audiences beyond academia, strengthening soil education, soil literacy, and public awareness through outreach approaches such as citizen engagement, social appropriation of knowledge, and learning-by-doing training/demonstration models.

- ECOVIDA 2025 (“*Encuentro Nacional por la Agricultura Sostenible*”) was held in Manizales, Colombia,

from 16 to 19 October 2025, hosted at the Universidad de Caldas Botanical Garden. The event brought together multiple actors and emphasized farmer-academy dialogue, the exchange of popular knowledge, and sustainable transitions. It is reportable as a space that supported community learning and public awareness related to sustainable production and responsible soil stewardship.

- The 2nd International Forum on Sustainability in the Plantain Value Chain was held in El Carmen, Ecuador, on 17 October 2025, including the panel “Soil Health and Nutrition.” In this panel, AGROSAVIA shared a technical presentation led by Dr. Martha Marina Bolaños Benavides, translating evidence-based soil science into actionable messages for producers, extension agents, and value-chain stakeholders—directly supporting Commission 4.4 priorities on soil education, soil literacy, and public awareness. The presentation addressed key concepts and field-relevant indicators of soil quality and soil health for plantain nutrition (e.g., nutrient availability, salinity, toxicity, soil workability, oxygen availability for roots, rooting conditions, and nutrient-retention capacity), explained why soil pH strongly influences nutrient availability (including reduced micronutrient availability at higher pH and potential phosphorus immobilization), and discussed integrated fertilization and nutrient recycling. It also highlighted links between plant nutrition and disease incidence and presented complementary nutrient management options, including biofertilization (mycorrhizae, phosphorus solubilizers, nitrogen fixers, rhizobia/PGPR) and targeted approaches such as nutrient injection into the pseudostem—framed as decision-support knowledge for sustainable soil management.

- The conference “*The Soil Re-Union: Science for Healthy Soils*” took place from 20 to 23 October 2025. The event convened soil science experts to share advances on soil biodiversity, ecosystem services, and sustainable management practices, supporting capacity building and the dissemination of soil knowledge to broader audiences relevant to Commission 4.4.

- The XV National Congress of Soil Science (Chile) was held in La Serena, Chile, from 27 to 30 October 2025, under the theme “*Innovation in Soil Science to Face Global Challenges*”. Through technical sessions, posters, and scientific exchanges, the congress contributed to soil education, professional learning, and the development of soil scientists.
 - The European Mission Soil Week 2025 was held at Aarhus University in Aarhus, Denmark, from 5 to 6 November 2025. It convened policymakers, researchers, businesses, and citizens around solutions for healthy soils, contributing explicitly to soil literacy, public awareness, and multi-stakeholder education.
 - The Global Climate-Smart Agriculture Conference was held in Brasília, Brazil, from 5 to 7 November 2025, ahead of COP30. The event convened scientists, policymakers, businesses, and farmer organizations and emphasized climate-smart pathways where improved soil management supports resilience. Such an event provided a forum for strengthening stakeholder knowledge exchange and communication on soil health as part of climate action.
 - HuMUS Final Conference, titled “*Participatory governance for Soil Health quality management: the legacy of the HuMUS project*,” was held on 21 November 2025 in Brussels at the European Committee of the Region. The conference gathered a wide mix of participants such as policymakers, municipalities, researchers, farmers, urban planners, and civil society, to share outcomes from the three-year Horizon Europe project HuMUS – Healthy Municipal Soils and to discuss how participatory governance can improve soil-health management at territorial scale. It explicitly addressed barriers and enabling conditions for implementation and explored pathways to scale and replicate the HuMUS approach in different local contexts. The event represented a knowledge-translation and engagement action: it created a structured space to “bridge perspectives” between decision-makers, practitioners, and citizens, and offered public-facing materials (agenda, posters, and a web stream) that support soil literacy and broader awareness beyond specialist audiences. Additionally, partner communications highlight the strong dissemination dimension led by Agroecology Europe Association, and report participation figures that underline the conference’s outreach reach.
 - I ConCiencia Innova & IX Soil Science Days were held from 1 to 5 December 2025. The event focused on innovation, sustainability, and digital transformation through dissemination of research results, extension and stakeholder engagement, professional networking, and strengthening applied research and social impact. Key themes included social innovation, citizen participation, and public engagement—aligned with Commission 4.4 priorities on outreach and awareness.
 - National commemoration of World Soil Day led by IGAC took place in Bogotá, Colombia, in December 2025, aligned with the 2025 theme “*Healthy soils for healthy cities*”. This institutional communication contributed to public awareness and reinforced messages on sustainable soil management for broader audiences.
- Planned future activities**
- The XXX Argentine Congress of Soil Science will take place from 14 to 17 April 2026 in San Carlos de Bariloche, Argentina, and will include pre-congress training courses (on 13 April 2026). The format explicitly supports soil scientist development through technical sessions and structured learning opportunities.
 - The 10th International Symposium on Soil Organic Matter (SOM 2026) will be held from 25 to 29 May 2026 in São Paulo, Brazil. The symposium emphasizes dissemination of innovative soil knowledge and brings together students, researchers, and practitioners, supporting training, capacity building, and the translation of soil science into practices relevant to wider stakeholders (a bridge to public awareness and soil literacy).

•The XXII Colombian Congress of Soil Science will be held from 21 to 24 September 2026 in Bogotá, Colombia. Announced by the Sociedad Colombiana de La Ciencia del Suelo (SCCS), the congress is expected to strengthen soil education and professional training by convening researchers, students, and practitioners around soil knowledge exchange, capacity building, and broader communication of soil science (supporting public awareness and soil education).

•The IV International Soil Convention & XXI Peruvian Congress of Soil Science will be held from 18 to 21 November 2026 in Lima, Peru, hosted by Instituto Nacional de Innovación Agraria (INIA). The announced program includes public-facing and educational components (contests, knowledge-sharing activities), reinforcing soil education and public engagement consistent with Commission 4.4.

•The *Soils for Europe Conference: Healthy Soils for a Sustainable Future* is scheduled to take place from 7 to 11 September 2026 in Coimbra, Portugal, at Universidade de Coimbra, and is co-organised by multiple Mission Soil projects to showcase the latest soil research and innovations across Europe while engaging scientists, policymakers, land managers, civil society, and industry. The conference explicitly includes a theme on improving soil literacy and citizen engagement, including citizen science initiatives, and announces a dedicated day focused on Living Labs initiatives, strengthening education and outreach beyond academia.

•The XXIV Venezuelan Congress of Soil Science, under the theme “*Healthy Soils for a Healthy Life*,” is planned as a future activity to be held in Caracas, Venezuela, in November 2026.

Commission 4.5 – History, Philosophy, and Sociology of Soil Science

Chair: Alexandra Toland, Germany

Vice Chair: Anna Krzywoszynska, Finland

This Commission deals with our past. It links the study of what has happened in history and how soils can be used to help explain the past changes. This Commission is not just a record of history but the use and understanding of soil information and its relationship to human development and history.

Recent activities/events

•Division IV also decided to support the editorial initiative scientifically and economically “*The Language of Soil – A Handbook for Transdisciplinary Soil Research*,” promoted by Commission 4.5. This book is proposed as a glossary of concepts and tools for transdisciplinary collaboration in soil research, addressed at scholars and students of social sciences, humanities, arts, and natural sciences interested in soils; soil practitioners; transdisciplinary researchers; soil educators; communicators; and policy makers. Although its objectives are clearly in line with the overall remit of Division IV, this book will be a novel and highly influential publication and will increase the recognition of and engagement with the IUSS across disciplines. The book includes contributors from over 100 authors, many of whom are members of Division IV and the wider IUSS.

•Commission 4.5 Chair Alexandra Toland and Ecoartspace founder, Patricia Watts, published a comprehensive survey of contemporary soil art. Facing the polycrises of climate change, biodiversity loss, widespread soil degradation, and the sociopolitical frameworks that endanger food sovereignty and rights to Land, the proliferation of soil-related art—or the so-called ‘soils turn’ in the arts—can be understood as a timely cultural response to the need for different forms of soil literacy. *Soils Turn: A Field Guide to Artistic Earthly Engagements* features over 175 international artists who engage with soil materials, soil memories, soil sites, and soil creatures. Highlighting artistic methods of assembling, caring, figuring, listening, metabolizing, surfacing, and witnessing, the book demonstrates a diversity of bold

and gentle actions to (re)connect with soils. Published by Ecoartspace in 2025, supported by Kreativfonds Bauhaus-Uni Weimar.

- Commission 4.5 Vice Chair Anna Krzywoszynska co-convoked the session “*Carbon Creations and Creative Carbons: The Politics of Carbon in Land Management and Restoration*” at the Royal Geographical Society’s annual conference on 26th August 2025 at the University of Birmingham. The guiding question is: what is carbon “good for” and for whom is carbon “good for”? On the one hand, we note that carbon-led policy and market initiatives are inherently creative, as they seek to both abstract carbon from complex socio-ecological systems and to reconfigure established land management practices. The science of soil management and restoration ecology, moreover, is not uniform and readily available to inform policy and market-making, but is itself contested, experimental, and evolving. On the other hand, we contend that climate policy objectives may also be creatively adapted and strategically reinvented by diverse actors at different scales, as they incite longer-standing debates over specific socio-economic objectives, values, and justice. Finally, the measurement and valuation of carbon through these reworked scientific and management practices, which can underpin its commodification, is also co-produced by the complex and dynamic nature of soil biomes themselves and their interactions with associated ecosystems and the atmosphere. The session has led to a proposal for a special issue on soil carbon, under consideration at the journal *Environment and Planning E: Society and Space*.

