

Sustainable Food Systems Symposium Program

Tuesday, 24th October & Wednesday, 25th October 2023

Virtually via Zoom

During the Food Systems Summit held at the UN General Assembly in September 2021, senior leaders from governments, research institutes, NGOs, special interest groups, the agricultural sector, the private sector, and many other diverse stakeholders made commitments for action to ensure that food systems will be transformed so that the UN sustainable development goals will be achieved by 2030. However, the achievements of these goals will depend on the successful implementation of the agreed actions by governments and other stakeholders in a timely manner. The achievement of the desired outcomes for sustainable food systems will have a profound impact on global food security, economic development, and human and planetary health. This symposium will review the outcomes from the Food Systems Summit, assess progress post summit, identify barriers for progress and discuss potential solutions with contributions from multi sector experts in Australia and overseas.

It is proposed to capture the outcomes from this symposium into a publication and to have a follow up session as part of AIFST's Annual Convention in Sydney in 2024.

TIMING	TOPIC	SPEAKER
TUESDAY, 24TH OCTOBER 2023		
Chairperson: Michael Depalo, ANZ Food Innovation and Compliance Network		
1pm	Welcome	Michael Depalo, ANZ Food Innovation and Compliance Network
1.05pm	How can food systems be more sustainable?	Jayantha Sellahewa, UNSW
1.25pm	Reshaping Australia's food systems: Insights from a multi-stakeholder roadmap process	Frank Sperling, CSIRO
1.45pm	Healthy and Sustainable Food Systems for healthy and sustainable diets	Professor Mark Lawrence, Deakin University
2.05pm	Sustainable health diets - the Australian evidence	Dr Brad Ridoutt, CSIRO
2.25pm	Meeting the SDGs by 2030 – the role of education and training	Professor Johannes le Coutre, UNSW
2.45	Q&A	Facilitated by Michael Depalo
3.00pm	AFTERNOON BREAK	

3.15pm	Redefining 'evidence' for food systems' policy mandates	Professor Barbara Burlingame, Riddet Institute, Massey University
3.35pm	The role of UN agencies in sustainable food systems	Rushini Perera, WFP (Sri Lanka)
4.00pm	Closing the loop: Innovations in Sustainable Food Systems	A/Professor Kiruba Krishnaswamy, University of Missouri
4.20pm	Recent development in the International Food Systems Agenda & the Humanitarian Development Peace Nexus Coalition	Dr Florence Egal, Consultant (Rome) & Emilie Chazelle Humanitarian, Development Peace Coalition (Rome)
4.45pm	Q&A	Facilitated by Michael Depalo
5.00pm	SESSION CLOSE	

TIMING	TOPIC	SPEAKER
WEDNESDAY, 25TH OCTOBER 2023		
Chairperson: Fiona Fleming, AIFST		
9am	Welcome	Fiona Fleming, AIFST
9.05am	Advancements in the measurement and prediction of household food waste	Dr Ziyet Boz, University of Florida
9.30am	Aquaponics, Smart Agri-Centres and the US Postal Service: Multitasking Ways to Feed People	Donna Rosa, EFour Enterprises (USA)
9.50am	Nutrition and Food Systems – A case study in the Democratic Republic of Congo	A/Professor Jayashree Arcot, UNSW
10.10am	Role of indigenous peoples. Challenges of sustainable food systems in regional Australia	Professor Yasmina Sultanbawa, University of Queensland
10.30am	Q&A	Facilitated by Fiona Fleming
10.45am	MORNING BREAK	



11.00am	Gender and diversity within a sustainable food system	Dr Nichole Georgeou, WSU
11.20am	The importance of food safety and nutrition capacity strengthening to empower women in developing countries	Frances Warnock, International Consultant
11.40am	2023 Foodbank Hunger Report	Sarah Pennell, Foodbank Australia
12.00pm	The role ESG plays in shaping how Food Science and Technology can lead us toward more sustainable and equitable food systems	April McElligott, KPMG
12.20	Q&A	Facilitated by Fiona Fleming
12.30	Panel Discussion	Facilitated by Dr Emma Beckett
SYMPOSIUM CLOSE		

Sustainable Food Systems Symposium

Speaker Profiles

Jayantha Sellahewa, UNSW – Adjunct Fellow

How can food systems be more sustainable?

