



UNIVERSITY OF
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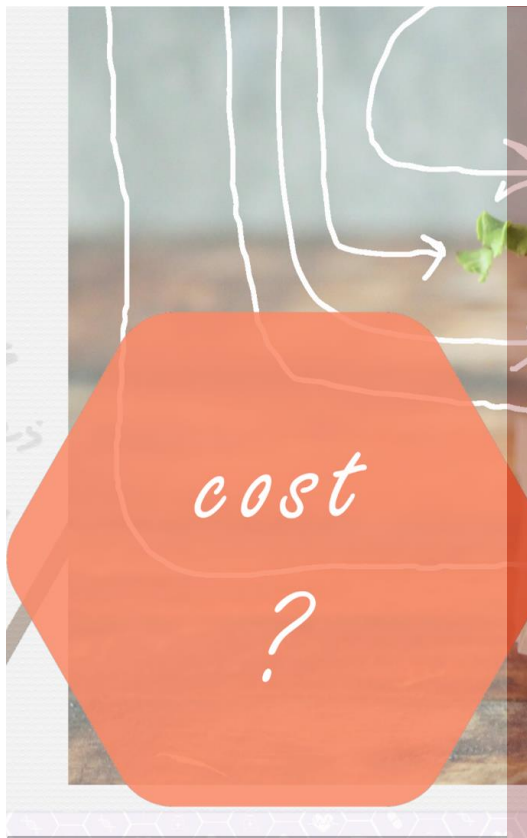
Environmental
Change Institute **eci**



Elisabeth Haub
School of Law
ENVIRONMENTAL LAW PROGRAM

UC DAVIS
AGRICULTURAL
SUSTAINABILITY INSTITUTE

Initiative for valuation of environmental, social and health impacts of food systems (FoodSIVI)



Third Oxford Meeting on Food System Impact Valuation

Lady Margaret Hall
University of Oxford
15–16 April 2019

Workshop
Programme



GLOBAL
ALLIANCE
FOR THE
**FUTURE
OF FOOD**



**Natural Capital
Finance Alliance**
Finance sector leadership on natural capital

Welcome

Impact valuation represents an intermediate stage in a transition from purely fiscal and internalized business accounting to a fundamentally different accounting and economic system that accounts for stocks and flows between environmental, social, health and economic capital. The complexity of the food system and uncertainty in long-term environmental, social and human impacts makes it particularly challenging to account for and monetize the external impacts created by the food sector. Food products can undergo multiple processes and be composed of thousands of ingredients sourced from all over the globe. It is much more difficult to attribute extended producer recognition or responsibility for the positive or negative consequences of food consumption. Balancing this difficulty is the increased drive to transform a sector which is widely recognized to pose fundamental environmental risks to the planet and health risks to society.

Our interest in convening an annual series of meetings stems from our belief in the potential uses of impact valuation, the transformation toward sustainable production and consumption they may enable, and the research challenges in their development.

This is the third annual meeting. The broad challenges in impact valuation identified in previous meetings remain roughly the same. The focus this year is on forward momentum on the methods and initiatives already engaging with those challenges. We are very proud therefore that the Third Meeting is in collaboration with the FReSH Initiative of the World Business Council for Sustainable Development (WBCSD) and the Externalities Working Group of the Global Alliance for the Future of Food (GAFF). The Natural Capital Coalition (NCC) also have a strong presence this year. GAFF strongly supported the development of the comprehensive TEEBAgriFood methodology for true cost accounting of externalities of food systems. Pushpam Kumar, Chief Environmental Economist UN Environment played a central role in the development of TEEBAgriFood and is our first keynote speaker. Mario Abela, Director Redefining Value, WBCSD is our second keynote speaker on application in the food sector of the Natural Capital Protocol, and the recently-released Social & Human Capital Protocol. A long Q&A session provides the opportunity for participants to learn and interact with NCC's Policy Director, Marta Santamaria, on NCC Initiatives on natural capital impact data and alignment of monetary valuation.

How well do these initiatives capture valuation of the externalities specifically produced by food actors, and are they mature enough for the potential transformative uses the food system urgently requires? Discussion about bridging the space between food systems, valuation, and transformative business and public uses, and what key steps can be taken to bring this triad closer together, is the purpose of the Third Meeting.

