

Soil Science News

Quarterly Newsletter of Soil Science Society of Pakistan

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Editorial

Healthy soils are essential for sustaining agricultural productivity, ensuring food security, regulating water cycles, and supporting biodiversity. In Pakistan, soil health is deteriorating due to several factors, including excessive use of chemical fertilizers and pesticides, poor irrigation practices leading to salinity and waterlogging, over-cultivation, deforestation, and lack of organic matter. These issues have resulted in declining soil fertility, nutrient imbalances, and reduced crop yields. To restore and maintain soil health, it is vital to adopt integrated soil management practices. These include the use of organic amendments such as compost and green manure, balanced fertilization based on soil testing, crop rotation and intercropping, conservation tillage, and the reclamation of saline soils using gypsum and improved drainage. Promoting awareness, farmer education, and policy support are also crucial for implementing these sustainable practices effectively across Pakistan.

Decade of Soils 2025-2034

2025–2034 Declared as the Decade of Soil Sciences for Sustainable Development

Global Call to Action: Healthy Soils for Humanity

The International Union of Soil Sciences (IUSS) has officially launched the 2025–2034 Decade of Soil Sciences for Sustainable Development (DSSSD), a transformative global initiative aimed at positioning soil health at the core of sustainable development efforts. Following the success of the previous Decade of Soils (2015–2024), this new decade marks a renewed commitment to advancing soil science, policy, and practice worldwide under the overarching theme: “Healthy Soils for Humanity.”

Building on the momentum of the previous Decade of Soils, this initiative highlights how healthy soils are central to food security, clean water, biodiversity, climate stability, and resilient ecosystems.

The DSSSD aligns with the UN's broader International Decade of Sciences for Sustainable Development (IDSSD) and calls for integrated global efforts to advance research, policy, education, and community engagement around sustainable soil management. Over the next ten years, key activities will include policy briefs, global webinars, thematic publications, and the 23rd World Congress of Soil Science in Nanjing (2026).

The initiative also introduces the World Soil of the Year (WSY) program to boost global soil literacy. Through collaboration with UNESCO, FAO, and other international partners, the IUSS aims to ensure that soil remains a priority in achieving the Sustainable Development Goals (SDGs). Visit

www.iuss.org to stay informed and engaged in this critical global mission.



Impact Factor for Soil & Environment Journal

Proud moment for Pakistan's Soil Science Community. We are delighted to share that the Journal “Soil & Environment”, the official publication of the Soil Science Society of Pakistan (SSSP), has achieved a 2024 Annual Impact Factor of 0.3 and a 5-Year Impact Factor of 0.7 as per the Journal Citation Reports 2025 by Clarivate Analytics. This remarkable milestone reflects the hard work, dedication, and scientific excellence of our vibrant soil science community. Heartiest congratulations to Prof. Dr. Zahir Ahmad Zahir, Editor-in-Chief, for his outstanding leadership and editorial vision. Prof. Dr. Muhammad Yasin, Former Editor-in-Chief, for laying a strong foundation. The Current and Former Editorial Boards, for their relentless efforts in upholding publication standards. Our respected Veterans, Executive Council Members, and all contributors for their unwavering support and commitment to advancing soil science in Pakistan and beyond.



Let's continue striving for research excellence and international visibility!



International Conferences

SECOND INTERNATIONAL CONFERENCE ON CLIMATE CHANGE IMPACTS ON AGRICULTURE AND FOOD SECURITY AT UNIVERSITY OF SWABI, KPK (IC3AF-2025)

The University of Swabi successfully hosted International Conference on Climate Change Impacts on Agriculture and Food Security (IC3AF-2025) from April 22 to 24, 2025. The conference was jointly organized by the University of Swabi in collaboration with the Soil Science Society of Pakistan, Higher Education Commission of Pakistan, Pakistan Science Foundation, Directorate of Science and Technology



Khyber Pakhtunkhwa, and Women University Swabi. The event brought together leading national and international researchers, policymakers, academicians, and students to engage in meaningful dialogue on the critical challenges posed by climate change to sustainable agriculture and global food. The conference focused on the theme "Building Resilient Agricultural Systems in a Changing Climate for Ensuring Food Security". It included 22 keynote



speeches, 85 oral presentations, and engaging panel discussions, highlighting innovative strategies in climate-smart agriculture, water management, soil health, food system resilience, and policy development. The conference served as a vibrant platform for knowledge exchange, fostering collaboration and capacity building, and reaffirming the University and Soil Science Society of Pakistan's commitment to advance research and innovation in response to global environmental challenges and food security.

