

Power Plants: Transforming Food, Energy and Water Security through Agriculture

Wednesday 18th September 2024 | 12:00 to 18:30 | Said Business School, University of Oxford









About OpenAg

The 2024 OpenAg Symposium will explore the intricate interplay between food systems, energy security, and water security within the context of sustainable agriculture. This edition will focus on how agricultural practices not only contribute to national and international food security but also to the financial stability of farmers and the broader economic security of nations.

Sustainable agricultural practices that reduce GHG emissions.

Climate change poses a significant threat to both water and energy security, thereby affecting food systems globally. The symposium will underscore the importance of sustainable agricultural practices in reducing greenhouse gas emissions and mitigating the impacts of climate change. By adopting practices that enhance resilience and sustainability, the agricultural sector can play a pivotal role in securing food, water, and energy resources for the future.

The last edition of the symposium discussed the concept of Resilience in sustainable agricultural practices. The 2024 edition will bring together experts, policymakers, and practitioners to share insights and strategies, fostering a holistic approach to transforming food, energy, and water security through sustainable agriculture.



The OICSD advances research on the challenges and opportunities of sustainable development in the Indian subcontinent, bringing disciplines together to address core themes, developing future leaders through scholarships, and translating research into action. Through its conferences and seminars, OICSD has been working to coordinate Oxford's diverse expertise on India and climate change, law and governance, food and water security, health, clean energy, technology, and sustainable cities.

About our Sponsors – UPL (United Phosphorus Limited)

UPL is a global provider of sustainable agriculture products & solutions, with annual revenue exceeding \$5 billion. As one of the top 5 agriculture solutions companies worldwide, its robust portfolio consists of biologicals and traditional crop protection solutions with more than 13,600 registrations. With a presence in more than 130 countries and more than 10,000 colleagues globally, UPL reaches more than 90% of the world's food basket.



UPL is guided by its OpenAg purpose to build a global collaborative network within our industry and beyond to unlock opportunities and outcomes that no single actor could achieve on their own. OpenAg is the first, truly collaborative, global commitment to working with the entire food system –from farmers to producers to consumers – to change the way the industry thinks, works and evolves and deliver positive change. This purpose reflects UPL's mission to Reimagine Sustainability by positioning agriculture as a vital component of global efforts against climate change, particularly realising agriculture's potential in securing Net Zero goals through sequestering greenhouse gases in agricultural soils.

UPL is India's largest producer of crop-protection products, and has initiated the 'UPL sustainability fund' at the OICSD which supports key research and programmes of the Centre.





Our Speakers

Welcome Session



Mr. Sujit Ghosh, Deputy High Commissioner, India

Sujit Ghosh is a career diplomat and belongs to the 2001 batch of the Indian Foreign Service. Prior to joining the High Commission of India in London as Deputy High Commissioner, he was the Consul General of India to Guangzhou from 2018–21. He has also served at India's Missions in Beijing, Tel Aviv and Dhaka. At the Ministry of External Affairs in Delhi, he has served in various capacities including as Under Secretary in the Gulf Division and Americas Division and as Director, East Asia/ China in the East Asia Division.



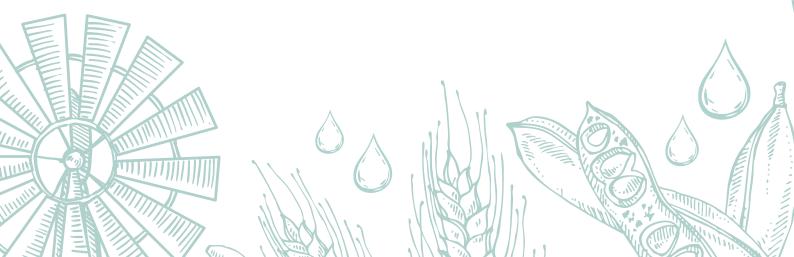
Baroness Royall of Blaisdon, Principal, Somerville College

Jan Royall is currently the principal of Somerville College. She has had a distinguished career in politics, serving as Chief Whip and Leader of the House of Lords (2008–2010) and Shadow Leader (2010–2015). Her earlier roles included senior adviser in the European Commission and head of its Wales office. Appointed to the Lords in 2004, she became a Government Spokesperson in 2005. Since stepping down from frontbench politics in 2015, she remains active in various causes including youth policy, higher education, and women's empowerment. Baroness Royall works internationally on democracy building and is co-chair of the Oxford Inclusive Economy Partnership.