Previous meetings raised sustainable finance as a key user of methods and data accounting for environmental, social and health externalities produced by global food actors. The Third Meeting has a focus on finance. The Natural Capital Finance Alliance (NCFA) has a strong presence through Andrew Mitchell, founder of Global Canopy, and we are fortunate that the NCFA is launching a Natural Capital Agricultural Credit Risk Assessment tool at the Third Meeting. There is an opportunity for a rich discussion on what finance both needs and can gain from food system accounting of environmental, social and health externalities.

Last, but by no means least, we are very fortunate that Professor Sir John Beddington, former UK Chief Scientific Advisor and now Professor of Natural Resource Management at Oxford University, will open the Third Oxford Meeting. Sir John is co-chair of the Global Panel on Agriculture and Food

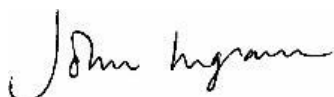
Systems for Nutrition and co-author of the recently released Oxford Martin Principles for Climate-Conscious Investment.

Though finance and the business focussed Natural and Social & Human Capital Protocols feature in this year's meeting, the private sector alone, through investment or responsible decisions-making, will not achieve the transformation required to mitigate the current and projected stress to planetary and human boundaries caused by food systems. From the First Oxford Meeting the Food System Impact Valuation Initiative (FOODSIVI) – the organising body for the Oxford Meeting series – has stressed the need and opportunity for application in the public sector. The Third Meeting retains a strong theme on public sector uses. Alexander Müller, TEEBAgriFood Study Leader will speak on the first day about applications of the TEEBAgriFood framework around the world.

FOODSIVI has also not abandoned its advocacy for mid-term research into accounting of externalities and information technology. Impact valuation methodologies are not at this moment fit for regulatory use or economic policy. Given the wide range of methods and their imprecision it remains difficult, and in most cases, inappropriate, to apply them to, for example, regulatory limits, measuring compliance, comparison of vendors' products, taxation, transfer payments, and litigation. The challenges to achieving this level of fitness are substantial. Sensors, digitized logistic chains, digital ledgers, and big data have the potential to account, track, and share impact information throughout the highly heterogeneous food system, from farm inputs to consumer. Implementing this technology is likely the only way accounting of externalities can reach its full potential to assist transformation of the global food system. There are also many market opportunities from this direction.

We hope you have an enjoyable and productive few days in Oxford. We are excited to be a part of the Food System Impact Valuation Initiative, and very much look forward to working with you both this week and in the future.

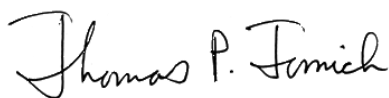
With best wishes,



John Ingram
Food Systems Programme Leader
Environmental Change Institute at the University of Oxford



Jason J. Czarnezki
Gilbert and Sarah Kerlin Distinguished Professor of Environmental Law
Associate Dean and Executive Director of Environmental Law Programs
Elisabeth Haub School of Law at Pace University



Thomas P. Tomich
W.K. Kellogg Endowed Chair in Sustainable Food Systems
Founding Director, Agricultural Sustainability Institute (ASI)
University of California, Davis

THIRD OXFORD MEETING ON FOOD SYSTEM IMPACT VALUATION

Monday 15 April 2019 (opening 11:00am) and Tuesday 16 April 2019 (closing 5:30pm)
Lady Margaret Hall, Norham Gardens, Oxford OX2 6QA, UK
Hosted by the Food Systems Group within Oxford's Environmental Change Institute