FIRST INTERNATIONAL SOIL SCIENCE CONFERENCE ON SOILS (ISSC-2025) HELD AT SINDH AGRICULTURE UNIVERSITY TANDOJAM

The Department of Soil Science, Sindh Agriculture University Tandojam, in collaboration with the Soil Fertility Research Institute, Agriculture Research Sindh, successfully organized the International Soil Science Conference (ISSC-2025) from April 22–23, 2025, at the university's main campus. The event was sponsored by the Sindh Higher Education Commission. It was held under the theme "Soil: Our Silent Lifeline for a Prosperous Future".

The event featured keynote presentations by eminent



international and national soil scientists, enriching the dialogue on global and local challenges in soil management. The technical sessions and poster presentations were organized under the themes: Soil Health and Sustainable Agriculture, Soil Conservation and Climate Change Mitigation, Soil Biodiversity and Ecosystem Services, Soil-Water Nexus for Food Security, Innovations in Soil Science and Digital Agriculture, Soil Policy, Education, and Community Engagement. The event drew participants from 15 universities and research institutes. Invited speakers from China, Malaysia, Turkey, Bahrain, Canada, and Pakistan shared valuable insights. It also featured



display stalls by companies and research institutions, contributing to vibrant academic–industry interaction.



National Seminar

Soil Science Society of Pakistan in collaboration with The University of Poonch, Rawalakot successfully organized a National Seminar on "Innovations in Soil Conservation for Enhancing Food Security in Mountainous Areas of Azad Jammu & Kashmir" on June 18, 2025. The event brought together over 180 participants, including farmers, researchers, policymakers, and professionals, with 79 attended online. The seminar focused on the urgent issue of soil erosion and degradation that threatens food security and the livelihoods of communities in the mountainous regions of Azad Jammu & Kashmir. Experts explored innovative soil conservation practices specifically tailored to the region's unique topography and climate.



Among the topics discussed were terracing, contour farming, and agroforestry, which are vital techniques for managing soil erosion in mountainous landscapes. These practices, along with climate-smart agriculture strategies, were emphasized to ensure long-term food resilience in the region. Chief Guest of the event, Prof. Dr. Abdul Rauf, Registrar, UPR, Rawalakot, highlighted the importance of Soil Science in the face of climate change and its alignment with the UN SDG Zero Hunger. The seminar also featured presentations from notable experts including Dr. Saiqa Andleeb, Department of Zoology, UAJK, Dr. Qaisar Hussain, PMAS-UAAR, Rawalpindi,



Dr. Humair Ahmed Malik, LRRI, NARC, Islamabad, and Dr. Sardar Muhammad Rafique Khan, Climate Change Cell, AJK, EPA. Their contributions focused on practical solutions and case studies that showcased the importance of sustainable agricultural practices, climate adaptation, and soil conservation. In the end,

Dr. A. Khaliq, Vice-President of the Soil Science Society of Pakistan, and Dr. Aqila Saheen, Chairperson, Department of Soil & Environmental Sciences, also gave the vote of thanks.

World Environment Day 2025 Celebrations

World Environment Day 2025 was celebrated with full zeal at various academic and research institutions across the country. Soil Science Society of Pakistan collaborated with multiple institutes for the celebrations. Few glimpses of the event are as follows;

PMAS-Arid Agriculture University Rawalpindi

World Environment Day was celebrated on June 3, 2025, at the Institute of Soil & Environmental Sciences, PMAS Arid Agriculture University, Rawalpindi. The event, held under the global theme "Ending Plastic Pollution" and promoted with the slogan #BeatPlasticPollution, included an awareness walk, cake-cutting ceremony, and a seminar. It was jointly organized by the Department of Environmental Sciences, PMAS-AAUR, and the Institute of Urbanism, Islamabad, to raise awareness about plastic waste and encourage sustainable environmental practices.