- Commission 4.5 Vice Chair Anna Krzywoszynska functioned as scientific advisor for and keynote speaker at the influential exhibition *Gleba: Ukryty Swiat (Soil: The Hidden World)* at the Palac Ujazdowski centre of Modern Art in Warsaw, Poland, in September 2025.

- Members of Commission 4.5 supported soil literacy events and exhibitions such as the JRC Workshop on Advancing Soil Literacy (March 2025, ISPRA); SOIL: The World at Our Feet exhibition and public program at

Somerset House (April 2025, London); Soil and Friends exhibition and public program at Ujazdowski Centre for Contemporary Art (June-October 2025, Warsaw, Poland).

- For more information on member activities, see the Soil Care Network, which publishes a fully interdisciplinary monthly soil research newsletter: www.soilcarenetwork.com.

Planned future activities

- Commission 4.5 Chair Alexandra Toland and Vice Chair Anna Krzywoszynska will convene a session on social science, humanities, and artistic approaches to soil data at the annual conference of the European Association of Science and Technology Studies in September 2026.

- To promote the forthcoming publication of *The Language of Soil*, the Commission organises a series of webinars and podcast with the book contributors, in collaboration with the Soil Care Network.

- An open access version of *Soils Turn: A Field Guide to Artistic Earthly Engagements* will be available in June 2026.

Working Group Cultural Patterns of Soil Understanding

Chair: Nikola Patzel, Austria

Vice Chair: Eric Brevik, USA

Recent activities/events

- No recent activities reported

Planned future activities

- No future activities reported

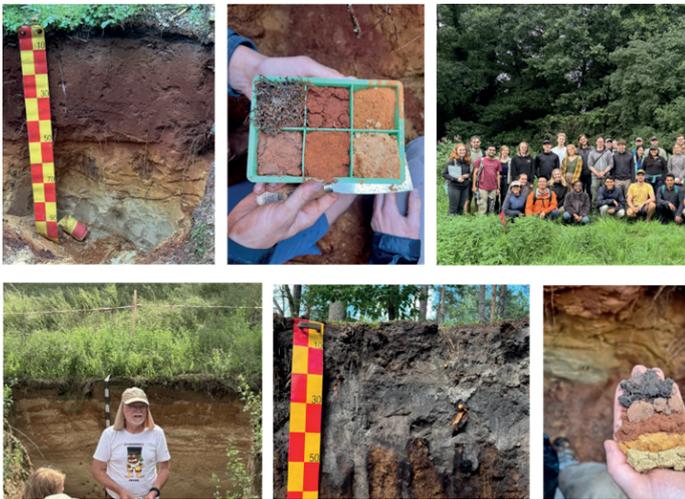
Working Group Young and Early Career Scientists

Chair: Axel Cerón González, Mexico

Vice Chair: Dawid Kupka, Poland

Recent activities/events

•Prof. Peter Schad has recently retired from the Technical University of Munich. YECS members attended the last WRB Summer Field Class Prof. Schad offered in Brandenburg, July 28–August 1, 2025. We described and classified soils from Tsiticlic Arenosols (lateral migration of oxides as interglacial relicts) to Regosols (near lignite mines but lacking enough artifacts to be classified as Technosols), Podzols, Retisols, and Kastanozems.



Last WRB Field class with Prof. Peter Schad and students from TUM before his retirement (Ph. A. Cerón).

•Axel Cerón, Chair of the YECS WG, was interviewed in July 2025 by *Ecochisma*, a science podcast created by Mexican women scientists that covers life stories of emerging and established scientists and artists. *Ecochisma* has been partially supported by the Environmental Secretariat of the Guanajuato State in Mexico. The interview covered opportunities and challenges for young soil scientists globally, as well as the invitation to join the IUSS YECS Working Group.

•*Suelófono*: the first podcast on soils in Spanish (funded by the IUSS in 2021) launched two new episodes: *Earthen architecture* (December 2025) and *Women farmers* (February 2026). All the materials are freely accessible

throughout the [Proyecto Suelox platform](#).



Covers of the last two episodes of Suelófono. All materials are available at the Proyecto Suelox platform (Ph. A. Cerón and E. Solleiro).

•Adriana Ribon (Universidade Estadual de Goiás) helped YECS in creating the soil characters Dr. (Born from soil) and (Nurse of soils), which will be part of the YECS Session at the 23rd World Congress of Soil Science (Nanjing 2026). Our characters represent the intergenerational character of our Working Group.



Soil characters for the YECS Session at the 23WCSS in Nanjing (Ph. A. Ribon).

•Dawid Kupka, Vice Chair of the YECS WG, co-organized activities for children in Krakow on World Soil Day 2025. Together with ECRs and established scientists from the University of Agriculture in Krakow (where Dawid is affiliated) and the Jagiellonian University, they offered hands-on activities for children, visited the Soil Museum in Krakow, and even observed soil fauna under the microscope. Additionally, Dr. Wojciech Szymański delivered a talk on the history of urban Kraków, using soils as the main source of hidden information.



Hands-on activities for children in Kraków on the WSD2025 (Ph. D. Kupka)

- YECS members in the Philippines organized a large series of activities for children and young people on World Soil Day 2025. Axel Cerón, Chair of the YECS WG, was invited to oversee activities and serve as a judge for the *Batang Soil Detectives* entries, organized by the Bureau of Soils and Water Management in the Philippines.

- As part of the University of Mexico (UNAM)-funded project “*Digital resources for soil education in Mexico*,” a series of interviews was recorded with outstanding Mexican soil scientists. The goal was to generate an oral archive of the contemporary history of Mexican soil science and to develop an oral history document on the subject. Axel Cerón and Elizabeth Solleiro (Paleopedology Commission) led the writing and interviewing process at the Museum of Geology in Mexico City. Among the interviewees are current and former officers of the IUSS: Laura Bertha Reyes Sanchez, Silke Cram, Christina Siebe, and Sergey Sedov.



Some of the Mexican soil scientists who were interviewed to create an oral archive of contemporary Mexican soil science (Ph. Axel Ceron and E. Solleiro)

- Mexico has been the only country from the Global South consistently participating in the International Soil Judging Contests (ISJC) since Jeju (2014), including Rio de Janeiro (2018) and Glasgow (2022). Participation has been sustained through the initiative and organizational efforts of Early Career Researchers (ECRs), who have represented the Mexican Soil Science Society (SMCS) at all events.

Over the years, the engaged ECR community in Mexico has actively promoted soil judging contests at the national level and developed a long-term structure to secure funding and organize national selection processes. However, ahead of the upcoming ISJC in Nanjing, organizational limitations within the SMCS Executive Committee resulted in the absence of institutional support for ECR participation, including formal endorsement letters.

In this context, YECS initiated a dialogue with its Mexican members to facilitate continued participation. Through a coordinated effort involving national ECRs, two outstanding women coaches, and with the support of Luis Daniel Olivares, Jinong Dong, and the ISJC Working Group, a Mexican team proposal was successfully submitted under the name “YECS Mexico.”

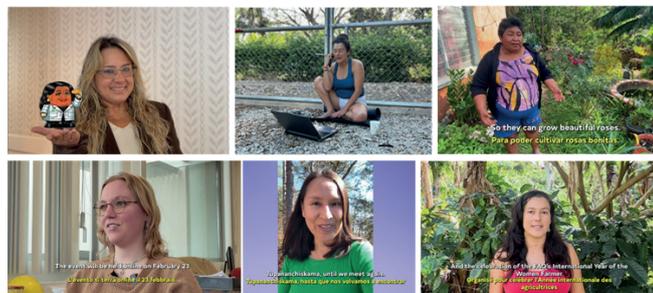
This case illustrates how YECS can function as a complementary and enabling structure when national institutional mechanisms face temporary constraints. It highlights the importance of international networks in sustaining participation from the Global South and ensuring that motivated young soil scientists can continue to access global platforms.

Planned future activities

- The Virtual Micromorphology Meeting 6 (ViMi6) will be held on February 5-6, 2026, co-organized by the universities of Brussels (VUB) and Cologne. A roundtable of ECR Micromorphologists will be included in the ViMi6 program and co-organized by YECS members. Additionally, a session on AI-assisted image classification and other technologies for quantitative

soil micromorphology will be presented and organized entirely by ECRs (including the 2022 IUSS Young Micromorphologist Awardee, Dra. Tania González).

•YECS continues to celebrate the Global Women's Breakfast annually as a platform to highlight the contributions of women in soil science and related fields. In 2026, the event will be dedicated to Mariangela Hungria da Cunha (Embrapa Paraná), recently awarded the World Food Prize 2025. The event is scheduled for 23 February 2026 at 16:00 CET and will feature three keynote speakers, along with pre-recorded interviews with Latinas women farmers from Mexico, Costa Rica, and Ecuador.



