

ANNUAL REPORT

SCON

2024-25

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**SOCIETY FOR
CONSERVATION OF
NATURE**

Sustainable Development Goals



Society for Conservation of Nature

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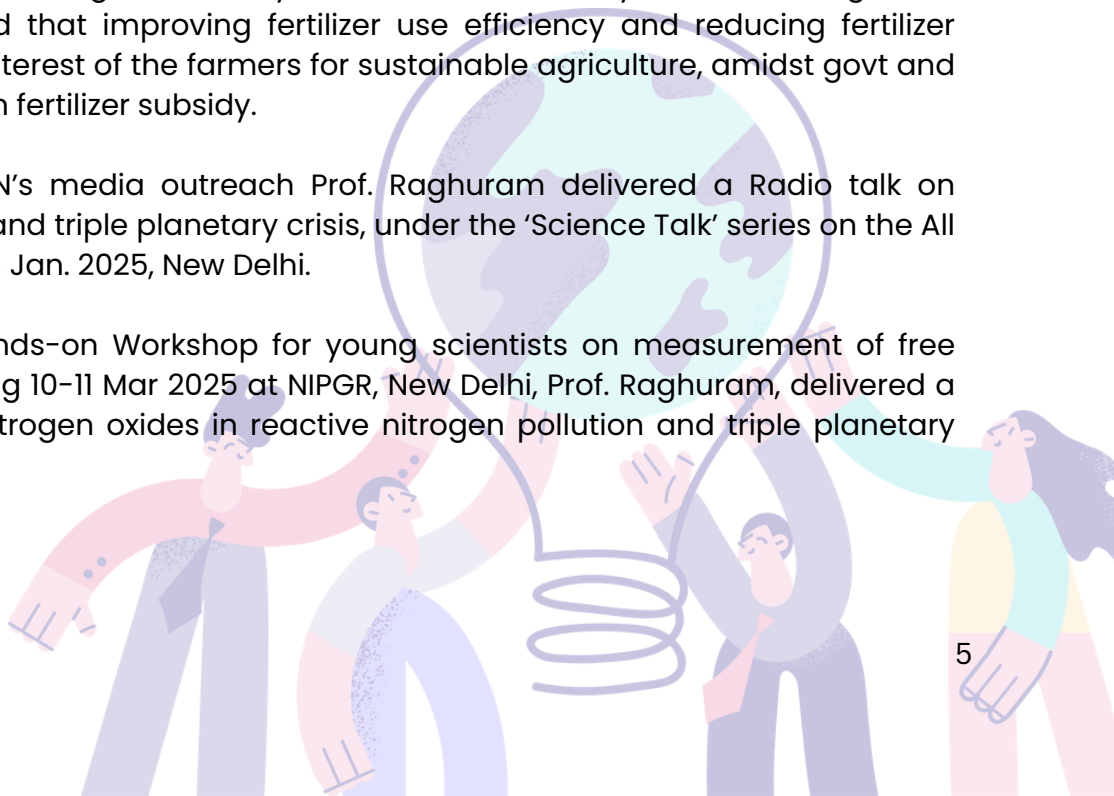
SCON held the following activities during the year 2024-25:

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- Scientific/policy engagement abroad pg 6
- Publications pg 9