The Islamia University of Bahawalpur (IUB)

The Department of Soil Science, Institute of Soil and Water Resources (ISWR), The Islamia University of Bahawalpur (IUB), celebrated the Soil Environment Day 2025. The faculty and students collectively pledged to combat plastic pollution, recognizing its harmful impact on ecosystems, human health, and climate.



MNS - University of Agriculture Multan

The Department of Soil and Environmental Sciences at MNS University of Agriculture, Multan, celebrated Soil Environment Day with a seminar highlighting the importance of environmental protection. Speaking on the occasion, Chairman of Department, Prof. Dr. Tanveer-ul-Haq shared the department's ongoing efforts to promote eco-friendly practices through research, education, and awareness. Chief Guest of the event, Prof. Dr. Ishtiaq Ahmed Rajwana, Vice Chancellor, underscored the need for environmental conservation, calling it both an individual and collective responsibility.



EPD Punjab and BZU Multan

An impactful event was organized by the Environment Protection Department Punjab at District Council Hall (Raza Hall), Multan. The event was graced by Mr. Amir Kareem Khan (Commissioner Multan) and Mr. Waseem Hamid Sindhu (Deputy Commissioner), who delivered inspiring speeches emphasizing collective responsibility to combat plastic pollution. Prof. Dr. Muhammad Arif Ali (Chairman) and Dr. Muhammad Dawood Mian from the Department of Environmental Sciences, BZU Multan, proudly represented BZU. A large number of participants from academia, civil society, NGOs, media, and students pledged to work together for a sustainable and plastic-free future.



MNSUAM Launches Mobile Laboratory

As a unique initiative, Muhammad Nawaz Sharif University of Agriculture, Multan has established a mobile water and soil testing laboratory in collaboration with a private industry. Vice Chancellor of MNS-University of Agriculture, Multan, Prof. Dr. Ishtiaq Ahmad Rajwana, inaugurated the laboratory. This project is funded by EMC Crop Sciences for a period of two years, with Dr. Umair Riaz, Assistant Professor, leading the initiative on behalf of the university, while Mr. Naveed Zaman Ansari, GM EMC Sciences, is leading it from the EMC Sciences side. The objective of this project is to provide free soil and water analysis to farmers at their doorstep. On this occasion, members of the Multan industry, President of the Soil Science Society of Pakistan, Dr. Azeem Khalid, Dr. Zahir Ahmad Zahir (Director ORIC, University of Faisalabad), Prof. Dr. Tanveer-ul-Haq, Prof. Junaid Ali Khan, Prof. Shafqat Saeed, and other faculty members were also present.



Bridging Science and Practice: Field Days

Farmers' Field Day in Sindh

A Farmer Field Day was held at Goth Kamal Buriro under the joint FAO-SAU project "Transforming the Indus Basin with Climate Resilient Agriculture and Water Management". Addressing the event, Dr. Altaf Ali Siyal, Vice Chancellor of Sindh Agriculture University (SAU), Tandojam, emphasized the dire impact of low rainfall and rising temperatures, turning Sindh into an arid zone and threatening the province's economic stability. Dr. Ghulam Murtaza Jamro, Project Focal Person from SAU, highlighted Sindh's status as the most climate-affected province in Pakistan, calling for increased efforts by scientists and institutions to support farmers with knowledge and tools for resilience. FAO Agronomist, Dr. Ghulam Murtaza Arain underscored the success of Farmer Field Schools (FFS) in promoting climate smart techniques like efficient irrigation, soil fertility management, and sustainable cropping patterns. Technical contributions by experts including Dr. Zahoor Ahmed Soomro, Dr. Saleem Masih Bhatti, Dr. Qamaruddin Jogi, and others

further reinforced the need for science-driven innovation to combat the growing threat of climate change. Another Farmers' Field Day was also held at Goth Ajeeto Mal, where experts continued to guide growers on adaptive practices.