The initiative has received sustained support from the International Union of Soil Sciences (IUSS), the Latin American Soil Science Society, and several national soil science societies, including those in Poland and Brazil. As part of the outreach activities, Adriana Ribon created a soil character honouring Prof. Hungria using a Latossolo Vermelho (Ferralsol) from Paraná.

Arabela Vega was invited to GuRadio FM, where she encouraged the broader community to participate. The interview is still available online to listen to: <https://on.soundcloud.com/LasOzgRmvuFjxqnnQ8>

All promotional materials are being disseminated through YECS social media. The event also counts on the support of the Soil Science Lady project, the Institute of Geology at UNAM, and Proyecto Suelox.

Poster, program, and related materials for the upcoming Global Women's Breakfast 2026: Mariangela Hungria da Cunha (Ph. A. Ceron, A. Ribon, A. Vega, T. González, L. Escalante, and L. Buoli)

•YECS will be presented and discussed during the Soil Science Seminar Series at Iowa State University on 24 April 2026.

•YECS members will continue supporting the Mexican team participating in the 2026 ISJC in Nanjing.

•Thania García will deliver a keynote lecture at the upcoming INCUA Congress in Morelia, Mexico. She was recently awarded the ViMi6 ECR Microphotograph.

Other News from the IUSS

Soil Mission Manifesto

On 18 April 2023, the EU Soil Mission launched the [Soil Mission Manifesto](#), signed by the President of the IUSS, Prof. Victor O. Chude.

Life on Earth depends on healthy soils. To ensure a healthy and green future for our current and future generations, we need to protect and restore soils. The Mission Soil Manifesto calls for action to respond to the urgent need to protect and improve soil health in Europe and beyond and bring together regional and local policymakers, stakeholders and citizens into a vibrant community that cares for soil health.

The voluntary document can be signed by representatives of municipalities, regions, private or public companies and organisations, NGOs and philanthropic organisations, schools, and education institutions, as well as by research institutions, to become a ‘Signatory.’ Individuals can also sign the Manifesto and become ‘Friends of the Mission Soil.’

Soil monitoring: Parliament adopts new EU law with better support for farmers

Healthy soils are essential for agricultural productivity, plants’ pest resistance, and nutritional food quality and safety. They are critical to ensuring the long-term viability and profitability of the EU’s farming sector.

Unfortunately, soil degradation is an issue in every EU country, with 60 to 70% of soils in an unhealthy state.

That is why the [EU Soil Strategy for 2030](#) provide the framework and concrete steps towards protecting and restoring soils and ensuring that they are used sustainably.

As part of this, a new Soil Monitoring Law will ensure a level playing field and a prominent level of environmental and health protection.

It is a key deliverable of the [EU Biodiversity Strategy for](#)

[2030](#) and will contribute to the objectives of the [European Green Deal](#). To reflect diverse levels of soil degradation and local conditions, national governments will set non-binding, sustainable targets for each soil descriptor, in line with the overall objective of improving soil health.

Objectives the [Soil Monitoring Law](#), which entered into force on 16 December 2025, aims to address key soil threats in the EU, such as:

- Erosion;
- Loss of soil organic matter, salinisation, contamination, compaction and sealing;
- Loss of soil biodiversity;

The Directive looks at all aspects of soil degradation, from erosion and compaction to loss of organic soil carbon and soil biodiversity, as well as contamination and soil sealing.

It applies to all soils: in forests, agricultural land, urban areas, and others, providing a legal framework to help achieve healthy soils by 2050. It will do so by:

- Requiring Member States to monitor and assess soil health;
- Supporting farmers and soil managers to help improve soil health and resilience;
- Putting in place a solution to the long-standing issue of contaminated sites in the EU;

Improving knowledge about soil health and improving its resilience, contributing to the EU’s climate and biodiversity goals, as well as competitiveness and food security.

[IUSS Joint Commission 1.7/3.8 “Permafrost-Affected Soils](#)

Call for papers, **Submission Deadline: Tuesday, September 1, 2026**

We would like to draw your attention to a Special Issue, **“Applied Pedology: Practical Solutions Across a Vari-**

ty of Disciplines and Issues” in Soil Use and Management. The special Issue is framed within the IUSS initiatives of the Research Forum for the [2025-2034 Decade of Soil Sciences for Sustainable Development](#) (DSSSD). We would like to extend an invitation for contributions to the special issue before the 1 September 2026 deadline.

For more information on the scope of the special issue, please refer to the [Call for Papers](#) (contributions accepted include, original research papers, reviews, reports of case studies and practical experience, opinions, and perspectives).

Manuscript can be submitted the SUM submission system. Please follow the [Author Guidelines](#) and select the special issue title when asked: “Is this submission for a special issue?”

We would be enormously grateful if you could let us know your decision [via this form](#).

For more information: Prof. Adrian Unc, aunc@mun.ca
Vice-Chair

*Alan Wild Reviews, Perspectives and Topical Collections
Editor, Soil Use and Management (British Soil Science Society)*

IUSS International Soil Judging Contest

Soil judging is an educational activity that develops field skills of describing and classifying soils and understanding of soil genesis. The experiential learning and skills gained are beneficial in promotion of soil science, pursuit of jobs, and in preparation for advanced studies. Soil judging originated in the United States in the late 1950's and IUSS contests began in Korea in 2014 in association with the World Congress. There have been numerous journal articles detailing the importance of soils contests as an educational tool. The International Soil Judging Contest Working Group of IUSS was formed in 2022 to promote soil judging across the world, to develop standards used for soil judging contests, to host [International Soil Judging web page](#), and to assist in the

planning and organization of international soil judging contests. The chair is Brian Needelman of the United States and vice-chairs are John Galbraith of the United States and Minerva García Carmona of Spain. A focus of the group is to assist with the IUSS contests associated with the [World Congress in Nanjing, China in 2026](#) and in Toronto, Canada in 2030. Registration of teams is still available until January 15, 2026, through the [contest web site](#). There are about 36 members, and most are active on one of the subcommittees' developing standards based on FAO, USDA, and WRB publications. Our working group encourages countries to develop their own or multinational contests. Participation in the Working Group is encouraged by sending an email to Dr. Brian Needelman bneed@umd.edu and Dr. John Galbraith at tcf@vt.edu or Minerva García Carmona minerva.garciac@umh.es. An example of a recent soils contest is available at [Home - European Soil Judging Contest](#). The Working Group encourages development of soil judging and participation in the upcoming contest in Nanjing. Please feel free to reach out to one of the officers with any questions.

Report on Webinar IUSS Commission 3.3 – Soil Fertility and Plant Nutrition

2025 Webinar Series

Advances in soil fertility and crop nutrition status, cases from different regions of the world

This webinar provided an update on the status and recent advances on nutrient management across three regions of the world: China, India/South Asia, and North America. The webinar was hosted through NC State Extension (North Carolina State University, USA) and featured three distinguished speakers: Ping He (China), Himanshu Pathak (India), and Tom Bruulsema (Canada). Speakers were willing to share their knowledge and expertise with an open audience.

There was an average on-line audience of 26 participants from all over the world.

The video of the webinar is available at <https://soilfertility.ces.ncsu.edu/2025/10/status-of-soil-fertility-in-north-america-central-asia-and-western-asia/>

Full Program

- **China. Dr. Ping He.** Professor in Plant Nutrition Institute of Agricultural Resources and Regional Planning Chinese Academy of Agricultural Science (CAAS). Beijing, China
- **India/South Asia. Dr. Himanshu Pathak.** Director General, International Crops Research Institute for the Semi-Arid Tropics. Hyderabad, India
- **North America. Dr. Tom Bruulsema.** 4RPN Consulting, Guelph, Ontario, Canada
- Q&A, discussion.



Ping He

Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Science (CAAS)

Dr. He is a Professor of Plant Nutrition at the Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences (CAAS). She has authored or co-authored more than 150 scientific publications and is widely recognized for her research in nutrient management and fertilizer recommendation. Dr. He has led several key government research programs aimed at improving fertilizer use efficiency. She also oversees IPNI's agronomic and educational initiatives in China. In addition, she serves as a Council Member and Director of the Chemical Fertilizer Committee of the Chinese Society of Plant Nutrition and Fertilizers.



Himanshu Pathak

Currently serving as the Director General of International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, India. Served as Secretary of the Department of Agricultural Research

and Education (DARE), Government of India, and Director General of the Indian Council of Agricultural Research (ICAR).

Dr Pathak has over 33 years of experience in climate resilience, soil and crop management, and sustainable agricultural systems. He holds a Ph.D. in Soil Science and Agricultural Chemistry from the Indian Agricultural Research Institute and has held prestigious fellowships and international research positions, including the Humboldt Fellowship in Germany, as well as collaborations with institutions in the United Kingdom, Australia, the Philippines, and Ethiopia. He has published extensively, with over 200 research papers and 20 books with more than 30,000 citations in international literature.