Programme

Monday 15 April – Talbot Hall

- 10:00 Registration desk open – **Olga Pocock Room**
- 11:00 Opening – Professor Sir John Beddington CMG FRS, Oxford Martin School
- 11:10 Pushpam Kumar, Chief Environmental Economist, UN Environment
- 11:40 NCFA Natural Capital Agricultural Credit Risk Assessment Framework Launch
Andrew Mitchell, Founder, Global Canopy
Francisco Ascui, Director, Centre for Business and Climate Change
University of Edinburgh Business School
- 12:00 Mario Abela, Director Redefining Value, WBCSD
- 12:30 Q&A on Finance and Accounting of Externalities in the Food System, and the
Natural Capital and Social & Human Capital Protocols and the Food Sector
Pushpam Kumar, UN Environment
Andrew Mitchell, Global Canopy
Francisco Ascui, University of Edinburgh
Mario Abela, WBCSD
Matt Watkins, SHCC
Marta Santamaria, NCC
Matt Jones, UNEP-WCMC
- 13:20 Lunch – **Olga Pocock Room**
- 14:20 Review and Purpose of Oxford Meetings – Steven Lord, ECI Oxford
- 14:40 Introduction to Theme 1 (Standardisation of Food System Impact Valuation)
Patrick Holden, CEO Sustainable Food Trust
Harpinder Sandhu, Flinders University
- 15:30 Introduction to Theme 2 (Financial Incentivisation and Finance Sector Use)
Theodor Cojoianu, Postdoctoral Research Fellow, University College Dublin
Rory Sullivan, Co-Founder and Director of Chronos Sustainability
Martina Macpherson, President, Network for Sustainable Financial Markets
Jordan Grace, Associate Director, National Australia Bank
- 16:10 A/Tea – **Olga Pocock Room**
- 16:30 Introduction to Theme 3 (Public Sector Incentivisation and Use)
Alexander Müller, TEEBAgriFood Study Leader

- 17:10 Introduction to Theme 4 (Research Projects and Funding)
 Kay O'Regan, University of Oxford Business Engagement & Partnerships
 Natalia Brzezina, Research Programme Officer, EC DG-AGRI
- 17:45 Close
- 18:45 Drinks Reception – **Monson Room**
- 19:30 Dinner – **Lady Margaret Hall Dining Hall**

Tuesday 16 April

- 09:00 Initiatives – **Talbot Hall**
 Lauren Baker, Director of Programs Global Alliance for the Future of Food on the TCA Accelerator
 Emily Grady & Matt Watkins WBCSD on WBCSD on True Value of Food: Agri-food System Impact Valuation and Risk Assessment
 Marta Santamaria, Policy Director Natural Capital Coalition on TEEBAgriFood and the Natural Capital & Social and Human Capital Protocols, and alignment of monetary valuation of environmental impacts
 Adrian de Groot Ruiz, Executive Director Impact Institute on an Open Source Framework for Impact Statements
 Aarti Ramachandran, Head of Research & Engagements FAIRR Initiative on FAIRR's environmental and social governance metrics on protein producers
- 10:00 Session 1 (Four groups discussing Themes 1–4)
 Theme 1: Standardisation – **Paul Oster Room**
 "Interoperability of tools and common interfaces for users" Nadia El-Hage Scialabba
 Theme 2: Finance – **Mary O'Brien Room**
 "What impacts, dependencies and risks are food system actors currently measuring and reporting?" Francisco Ascui, Edinburgh & Theodor Cojoianu, UCD
 Theme 3: Public policy – **Lavinia Talbot Room**
 "The role of public policy in sustainable financing of food systems" Andrew Mitchell, Global Canopy
 Theme 4: Research Projects – **Lytleon Room**
 "FOODPROCURE" David Barling, Hertfordshire & Steven Lord, Oxford
- 11:00 Feedback (**Talbot Hall**)
- 11:20 M/Tea – **Olga Pocock Room**
- 11:40 Session 2 (Four groups discussing Themes 1–4)
 Theme 1: Standardisation – **Paul Oster Room**
 "Toward prescriptive agri-food sector guidance on performing impact valuation – balancing scientific rigor and feasibility of implementation" Emily Grady & Matt Watkins, WBCSD
 Theme 2: Finance – **Mary O'Brien Room**

"What information does the financial sector need in order to understand relevant food system impacts, dependencies and risks?" Francisco Ascui, Edinburgh & Theodor Cojoianu, UCD

Theme 3: Public policy – **Lavinia Talbot Room**

"Public Money for Public Good" Adele Jones, Sustainable Food Trust

Theme 4: Research Projects – **Lyttleon Room**

"Design a Project" Steven Lord, Oxford & Nick Holden, UCD

12:40 Feedback (**Talbot Hall**)

13:00 Lunch – **Olga Pocock Room**

13:40 Session 3 (Four groups discussing Themes 1–4)

Theme 1: Standardisation – **Paul Oster Room**

"Beyond natural capital and agriculture, standardising valuations and data for social and health impacts" Mark Goedkoop, PRe Sustainability