In recent years, there has been a shift from the traditional 'farm to plate' approach to a food systems approach, where in addition to the transformation and value addition to agricultural crops into marketable food products, the interaction of food with society, the environment, food security and the health of people are also considered. A sustainable food system should be profitable, beneficial to society and have a positive impact on the environment into future generations. This presentation will give an overview of sustainable food systems, highlight some challenges, and discuss the role of different stakeholders in making food systems more sustainable and contributing to achieving the UN Sustainable Development Goals by 2030.

Jay Sellahewa is a Food Process Engineer with a BSc in Chemical Engineering from the University of Bath and an MSc in Food Engineering from the University of Leeds. He has a career spanning over 45 years in research and industry through assignments in Australia, Europe, USA, Africa, and Asia. He has skills and experience in food process systems engineering, extrusion technology, non-thermal food processing, sustainable food processing, Humanitarian Food Science and Technology and in the development of low-cost appropriate technologies for developing countries. Jay is a Fellow of the Institution of Chemical Engineers, UK and the Australian Institute of Food Science and Technology. Following a long career at CSIRO, Jay is currently an Adjunct Fellow at UNSW Sydney and is the co-ordinator of the Humanitarian Food Science and Technology Group, which is an international network that increases awareness of the role of food science and technology in humanitarian response.



Dr Mark Lawrence, Deakin University – Professor of Healthy and Sustainable Food Systems

Healthy and sustainable food systems for healthy and sustainable diets

The transformation of current food systems to those that are healthy and sustainable is the priority action area of the UN's Decade of Action on Nutrition and the focus of the UN's Food Systems Summits (2021, 2023). This presentation will describe the fundamentals of a healthy and sustainable diet as a core goal for transformed food systems. Opportunities for shifting dietary patterns towards these fundamentals will be identified and the insights they provide for transforming food systems will be discussed.

Mark is Professor of Healthy and Sustainable Food Systems at the Institute for Physical Activity and Nutrition, Deakin University, Australia. He has 39 years' experience working as a practitioner and academic in food and nutrition policy at local, state, national and international levels. Mark's research interests focus on healthy and sustainable diets and food systems, dietary guidelines, ultra-processed foods and food regulation. He teaches students enrolled in courses related to nutrition science, public health nutrition, food policy and dietetics. Mark has substantial international and national experience in food policy and regulation in his roles as: Board member, Food Standards Australia New Zealand; Member, International Union of Nutritional Sciences Task Force on Sustainable Diets; and External advisor to the World Health Organization and Food and Agriculture Organization.





Dr Brad Ridoutt, CSIRO – Principal Research Scientist

Sustainable health diets - the Australian evidence

Dr Ridoutt is a Principal Research Scientist with Australia's national science agency – The Commonwealth Scientific and Industrial Research Organisation (CSIRO). His expertise is in life cycle sustainability assessment in the agriculture and food sectors which is used to address strategic challenges in relation to climate change, water scarcity, sustainable food systems, and sustainable diets. Dr Ridoutt is engaged in a range of international processes relating to the standardization of sustainability assessment and environmental labelling. His research is creating the main evidence base concerning the environmental impacts of dietary habits in Australia.





Dr Johannes le Coutre, UNSW – Professor

Meeting the SDGs by 2030 – the role of education and training.

Following 19 years at Nestlé Research in Switzerland, Dr. Johannes le Coutre joined the University of New South Wales (UNSW), Sydney in 2019 as a full Professor Food & Health. His previous contribution and expertise have been pivotal in making Nestlé's work on taste perception internationally valued and recognized, leading to significant impact in the markets. At UNSW he is responsible for the University food program, and currently he is developing a broad research agenda on cellular agriculture. Being an elected fellow of the Royal Society of New South Wales (RSNSW) and Food Standards Australia New Zealand (FSANZ), Dr. le Coutre is an acknowledged expert in food and nutrition science.



Professor le Coutre is the founding Editor in Chief for FRONTIERS in Nutrition, the leading open access journal in the field.