Tom Bruulsema

4RPN Consulting

Dr. Bruulsema is an agronomic scientist with over 30 years of experience providing leadership in nutrient stewardship for the fertilizer industry. Recently, he served on the International Fertilizer Association's Scientific Panel on Responsible Plant Nutrition, contributing to several Issues Briefs on current global sustainability issues. He holds a PhD in Soil Science from Cornell University and has contributed to the development and implementation of 4R Nutrient Stewardship, in Canada, North America, and internationally.

The video of the webinar is available [here](#)

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Chairs Commission 3.3 Soil Fertility and Plant Nutrition - IUSS

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World Soil Day



The Food and Agriculture Organization of the United Nations (FAO) observed World Soil Day 2025 with a high-level global symposium in Rome, centred on the theme “**Healthy Soils for Healthy Cities.**” The celebration highlighted the fundamental role of soil health and integrity, not only as a substrate for agricultural productivity, but as a cornerstone for engineering resilient, green, and healthy urban ecosystems.

This year’s celebration carried profound institutional weight, as it converged with FAO’s 80th anniversary, a milestone marking eight decades of multilateral constructive interaction and technological innovation dedicated to the **four betters**: better production, better nutrition, a better environment, and a better life, leaving no one behind.

The ceremony was opened by Beth Bechdol, FAO Deputy Director-General; Qu Dongyu, FAO Director-General; HRH Princess Basma Bint Ali of Jordan, FAO Goodwill Ambassador for Near East, and North Africa; as well as Anacláudia Marinheiro Centeno Rossbach, UN Habitat Executive Director.

In his opening speech, FAO Director-General Qu Dongyu underscored that the physicochemical and biological functionality of soil is a non-negotiable prerequisite for the sustainability of urban matrices and the holistic well-being of their inhabitants. He framed the protection and restoration of soil resources as a collective responsibility, viewing healthy soils as the basis for inclusive and greener agrosystems that support a more prosperous planet for future generations.

The role of urban soils

The urgency of the mission is underscored by demographic projections indicating that two-thirds of the global population will reside in urban areas by 2050, subjecting urban soils to intense anthropogenic pressures such as sealing, chemical pollution, and unplanned spatial expansion. These degradation trends severely impair the soil’s capacity to provide vital ecosystem services, including thermoregulation, hydrological filtration, carbon sequestration, and biodiversity support. Furthermore, rapid urban sprawl is increasingly encroaching upon highly fertile peri-urban croplands, many of which exhibit productivity levels nearly double the global average. This loss of high-yield land places significant additional strain on the stability of national and global agrifood systems, necessitating immediate strategic interventions in sustainable land management and urban planning.

Contest

In celebration of World Soil Day (WSD) 2025, the Food and Agriculture Organization of the United Nations (FAO), its Global Soil Partnership (GSP), the European Union through its EU Mission, “A Soil Deal for Europe” and the International Union of Soil Sciences (IUSS) launched the international “Tiny Soil Detectives” contest and “Soil in 1 minute” video contest.



“Tiny Soil Detectives”: Young Urban Soil Explorers Celebrate World Soil Day 2025

Participants, children aged 8 to 15, were invited to explore the often-overlooked world beneath their feet by becoming true “urban soil detectives.” Urban soils may seem invisible, yet they cool our streets, absorb rainwater, grow food, sustain biodiversity and support life even in the smallest green spaces.

Through fun, hands on experiments, young participants were encouraged to observe, test and document how soils contribute to everyday life in cities. Their activities covered themes such as temperature regulation, rainwater infiltration, biodiversity, food production and composting.

Each child or group submitted a “detective report”, complete with photos, sketches and creative notes, showcasing their discoveries. The reports were then evaluated for scientific accuracy, creativity and alignment with World Soil Day messages.

• 2025 Winners

- **1st place:** Ellinogermaniki Agogi School (Greece), with the collective work of 150 fourth-grade students
- **2nd place:** Virginia Manca and Carlotta Spada (Italy)
- **3rd place:** Quercetti Tommaso and Salvatore Ludovica (Italy)

The contest successfully fostered environmental awareness and helped children connect soil science with everyday urban life.



The “Soil in 1 Minute” video contest

The “Soil in 1 Minute” video contest invited scientists, educators, designers, communicators and creative

practitioners to create oneminute videos for children aged 8–15, using original visual materials to explain why healthy urban soils are essential for resilient cities.

The received videos highlighted topics such as soil sealing and the benefits of removing impermeable surfaces, as well as the many roles of living soils in cooling streets, absorbing water, reducing floods, storing carbon, recycling nutrients, supporting biodiversity and connecting food, health and well-being. Open to individuals and groups worldwide, videos had to be creative, scientifically accurate and aligned with the theme “Healthy soils for healthy cities.” The IUSS and FAO’s Global Soil Partnership evaluated all videos, selecting the top entries for their creativity, clarity for young audiences, scientific soundness, thematic relevance and technical quality.

• 2025 Winners

1. **1st place: One Handful of Hope** Dr. Sab-yasachi Majumdar, Mr. Aman Kumar, Dr. Laxmanarayanan Muruganatham, and Prof. Dwipendra Thakuria (India)
2. **2nd place: The Importance of Soil in One Minute** BeAgro Team (Brazil)
3. **3rd place: Healthy Soil, Healthy Cities** FIX-TEC – UFPRI (Brazil)

Glinka World Soil Prize and King Bhumibol World Soil Day Award

Also, this year, as part of the global WSD celebration, FAO awarded two of the world's most prestigious international soil prizes: Glinka World Soil Prize and King Bhumibol World Soil Day Award.

Glinka World Soil Prize



2025 Glinka World Soil Prize winner Prof. Ganlin Zhang (Ph: FAO/Matteo Sala)

Professor Ganlin Zhang from the Chinese Academy of Sciences has been awarded the 2025 Glinka World Soil Prize. This prestigious recognition honors his 40-year career dedicated to soil science, education, and sustainable soil management. Professor Zhang is particularly known for his impact on soil policymaking and his advancements in digital soil mapping and classification. To learn more, click [here](#).



King Bhumibol World Soil Day Award

(Ph. AFES)

The French Soil Science Society (AFES) has been honored with the 2025 King Bhumibol World Soil Day Award. The prize recognizes their extraordinarily successful 2024 campaign, particularly the “Soil Week in Normandy,” which excelled in raising public awareness under the theme: “Caring for soils: measure, monitor, manage.” The initiative effectively bridged the gap between scientific research and public engagement. To

learn more, click [here](#)

International WSD Events

Like every year, the 2025 World Soil Day was also celebrated in several countries around the world. This year's global engagement counted 3.058 events on the FAO Interactive map.

Initiatives involved public and private stakeholders - including local authorities, companies, media, and universities - through events and community gatherings organized across all continents.

You are invited to explore the global WSD event list [here](#).

National WSD events



World Soil Day 2025 by ESSS

The speakers were Prof. Rattan Lal from Ohio State University, Columbus, Ohio, USA. He recorded a talk about “Managing Soils of the Arid and Semi-Arid Agroecosystems for Food and Climate Security” and Prof. Ahmed A. Abdelhafez from New Valley University. His lecture was on Start from the roots: How does soil health shape the future of food and humanity?

(Ph. ESSS)



IV International Scientific and Practical Conference for World Soil Day 2025 in Ukraine

On December 3, 2025, the Ukrainian Society of Soil Scientists and Agrochemists (USSSA) in collaboration with National Scientific Center “Institute for Soil Science and Agrochemistry Research named after O.N. Sokolovsky” (NSC ISSAR) held their traditional IV International Scientific and Practical Conference “*Soil Health as a Component of the Strategy of a Unified Health of Society*” dedicated to the World Soil Day 2025. The Conference was registered at FAO List and showed on [Interactive Global Map of WSD2025 Events](#).

Other Conference co-organizers were the Ministry of Economy, Environment and Agriculture of Ukraine; National Academy of Agrarian Sciences of Ukraine; State Biotechnological University.

International organizations welcomed the conference participants: Bruce Lascelles — President-elect [of the International Union of Soil Sciences](#), (2025-2026); Rainer Baritz — Chair of the European Soil Partnership, Soil Expert of the European Environment Agency; Laura Bertha Reyes Sanchez — Honorary Member of the Public Organization “Ukrainian Society of Soil Scientists and Agrochemists”, President of the International Union of Soil Science (2019-2024).

During the conference, two sections were held on the following main topics:

1. Soil resources and soil health in Ukraine;
2. The impact of hostilities on soil cover, measures to restore soil health.

Interesting presentation «Soil characterization to support soil rehabilitation» was made by Rik van den Bosch, Director ISRIC.

In his final report, Prof. Sviatoslav Baliuk, USSSA General-Secretary, NSC ISSAR Acting director and IUSS Honorary Member outlined the main strategic priorities in the field of soil health monitoring and restoration as part of the Unified Health Strategy for Society.