Theme 2: Finance – **Mary O'Brien Room**

"What can the financial sector provide back to food system actors to help incentivise impact reduction and better management of dependencies and risks?" Francisco Ascui, Edinburgh & Theodor Cojoianu, UCD

Theme 3: Public policy – **Lavinia Talbot Room**

"Bridging the gap between social and private costs of food: the role of public policy incentives" David Laborde IFPRI

Theme 4: Research Projects – **Lyttleon Room**

"FOODCONSUMPTION" John Ingram, Oxford & Nick Holden, UCD

14:40 Feedback (**Talbot Hall**)

15:00 A/Tea – **Olga Pocock Room**

15:20 Session 4 (Four groups discussing Themes 1–4)

Theme 1: Standardisation – **Paul Oster Room**

"Using and interpreting valuation data: classification, monetization and aggregation of externalities" Adrian de Groot Ruiz, Impact Institute

Theme 2: Finance – **Mary O'Brien Room**

"What are the key problems that research in this area could help overcome?" Francisco Ascui, Edinburgh & Theodor Cojoianu, UCD

Theme 3: Public policy – **Lavinia Talbot Room**

"Food labelling and transparency based on true cost accounting" TBC

Theme 4: Research Projects – **Lyttleon Room**

"FOODCAPITAL" Steven Lord, Oxford & Nick Holden, UCD

16:20 Final Feedback – **Talbot Hall**

17:00 Farewell – **Talbot Hall**

18:00 Drinks and Networking – **The Lamb & Flag**

Themes

Forward momentum and targeting opportunities are the purpose of the Third Oxford Meeting. Participants will learn about the current methods and initiatives in impact valuation and explore the challenges and research required to further its implementation in the food system in facilitated sessions on the following themes.

THEME 1: HARMONISATION & STANDARDISATION

Present impact valuation methodologies are diverse in detail, scope and purpose. Some are conceptual frameworks, some aim at being more detailed accounting. Some serve large businesses and some agricultural producers. Food sector actors cause short term and long term changes in natural, social and health capital. Attribution and valuation of impact is complex and contentious. Market and policy mechanisms, and the timeframe in which transformation needs to occur in the food system, however need standardised, accepted, and legitimate methods to move forward. What needs to be done, who needs to be involved, is there a strategy and pathway toward harmonisation of methods?

THEME 2: FINANCIAL INCENTIVISATION OF IMPACT VALUATION

Uses drive standardisation. What is the potential value of standardised, traceable, auditable accounting and valuation of externalities in the food sector to sustainable investment and finance? Can we start an initiative connecting emerging standards in true cost accounting in the food system and emerging reporting standards and initiatives in sustainable finance?

THEME 3: PUBLIC INCENTIVISATION OF IMPACT VALUATION

The EAT-Lancet report “Our Food in the Anthropocene: Healthy Diets from Sustainable Food Systems” highlighted food as the next target sector requiring an unprecedented effort to transform toward decarbonisation and to reduce damage to environmental and health capital (the focus of the report). Market-based incentives are unlikely to achieve this transformation alone. Germany’s solar policy changed the trajectory of the global cost of solar technology and accelerated globally the path to renewables. Similar interventions in significant economies are needed to kickstart global food transformation. To reward sustainable production, or intervene in manufacturing and consumption, requires transparent and defensible accounting for the benefits or costs. How can impact valuation enable potential public policies that accelerate food system transformation, what are the potential mechanisms, in what economies?

THEME 4: RESEARCH PROJECTS AND FUNDING

Foundational research on the impact of food systems is well established but applied research on impact valuation has only scratched the surface. Pre-competitive research goes hand in hand with accelerating uses and the basis for standardisation. Discussion will focus on building the framework for four collaborative research projects across multiple institutions and partners to be submitted for ERC and UKRI co-funding but can also explore other research funding opportunities.

Meeting Rules

In the interest of open discussion, this meeting is being held under the Chatham House Rule, unless a part thereof is indicated to have a further limitation on information sharing as requested by a speaker or participant. It is a condition of attendance that such limitations are respected by all attendees. <https://www.chathamhouse.org/about/chatham-house-rule#>

The Chatham House Rule reads as follows:

*When a meeting, or part thereof, is held under the **Chatham House Rule**, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.*

WiFi Access

For academics, eduroam is the most reliable and expedient network to access around the University of Oxford, including at Lady Margaret Hall. Use <https://www.eduroam.org/about/connect-yourself/> to find out your login details through your home institution. If you do not currently use eduroam, get it working before leaving home. Then it will involve an easy login in Oxford.