Dr Barbara Burlingame, Professor - Riddet Institute, Massey University

Redefining 'evidence' for food systems' policy mandates

Barbara Burlingame is a scientist and professor of nutrition and food systems. She received her Ph.D. from Massey University and bachelor's degree from University of California, Davis, in nutrition science and environmental toxicology. Her research expertise includes food composition, nutrient requirements, dietary assessment, biodiversity for food and nutrition, indigenous peoples' food systems, sustainable diets, and provision of scientific/policy advice on food security and nutrition. Since 2016 she has been Professor at Massey University, first in the school of public health, and currently at Massey's Riddet Institute. Prior to this role, she worked for 16 years at the Food and Agriculture Organization of the United Nations, as Senior Nutrition Officer and then as Chief/Deputy Director of Nutrition. Before joining FAO, Professor Burlingame spent 12 years as Nutrition Programme Leader at the New Zealand Institute for Crop & Food Research and Department of Scientific and Industrial Research. Throughout her career, she has been a member of many scientific advisory boards and international committees; author of many scientific papers and UN publications, book chapters and reference books; and editor of several food and nutrition journals, including 13 years as Editor-in-Chief of Elsevier's Journal of Food Composition and Analysis, and currently as Specialty Chief Editor at Frontiers.



Rushini Perera, World Food Programme – Head of Resilience, Emergency Preparedness & Response, and Social Protection

The role of UN agencies in sustainable food systems

Ms. Rushini Perera is the Head of Resilience, Emergency Preparedness and Response, and Social Protection at the United Nations World Food Programme, Sri Lanka. Her experience is in international development, humanitarian and financial services. She has worked in North America, East Africa and South Asia with Save the Children and UNDP prior to joining WFP in March 2020. At WFP, Ms. Perera manages three portfolios: 1) Resilience Building; 2) Emergency Preparedness and Response; and 3) Social Protection aimed at supporting vulnerable communities to diversifying their livelihoods, enhance food and nutrition security and develop resilience to the impacts of climate change. She recognizes that collective action and partnerships are essential to achieving a world with zero hunger.



Assistant Professor Kiruba Krishnaswamy, University of Missouri - Assistant Professor Sustainable Food Systems Engineering

Closing the loop: Innovations in Sustainable Food Systems

Krishnaswamy will discuss the latest advancements from her research program Food Engineering and Sustainable Technologies (FEAST: www.feastlab.org). Three interconnected areas of FEAST research are: upcycling of food loss/waste for creating a circular economy; designing innovative delivery systems for micronutrients; food fortification to address micronutrient deficiencies (Hidden Hunger).

Through case studies and real-world examples, attendees will gain insights into how sustainable food systems engineering can not only reduce environmental impact but also address food and nutrition security. Furthermore, the talk will highlight the importance of multidisciplinary collaboration and technology integration to address global challenges and achieve UN Sustainable Development Goals (SDGs).

Dr. Kiruba Krishnaswamy is an Assistant Professor of Sustainable Food Systems Engineering at the University of Missouri, Columbia. She has a joint appointment in the Department of Chemical and Biomedical Engineering and the Division of Food, Nutrition, and Exercise Sciences. Her research program Food Engineering and Sustainable Technologies (FEAST: www.feastlab.org) integrates convergence sciences with engineering principles to address the interconnected challenges of food and nutrition security. She uses a circular food systems approach to support the UN Sustainable Development Goals (SDGs).



Krishnaswamy obtained her B.Tech. in Food Process Engineering from Tamil Nadu Agricultural University, India. She obtained the Canadian Commonwealth Scholarship for her graduate research and continued her Ph.D. in Bioresource Engineering from McGill University, Canada. She worked on three large-scale food fortification projects with micronutrients during her Postdoc at the University of Toronto.

She has experience working on food and nutrition security projects in India, Kenya, Canada, and the US. Krishnaswamy is a member of the Institute of Food Technologists (IFT), the American Society of Agricultural and Biological Engineers (ASABE), and the American Association for the Advancement of Science (AAAS).

Dr Florence Egal, Independent, Expert

Recent Development in the International Food Systems Agenda

In the wake of COVID19 and persisting conflicts, the September 2021 UN Food Systems Summit in New York and its 18 month preparation brought food systems debates to the frontline. The topic was taken up since in major conferences such as the Climate Change and Biodiversity Conference of Parties and the first UNFSS Global Stocktaking meeting was held in Rome in July 2023.