More information about this International Conference ([Agenda](#), [Video of the Conference](#), [Presentations of the Conference speakers](#)) you can find on NSC ISSAR [webpage](#)

Spain

“URBAN SOILS: A WORLD TO DISCOVER”

To mark World Soil Day 2025, whose FAO-proposed theme was “Healthy Soils for Healthy Cities”, David Badía-Villas, member of the IUSS, organized a competition and a talk on this topic at the Technological College of Huesca (University of Zaragoza). The talk, entitled “URBAN SOILS: A WORLD TO DISCOVER,” was given by Dr. Núria Roca Pascual, Professor in the Department of Evolutionary Biology, Ecology, and Environmental Sciences at the University of Barcelona. Dozens of students from the Agronomy and Environmental Science degree programs, as well as technicians from local government and companies interested in the subject, attended the talk both in person and remotely. This [talk is now available to the public](#) on the website of the Official College of Agronomists of Aragon, Navarre, and the Basque Country (COAANPV). The presentation of the event was given by David Badía-Villas, a member of the IUSS, as well as María Videgáin-Marco, member of the Governing Board of the COAANPV, and Juan Luis Mora-Hernández, member of the SECS.

In addition, during the preceding weeks, “What do you know about green infrastructure?” CONTEST was held in the lobby of the library of the Technological College of Huesca. Participants had to match ten images of green infrastructure from around the world with their correct captions. More than one hundred people took part in the competition, and gifts donated by the Spanish Society of Soil Science (SECS) were raffled off.

The sponsorship of the talk and competition involved the SECS, in addition to the Official College of Agricultural Engineers of Aragon, Navarra, and the Basque Country.



Moment of the awarding of the competition prizes to a winner, presented by the guest speaker (Núria Roca) along with members of the SECS (Juan Luis Mora) and the IUSS (David Badía). (PH. EPS Library Staff)

German Soil of the Year 2026 Presented in Berlin on World Soil Day



“There is history inside”: Ceremony for the Soil of the Year 2026 at the Representation of the State of Hesse in Berlin. Sonja Medwedski, newly appointed Chair, and Gerhard Milbert, long-standing Chair, and newly appointed Vice-Chair of the Soil of the Year Board, with the soil profile monoliths illustrating the Soil of the Year 2026: a charcoal kiln soil as an archive of cultural history and a Ferrallit as an archive of natural history (left). (Ph D. Schwindt)

World Soil Day on 5 December highlights soil as an indispensable yet often underestimated resource. Two events in Berlin in 2025 explored this theme, spanning a conceptual arc from soil as a living system to soil as an archive of natural and cultural history.

The Soil of the Year 2026 in Germany is dedicated to this archive function. In German, the featured soil is referred to as “Archivboden” (literally “Archive Soil”). Rather than denoting a specific soil type, the term refers to a diverse group of soils that share one key feature: they preserve traces of the past. These may include records of former climates and landscape development, as well as evidence of historical land use and human activity, in other words, soils functioning as archives of natural and cultural history.

The programme began the day before World Soil Day with a conference of the Commission on Soil Protection at the German Environment Agency (KBU), held at the Federal Press Office, focusing on the soil microbiome. Presentations highlighted the importance of microorganisms for soil health and their relevance within a One Health perspective linking environment, agriculture, and public health.

On World Soil Day itself, the official ceremony took place at the Representation of the State of Hesse in Berlin. Under the motto “There is history inside,” the Soil of the Year 2026 focused on soils as archives of natural and cultural history. Ingmar Jung, Hessian Minister for Agriculture and Environment, served as official patron and emphasised in his welcome address the importance of healthy soils as a vital resource, as climate regulators through carbon storage and ecosystem processes, and as repositories of environmental knowledge.

Prof. Dr Thomas Schmid (Hessian Agency for Nature Conservation, Environment and Geology) provided the scientific framing. Contributions by Heinrich Thiemeyer (Goethe University Frankfurt am Main), Udo Recker (Hesse State Office for Monument Preservation), and Jutta Weber (UNESCO Global Geopark Bergstraße-Odenwald) further illustrated the importance of soils as archives of natural and cultural history and the need for their protection.

During the ceremony, a change in leadership was announced within the Soil of the Year Board of Trustees of the German Soil Science Society (DBG), the German Soil Association (BVB), and the German Engineer Association for Management of Contaminated Soils and Land Recycling (ITVA). Sonja Medwedski succeeded Gerhard Milbert as Chair, while he will continue to support the Board as Vice Chair.

The World Soil Day 2025 events demonstrated the wide range of soil functions, from the soil microbiome to soils as archives of natural and cultural history and highlighted why protecting this resource remains a long-term responsibility of science, policy, and society.



Words of appreciation for Gerhard Milbert in recognition of his long-standing commitment and his honour as “Soil Scientist of the Year,” presented by Sonja Medwedski and the President of the German Soil Science Society, Prof. Dr Daniela Sauer (right). (Ph. D. Schwindt)

Italy

World Soil Day: New Horizons



The Italian Council for Agricultural Research and Economics (CREA) marked World Soil Day 2025 with a highlevel event held at its headquarters in Rome, bringing together researchers, institutions, technical experts and representatives from the production sector to examine emerging perspectives for safeguarding soil as an essential yet increasingly vulnerable resource. The meeting adopted a multidisciplinary framework to discuss the complex interactions between soil, human activities and the environment, drawing on scientific evidence and consolidated good practices.

Following the institutional opening remarks, participants presented the outcomes of four thematic working groups, which explored:

- **Healthy soils for healthy cities**, addressing the

contribution of urban farming, public green infrastructure, citizen engagement and urban regeneration strategies.

- **Organic waste management**, focusing on high-quality composting processes, valorization pathways and the role of organic residues in circular bioeconomy models.
- **Soil, water and land reclamation**, examining the recovery of degraded areas, sustainable water management and the mitigation of hydrogeological risks.
- **Natural textile fibres**—including silk, cotton, hemp, flax and wool—highlighting how sustainable agrotexile supply chains depend on soil health and can support more responsible production systems.

The event concluded with an open discussion involving stakeholders, scientific societies and institutional representatives, who reflected on the results and outlined future directions. The exchange underscored the need for a coordinated, longterm commitment to protecting soil as a foundational ecological infrastructure that supports life in urban and rural landscapes, enhances community wellbeing and strengthens the resilience of territories

Soil Science Society of Poland

The Soil Science Society of Poland has elected Black Earth (czarna ziemia) as Soil of the Year 2026 in Poland. This specific term refers in Polish tradition to soils like Chernozems, but wet. Thus, essential for Black Earths is a thick, rich in humus and biologically active mollic horizon, that commonly meets the criteria for chernic, accompanied by gleyic or stagnic properties present in the subsoil. According to WRB, Black Earths may belong to Gleyic/Stagnic Chernozems, Gleyic/Stagnic Phaeozems, and Mollic/Chernic Gleysols. In terms of the Soil Taxonomy, majority of Black Earths are in Aquolls. Black Earths typically have loamy or silty-loamy textures

as they develop on loess, glacial and colluvial loams, but also on some sands and clays. Typically, Black Earths have high base saturation throughout their profiles and may contain secondary carbonates in the subsoil. Black Earths occur in flat or concave landforms with high groundwater level. Without artificial drainage, Black Earths serve as productive meadows or pastures but are too wet for cereals. However, after drainage, their productivity is comparable with those of Chernozems; therefore, drained Black Earths are among the best cropland soils in Poland, suitable for wheat, barley, corn, and sugar beet. In case of early summer droughts, recently increasingly common due to climate change, the permanent presence of water in their subsoil may even result in higher stability of yields compared to well-drained Chernozems. The area of Black Earths in Poland does not exceed 5% and all are protected, at least theoretically, against their degradation and land use change. Unfortunately, many Black Earths located near large cities and agglomerations, such as Warsaw and Wroclaw, are dramatically threatened by urbanization. The field workshop “Black Earths 2026”, held jointly by Soil Science Society of Poland and Czech Soil Science Society is scheduled for September 2-4, 2026, in the Wroclaw Plain (south-west Poland), to demonstrate the variability of Black Earths in relation to landscape, parent materials and land use, and to discuss the issues



(Ph. C. Kabala)

of their genesis, transformation, classification and protection. Learn more [here](#).

More detailed information will be distributed soon, but you can now express your interest by emailing: cezary.kabala@upwr.edu.pl

World Soil of the Year



World Soil of The Year 2026

Acrisol from Guangdong, Subtropical China

(Ph. S. Mantel)

The “**Acrisol from the Low Hills of Southwestern Guangdong, Subtropical China,**” has

been officially named the **World Soil of the Year 2026**. The Soil Science Society of China (SSSC) proposed this soil. Acrisols are highly weathered; acidic soils primarily distributed across humid tropical, subtropical, and warm temperate regions, covering just under 8% of the Earth’s continental land surface. They are found in old, stable landscapes with hilly or undulating topography on the contents of the (North- and South) Americas, (South-East) Asia and Africa. Acrisols have a subsurface layer of accumulated poorly fertile (kaolinitic) clays. They are deep, well-drained soils, often with yellow brown to red colours, though they can vary from sandy clay loam to clayey textures. The aggregate stability of the topsoils is low, which makes these soils highly erodible. If not under natural vegetation, maintaining a good soil cover and avoiding soil disturbance by machinery (ploughing, logging operations) is crucial. Therefore, perennial (tree and plantation) crops are sustainable for use in these soils.