Mr. Jai Shroff, Chairman and CEO, UPL

Jai Shroff is the Chairman & Group CEO of UPL Limited. He is a well-recognized global leader in the Chemical & Agri-Inputs industry with over 30 years' experience in India and internationally. UPL group is focused on strengthening the food security in over 130 countries by offering world class technologies and solutions for sustainable agriculture production. Under Jai's leadership, UPL has been one of the fastest growing agri-input companies in the world with strong presence in the Seeds, Plant Nutrition, Crop protection and Post harvest food preservation value chains. He has driven the transformation of UPL from a largely domestic player to a truly global Indian multinational organization. UPL has a global workforce comprising of more than 25 different nationalities. It operates 35 manufacturing plants in India, Asia, Europe, Latin and North America and serve the farming community across the globe.



Plenary Panel: How does Agriculture Relate to Different Forms of Securities



Mr. Daniel Zeichner MP, Minister of State, UK Government

Daniel was appointed Minister of State for the Department for Environment, Food and Rural Affairs in July 2024.

He previously served as Shadow Environment Minister (2020–24), Shadow Transport Minister (2015–17), and was a member of the Petitions Committee, Transport Committee, and Science and Technology Committee. Daniel was first elected as the Labour MP for Cambridge in May 2015 and has been re-elected in the general elections of 2017, 2019, and 2024.

Daniel is a lifelong environmentalist with a sustained interest in agriculture and food issues. His commitment to these areas led to his appointment as Minister of State. In 2021, as Shadow Minister, he led for the Labour Party in Parliament on the Agricultural Bill and served on the committee scrutinising the Environment Bill. Daniel has also been a vocal advocate for stronger environmental protections, challenging the previous Conservative Government's targets on air and water quality in numerous debates on food security and broader environmental issues.



Ms. Usha Rao Monari, UNDP

Until July 2023, Usha Rao-Monari was the Under-Secretary-General of the United Nations and Associate Administrator of UNDP.

Ms. Rao-Monari has over 30 years of investment experience and has held several senior positions, particularly in the infrastructure area. She previously served as Senior Adviser to Blackstone's Infrastructure Group, as Chief Executive Officer of Global Water Development Partners, a Blackstone portfolio company, and held several senior positions, notably as Director of the Sustainable Business Advisory Group at the International Finance Corporation, part of the World Bank Group.

She has until recently served on the Boards of a number of organisations in the field of sustainable development and has held a number of Board and advisory positions in the areas of water, natural capital, biodiversity, and environment.

Ms. Rao-Monari holds a Master's degree in International Affairs and Finance, from the School of International and Public Affairs/School of Business, Columbia University, New York, a Master's degree in Management Studies, from Jamnalal Bajaj Institute of Management, Mumbai, India, and a B.A. Honors Economics, Delhi University, New Delhi.



Mr UnniKrishnan Divakaran Nair, Commonwealth Secretariat

Unnikrishnan Divakaran Nair serves as the Assistant Director of Climate Change and Sustainability at the Commonwealth Secretariat, where he steers the climate change program, emphasizing key initiatives like the Commonwealth Climate Finance Access Hub, Commonwealth Geospatial Programme for Climate Action, the Commonwealth Climate and Gender Programme, and the Commonwealth Living Lands Charter. His focus extends to 56 small and vulnerable Commonwealth countries. Currently, he leads a dynamic 23-member technical advisory team, actively championing the implementation of climate action targets across Commonwealth member countries in the Asia-Pacific, Africa, and Caribbean regions.

