



8th Sustainable Phosphorus Summit

30th September - 3rd October 2025, Accra, Ghana

Summit Programme



Contact us: sps8@ceh.ac.uk

#SPS8Africa



About

The Sustainable Phosphorus Summit (SPS) is an established global series focused on phosphorus sustainability. Since its inception in 2010, the SPS series has been held every 2-4 years on all continents – except Africa.

The SPS is an international, multi-stakeholder conference to advance research, dialogue, networking, and action involving the sustainable use of phosphorus.

The 8th Global Sustainable Phosphorus Summit (SPS8) will be held in the continent of Africa for the very first time.

SPS8 will focus attention on priority actions for achieving sustainable phosphorus management in Africa and globally. The summit will enable communities and sectors to work together fostering new opportunities for collaboration, innovation, and, capacity-development.

SPS8 is convened by The Council for Scientific and Industrial Research (CSIR) - Ghana, The Forum for Agricultural Research in Africa (FARA), The UK Centre for Ecology & Hydrology West Africa Office, Lancaster University, and Rothamsted Research. CSIR leads a Local Organising Committee, with support from our International Expert Working Group.

The SPS8 Team comprises:

20 members of organising committees

38 organisations

20 countries represented

To learn more about the SPS8 Team visit the [summit website](#).



#SPS8Africa

Global challenges

1 Phosphorus is critical in supporting global food security

How can we improve the phosphorus use efficiency in food production systems?



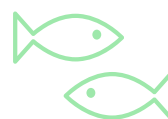
2 Access to phosphorus is varied across the world and we need to improve access and benefits where needed, e.g. Africa

How can we address the imbalance in phosphorus fertiliser use?



3 Phosphorus pollution of water can result in biodiversity loss and human health impacts

How can we reduce the transfer of phosphorus from land to water and manage/mitigate its effects?



4 There are complex interactions between phosphorus, nitrogen, carbon and climate

We must increase our understanding and awareness of this, developing integrated mitigation and adaptation plans.



5 Sustainable mining and recycling are essential to preserve phosphorus for future generations

We must balance the supply of new phosphorus from mining, with increased attention to varied recycling streams.



6 We need to improve our governance of phosphorus locally and globally

We need to explore new opportunities for effective governances at multiple levels to help enact the transformations required.



See: Kangara et al., 2025. Towards a sustainable phosphorus network in Africa. Soil Advances, (4), <https://doi.org/10.1016/j.soilad.2025.100067>



Summit programme

■ Day 0 Monday 29th September

18:30 – 20:00 Registration opens at Alisa Hotel & Networking

■ Day 1 Tuesday 30th September

08:00 – 08:30 Morning coffee & registration (Welcoming cultural performance by Odikro Royals)

Opening MC **Priscilla Serwaah Gyasi** ([UK Centre for Ecology & Hydrology West Africa](#))

08:30 – 08:35 Welcome Address given by [Dr Collins Tay](#) ([Council for Scientific & Industrial Research Ghana CSIR](#)), Chairman of the Local Organizing Committee

08:35 – 08:40 Address by [Prof Harry Dixon](#), Associate Director of International Research and Development (UKCEH)

08:40 – 09:00 Background and Journey to SPS8 by [Prof Phil Haygarth](#) ([Lancaster University](#)), [Prof Bryan Spears](#), [Adelaide Asante](#) & [Erica Zaja](#) ([UK Centre for Ecology & Hydrology](#))

09:00 – 09:10 Cultural performance by Odikro Royals

09:10 – 09:20 Solidarity messages video documentary (UNEP, APNI, CSIR, FARA, DBG, Africa Soil Hub, Soil Science Society of Ghana)

09:20 – 09:40 Keynote Lecture: “Sources and Sustainable Management of Phosphorus for Food Security in Africa” by [Dr. André Bationo](#) ([International Fertilizer Development Centre IFDC](#))