Awareness and engagement with the national civil society

1. In recognition of the work of SCON in the field of sustainable agriculture and climate change, the Centre for Science and Environment, New Delhi, invited Prof. Raghuram as a resource person for two of its training programmes held during this year at the Anil Agarwal Environment Training Institute, Nimli, Rajasthan. He lectured on 'Nitrogenous emissions in Agriculture' during the CSE-AAETI Climate week training programme on 'Towards Climate-Resilient Agriculture' during 15-16 Oct, and also earlier during the CSE training cum workshop on 'Framing Agriculture-Climate Connections' during 21-23 Aug, 2024.
2. In an effort to expand the interdisciplinary linkages of SCON in the scientific community and civil society, Prof. Raghuram delivered a keynote lecture on 'Crop nitrogen use efficiency for sustainable agriculture - balancing bacterial N-fixation with plant N-assimilation' at the 65th Annual International Conference of the Association of Microbiologists of India (AMI), 14-17 Nov, 2024, at the Guru Jambheshwar University of Science & Technology, Hisar, India. During this visit, he also held an online meeting with Nihkil Goveas, Uday Vaddi and colleagues representing the work of Environmental Defense Fund on climate-smart agriculture in India. This was followed by an online event with the South Asia Nitrogen Hub.
3. Prof. Raghuram presented the work of SCON and SIT on Nutrient management issues for sustainable agriculture & beyond at a civil society workshop on 'Agro-ecological Approaches for Just Transitions: An Indian Lens' held during 12-14 Dec, 2024 at the USO House, New Delhi.
4. Prof. Raghuram delivered a plenary lecture on 'Nutrient management for sustainable agriculture and nutritional security' at the AIPSN Conference during 27-30 Dec, at the West Bengal University of Animal and Fishery, Sciences, Belgachia, Kolkata. He argued that improving fertilizer use efficiency and reducing fertilizer demand is in the interest of the farmers for sustainable agriculture, amidst govt and farmer concerns on fertilizer subsidy.
5. As a part of SCON's media outreach Prof. Raghuram delivered a Radio talk on Nitrogen pollution and triple planetary crisis, under the 'Science Talk' series on the All India Radio on 30th Jan. 2025, New Delhi.
6. As a part of a hands-on Workshop for young scientists on measurement of free radicals, held during 10-11 Mar 2025 at NIPGR, New Delhi, Prof. Raghuram, delivered a keynote talk on 'Nitrogen oxides in reactive nitrogen pollution and triple planetary crisis'.



Science-led environmental action with Govt of India

1. Prof. Raghuram was an invited Panelist at an interdisciplinary session on 'Bold Targets and Breakthroughs for Climate Resilience' at the Global Bio India conference held by the Govt of India between 12-14 Sept 2024 at Pragati Maidan, New Delhi, India. He spoke on sustainable nitrogen and nutrient management for climate change and sustainable development and was very well received.
2. India's roadmap on nitrogen management, to which Prof. Raghuram actively contributed as a member of the Interministerial National Nitrogen Steering Committee, was well received by the UNEP working group on nitrogen. The tenure of this interministerial committee expired during this year and efforts to revive it are in progress, to guide the national policies and actions on nitrogen management.



Prof. N. Raghuram at the Global Bio India conference held by the Govt of India between 12-14 Sept 2024 at Pragati Maidan, New Delhi, India



Scientific/policy engagement abroad

1. During the Global Soils Conference held at the NASC complex, New Delhi during Nov 19-22, Prof. Raghuram presented Prof. Himanshu Pathak with the YP Abrol Memorial Award. Later during this conference, Prof. Raghuram gave a lecture on 'Nutrient pollution, biodiversity, nutrient use efficiency and nutrient recycling for sustainable agriculture', based on which he was invited to contribute a book chapter.
2. On the invitation of the World Bank, Prof. Raghuram attended its 'World Soils Day' event on 5th Dec. 2024. He was able to interact with several stakeholders from the World Bank, ICRISAT and other international bodies, Indian civil servants and scientists from the central and state govt bodies. Several practical aspects and challenges of sustainable nutrient management were discussed.
3. SCON and SIT were privileged to facilitate the work and stay of Prof. Eric Davidson from the University of Maryland during Jan-May 2025, as he was hosted as the Indo-US, Nehru-Fullbright distinguished senior scholar by Prof. Raghuram at Guru Gobind Singh Indraprastha University. His tenure and work in India generated considerable interest in SIT on India's pioneering efforts towards green ammonia production on a large scale, mainly as a part of the energy transition towards green hydrogen, but also as a potential fertilizer. Profs. Raghuram and Eric Davidson were able to visit ACME and interact with other players in the field. They also gave seminars at the Centre for Energy, Environment and Water (CEEW), New Delhi, in which Prof. Raghuram spoke on 'Nutrient management for nutritional security & sustainable development' on 18 Feb. 2025.
4. As a part of our continued commitment towards the outcomes of the completed GEF-UNEP-INI-CEH project 'Towards INMS' that ended in 2023, Prof. Raghuram attended multiple editorial meetings online with INMS partners throughout the year as one of the editors of the forthcoming book on International Nitrogen Assessment. All the chapters (including regional chapters such as one on South Asia) have been peer reviewed, edited and are being finalized for publication with the Cambridge University Press.