Prior to his role at the Commonwealth, Mr. Nair served at the UNFCCC in Bonn, where he was responsible for National Adaptation Plans for Small Island States and Least Developed Countries. He also held a senior advisory position at GIZ India, managing climate finance and natural resource management under Indo-German bilateral cooperation. With over 21 years of experience in technical project management, policy formulation, climate negotiations, and resource mobilization, Mr Nair is an expert in climate finance and capacity building for low carbon and climate-resilient development, particularly in Small Island Developing States (SIDS), Least Developed Countries (LDCs), and other vulnerable developing countries. His extensive background includes collaboration with civil society, community-based organizations, private sector entities, and bilateral and multilateral agencies across multiple countries.



Dr Caspar Chater, Royal Botanic Gardens

Caspar Chater is a Senior Research Leader in Crops and Global Change at the Royal Botanic Gardens, Kew, and an Honorary Senior Lecturer at the School of Biosciences, University of Sheffield, UK. He is currently working to improve bean and soybean water deficit resilience and has interests in harnessing Crop Wild Relatives and Indigenous crops to diversify agriculture and enhance crop abiotic stress responses in the face of the climate emergency. He also leads a Defra-funded project with World Forest ID to develop global traceability tools for forest risk commodities such as soybean and cocoa which will support deforestation regulations and future food crop supply chain transparency. His translational approaches to improving legume drought responses won him the Newton Prize Mexico 2018 and the Rank Prize Nutrition Award 2020.



Dr. John Ingram, University of Oxford

Dr Ingram specializes in food system conceptualization, actor interactions, and system resilience. With a background in soil science, he has led international research projects on global environmental change and food systems across Europe, Asia, Africa, and the Caribbean.

Ingram co-leads the Foresight4Food initiative and the Interdisciplinary Food Systems Teaching and Learning programme (IFSTAL), while also coordinating the UK Global Food Security programme. An Associate Professor at Oxford's School of Geography and Senior Research Fellow at Somerville College, he has extensive experience collaborating with international organizations, national agencies, NGOs, and businesses in the food sector.

Water Security and Agriculture (Nelson Mandela Lecture Theatre, SBS)



Dr Carole Dalin, UCL

Carole Dalin is a Research Scientist at the French National Center for Scientific Research (CNRS) based in the Ecole Normale Superieure in Paris. She is an Associate Professor in Sustainable Food Systems at the University College London (UCL), since August 2021. Dr. Dalin leads a Starting Grant funded by the European Research Council on solutions for sustainable and healthy food systems, evaluating the impacts of global crop and livestock production on climate, water and biodiversity as well as human health. She leads the Sustainable Food Systems research team at the Institute for Sustainable Resources of UCL.

She joined the Institute for Sustainable Resources in August 2016 as a NERC Independent Research Fellow. Her fellowship research focused on the environmental sustainability of global food production and trade. From 2014 to 2016, Carole was a Research Officer at the Grantham Research Institute on Climate Change and the Environment at the London School of Economics. There, she worked on Southern Africa's Hydro–Economy and Water Security (SAHEWS) project with Declan Conway, concentrating on the water–food–energy nexus of Southern Africa, and on the socio–economic implications of climate forecasts, regarding natural resources management in particular. She obtained her Ph.D. in Environmental Engineering & Water Resources and her Certificate in Science, Technology and Environmental Policy at Princeton University.



Dr Celso Moretti (virtual participation), President of Embrapa (Brazilian Agricultural Research Cooperation).

Celso Moretti has a BSc. in agronomy, and a Master's and a PhD degree in plant production. Researcher with Embrapa for 25 years, he has dedicated the last eleven years to public administration. He is an alumnus (2016) of the Harvard School of Government, Harvard University (Cambridge, USA). He was CNPq's fellow from 1999 to 2017. He is Courtesy Associate Professor with the University of Florida (Gainesville, USA) since 2006, and an Honorary Professor at the Universidad Nacional del Santa (Peru) since 2010. He advised Master's and PhD students at the University of Brasilia (UnB) from 2003 through 2017. He is the author of book chapters, editor of technical books, and author and co–author of scientific papers in national and international journals. He has extensive international experience having presented scientific papers, acted as a consultant, and delivered lectures, seminars, and conferences in more than 30 countries. He is currently the President of Embrapa.