The deep soil profile (>100 cm) is in a low hilly landscape in southwestern Guangdong, China, governed by a maritime monsoon climate and has been formed on residual and colluvial deposits derived from granite weathering. The region provides a stable foundation for agriculture and forestry. A large part of the Acrisols in this part of China, especially in low hills and on gentle slopes, are cultivated for growing tropical fruits, maize, sweet potato, and other upland crops. Much of these soils in this region are under forest, supporting economically important tree

species such as slash pine, eucalyptus, rubber, and litchi, as well as serving as a habitat for agarwood (*Aquilaria sinensis*, locally known as “Chen Xiang”) a highly valued medicinal and aromatic tree. The soil is poorly fertile and has an acidic to strongly acidic reaction (pH 4.0–5.0), especially in the subsoil. Ecologically, this soil is key to regional stability, supporting natural and planted forests of eucalyptus, shrubs, and herbs that enhance cover and sequester carbon. It stores and channels water, regulating local hydrology, while providing refuge for forest-adapted species and safeguarding biodiversity. Under sustainable management, such as mixed conifer-broadleaf planting, it also reduces erosion and boosts ecosystem resilience.

Classification WRB

Xanthic Ferralic Acrisol (Hyperdystric, Ochric)

Chinese Soil Taxonomy

Typic Hapli-Udic Ferralosol

World Soil of the Year elections

The IUSS World Soil of the Year program started in 2024 to enhance soil literacy across numerous countries and on a global scale. We call upon national soil science societies, members of IUSS, to propose soils for the World Soil of the Year program. Read more on the World Soil of the Year 2026 and find the guidelines for 2027 submission [here](#).

Exclusive! Visit the World Soil of the Year during the World Congress tour, to learn more, click [here](#).

Soil Science Society of Poland

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Phaeozems, and Mollic/Chernic Gleysols. In terms of the Soil Taxonomy, majority of Black Earths are in Aquolls. Black Earths typically have loamy or silty-loamy textures as they develop on loess, glacial and colluvial loams, but also on some sands and clays. Typically, Black Earths have high base saturation throughout their profiles and may contain secondary carbonates in the subsoil. Black Earths occur in flat or concave landforms with high groundwater level. Without artificial drainage, Black Earths serve as productive meadows or pastures but are too wet for cereals. However, after drainage, their productivity is comparable with those of Chernozems; therefore, drained Black Earths are among the best cropland soils in Poland, suitable for wheat, barley, corn, and sugar beet. In case of early summer droughts, recently increasingly common due to climate change, the permanent presence of water in their subsoil may even result in higher stability of yields compared to well-drained Chernozems. The area of Black Earths in Poland does not exceed 5% and all are protected, at least theoretically, against their degradation and land use change. Unfortunately, many Black Earths located near large cities and agglomerations, such as Warsaw and Wroclaw, are dramatically threatened by urbanization. The field workshop “Black Earths 2026”, held jointly by Soil Science Society of Poland and Czech Soil Science Society is scheduled for September 2-4, 2026, in the Wroclaw Plain (south-west Poland), to demonstrate the variability of Black Earths in relation to landscape, parent materials and land use, and to discuss the issues of their genesis, transformation, classification and protection.

Conference and Meeting Reports

SUITMA 13 report 5-9 October 2025

The conference SUITMA 13, held in Pisa at the CNR Research Area, has successfully closed with the presence of 125 participants from 21 countries (Argentina, Belgium, Brazil, Chile, China, Korea, Czech Republic, France, Germany, Italy, Japan, Luxemburg, Mexico, Morocco, Poland, Russia, Spain, The Netherlands, Türkiye, UK, USA); with a perfect gender balance and 25% of young scientists (PhD).

The pre-conference was conducted with the seminar Art & Soil guided by Gerd Wessolek, at The Cittadella Galileiana, 16 soil scientists have tried to use soil, colours, glue, and paintbrushes to express their creativity around the subjects of SUITMA. The resulting works of art were exhibited during the conference and will be kept by the CNR. The ice breaker took place at the hotel Duomo terrace with the splendid view on the tower at the sunset.

The conference opening was made by Grazia Masciandaro, head of the Pisa Unit of CNR IRET and the SUITMA Chirman John Kye-Hoon Kim. Edoardo Costantini Past President of the International Union of Soil Science presented the new 2025-2034 IUSS decade of soil sciences for sustainable development and the new role of SUITMA as commission 3.7 of the division 3 Soil Use and Management. Paolo Nannipieri Emeritus Professor of the University of Firenze remembered the importance of organic necromasses in urban soil.



Lear more [here](#).

More detailed information will be distributed soon, but you can now express your interest by emailing: cezary.kabala@upwr.edu.pl

(Ph. C. Kabala)



(Ph. SUITMA team)



There were four invited speakers, each one related to the four topics of the conference. Paula Medejon, IRNAS-CSIC, Spain, for the topic 1 *SUITMAs as sinks and source of pollutants*, presented: “Soil contamination by trace elements in the food chain”: experiences in different mining and urban scenarios, cases studio of mining and urban areas were reported in which the fate of the trace metals in the environmental compartments were monitored and also the passage in the food chain. During the morning session the presenters showed studies on soil pollution, monitoring and the remediations proposed, including management. Between the pollutants, the role of heavy metals, microplastics and hydrocarbons was highlighted.

For topic 2 *SUITMAs to conserve and improve soil quality and biodiversity* José Luis Moreno Ortego, CEBAS-CSIC, Spain, invited speaker, presented the “Effects of climate change on soil biodiversity”. Moreno highlighted the crucial functions of soil biota as drivers of soil fertility in terms of chemical and physical aspects and the economic value of soil biodiversity, illustrating the methods for monitoring it, and the decline due to the climate change. In conclusions there is a significant effect of global climate change and soil management on soil microbiome. During the session among the discussed topic, the investigation of soil microbial diversity and functionality was stressed, as critical to better understand the soil dynamics and processes in urban environment.

The second day of the conference started with topic 3 *SUITMA improvers and ecosystem services*. Christina Siebe, UNAM, Mexico, as invited speaker presented: “Waste Materials as Resources for Soil Recarbonization: is it a sustainable solution?” Besides a more effective separation of waste, the results highlighted that small doses are better than large doses to reduce the impact on soil properties and gas emissions. It is fundamental considering soil properties before adding amendments, first nitrogen content. During the session we listened to presentations on technogenic soils classification (Aggerosols). Bulk Density and Water Holding Capacity are the main properties that need to be monitored in constructed Technosols. These are in some situations, the

only alternative to urban soil in cities, as natural soil is a rarity, and soil consumption is remarkably high. Other presentations dealt with the impact of climate change; C and N decline of tree growth; degraded soils to mimic the natural soil (nature is a template); the management of ancient trees 750 yrs old; the importance of finding appropriate indicators for monitoring soil recovering and plant establishment, after desealing or in artificial soil, such as QBS-ar, Nitrogen, CO₂ fluxes, and enzymatic activity,

Topic 4 *SUITMA challenges for the future*: Giacomo Certini University of Florence Italy, in his talk “The shocking impact of warfare on the soil” reminded us that there are 56 conflicts in the world and war produces a new pedogenesis. Fertile soils are lost because of the excavation for trenches, heavy vehicles compaction, war cemeteries, mines, pollutants (dioxins, nuclear bomb). Fires and toxic substances (napalm) destroy soil structure and cause erosion. However, the 1000 km² in the Korean demilitarised land allowed the flourish of biodiversity: 3000 species of higher plants, 320 species of birds, 70 species of mammals colonised the area free from human beings. Practical aspects developed in projects, such as mapping urban soil and guidelines to manage desealing, were also showed, as well as Nature based Solution approach to study and manage the hydrology of green roofs skiing areas, university campus, and desealing.

The conference ended with the gala dinner at the Hotel Duomo in the centre of the city.

The GPS FAO hybrid symposium on Urban soil and Sealing had 300 connections. Some of the SUITMA13 participants presented their studies: Wolfgang Burghardt, Anna Paltseva, John Kim, along with other expert from the FAO, and Green Cities. [Report](#) and [presentation](#) are available.

During the conference, best works were acknowledged through Springer Nature Awards: Topic1 Tom Kunneman best oral, Hugo López-Romano best poster; Topic 2 Simon Masson best oral; Daniela Pardo Sheila best poster; Topic 3 Francesca Vannucchi best oral, Feng Cheng best poster; Topic 4 Sara Acevedo best oral, Kolja

Thestorf best poster.

After the conference we enjoyed two one day visits, led by Lorenzo Gardin and colleagues of CNR. On the first day in Calci near Pisa we made a first stop at an urban soil profile and visited the Charterhouse and the Natural History Museum, after lunch the farm San Vito extra virgin olive oil and wine producer. During the second day in Prato, we visited another urban soil profile at the Neophytes Park and a social housing that undertook a greening intervention. After that we went to the descaling area studied by the University of Florence. A comprehensive booklet of excursion guide was produced and will be available on the IUSS website.