Scientific/policy engagement abroad



Prof. Raghuram spoke on 'Nutrient management for nutritional security & sustainable development' at the Centre for Energy, Environment and Water (CEEW), New Delhi, on 18 Feb. 2025.

Scientific/policy engagement abroad

5. Dr. Alex Pires from the UN Environment Programme, Nairobi, visited the SCON and SIT office at NASC on 09 April 2024. He discussed ongoing work on 'Management of nutrients and micro-plastics from wastewater to prevent eutrophication and plastic pollution in Delhi'. He was particularly interested to know how to engage with the government stakeholders to take up these findings and carry forward the necessary interventions for sustainable management of water and nutrients in Delhi and beyond.
6. Prof. Raghuram joined the adhoc group of UNEP-accredited S&T Major Stakeholders to promote the need for an intergovernmental Science Policy Panel on Chemicals, Waste and Pollution. He has attended some of its meetings online and have also interacted with the main organizers in person during his visit to Nairobi in May 2024.
7. ISCON was represented for the first time (by Prof. Raghuram) at the 69th United Nations Civil Society Conference held at Nairobi during 9-10 May., 2024. It is a premier event at the United Nations that brings together academia, senior UN officials, national permanent representatives to UN, prominent international civil society organizations, youth, public opinion makers and media to discuss issues of global concern. This year's conference was the first to be ever organized in Africa, in the runup to the Summit of the Future held in Sept. 2024 at the UN Headquarters in New York. The two-day conference at Gigiri, Nairobi titled "In support of the Summit of the Future", attracted over 1000 participants and had many plenary and parallel sessions/workshops over two days on diverse themes. They included, Sustainable development and financing for development, International Peace and Security, Science, technology and innovation and digital cooperation / The Global Digital Compact, Youth and Future Generations / The Declaration on Future Generations, and Transforming global governance. A recurring point in discussions was the poor social connect between knowledge producers/providers (such as scientists, teachers, technologists), policy makers and the civil society, the need for establishing strong linkages between them on all sustainability issues, leveraging technology. Prof. Raghuram made many interventions related to sustainable nitrogen and nutrient management, need to build systems for evidence-based policy, need to incentivize scientists to go beyond primary research and highly specialized journal publications to secondary, tertiary and higher levels of aggregation of scientific knowledge for policy inputs, mechanisms to prevent parachute science and build local capacity for knowledge production and evidence-based policies, leveraging climate financing or colonial reparations to enhance S&T infrastructure and R&D funding, role of journals to bridge the documentation gaps between scientists and policy makers, etc. Many of them were recorded and well received. More importantly, he was able to meet some important functionaries of the UNEP involved in the ecosystems division and other related branches to understand the emerging funding opportunities and explain SCON's areas of expertise for any future projects.

Scientific/policy engagement abroad

8. Prof. Raghuram and Prof. Adhya attended and presented our Indian work related to agricultural nitrogen use efficiency in India and South Asia at the XXII International Nitrogen Workshop, 17-21 Jun., Univ. of Aarhus, Aarhus, Denmark and interacted extensively with experts across countries/disciplines.
9. Dr. Arti Bhatia organized field training for farmers in the Farmers' field of Mumtajpur village cluster, Pataudi block on use of nano urea and biofertilizers for reducing N losses and improving N use efficiency on 17th July 2024.
10. Prof. Raghuram attended several steering committee meetings of the International Nitrogen Initiative as its Chair Emeritus. Among other things, India was applauded for its excellent organisation of the INI's International Nitrogen Conference at GGSIPU in Feb 2024 in New Delhi.
11. Prof. Raghuram virtually attended the meetings of the UNEP working group on nitrogen, which was formed as a follow-up of the India-led UNEP resolution (UNEA 4/14) on Sustainable Nitrogen Management. India's roadmap on nitrogen management prepared by Govt of India with inputs of Prof. Raghuram was well received by the working group.



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