Farmers' Field Days in Punjab

Four Farmer Field Days (FFDs) were organized under the ICARDA-USDA project "Fertilizer Right Pakistan" to demonstrate efficient and sustainable fertilizer technologies in wheat fields across Kotli Matwaliyan, Tatly Mali, Lalupur Bangla, and Aimanabad in District Gujranwala. These events aimed to educate farmers on the benefits of optimized fertilizer use for improved crop productivity and soil health. The field days were attended by ICARDA officials and scientists from the LRRI, IPEP, SSRI institutes of NARC, including Dr. Muhammad Imtiaz, Country Manager, ICARDA explained the role of ICARDA and project's objectives, and Dr. Sagheer Ahmad, Director/Project Incharge, shared an overview of ongoing activities and expected outcomes.



Dr. Sair Sarwar, focal person of the project, hosted the events and emphasized the importance of site-specific fertilizer management. Dr. Munazza Yousra being core



team member highlighted the role of biozote and humic acid in enhancing wheat yield while reducing chemical inputs. Other participating scientists, including Dr. Shahbaz, Dr. Waqar, Hafiz Muhammad Imran and Dr. Sabir and officials from extension department, also shared their technical knowledge and engaged with farmers, making the events a productive platform for technology transfer and farmer-scientist collaboration.

Participation in Foreign Training

A prestigious international training titled "Improving Mechanistic Understanding of Greenhouse Gas Emission and Measurement Techniques" was successfully held at University of Geisenheim, Germany, in June, 2025. The program was approved and generously funded under the joint DAAD project through the German-Pakistan Exchange Program 2024–2025. Experienced researchers and teachers, including Dr. Munazza Yousra (NARC), Dr. Tahir Shahzad (UAF), Dr. Umair (MNSUAM), Mr. Zia-ur-Rehman (NUST) along with PhD scholars Mr. Moaz, Ms. Uzma, and Ms. Alishba, proudly represented Pakistan, in this advanced training. The program focused on enhancing technical expertise in climate change research, particularly in the areas of greenhouse gas emissions and state-of-the-art measurement techniques. This collaborative effort has significantly contributed to strengthening academic and research ties between Germany and Pakistan while building critical capacity to address pressing environmental challenges.



Promotions/ Appointments/ Postings

Dr. Inayatullah Rajpar, currently serving as Dean of the Faculty of Crop Production at Sindh Agriculture University, Tandojam, has been honored with the prestigious title of Meritorious Professor. This recognition reflects his outstanding academic contributions, leadership in agricultural research, and long-standing service in higher education.



Dr. Tariq Sultan has been promoted from the position of Principal Scientific Officer to Chief Scientific Officer in recognition of his dedicated service and significant contributions. He is presently serving at the Land Resources Research Institute, National Agricultural Research Centre (NARC), Islamabad, where he continues to play a pivotal role in advancing research and development in the field of land resources.



Dr Sair Sarwar, Principal Scientific Officer, has been posted as Director, Agri Polytechnic Institute, NARC, Islamabad. Prior to this, he served as Program Leader of the Soil Biology Program at the Land Resources Research Institute, NARC. His new role is expected to further strengthen the institute's academic and technical training programs.



Prof. Dr. Sher Muhammad has been appointed as the Dean of the Faculty of Sciences at Allama Iqbal Open University (AIU), Islamabad. His tenure will be for a period of three years or until the date of his superannuation, whichever comes earlier. Dr. Sher brings with him a distinguished academic and professional background, and his appointment is expected to further strengthen the university's commitment to scientific research and innovation.



Ms. Sadia Sultana, is posted at Soil Bacteriology Section, AARI, Faisalabad as Scientific Officer after returning from the PhD study leave. Earlier she was nominated for PhD study from University of Agriculture, Faisalabad. She is a learned lady, and department will get benefit from her skills.



Dr. Muhammad Aftab, Scientific Officer (Soil Science/ BS-17) on regular basis, Soil Chemistry Section, AARI, Faisalabad, is hereby transferred and posted at Pesticide Quality Control Laboratory, Faisalabad against

a vacant post on 30-06-25 in public interest. In addition to his duties as researcher, he performed the duties as Farm manager and Technical Manager in ISO/IEC 17025:2017 accredited Laboratory.



Dr. Farmanullah Khan has been promoted to the post of Director (BPS-19) in the Directorate of Soil and Water Conservation, Agriculture Department, Government of Khyber Pakhtunkhwa. He has been serving in the department in various positions since he joined service in 2008.