Dr Bationo is a citizen of Burkina Faso and holds a PhD degree in Soil Chemistry from Laval University (Quebec, Canada). He is now the technical adviser of the President and Chief Executive Officer of the International Fertilizer Development Center (IFDC). He served as Director of Alliance for a Green Revolution in Africa (AGRA) West Africa. Prior to the position at AGRA, he was the Coordinator of the African Network for Soil Biology and Fertility (AfNet) at the Tropical Soil Biology and Fertility Institute (TSBF) of the International Center for Tropical Agriculture (CIAT) in Nairobi, Kenya. He has also served as Principal Soil Scientist seconded to International Crops Research Institute for Semi-Arid Tropics (ICRISAT) by the International Fertilizer Development Center (IFDC). Dr. Bationo has published over 300 papers in refereed journals, 10 books, and numerous book chapters. Dr Bationo is part of several technical boards, such as board chair of the Soil Research Institute in Ghana and member of the Academy of Sciences of Guinea. In recognition of his exemplary contribution to research and development, Dr. Bationo has received 10 national and international recognitions and awards such as the Africa Food Prize, the UNESCO-Equatorial Guinea International prize for outstanding research in life sciences and the prestigious Kwame Nkrumah continental award from African Head of States in recognition of his outstanding achievements in science and technology.



Please note that changes may be made to the schedule

09:40 – 09:45 Cultural performance by Odikro Royals

09:45 – 09:55 Opening address by **Hon. Eric Opoku, Minister of Food and Agriculture Ghana (MOFA)**

09:55 – 10:15 End of opening programme and photo session

10:15 – 11:00 Coffee and snacks

MC: [Malika Mezeli \(Lancaster University\)](#)

11:00 – 12:00 Session 1: “Phosphorus & Food Security: Increasing Phosphorus Use Efficiency in Food Production Systems” chaired by [James Elser \(Arizona State University and Sustainable Phosphorus Alliance SPA\)](#) and [Adelaide Asante \(UK Centre for Ecology & Hydrology\)](#)

Highlight talk by Kwame Agyei Frimpong (University of Cape Coast and African Plant Nutrition Institute APNI)

Kwame is a Senior Scientist at the African Plant Nutrition Institute in Morocco. He has also been a Professor (Soil Fertility) at the University of Cape Coast for over 20 years with a research focus on Biochar, Precision Agriculture, and Integrated Soil Fertility Management. He has widespread experience collaborating with national and international organisations. He serves as technical member of the Local Organising Committee for SPS8, as well as liaison between the LOC and the International Coordination Team.



- Lightning talks and panel discussion with:
 - Matthew Chidozie Ogwu (Appalachian State University, USA)
 - Jehangir Bhadha (University of Florida, USA)
 - Paulo Sergio Pavinato (University of São Paulo, College of Agriculture Luiz de Queiroz - USP/ ESALQ, Brazil)
 - Eric Mensah (Lancaster Environment Centre, UK)

12:00 – 13:00 Lunch

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MC: [Frederick Otu-Larbi \(Lancaster University\)](#)

13:00 – 14:00 Session 2: “Improving Access and Benefits of Phosphorus Fertilisers” chaired by [Barbara Cade-Menun \(Agriculture and Agri-Food Canada\)](#) and [Kazuyo Matsubae \(Tohoku University\)](#)

Highlight talk by [Kaushik Majumdar \(African Plant Nutrition Institute APNI\)](#)

Dr. Kaushik Majumdar is the Director General of the African Plant Nutrition Institute based in Morocco. In this role, Dr. Majumdar works with a talented multi-national team of professionals leading pan-African R4D initiatives to enhance the performance of land and crops through innovative management of plant nutrients. He was the Vice President and Coordinator of the Asia and Africa Programs of the International Plant Nutrition Institute (IPNI) before joining APNI. Dr. Majumdar has a Ph.D. in Soil Mineralogy/Soil Chemistry from Rutgers University, U.S.A. His current research interest is in precision crop nutrition for climate resilience and soil health in smallholder production systems, and how better plant nutrition can deliver better human health outcomes. Dr. Majumdar has co-authored over 100 peer-reviewed publications, book chapters, scientific and popular articles. As part of the International Expert Working Group (IEWG) for SPS8, Dr. Majumdar intends to use his long experience in P management in smallholder agriculture in Asia and Africa to help deliver an impactful program.