Florence Egal is a Medical Doctor with a Masters in Community Health for Developing Countries. After 10 years in field and consultancy work in both humanitarian and development contexts in Africa, Latin America and the Middle East, she joined the Food and Nutrition Division of the UN Food and Agriculture Organization where she worked for more than twenty years on household food security, sustainable livelihoods and urban food systems, as well as inter-institutional collaboration, at global, national and local level. She supported and promoted in particular small scale food processing to improve diets and strengthen livelihoods in both emergency and development contexts in Asia and Africa. Upon retirement she pursued work on urban food systems and then on Urban Rural Linkages for Integrated Territorial Development. She joined in 2015 the multi-stakeholder group on Humanitarian Food Science and Technology and was actively involved in the preparation and follow up of the UN Food Systems Summit.



Emilie Chazelle, WFP/HDP Nexus Coalition, Head of Secretariat

Leveraging the Humanitarian-Development-Peace (HDP) Nexus to advance food system transformation in fragile contexts - the HDP Nexus Coalition

The presentation will give an overview of the work of the HDP Nexus Coalition to support food systems that are inclusive, sustainable and shock-responsive in fragile contexts.

Emilie Chazelle is a senior management and HDP Nexus specialist, with over 14 years of experience working with UN agencies and INGOs. Prior to joining WFP as the head of the secretariat for the HDP Nexus Coalition, Emilie worked as an HDP Advisor and Policy Advisor for FAO Headquarters in Rome, Senior Inter-Agency Coordinator for UNHCR in Turkey, leading the Basic Needs Sector Working Group. Prior to this, she spent three years in various programme roles in Syria with the UN Relief and Works Agency for Palestine Refugees (UNRWA). Her previous experience includes project management, resource mobilization and policy roles with a focus on the Middle East, Central and Eastern



Africa and East Asia. Emilie is a French national and holds an MBA from Heriot-Watt University (UK), a Master of Arts in Middle East Politics from the University of Exeter (UK), and a Bachelor of Arts in Political Science from the Institut d'Etudes Politiques in Lyon (France), in addition to being a Fordham IDHA Alumni.



Dr Ziyne Boz, WFP/HDP Nexus Coalition, Head of Secretariat

Advancements in the measurement and prediction of household food waste

Dr. Boz is an Assistant Professor of Sustainable Food Systems Engineering at the University of Florida and an active IFT member and volunteer. Her current research projects focus on measuring and monitoring food loss and waste, optimizing and modeling food systems, and evaluating the sustainability performance of various food systems activities. Dr. Boz is passionate about applying systems thinking approaches in the food and packaging industries and integrating them with ongoing projects on food loss and waste, circular economy, and digital twins. She has a PhD and an MS in agricultural & biological engineering and food engineering fields, with specializations in packaging and food processing. She is also a previous Fulbright Scholar and a committed educator who aims to enhance the learning experiences of her students



Donna Rosa, EFour Enterprises LLC – Chief Entrepreneurship Officer and Founder

Aquaponics, Smart Agri-Centres and the US Postal Service: Multitasking Ways to Feed People

The best approaches to issues around our complex interconnected global food system offer synergies that solve multiple problems simultaneously.

This presentation will highlight solutions that address food insecurity from multiple angles. You'll learn about three award-winning organizations taking very different approaches. One employs aquaponics (itself a climate-smart symbiotic system) to benefit vulnerable populations. The second features smart agri-centres that serve numerous community needs such as solar cold storage, value-addition facilities, and agri-input shops. The third creatively leverages an underutilized existing distribution system and allows farmers to directly reach consumers quickly and easily with affordable fresh produce.

Donna Rosa is Chief Entrepreneurship Officer and founder of EFour Enterprises LLC. EFour stands for Empowering Entrepreneurs in Emerging Economies, providing personalized remote business coaching and innovative online financial and business plan tools. Much of her work is with smallholder farmers and food processing microenterprises.

Donna began her career as a food technologist with a background in nutrition. After earning an MBA she transitioned to the business side of the food industry, and then moved into international development, working in Africa, the Caribbean, Eastern Europe, Central America, and Asia.