For those without access to eduroam, Wi-Fi is provided in Lady Margaret Hall via the Cloud. Register beforehand at <https://service.thecloud.net/service-platform/login/registration/>. Additionally, at Registration on Monday 15 April codes will be provided to access the OWL network at Oxford as guests.

Meeting Dinner

The meeting dinner is at Lady Margaret Hall on Monday 15 April 2019. Drinks reception is at 6:45pm in Talbot Hall. Dinner begins at 7:30pm in the Dining Hall. If you have indicated a dietary preference in your conference registration, alert your table staff whilst taking your seat.

Bed and Breakfast

If your registration includes bed and breakfast accommodation at Lady Margaret Hall, obtain your keys and accommodation information from the Porter's Lodge. The Porter's Lodge is open 24 hours. Check in time is from 2:00pm and check out is kindly requested by 10:00am on the day of departure. A luggage storage room will be provided on the final day of your stay. The Night Porter may be out on site from time to time. If you arrive at night and the Porter is not in the Lodge you can call them on 01865 274300 and they will return to the Lodge. Breakfast is served in the Dining Hall from 07:30hrs to 09:30hrs.

Venue

The meeting is hosted entirely in Lady Margaret Hall Norham Gardens, Oxford OX2 6QA, UK. The entrance is at the juncture of Norham Gardens and Fyfield Rd. The plenary venue for the start of the meeting is the Monson Room.

Opening



Prof. Sir John Beddington Professor of Natural Resource Management, Oxford Martin School

Professor Sir John Beddington is Professor of Natural Resources Management at Oxford University. He acts as a Non-Executive Director of the Met Office, a Trustee of the Natural History Museum and President of the Zoological Society of London, amongst other activities. After an academic career in the field of Applied Population Biology, John was elected Fellow of the Royal Society in 2001, appointed CMG in 2004, was awarded a Knighthood in 2010 and in June 2014 received The Order of the Rising Sun from the Japanese Government.

He was from 2008 until 2013 the UK Government Chief Scientific Advisor (GCSA) reporting directly to the Prime Minister. As GCSA, he led on providing scientific advice to Government during the 2009 swine flu outbreak, the 2010 volcanic ash incident and the emergency at the Fukushima nuclear power plant in 2011. As GCSA, he was also responsible for increasing the scientific capacity across Whitehall by encouraging all major departments of state to recruit a Chief Scientific Adviser. He also directed the Foresight team which had the responsibility to look forward and assess implications for major challenges in the future.

Keynotes



Pushpam Kumar Chief Environmental Economist, UN Environment

Pushpam Kumar is Chief Environmental Economist and Senior Economic Advisor, UN Environment. He coordinates the Inclusive Wealth Report, Natural Capital Accounting work and provides analytical approaches for Planetary and Human Health. He has been instrumental in designing, implementing and providing leadership to the operationalization of the concept of Natural Capital through flagship projects like VANTAGE (Valuation and Accounting of Natural Capital for Green Economy) and Proecoserv, culminating in a resolution on Natural Capital passed during UNEA2 in 2016.

In the past, Pushpam has served as a member of 'Expert Panel of the National Ecosystem Assessment (NEA)', UK (2008-11). Pushpam co-chaired the Policy and the Technical Committee of the Wealth Accounting and Valuation of Ecosystem Services (WAVES) Programme led by the World Bank (2011-16). From 1991-2010 Pushpam has been with the University of Liverpool, Cambridge UK and University of Delhi during 1991-2010 as Associate Professor and Professor in Environmental Economics, also holds the Position of Honorary Research Scientist at the Earth Institute of Columbia University in New York.



Mario Abela Director "Redefining Value" WBCSD

Mario Abela is a Director, Redefining Value where he leads projects aimed at transforming performance management, governance and assurance to make sustainability an integral part of mainstream business and investor decision-making.

Mario is a CPA and Chartered Management Accountant. Mario's expertise is in corporate reporting and he has held senior management positions in both the private and public sectors in Australia, Belgium, the United Kingdom and the US. He has extensive regulatory and standard setting experience. Mario is a visiting professor at IESEG School of Management in Paris where he teaches in the Masters in Accounting, Audit and Control programme. He is also an expert advisor to the United Nations Conference on Trade and Development on corporate reporting.