Mr. Rupert Simons, Systemiq

Rupert Simons is a partner with Systemiq and leads the Nature–Food platform in Europe. He is an expert on regenerative food systems and has led or co-authored reports on net zero in food, soil health, and regenerative agriculture. Rupert has advised governments and the private sector on food, agriculture and climate issues worldwide. He led a team that costed dietary changes for the National Food Strategy and helped set up Regen10 which seeks to improve understanding and reporting of regenerative agriculture. Rupert was previously CEO of the data and transparency organization Publish What You Fund, a country director for the Tony Blair Institute in Liberia and Ethiopia, and engagement manager at McKinsey & Company. He holds an undergraduate degree on Politics and Economics from the university of Oxford and a Master of Public Administration in International Development from Harvard Kennedy School.



Dr. Timothy Foster, Reader in Water-Food Security, University of Manchester

Dr. Tim Foster is a Reader (Associate Professor) in Water and Food Security at the University of Manchester, Director of the Manchester Environmental Research Institute, and a Global Fellow of the Daugherty Water for Food Global Institute. He has over 10 years of experience developing solutions to water and food security challenges in North America, Europe, Africa and Asia. His current research is focused primarily on the use of Earth Observation and crop-water modelling to improve accounting of agricultural land and water use and its socio-environmental impacts. He collaborates closely with farmers, agribusinesses, governments, and multilateral donors to use insights from his research to develop policies, technologies, and business solutions that strengthen sustainability, resilience, and equity of farming systems and rural economies.



Dr. Daanish Mustafa, KCL

Professor Daanish Mustafa obtained his BA in Geography from Middlebury College, USA, his MA from the University of Hawai'i Manoa, and his PhD in Geography from the University of Colorado.

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He taught at George Mason University in Fairfax, VA, and then at the University of South Florida, St Petersburg, before finding his intellectual home in the Department of Geography. While at King's, he has received the School of Social Science and Public Policy Excellence in Teaching award.

His research has been funded by the Belmont Forum, International Development Research Centre (IDRC), Department for International Development (DfID), Natural Environment Research Council (NERC), National Geographic Society, Royal Geographical Society, and the British Academy.

Daanish was the co-author of the first climate change response strategies for Pakistan, in addition to being the lead author for the United Nations Development Programme (UNDP) in Pakistan's five-year flood response strategy. In addition, he has also undertaken policy-related work with the DfID, International Organization for Migration (IOM), Stimson Centre, and United States Institute for Peace (USIP).



Energy Security and Agriculture (Rhodes House Lecture Theatre, SBS)



Ms. Juliet Davenport, Energy Institute

Climate scientist, renewable pioneer, businesswoman, and environmental entrepreneur, Juliet Davenport has dedicated over two decades to not only advocating for solutions to climate change but actively creating them. With degrees in physics and economics, she founded the UK's first 100% renewable electricity supplier in 1999, marking a significant contribution to the UK's climate action efforts.

As the Chief Executive of Good Energy Group PLC from 2002 to 2021, Juliet led the company's growth to become one of the few profitable energy retailers in the UK. Under her leadership, Good Energy expanded its customer base to over 250,000 domestic and business customers, navigating changes in the energy and renewable energy markets while maintaining agility and profitability.



Ms Sabrina Rajan, McDermott

Sabrina leads McDermott's sustainability agenda including disclosures and reporting, decarbonization of onshore and offshore operations, human rights management, and strategic national content programs.

Her work ensures sustainability is integrated throughout McDermott's businesses. She also leads innovative initiatives within the organization to identify low-carbon pathways in energy production and distribution which play a critical role in combating the effects of climate change.

With a background in Chemical Engineering, Sabrina's career spans 17 years in different high-impact roles across project management, fabrication, construction, and engineering design – overseeing complex engineering projects from conceptual design through to commissioning.