Dr. Saleem Maseeh Bhatti, Associate Professor, Department of Soil Science and SSSP Councilor – Sindh, has been entrusted with the Additional Charge of Director, Quality Enhancement Cell (QEC) at Sindh Agriculture University, Tandojam.



Dr. Muhammad Saleem Sarki, Professor, Department of Soil Science, has assumed the Additional Charge of Director, Business Incubation Centre (BIC) at Sindh Agriculture University, Tandojam.



Mr. Shakeel Ahmed Babar has joined the duties as as Principal Scientist and Director at Soil Salinity and Reclamation Research Institute (SSRRI), Tandojam.



Dr. Muhammad Adnan, Lecturer (Soil and Environmental Sciences), the University of Swabi, KP-Pakistan, has been appointed as Assistant Professor (BS-19) in the University of Swabi. Dr. Adnan is also serving as Councilor SSSP Kyber Pakhtunkhwa Chapter in EC 2025-26.



Mr. Muhammad Iftikhar has been promoted from Scientific Officer to Senior Scientific Officer. He is currently serving at the Land Resources Research Institute, National Agriculture Research Centre of Pakistan Agricultural Research Council, Islamabad.



Dr. Qudsia Nazir, is appointed as Principal Scientist (BS-19), on contract basis, or a period of five years in Research Wing of Agriculture Department. She is posted at Soil Chemistry Section, Ayub Agricultural Research institute, Faisalabad.



Mr. Ali Afzal has joined the Punjab Agricultural Food and Drug Authority (PAFDA) as senior scientist for a period of three years. He has an experience of ten years in pesticide testing and also worked as a Technical manager in ISO/IEC 17025:2017 accredited Laboratory.



Mr. Ilyas Ahmad has joined the Punjab Agricultural Food and Drug Authority (PAFDA) as senior scientist for a period of three years. He served as a scientific officer Lab at Soil & Water Testing Lab Multan. He performed the duties of Deputy Technical and Quality Manager in ISO/IEC 17025:2017 accredited Laboratory.



From the desk of SSSP, wish them all continued success in their new role.

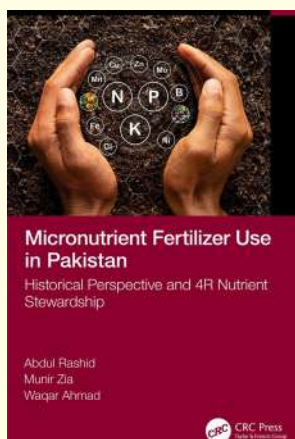
Awards/ Fellowships

HEC Best Book Publication Award

Dr. Abdul Rashid, a past-President and a Fellow of Soil Science Society of Pakistan and former Member (Bio-Sciences) of Pakistan Atomic Energy Commission, has won 2024 Higher Education Commission (HEC) Best Publication Award in the category of Life Sciences (i.e., Biological Sciences, Health Sciences, Pharmacy, Agricultural Sciences and Animal Sciences) for being lead author of the book "Micronutrient Fertilizer



Use in Pakistan: Historical Perspective and 4R Nutrient Stewardship", published by CRC Press (Taylor & Francis Group), Boca Raton, Florida in 2023, (340 pages). This prestigious Research Award carries a handsome amount as cash prize. Dr. Rashid has been actively engaged in research on crop micronutrient nutrition since 1973, primarily at NARC



His farmer-focused technologies for micronutrient fertilizer use have seen wide adoption. Recognized globally and nationally, he has received prestigious awards including the Norman Borlaug Award and Fellowship of the Pakistan Academy of Sciences. Even after retirement, he continues contributing to research on biofortification to address hidden hunger.

PAEC Gold Medal

Dr. Nizamuddin Depar, Principal Scientist/Head of Soil and Environmental Sciences Division, Nuclear Institute of Agriculture Tandojam, received Prestigious Gold Medal Award owing to his outstanding services, from Pakistan Atomic Energy Commission on May 28, 2025.