For the SUITMA 13 Special Issues, the submissions are open:

Journal of Soils and Sediments, guest editors: Jean Louis Morel, Remigio Pardelo, Thomas Nehls, Francesca Bretzel (deadline 13 April 2026).

Biology and Fertility of Soils, guest editors: Grazia Masciandaro, Francesca Vannucci, Luke Beesley, Leila Benidire (deadline 31 December 2025).

Technical Visit Report [here](#)

Please check the updates on the [SUITMA13 web page](#).



(Ph. SUITMA Team)

WRB International Soil Classification Workshop: a workshop tailored for Central Asian soil scientists (October-November 2025)

1. Introduction to WRB Classification (Scopes and Rules for Soil Classification)
 - Speaker: Peter Schad, Technical University of

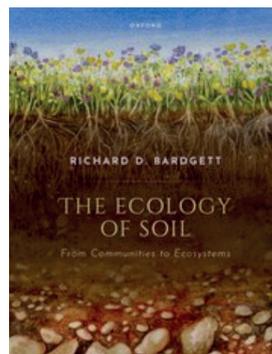
Munich, G

- Date and Time: 21 October 2025, 17:00 (Mongolian time)
2. Guideline to Soil Characterization/Description
 - Speaker: Peter Schad, Technical University of Munich, G
 - Date and Time: 13 November 2025, 17:00 (Mongolian time)
3. Soils of Wetlands and Cold Areas (Cryosols, Histosols, Gleysols, Stagnosols, and Planosols)
 - Speaker: Cezary Kabala, Wroclaw University of Life and Environmental Sciences, Poland
 - Date and Time: 23 October 2025, 17:00 (Mongolian time)
4. Initially and Poorly Developed Soils (Leptosols, Regosols, Arenosols, Fluvisols, Cambisols)
 - Speaker: Andrea Vacca, University of Cagliari, Italy
 - Date and Time: 28 October 2025, 17:00 (Mongolian time)
5. Soils with Humus-Rich Topsoils (Chernozems, Kastanozems, Phaeozems, Umbrisols, and Vertisols)
 - Speaker: Seppe Deckers, Leuven University, Belgium
 - Date and Time: 30 October 2025, 17:00 (Mongolian time)
6. Soils with Subsoil Accumulation of Clay and Fe/Al Compounds (Luvisols, Alisols, Retisols, and Podzols)
 - Speaker: Marcin Switoniak, Nicolaus Copernicus University in Toruń, Poland
 - Date and Time: 4 November 2025, 15:30 (Mongolian time)
7. Soils with Secondary Carbonate, Gypsum, and Salt-affected soils (Calcisols, Gypsisols, Solonchaks, and Solonchaks)
 - Speaker: David Badia Villas, EPS Huesca, University of Zaragoza, Spain
 - Date and Time: 6 November 2025, 17:00 (Mongolian time)
8. Human-Influenced Soils (Technosols and Anthrosols)

- Speaker: Przemyslaw Charzynski, Nicolaus Copernicus Univ. in Toruń, Poland
- Date and Time: 12 November 2025, 17:00 (Mongolian time)

Publications

Richard D. Bardgett

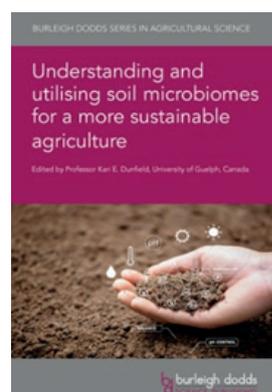


The Ecology of Soil: From Communities to Ecosystems

Soil is the most biodiverse and complex habitat on Earth. This book explores what is known about the diversity of life in soil, how it is distributed in space and time, and how interactions between soil organisms, plants, and their consumers shape terrestrial ecosystems and their functions. It also provides an assessment of how soil biodiversity and its many functional roles are modified by global change, especially land use and climate change, and how soil ecology knowledge can be harnessed to address sustainability challenges of sustainable agriculture, ecosystem restoration, and climate change mitigation and adaptation. By drawing on a rich diversity of soil ecology knowledge from ecosystems of the world, and from the foundational to the new, the book provides the most comprehensive and up-to-date assessment of the ecology of soil and its importance for a healthy planet.

Oxford University Press, <https://doi.org/10.1093/9780191858710.001.0001>

Kari E. Dunfield



Understanding and utilising soil microbiomes for a more sustainable agriculture

Ed.: Burleigh Dodds Science Publishing

In recent years, a new wave of research into understanding soil microbiomes has emerged, with stakeholders across the supply chain recognising the fundamental importance of these communities in optimising both crop and soil health. Despite these advancements, many soil microorganisms and their ecological functions remain only partially understood. This new book summarises the wealth of



Soils with secondary carbonate, gypsum accumulation and salt-affected soils: **Calcisols, Gypsisols, Solonchaks, and Solonetz**

World Reference Base for Soil Resources



Dr. David Badía-Villas
Technological College of Huesca
University of Zaragoza, Spain



Coordination: Central Asian Soil Science Society

- Dr. Undrakh-Od Baatar, Mongolian University of Life Sciences, Ulán Bator, Mongolia
- Dr. Ermek Baibagyshev, Naryn State University, Naryn, Kyrgyzstan

Organizers:



recent research in this major area. It reviews advances in techniques for analysing soil microorganisms, the composition and dynamics of soil microbial communities, the ecosystem services they support and how they can be enhanced.

ISBN: 13: 9781801464741

To learn more, click [here](#)

13th International Conference: Soils of Urban, Industrial, Traffic, Mining and Military areas (SUITMA) from a One Health Perspective (Pisa, 5-9 October 2025) CNR Book of Abstracts

Editors: Francesca Bretzel, Beatrice Pezzarossa, Francesca Vannucchi Cnr, Istituto di ricerca sugli ecosistemi terrestri, Cnr Ed., 2025

Soil is a key component of the water and nutrient cycle, and a major contributor to global carbon sequestration. Soil also provides habitats for all land plants, as well as a sizeable proportion of terrestrial fauna. Despite its global importance, it is estimated that one third of global soil is degraded. In anthropized areas, soils undergo many forms of disturbance: manipulation, compaction, and pollution which impact their quality. However, even degraded soils have the potential to alleviate environmental problems and play a vital role in supporting vegetation. Degraded soils of urban areas and other anthropogenic lands merit scientific and professional attention to enhance their ecosystem services and to support nature-based solutions, to tackle the urgent challenges of climate change, and for the health of all organisms and ecosystems.

ISBN: 978 88 8080 723 0

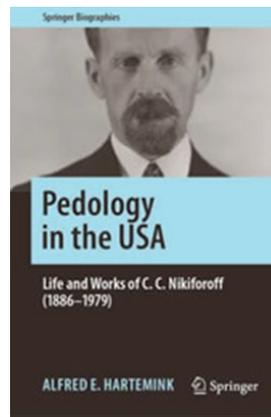
DOI: <https://doi.org/10.61008/SUITMA-2025>

Alfred E. Hartemink

Pedology in the USA, Life and Works of C. C. Nikiforoff (1886–1979)

Springer Biographies, 2025

Constantin Nikiforoff was educated by premier Russian



soil scientists but fled after the 1917 revolution. A refugee with no formal credentials or documentation, he arrived in the USA in 1921. He was hired in 1927 and started surveying and studying soils across the country. He was erudite, critical, and authored several influential papers. In some ways, he was ahead of his time; in others, his ideas were later proven incorrect. Yet, in all respects, he was a distinctive researcher whose work left a lasting mark on the field of American soil science. This richly illustrated book explores the life and works of Constantin Nikiforoff against the backdrop of soil science advancements during the first half of the twentieth century.

Hardcover ISBN: 978-3-032-00331-7

eBook ISBN: 978-3-032-00332-4

DOI: <https://doi.org/10.1007/978-3-032-00332-4>



M. D. A. M. Perera, W. R. A. T. P. Wijesundara, D. M. S. B. Dissanayaka, S. H. N. P. De Silva

Enhancing resilience and productivity of drought-prone cropping systems through conservation agricultural practices.

Springer, 2025

Agricultural intensification, driven by the need to meet rising food demand, has often relied on conventional practices such as intensive tillage, monocropping, and residue removal. These practices have led to significant negative impacts, including reduced soil fertility, loss of biodiversity, soil degradation, and increased greenhouse gas emissions. Achieving sustainable food production for a growing global population requires innovative strategies that enhance productivity while minimizing environmental harm. Conservation agriculture (CA) has emerged as a promising solution to address these challenges. It also improves the resilience of cropping

systems, particularly under moisture-limited conditions. This review synthesizes recent advances in CA that have been shown to enhance soil structure, increase organic carbon content, improve water retention, reduce greenhouse gas emissions, and support biodiversity in agroecosystems.

DOI: <https://doi.org/10.1007/s11104-025-08038-6>



Zhao, J., Zhang, Q.

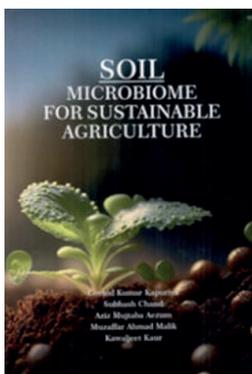
Promoting plant yield and quality improvement in saline alkali land by using biomass organic fertilizer and reducing chemical fertilizer measures.