Finance Launch



Andrew W. Mitchell

Founder Director Global Canopy

Andrew W. Mitchell is the Founder Director of Global Canopy in Oxford and Senior Adviser to Ecosphere Plus (E+), an impact investment and marketing company specialising in environmental assets. He is an international thought leader on tropical forests, climate change and financing natural capital. He has extensive field experience in Asia, Africa and Latin America, across a forty-year career spanning scientific research, conservation and finance for forests. He works to demonstrate the scientific, political and business case for safeguarding sustainable forests and landscapes as natural capital that underpins water, food, energy, health and climate security for all.



Francisco Ascui

Director, Centre for Business and Climate Change University of Edinburgh

Dr Francisco Ascui is an international expert in environmental accounting and finance, with 20 years' experience across business, government and academia. He has a PhD in carbon accounting, an MBA and an MSc in environmental management. He is currently a Director of the Centre for Business and Climate Change at the University of Edinburgh Business School, an Honorary Research Associate at the University of Oxford Smith School of Enterprise and the Environment, and an independent consultant. He has also served on the advisory boards of several international carbon and environmental accounting standard-setting bodies.



Theodor Cojoianu

Postdoctoral Research Fellow, UCD

Theodor Cojoianu is a Marie Curie and IRC Fellow, a postdoctoral research fellow at the Michael Smurfit Graduate Business School, University College Dublin and a doctoral researcher at the Smith School of Enterprise and the Environment. Theodor's work at the intersection between finance, sustainability and datascience is focused on applying innovative research methods to the study of sustainable development issues.

Afternoon Speakers



Patrick Holden

Founder and CEO Sustainable Food Trust

Patrick Holden is the founder and chief executive of the Sustainable Food Trust, an organisation founded in 2012 and working internationally to accelerate the transition to more sustainable food systems. Prior to this he was director of the Soil Association (until 2010) during which time he led high profile campaigns on the misuse of antibiotics, genetic engineering and the case for vaccination in the 2001 foot and mouth outbreak. He farms 300 acres in West Wales, now the longest established organic dairy farm in the principality, where he produces Hafod, a raw milk cheddar from the milk of his 80 Ayrshire cows. He was awarded a CBE for services to organic farming in 2005, is Patron of the UK Biodynamic Farming Association and was elected an Ashoka Fellow in 2016."



Harpinder Sandhu

Senior Research Fellow, Flinders University

A transdisciplinary scientist with research interests in studying the interactions between society and the environment. My current research focuses on measuring social, human and natural capital for the transformation of agriculture and food systems towards sustainability. I have contributed to the Scientific and Economic Foundations Report of the TEEBAgriFood hosted by the UN Environment, Geneva. I am Principal Investigator on several farm level studies applying True Cost

Accounting in agriculture systems. I am nominated by the Australian Government to the United Nations Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) as an expert and has been a lead author in Pollination Report and Asia Pacific Regional Assessment.



Rory Sullivan

Co-Founder and Director Chronos Sustainability

Dr Rory Sullivan is the Co-Founder and Director of Chronos Sustainability, which focuses on delivering transformative, systemic change in the social and environmental performance of key industry sectors. He is also Visiting Professor at the London School of Economics, Expert Advisor to the Transition Pathway Initiative, Expert Advisor to the Business Benchmark on Farm Animal Welfare, and Senior Advisor to the Fiduciary Duty in the 21st Century Project (PRI, UNEP FI and The Generation Foundation). He is the author/editor of eight books and many papers and articles on responsible investment, regulation, climate change and other social and environmental issues.



Martina Macpherson

President, Network for Sustainable Financial Markets

Martina is the Founder of SI Partners Ltd, an independent consulting firm specializing in (extra) financial risk management, legal and compliance, research and analytics solutions. She also leads a global non-for-profit ESG think tank, the Network for Sustainable Financial Markets – a social network for the next generation of sustainable finance experts. Martina is a doctoral fellow at ICRMP UK, a visiting fellow at Henley Business School and a guest lecturer at University of Zurich. She teaches and trains industry professionals such as investors, corporates and regulators (e.g. the FCA) in risk management, compliance, sustainable finance, ESG and impact investing, responsible banking and corporate governance. She sits on a variety of sustainable finance working groups, boards and panels to assess and report on the status of the market, policy and product innovation.