Ms. Aruna Chandrashekhar, Environmental Journalist, Carbon Brief

Aruna Chandrasekhar is a climate and environmental journalist based in Mumbai, India. She writes for Carbon Brief, focusing on the interactions between food, land, nature, climate, and policy. Ms. Chandrasekhar's work explores issues of extraction, power, justice, change, dignity, and equity in the context of climate change and environmental challenges. Her experience spans from India's coalfields to UN climate, human rights, and biodiversity negotiations.

Her articles have been published in notable outlets including *The New York Times, The Guardian, New Internationalist, Buzzfeed, Earther, Scroll.in, The Caravan Magazine, The Hindu,* and *The Wire.* Since 2011, Ms. Chandrasekhar has documented the experiences of at-risk communities and peoples' resistance movements in response to climate change. Her professional background includes roles as an independent journalist, a legal researcher working with mining-affected communities in India, and as the extractives and climate lead at Amnesty International.



Dr. Radhika Khosla, University of Oxford

Radhika's research portfolio includes being the Principal Investigator of the Oxford Martin School's interdisciplinary and multi-country programme on the Future of Cooling, which examines rising extreme heat and the unprecedented increase in cooling energy demand in relation to the sustainable development goals. She is the Co-Investigator of Oxford Net Zero, an interdisciplinary research programme aimed at informing effective, equitable, and ambitious climate action, where she co-leads the workstream on inclusive and just net-zero transitions.

Radhika works closely at the interface of research and policy. She is Editor-in-Chief of the high-impact peer-reviewed journal, *Environmental Research Letters*. She has been a Special Scientific Advisor to the UK's House of Commons Environment Audit Committee for the inquiry on heat resilience and sustainable cooling (2023–24). She serves on the UK Government's Foreign Commonwealth and Development Office UK-India Advisory Board.

Schedule:

12:00 - 13:30	Registration and Lunch at Said Business School ((Foyer)
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13:30 - 14:05 Welcome Session

- · Address by Baroness Jan Royall, Principal Somerville College
- Address by Mr Jai Shroff, Chairman & CEO UPL
- OICSD's Research Objectives by Prof. Radhika Khosla, Research Director
- · Address by Mr Sujit Ghosh, Deputy High Commissioner India

14:05 - 14:25 Keynote Address by H.E. Dr. Julius Maada Bio, President of Sierra Leone

14:25 - 15:00 Tea and Coffee Break

15:00 - 16:00 Plenary Panel: How does Agriculture Relate to Different Forms of Securities

Speakers:

Mr Daniel Zeichner, MP. Minister of State (Department of Environment, Food and Rural Affairs)

Ms Usha Rao-Monari, Former Under-Secretary-General and Associate Administrator UNDP.

Mr. UnniKrishnan Divakaran Nair, Associate Director of Climate Change, Commonwealth Secretariat.

Dr Caspar Chater, Senior Research Leader at Royal Botanic Gardens. **Prof. John Ingram**, Food Systems Programme Lead, ECI. [Moderator]

16:00 - 16:30 Tea and Coffee Break

16:30 - 17:30 Breakout Panels:

Water Security and Agriculture (Nelson Mandela Lecture Theatre, SBS) Speakers:

Dr Carole Dalin, Associate Professor in Sustainable Food Systems, UCL.

Dr Celso Moretti (virtual participation), President of Embrapa (Brazilian Agricultural Research Cooperation).

Mr Rupert Simons, Partner at SYSTEMIQ.

Dr Timothy Foster, Associate Professor in Water-Food Security, University of Manchester.

Prof. Daanish Mustafa, Professor in Critical Geography, KCL. [Moderator]

Energy Security and Agriculture (Rhodes House Lecture Theatre, SBS) *Speakers:*

Ms Juliet Davenport, President of the Energy Institute.

Ms Sabrina Rajan, Senior Director, Sustainability, McDermott.

Ms Aruna Chandrashekhar, Journalist, Carbon Brief

Dr Radhika Khosla, Associate Professor at Smith School, University of Oxford. [Moderator]

17:30 - 18:30 Vote of Thanks

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