BMC Plant Biology 25, 1525 (2025).

The agricultural development of saline alkali land has always been an important direction for improving land use efficiency and food production. The study aims to explore the effects of biomass organic fertilizer and reducing the use of chemical fertilizers on watermelons in saline alkali land, providing a scientific basis for the sustainable development of saline alkali agriculture.

The study selects a mixed application of biomass organic fertilizer and chemical fertilizer with different proportions, and compares the growth, yield, and quality of watermelon in saline alkali soil.

DOI: <https://doi.org/10.1186/s12870-025-07586-4>



Govind Kumar Kanuriya, Subhash Chand, Aziz Mujtaba Aezum, Muzaffar Ahmad Malik, Kawaljeet Kaur

Soil Microbiome for Sustainable Agriculture

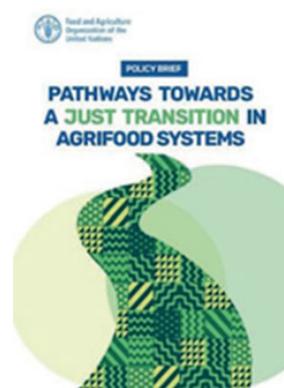
Ed. Satish Serial Publishing House, 2025

As global food demand climbs amid climate challenges and ecosystem stress, the solution may lie unseen within

the living fabric of soil. This essential volume exposes how leveraging microbial communities' bacteria, fungi, archaea, and their allies can revolutionize farming, heal soils, and support a resilient food system. **Why Microbes Matter?** Natural nutrient cycling: Soil microbes break down organic matter, converting it into plant-available nutrients like nitrogen, phosphorus, and potassium. This cuts reliance on synthetic fertilizers. **Disease suppression & plant health:** Beneficial microbes outcompete harmful pathogens and function as natural biocontrol agents, boosting plant immunity and reducing pesticide use. **Soil structure & water resilience:** Microbial activity binds soil particles into aggregates, enhancing aeration, water retention, and erosion control critical in drought-prone regions. **Stress tolerance:** Endophytes like *Bacillus subtilis* and *Pseudomonas* help plants withstand drought, salinity, and heat reinforcing crop resilience as climate extremes intensify. **Carbon sequestration & climate mitigation:** Soil microbes participate in carbon fixation and storage, supporting eco-friendly farming while resisting greenhouse gas emissions.

ISBN: 978935387520

To learn more, click [here](#)



FAO, Rome, Italy; 2025

Pathways towards a just transition in agrifood systems - Policy Brief

Despite their critical role in climate action, agrifood systems have not been integrated into just transition policy debates under the UNFCCC and are rarely included in national just transition plans. But these gaps could be overcome at COP30 if Parties recognise the critical importance of resilient, inclusive agrifood systems transformation for achieving a just transition in their deliberations. This policy brief makes the case for placing agrifood systems transformation at the heart of just transition debates and policy making. It proposes an evidence-based framework

for pursuing a just transition in agrifood systems that is aligned with the change pathways of the Paris Agreement 2 that can guide national policy making and offers key policy recommendations for Parties and observers at COP30.

DOI: <https://doi.org/10.4060/cd7550en>

To learn more, click [here](#)

Abdelmajid Achkir et al.

Soil properties and tomato (*Solanum lycopersicum* L.) responses to sewage sludge agricultural amendment: Environmental and health risks assessment

Environmental Pollution and Management, Volume 3,

December 2026, Pages 11-23

The aims of this research are to assess the impact of the application of sewage sludge as an agricultural amendment on the soil properties and growth of tomato (*Solanum lycopersicum* L.) in semi-arid climatic conditions in Morocco. This research also assessed the potential uptake of heavy metals (Cu, Pb, Ni, Cr, Zn) by tomato grown in a clay-loam textured soil amended with different sludge-soil ratios (0 %, 10 %, 30 %, 70 %, and 100 %). Significant improvements ($p < 0.05$) in soil parameters were observed in all treatments. Heavy metal concentrations were significantly higher in the

roots than in the aerial parts of the tomato, with the stems showing intermediate values. Heavy metal uptake was analysed in fruits, leaves, stems, and roots.

DOI: <https://doi.org/10.1016/j.epm.2025.09.004>

In memoriam



Prof. Antony Young (1932 – 2025)

[Recognizing the Life and Contributions of Professor Anthony Young \(1932 – 2025\) | CIFOR-ICRAF](#)

(Ph. www.cifor-icraf.org)



Dr. Pedro A. Sánchez (1940-2026)

Dr. Pedro Antonio Sanchez was a renowned agricultural scientist specializing in tropical soils and a winner of the 2022 World Food Prize for his groundbreaking contributions to reducing hunger and malnutrition throughout the developing world by transforming depleted tropical soils into productive agricultural lands.

He was born in Havana, Cuba, on October 7, 1940, grew up on a farm and completed his elementary and secondary education from Havana's Colegio de la Salle, and earned his BS in Agronomy (1962), MS in Soil Science (1964), and PhD in Soil Science (1968) degrees at Cornell University. He passed away on January 12, 2026.

As the leader of the North Carolina State University Rice Research Program of Peru in the 1970s, Dr. Sanchez helped guide Peru to dramatically improve its national food security, achieving self-sufficiency in rice production within three years, and achieving among the highest rice yields in the world. From 1971-1976, he developed a comprehensive approach to soil management which enabled 30 million hectares of the Brazilian *Cerrado*, to be brought into production the single largest increase in arable agricultural land in the last half-century. Dr. Pedro Sánchez brought the Green Revolution to Africa by developing means to replenish crucial nutrients in exhausted soils, through the development and promotion of agroforestry.

For all of this, in recognition of his work, in addition to the World Food Prize 022, he received the International Soil Science Award from the Soil Science Society of America (1993), and the International Service in Agronomy Award from American Society of Agronomy (1993). He was also elected Chairman of the Soil Fertility and Plant Nutrition Commission of the International Society of Soil Science (1994) and received decorations from the governments of Colombia and Peru.

For the Latin American Soil Science Society (SLCS), this represents not only the loss of one of its members, but also the loss of a world-renowned scientist who embodied the commitment that science should have to global food security, a commitment he particularly demonstrated towards the developing countries to which he belonged.



Prof. Dr. Koji Wada (1928-2025)

Dr. Koji Wada, an Honorary Member of the IUSS, passed away in Fukuoka, Japan, on December 16th, 2025, at the age of 97. He was born in Tokyo and grew up in Fukuoka. He enrolled at Kyushu University and received his bachelor's degree in 1951 for microbiological research employing transmission electron microscopy. After graduation, he was appointed as a Graduate School Special Research Scholarship Student in the Laboratory of Soil Science at Kyushu University, marking the beginning of his career as a soil scientist. He subsequently served in the laboratory as Assistant (1953), Associate Professor (1954), and Professor (1975).

Dr. Wada's work centered on soil mineralogy, with a particular focus on clay minerals with non-crystalline to poorly crystalline structures, such as allophane and imogolite. He isolated these minerals from volcanic ash soils and, using electron microscopy and spectroscopic analyses, elucidated their nanoscale spherical and tubular morphologies. He also clarified their roles in soils, including ion adsorption, water retention, and interactions with organic matter. These achievements led to major distinctions: the Japan Society of Soil Science and Plant Nutrition Award in 1961 for 'Ion Exchange on Allophane and Halloysite'; the Japan Agricultural Science Award and the Yomiuri Agricultural Science Award in 1981 for 'Mineralogical and Chemical Studies of Andosols'; the Pioneer in Clay Science Lecture Award from The Clay Minerals Society in 1997; and the Japan Academy Prize in 2000 for 'Analysis of Clay Minerals in Volcanic Ash Soils and Research on Their Agricultural Productivity'. Many of these accomplishments form fundamental pillars of modern soil science.

Dr. Wada also provided leadership to the scientific community. He served as President of the Clay Science Society of Japan in 1985, President of the Japanese Society of Soil Science and Plant Nutrition in 1988, and Vice President of the International Association for the Study of Clays (AIPEA) in 1990. At Kyushu University, he became Dean of the Faculty of Agriculture in 1987. In 1991, he resigned his professorship to assume the presidency of Kyushu University, serving until 1995. His active engagement continued thereafter: he was elected an Honorary Member of the IUSS in 1998, inaugurated as the first President of Nagasaki International University in April 2000, and elected to the Japan Academy in December 2000.

The scientific legacy bequeathed by Dr. Wada shaped by his rigorous inquiry, profound insights into soil mineralogy, and dedication to understanding the nature and genesis of Andosols continues to influence research worldwide. His contributions remain foundational to modern soil mineralogy and the science of volcanic ash soils. We express our deepest respect and sincere gratitude for Dr. Wada's lifelong achievements; his legacy will endure the many advances in soil science that he inspired.

Prof. Dr. Syuntaro HIRADATE

Laboratory of Soil Science, Kyushu University, Japan

President, Japanese Society of Pedology