- Lightning talks and panel discussion with:
 - Nathan Schunk (North Carolina State University, Science and Technologies for Phosphorus Sustainability STEPS, USA)
 - Kwame Agyei Frimpong (APNI, Morocco)
 - Francis Tetteh (CSIR, Ghana)
 - Vincent Aduramigba-Modupe (Obafemi Awolowo University, Nigeria)

14:00 Afternoon coffee and tea

Working group MCs: Phil Haygarth and Bryan Spears

14:00 – 16:30 WORKING GROUPS (choose 1 group):

- 1. Phosphorus Action Plan for Africa** – facilitated by [Adelaide Asante \(UK Centre for Ecology & Hydrology\)](#) and [Kwame Agyei Frimpong \(University of Cape Coast and African Plant Nutrition Institute APNI\)](#)
- 2. Global Phosphorus White Paper** – covering 6 themes – facilitated by [Issy Lewis](#) and [Will Brownlie \(UK Centre for Ecology & Hydrology\)](#)
- 3. Co-writing Early Career article:** Enabling the Next Generation of Sustainable Phosphorus Champions (ECR-led discussion) – facilitated by [Malika Mezeli \(Lancaster University\)](#), [Grace Kangara \(Rothamsted Research\)](#) and [Kasper Reitzel \(University of Southern Denmark\)](#)

17:00 – 19:00 Partners and Sponsors Booth Exposition with Cocktail Reception

Please note that changes may be made to the schedule

■ Day 2 Wednesday 1st October

08:00 – 08:30 Morning coffee

MC: [Erica Zaja](#) ([UK Centre for Ecology & Hydrology](#))

08:30 – 9:30 Session 3: “Reducing Phosphorus Pollution Impacts on Biodiversity and Human Health” chaired by [Maíra Mucci](#) ([Wageningen University and Research](#)) and [Michael Miyittah](#) ([University of Cape Coast](#))

Highlight talk by [Ken Irvine](#) ([IHE Delft Institute for Water Education](#))

Ken has a broad range of multidisciplinary experience working on aquatic ecology, ecological assessment of surface waters, especially lakes and wetlands, and policy and related policies and management. He has been active in research and third level education for four decades. Years. Research has focused on understanding the ecological dynamics of lakes and wetlands, particularly in relation to nutrient enrichment, sediment loads, and other human-induced pressures. Working across a wide variety of ecosystems — from shallow temperate lakes in Europe to small and ephemeral waterbodies and large tropical lakes and wetlands of Africa- he has learned the merits of “knowing your ecosystem”, as well as the reality of applying general principles across different types of waterbodies. A key feature of his work is its interdisciplinary and applied nature, integrating ecological science with governance, policy frameworks, and more recently community-based resource management.



- Lightning talks and panel discussion with:
 - Tallent Dadi (Helmholtz Centre for Environmental Research – UFZ, Germany)
 - Elise Gallois (UK Centre for Ecology & Hydrology and The University of Edinburgh, United Kingdom)
 - Rich McDowell (Lincoln University, New Zealand)
 - Christopher Aura (Kenya Marine and Fisheries Research Institute, Kenya)
 - Oscar Rozas (Norwegian Institute for Water Research, Chile)

9:30 – 10:00 Coffee and snacks

Please note that changes may be made to the schedule

MC: Eric Mensah ([Lancaster University](#))

10:00 – 11:00 Session 4: “Understanding and Mitigating the Interactions Among Phosphorus, Nitrogen, Carbon, and Climate” chaired by Enam Gbekor and [Rich McDowell](#) ([Lincoln University](#))

Highlight talk by Maja Arsic (Commonwealth Scientific and Industrial Research Organisation CSIRO)

Maja is a Research Scientist at CSIRO, Australia’s national science agency. With a background in plant nutrition, environmental science, and experience working on national agricultural policy, she bridges the science-policy interface to accelerate sustainable transitions in agrifood systems. Her recent roles include serving as an advisor for the UN FAO Livestock Environmental Assessment Partnership and as a national STEM Ambassador for Science & Technology Australia. Through her work with a wide range of bioeconomy stakeholders and sectors, including aquaculture, water, bioenergy, and livestock industries, Maja designs and delivers pathways towards achieving circularity at local, regional and international scales.