Donna is an active Institute of Food Technologist (IFT) member. She founded and manages the International Division's Food Science for Relief and Development (FSRD) initiative, which seeks to expand the awareness and utilization of food science to address global food and nutrition insecurity. She has participated in various roundtables, committees, interviews, and panels and created articles, blogs, podcasts, webinars, posts, papers, and sessions on FSRD. She currently serves as a mentor in the FAO/IAFN Women-led SME Accelerator Programme as well as a board member for several nonprofits.

www.efourenterprises.com

www.donnamrosa.com



Dr Jayashree Arcot, UNSW – Associate Professor

Nutrition and Food Systems – A case study in the Democratic Republic of Congo

The talk will focus on addressing malnutrition in Children in the Democratic Republic of Congo. A case-study on how protein extracted from leguminous leaves (e.g., cow pea) can be incorporated into foods to enhance protein quality and improve protein nutritional status.

A/Prof. Jayashree Arcot has been teaching and doing research in Food Science and Nutrition at the University of New South Wales for over 20 years. She is a Fellow of the AIFST. Her expertise spreads across Food Science and Nutrition with a focus on micronutrients and bioactives in foods, their sources and bioavailability in humans using stable isotopic techniques and developing new in vitro tools such as 3D cell culture techniques for understanding the bioavailability of nutrients. Her expertise in Nutritional science extends beyond the laboratory into public health nutrition especially maternal and infant nutrition; addressing micronutrient malnutrition in the Asia Pacific region through food-based interventions; nutrition education.



Dr Yasmina Sultanbawa, The University of Queensland – Director, Centre for Nutrition and Food Sciences

Role of indigenous peoples - Challenges of sustainable food systems in regional Australia

The current global food system is not viable in terms of health, affordability and environment. Triple burden of malnutrition is leaving billions of people with over consumption or under consumption and nutrient deficiency due to repeated consumption of energy dense poor nutrient foods. The world has over 6000 different plant species cultivated for food, however, just nine of them contribute around 66% of total crop production. To bring about change it would require a radical transformation of the food system. The goal of dietary diversification is to improve the diversity and number of nutrient-dense foods in the diet.

Professor Yasmina Sultanbawa: Director, Centre for Nutrition and Food Sciences, Director, Industrial Transformation Training Centre for Uniquely Australian Foods and a Professorial Research Fellow at Queensland Alliance for Agriculture and Food Innovation (QAAFI), the University of Queensland, Australia.

Her research is focused in the areas of food processing, preservation, food safety and nutrition. She brings together a unique combination of research areas combining process technologies and engineered delivery systems for bioactive compounds to improve nutrition, flavour, quality and food safety. This work has provided commercially applicable solutions to address challenges and opportunities throughout the agri-food value chain. She has worked closely with food industries and developed research partnerships through contract research with commercial entities. This approach has been highly translational in transforming industry practices for the ultimate benefit of human health. Her work on Australian native plant foods is focused on incorporating these plants in mainstream agriculture and diet diversification and working with First Nations communities to develop nutritious and sustainable value-added products for use in the food and beverage industry.



Associate Professor Nichole Georgeou, Western Sydney University – Director, Humanitarian and Development Research Initiative (HADRI)

Gender and diversity within a sustainable food system

Pacific Islands food systems operate within complex social systems that support communities in times of peace, and which play an important role in providing food security during disasters. They are strongly gendered in terms of horticultural specialisation in smallholder farm production, and in distribution, transport and market sale. Using examples from research before and during the COVID pandemic from Solomon Islands, Samoa and Tonga, I discuss how greater gender and diversity inclusion can have a positive effect on supporting sustainable Pacific food systems, especially through asset creation and poverty reduction.

Nichole's background in international development, volunteering, security, gender and human security helps to inform her understanding of food security and food sovereignty issues in the Pacific Islands region. She is currently working on two food security related international collaborative projects with Pasifika colleagues: (1) Nichole is gender adviser to an Australian Centre for International Agricultural Research (ACIAR) funded project that aims to reduce post-harvest loss in Solomon Islands, Fiji, Tonga and Samoa, and provides special assistance to colleagues in Solomon Islands; (2) Nichole is leader of the Australian Food Security work package for the EU-funded (Horizon 2020) project Family Farming, Lifestyle and Health (FALAH), working with colleagues in New Caledonia, Solomon Islands, Fiji, and Vanuatu.