HEC Postdoctoral Fellowship

Dr. Ghulam Murtaza Jamro, General Secretary SSSP/Professor, Sindh Agriculture University Campus Umerkot, has received an offer letter for a prestigious HEC-funded post-doctoral position at the University of Minnesota Twin Cities, USA. This remarkable achievement highlights his academic excellence, impactful research in soil science, and active engagement with Pakistan's soil science community. Dr. Jamro's continued dedication to scientific advancement, capacity building, and collaborative research makes him a source of inspiration for emerging scholars and professionals in the field.



SSSP congratulates them for this distinction

IUSS Monthly Alert

The IUSS Divisions, Commissions and Working Groups Chairs can now share their publications on the IUSS Alert. Every month, send your publications to the Secretariat and they will be published here. Please do so by the 15 of every month to make sure your articles will be published in the monthly current issue. Let's keep our community posted on the progress of Soil Sciences.

Renewal of SSSP Membership

SSSP membership gives numerous advantages. All soil scientists interested to renew SSSP memberships or become new member are requested to visit www.sss-pakistan.org and following portal;

<https://forms.gle/fs2eAAahGA2Nt83e9>

For further information please contact;

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Retirements

Prof. Dr. Zahir Ahmad Zahir

Soil Science Society of Pakistan (SSSP) honors Prof. Dr. Zahir Ahmad Zahir on his retirement, recognizing his exceptional contributions to soil science over a distinguished career spanning more than three decades. A renowned researcher, educator, and leader, Dr. Zahir is known for his pioneering work in microbial biotechnology and sustainable agriculture, with over 200 publications, two patents, and more than 20,000 citations to his name. He has mentored numerous graduate students, led national and international research projects, and received prestigious awards including the PAS Gold Medal and HEC's Best University Teacher Award. As President of SSSP and Editor-in-Chief of the Soil & Environment journal, he played a transformative role in elevating the society's impact and global visibility. His legacy at the University of Agriculture, Faisalabad as Director of key institutes and Executive Director of the Endowment Fund reflects his lasting influence on academic excellence, institutional development, and policy in Pakistan's agricultural and soil science sectors.



Mr. Muhammad Yaseen

Mr. Muhammad Yaseen retired as Director General (BPS-20), Soil and Water Conservation, Khyber Pakhtunkhwa, after serving in this position for six years. Over the course of his distinguished career spanning more than 37 years, Mr. Yaseen held various key positions within the department. He was honored with numerous awards and accolades in recognition of his contributions, particularly for establishing strong linkages with national and international institutions and academia. During his tenure, several development projects were successfully implemented in collaboration with international development partners i.e. the USAID, UNDP, WFP, ICIMOD etc. He was succeeded by Mr. Muhammad Nazir, who has assumed the charge as Director General, Soil and Water Conservation, Department Government of Khyber Pakhtunkhwa.



Dr. Mubashar Qureshi

Dr. Mubashar Qureshi, Principal Scientist (SF-Zn), Multan, retired from government services on July 4, 2025, marking the end of a commendable career dedicated to the advancement of agricultural research

& development. His exceptional contributions to the Agriculture Department — particularly through his work in both field and laboratory wings of the Soil Fertility Research Institute, Lahore — will be long remembered and deeply valued. Colleagues fondly recall the beginning of his professional journey at the Soil and Water Testing Laboratory, Khanewal, where his cooperation and commitment stood out. His later roles, including his time at the Soil and Water Testing Laboratory in Multan and as a key member of the Regional Inspection Committee, Multan, reflect a career marked by integrity, dedication, and excellence.



SSSP wishes them all the best as they embark on a new journey of post retirement life.

Upcoming Events

Soil Science Society of Pakistan
Proudly Announces
21ST INTERNATIONAL CONGRESS OF SOIL SCIENCE
MAY 05-07, 2026
"Soil Resilience for Sustainable Development"
Rawalakot, Azad Jammu & Kashmir

ABSTRACT SUBMISSION
October 15, 2025
to
January 15, 2026

Jointly Organized by:
Soil Science Society of Pakistan & University of Poonch, Rawalakot, AJ&K

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News and Views for next issue of the 'Soil Science News' may be conveyed to the Editor at munzkhani@parc.gov.pk or submitted to SSSP office bearers..