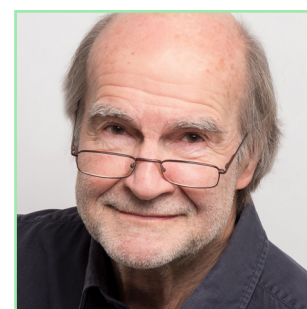
- Lightning talks and panel discussion with:
 - Barbara Cade-Menun (Agriculture & Agri-Food Canada, Canada)
 - Geneviève Metson (Western University, Canada)
 - Coffi Leonce Geoffroy Sossa (National Water Institute, University of Abomey-Calavi (INE/UAC), Benin)
 - Kazuyo Matsubae (Tohoku University, Japan)
 - Keshan Lighty (North Carolina A&T State University, USA)

MC: [Elise Gallois](#) ([UK Centre for Ecology & Hydrology](#) and [The University of Edinburgh](#))

11:00 – 12:00 Session 5: “Sustainable Sourcing of Phosphorus for Future Generations” chaired by [Geneviève Metson](#) ([Western University](#)) and [Vincent Logah](#) ([Kwame Nkrumah University of Science & Technology](#))

Highlight talk by Ludwig Hermann (European Sustainable Phosphorus Platform ESPP and Proman Management GmbH)

With over 35 years’ experience working as a technology, sustainability and innovation manager, Ludwig is the co-founder and former CEO of ASH DEC Umwelt AG, the co-inventor of technologies for decontaminating minerals and ash, and for efficiently converting renewable energy resources. He has authored and co-authored numerous patents, reports, papers and book chapters on the recovery of critical materials, nutrient recycling and renewable energy. He currently works as a senior researcher and advisor at Proman Management GmbH in Vienna and serves as secretary and board member of the European Sustainable Phosphorus Platform (ESPP) in Brussels. He sits on the Steering Committee of the IWA Resource Recovery Cluster in London and is a member of expert groups focusing on climate, soil and water protection, and the extraction and management of critical raw materials and NORM residues. In this capacity, he represents the European Commission, the IAEA, the UNECE and the UN Environment Programme.



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- Lightning talks and panel discussion with:
 - Will Brownlie (UKCEH, UK)
 - Jacob Jones (STEPS, USA)
 - Grace Kangara (Rothamsted Research, UK)
 - Seth Robinson (Lancaster University, UK)

12:00 – 13:00 Lunch

MC: [Issy Lewis](#) (UK Centre for Ecology & Hydrology)

13:00 – 14:00 Session 6: “Towards Effective Global Governance of Phosphorus” chaired by [Dana Cordell](#) (University of Technology Sydney) and [Oluwole Fatunbi](#) (Forum for Agricultural Research in Africa FARA)

Highlight talk by [Ning Liu](#) (UN Environment Programme Global Partnership on Nutrient Management GPNM)

Ning has been managing UNEP’s nutrient management portfolio since December 2023, providing secretariat services to the UNEP Working Group on Nitrogen and the Global Partnership on Nutrient Management. In this role, Ning and his team are currently assisting countries in developing national action plans for sustainable nitrogen management. Dr. Liu has twenty years of experience in implementing multilateral environmental agreements. From 2016 to 2023, he played a pivotal role in UNEP’s Northwest Pacific Action Plan (NOWPAP). Between 2009 and 2014, Ning directed the UNEP Asia Pacific Regional Enforcement Network Project, addressing the trans-boundary movement of harmful chemicals and waste. With a background in environmental science and policy, Ning continues to contribute to global environmental sustainability efforts.



- Lightning talks and panel discussion with:
 - Chris Thornton (European Sustainable Phosphorus Platform ESPP)
 - Jordan Roods (Institute for Sustainable Futures, University of Technology Sydney, Australia)
 - Bryan Spears (UKCEH, UK)
 - Linda May (UKCEH, UK)
 - Malika Mezeli (Lancaster University, UK)

14:00 Afternoon coffee and tea

Working group MCs: Phil Haygarth and Bryan Spears

14:00 – 16:00 WORKING GROUP TIME (including **African Sustainable Phosphorus Network Side Event** taking place in WG1)

16:00 – 16:30 Working Group Facilitators Report Back on Progress

17:00 – 18:30 Poster Session

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■ Day 3 Thursday 2nd October

08:00 – 08:30 Morning coffee

MC: Elise Gallois

8:30 – 10:00 African Plant Nutrition Institute (APNI) sponsored Session: “Enhancing Global Phosphorus Efficiency Along the Mining-Use-Recovery Pathway”

08:30 – 08:35 Moderator’s Opening by [Kaushik Majumdar](#): An integrated overview of P mining, use, and recovery opportunities and challenges, with emphasis on efficiency gains.