Jordan Grace

Associate Director, National Australia Bank

Jordan manages microfinance products, services and research at National Australia Bank (NAB). His role involves managing a team of product owners in the design, distribution and risk management of financial inclusion programs, and advocating for better outcomes for vulnerable customers throughout NAB. Prior to his current role, Jordan spent seven years in NAB's sustainability reporting and performance function – leading its contribution to the development of, and reporting against, the Integrated Reporting Framework. This work was a recognition of the need for greater transparency and understanding of an organisation's reliance, preservation or diminution of value across multiple capitals.



Alexander Müller

Study Leader TEEBAgriFood, TMG – Thinktank for Sustainability

Alexander Müller received a diploma in sociology at the Philipps-University in Marburg in 1985. He served as a city councillor in Marburg, a State Secretary and member of Parliament in Hessen, and a State Secretary for Germany's Federal Government. From 2006 until June 2013, Müller served as the Assistant Director General of the U.N. Food and Agriculture Organization (FAO), and was responsible for the FAO's work on Land and Water, Climate Change, and Genetic Resources for Food and Agriculture. He was nominated as a member of the Advisory Group on Energy and Climate Change (AGECC) in 2009 and has served the Chair of the United Nations System Standing Committee on Nutrition (UNSCN). Müller is also involved in Germany's green energy transition, known as the "Energiewende". Since 2014 Müller has served as the study leader for TEEB AgriFood and as the Managing Director of TMG – ThinkTankforSustainability.



Kay O'Regan

Business Engagement and Partnerships
Manager, University of Oxford

Kay has a background in environmental science and water engineering and is a professionally qualified partnership broker, with experience of industry, NGO and academic sectors. She supports academic colleagues from Social Sciences and Humanities, to identify opportunities and partners, find sources of funding, and scope collaborative research with businesses.



Natalia Brzezina

Research Programme Officer, European
Commission DG-AGRI

Natalia Brzezina is Planning and Programming Officer, dealing with research and innovation activities at DG Agriculture and Rural Development of the European Commission. Her portfolio includes notably the research and innovation activities related to food supply chains. She holds MSc in Agriculture and Commodity Sciences from Warsaw University of Life Sciences (Poland) and MSc in Food Chain Systems from Cranfield University (UK).

List of Participants

Alphabetically ordered.



Ravi Abeywardana

Chartered Accountant, Olam International
Limited

Ravi is a Chartered Accountant with ICAEW, working as a Sustainable Finance expert for Olam International, a leading food and agri-business supplying food, ingredients, feed and fibre to over 22,000 customers worldwide. Ravi operates within Olam's Corporate Responsibility and Sustainability team.



Jake Backus

Managing Director of Empathy Sustainability

Working on restorative supply chains and future landscapes through a project to restore up to 2M Ha of degraded rainforest in Indonesia with commensurate social and economic impact for local and indigenous people. Jake was formerly Customer Sustainability Director for Coca-Cola Europe and is a supporter of IFSTAL.



Lauren Baker

Director of Programs, Global Alliance Future
of Food

Lauren Baker, PhD, is the Director of Programs at the Global Alliance for the Future of Food, an alliance of philanthropic foundations working to transform global food systems. Lauren's work is focused on the intersections between food systems and health, climate change, agro-ecology and true cost accounting



David Barling

Director of the Centre for Agriculture, Food &
Environmental Management, Hertfordshire

David Barling is Professor of Food Policy at University of Hertfordshire, Director of the Centre for Agriculture, Food & Environmental Management and University food research theme champion. He has extensive research experience on externally funded food systems & policy research projects.



Jan **Bebbington**

Professor of Accounting and Sustainable Development, University of Birmingham

I research accounting techniques that support sustainable development including developing project appraisal methods to incorporate externalities into decision making. I am also working alongside a consortium of seafood companies who are seeking to address their social and environmental impacts.



Sam **Bickersteth**

Executive Director, The Rockefeller Foundation Economic Council on Planetary Health Oxford Martin School, Oxford

Sam is an agricultural economist with a background in food security, natural resources and climate change, having worked for PwC, DFID and Oxfam. He was head of programme policy at Oxfam and also held leadership positions for DFID in Bolivia, Mozambique and Nepal.