Nichole holds a PhD in Development Sociology, a Master of Social Change and Development (Research) and a Bachelor of Creative Arts from University of Wollongong (UOW), and has a Diploma of Education from University of Newcastle. She is the founding Director of Western Sydney University's Humanitarian and Development Research Initiative (HADRI). Her recent publications include the co-edited *Pandemic, States and Society in the Asia Pacific 2020-2021: Responding to COVID* (Routledge 2023), and numerous papers on food security in the Pacific, aid, volunteering, and COVID.



Frances Warnock, International Consultant on Food Safety and Nutrition Capacity Strengthening

The importance of food safety and nutrition capacity strengthening to empower women in developing countries - Learnings from Asia and the Pacific

Frances Warnock is a seasoned professional, who embraces the unique challenges of working across the dynamic fields of food safety, public health nutrition and tertiary education. She has an impressive career in delivering practical and sustainable solutions on challenging multi-sectoral food safety and nutrition capacity building projects in low to middle income countries in Southeast Asia. Frances is highly skilled in providing short-term technical support to UN agencies FAO, WHO and WFP to better address food security challenges, by bringing together key stakeholders from across the government health, education, food and agriculture sectors, the private sector and civil society organizations. She has completed international assignments in Bangladesh, Cambodia, Lao PDR, Philippines, Samoa, Sri Lanka and Vietnam and is now working with FAO SAP to support the Solomon Islands on postharvest management and nutrition activities.



Prior to working internationally, Frances was well known within the Australian food industry and government public health nutrition sectors for facilitating effective partnership programs and consumer education campaigns on both food safety and nutrition. She was Inaugural Scientific Director of Australian Food Foundation based at UNSW from 1991-1995 and has represented Australia at a number of international expert consultations and symposia on food safety and nutrition for behaviour change.

Frances is a Life Member of Australian Business Volunteers, Returned Australian Volunteer and an active member of the global volunteer group Humanitarian Food Science and Technology.



Sarah Pennell, COO - Foodbank Australia

2023 Foodbank Hunger Report

An overview of the findings of the 12th annual report on food insecurity and food relief services in Australia.

Sarah has been with Foodbank, the largest food relief organisation in Australia, for 12 years during which she's fulfilled a variety of roles as the organisation has grown. Prior to Foodbank, Sarah was in the food industry supporting farmers, particularly in dairy and horticulture.



April McElligott, Senior Consultant - KPMG

The role ESG plays in shaping how Food Science and Technology can lead us toward more sustainable and equitable food systems

This presentation will highlight the pivotal role of Food Science and Technology in advancing Sustainable Food Systems, aligning with the outcomes of the UN Food Systems Summit's imperative to achieve global sustainable development goals by 2030. It will explore how innovative applications of food science can effectively address challenges related to food security, economic progress, and planetary well-being. Examining barriers and proposing remedies will contribute substantively to the advancements of sustainable food systems, harmonising nourishment and ecological preservation to shape a more resilient future.

April McElligott is an accomplished ESG expert dedicated to advancing sustainability within the food and agribusiness sector through the lens of Food Science and Technology. As a Senior Consultant at KPMG, April provides insightful guidance and thought leadership on sustainability, circular economy, and ESG considerations within the realm of food systems.

April actively contributes to and leads work involving the analysis of market dynamics, identification of growth avenues, and the evaluation of inherent risks in sustainable food systems. She excels in developing business blueprints that encompass ESG, sustainability, and climate change imperatives—effectively addressing the multifaceted topics that will be discussed during the Food Systems Summit.



April's commitment to catalysing sustainable food systems is further highlighted through her Thought Leadership initiatives. She has effectively supported the writing of industry-leading materials that outline the pivotal role of Food Science and Technology in realising the UN's sustainable development goals by 2030. Her contributions in identifying innovative, sustainable solutions has empowered stakeholders and the broader food and agribusiness industry to align practices with industry benchmarks and global objectives.

As a featured speaker, April McElligott will deliver insights on the vital role of Food Science and Technology in advancing sustainable food systems, with a keen emphasis on achieving UN sustainable development goals by 2030.