08:35 – 08:50 Presentation by [Gerald Steiner](#) ([Danube University, Krems](#)): Global phosphate demand and supply- A food security nuanced future outlook

08:50 – 09:05 Presentation by [Benzaazoua Mostafa](#) ([UM6P](#)): Innovations in efficient phosphate mining & processing

09:05 – 09:15 Presentation by Rob Mikkelsen: Global fertilizer P use & agronomic efficiency

09:15 – 09:25 Presentation by Leonardus Vergutz ([OCP Nutricrops](#)): Optimizing global P management with 4Rs.

09:25 – 09:35 Presentation by [Shamie Zingore](#) ([African Plant Nutrition Institute](#)): Innovating locally adapted solutions for sustainable P use in Africa

09:35 – 09:55 Discussion & Synthesis

09:55 – 10:00 Concluding Remarks by [Kaushik Majumdar](#)

10:00 – 10:30 Coffee and snacks

Working group MCs: Phil Haygarth and Bryan Spears

10:30 – 12:00 WORKING GROUP TIME

12:00 – 13:00 Lunch

13:00 – 14:00 Working Groups final syntheses and next steps – MCs interviews facilitators

14:00 Afternoon tea and coffee

Closing MC: Priscilla Serwaah Gyasi ([UK Centre for Ecology & Hydrology](#) West Africa)

14:00 – 14:30 CLOSING and collective pledge on next steps for sustainable phosphorus management in Africa and Globally – Dana Cordell, Jim Elser, Michael Miyittah (IEWG co-chairs)

14:30 – 15:00 A communique on the Establishment of the African Sustainable Phosphorus Network- Executive Director of FARA/[Oluwole Fatunbi](#)

Please note that changes may be made to the schedule

15:00 – 15:15 Closing Statement from International Organizing Committee – Phil Haygarth, Bryan Spears, Adelaide Asante, Erica Zaja, [Hilary Barraclough](#)

15:15 – 15:30 Closing Statement from Local Organising Committee – Kwame Frimpong and Enam Gbekor

15:30 – 17:00 Venue open for side meetings or working groups

19:00 Celebration dinner with live music and entertainment

■ **Day 4 Friday 3rd October**

FIELD TRIPS (all day) – delegates will have 3 options to choose from:

- [Accra Compost and Recycling Plant \(ACaRP\)](#)
- [Volta River Authority \(VRA\)](#)
- [Cocoa Research Institute Ghana \(CRIG\)](#)

Please note that changes may be made to the schedule

Sustainable phosphorus management inclusivity principles

SPS8 has inclusivity at its heart, recognising that delivering the benefits of sustainable phosphorus use from the local to global stages requires urgent actions across communities, research, industry, policy makers and the public.

1 Designing solutions based on inclusive participation across stakeholders

The voices of all people and communities are fairly represented in the design of solutions to deliver sustainable phosphorus management, including those from marginalized groups.

SPS8 is fulfilling this by ensuring inclusive representation at the summit, offering support for participants from low-income countries and early-career researchers to promote equitable participation.

2 Ensuring that benefits are shared equitably from communities to global scales

Sustainable phosphorus management ensures that its benefits reach vulnerable communities while extending positive impacts beyond the immediate scale of intervention.

The outputs of **SPS8** will be widely shared, spanning local to global communities, with a focus on maximizing benefits for vulnerable stakeholders. Materials will be tailored to meet accessibility standards, including providing them in multiple languages.

3 Building capacity across responsible industries and institutions

Capacity development is focused towards the industries, institutions and regulatory bodies responsible for implementing sustainable phosphorus management measures.

SPS8 is fulfilling this by fostering transparent, equitable and respectful dialogue across sectors to prioritise training and knowledge exchange needs, and by disseminating capacity-building materials to relevant bodies.

4 Contributing to a global strategy to ensure sustainable food production in sub-Saharan Africa

Sustainable phosphorus management is a global responsibility essential for advancing food production sustainability and resilience while minimizing losses and damages, both nationally and internationally.

SPS8 is championing this effort by uniting local and international participants, along with Expert Working Groups, to embrace a collective responsibility for producing food sustainably while minimizing environmental harm.

Sponsors



Convenors



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