Lisa-Marie **Bischer**

Consultant - Life Cycle Management Evonik

Working at Evonik's Life Cycle Management Team since 2016. Conducting LCAs and supporting HQ + segments in portfolio analyses and impact valuation assessments. Focus on segment Nutrition & Care, particularly Animal Nutrition. Industrial Engineer by training. Master's thesis at MCC Berlin.



Peter **Bucher**

Temporary Program Development Officer Agriculture, International Union Conservation of Nature

I am an Agricultural Economist (ETH Zürich/CH) with extended experience in business/organizational, project/programme, network development/management and in communication, facilitation, blended adult learning.



Tracey **Campbell**

PhD Candidate, University College London

After twenty years in the City as an investor I then ran an NGO lobbying against commodity-driven deforestation, followed by a period of academic study. I am currently investigating whether investors can deliver the SDGs through engagement with companies in the food sector.



Hugo **Canwell**

Chief Executive Officer, Jeremy Collier Foundation

Hugo joined the Jeremy Collier Foundation as its new CEO in March 2019 after more than 15 years in corporate law. He has an MA in Russian from the University of Edinburgh.



Canxi **Chen**

Institute of Food, Nutrition and Health, ETH Zürich

Canxi is a doctoral candidate in Sustainable Food Processing Laboratory. Her current research is on food systems sustainability and implications for multiple dimensions like human health and environment. She has M.S. in ETH Zürich, Switzerland and B.E. in Zhejiang University, China.



Abbie Clare

Economic Adviser, Rockefeller Foundation
Economic Council on Planetary Health, Oxford
Martin School, Oxford

Abbie is a freelance consultant specialised in researching the metrics of climate change, resilience, health and wellbeing. Abbie holds a BA in Psychology, Masters degrees in Public Health and Environmental Science, and a PhD in Sustainable Development.



Samuel Compton

Operations Director, Global Open Data for
Agriculture and Nutrition

Compton is focused on rural resilience with emphasis on livelihoods and food production. His work has been based on initiatives that reduce conflict in regions where resources and land are fought over. As Programme and Country Director he has implemented projects in 18 countries and been based in Rwanda and Nigeria.



Sofia Condes

Global Alliance for Improved Nutrition (GAIN)

Sofia is a project manager for GAIN's food policy work in Haiti and innovative finance work in Sub-Saharan Africa. Her most recent focus consists of developing the metrics for investments in nutrition with the aim to raise the profile of nutrition as a new investment theme with quantifiable impact.



Tim Crosby

Principal, Thread Fund

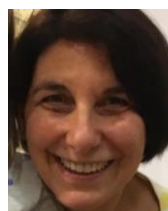
Tim Crosby is Principal of the Thread Fund, which focuses on investing multiple forms of capital to generate social and environmental returns alongside financial returns. Tim is a Member of the Global Alliance for the Future of Food, and Member of the Seattle Impact Investing Group.



Paula Daniels

Co_Founder, Center for Good Food
Purchasing

Paula Daniels is co-founder, Chief of What's Next, and Chair of the Board of the Center for Good Food Purchasing, founded in July of 2015 as a national spin off from the Los Angeles Food Policy Council, which Paula founded in 2011. Paula is an experienced private sector attorney who transitioned to public policy and has served in several senior level government positions. She was recently named an Ashoka Fellow.



Nadia El-Hage Scialabba

Food Ecology Consultant, TMG Think Tank for
Sustainability

33 years of work at the Food and Agriculture Organization of the United Nations (Rome, Italy), focusing on food and agriculture ecologies, from environmental impact assessment of field projects in Africa and Asia, and Caribbean and Pacific island countries, to conceptualization and development of sustainability assessment tools and full-cost accounting methodologies.



Forbes Elworthy

Founder, Map of Agriculture

Forbes Elworthy founded Craigmore Sustainables in 2010 and has since built it into New Zealand's third largest farming business, responsible for 45 farm and forestry enterprises in NZ. Craigmore has spun off an international farm data management company called Map of Ag which now assists 70,000 farms.



Barbara Gemmill-Herren Senior Associate, World Agroforestry Centre

Barbara Gemmill-Herren was Delivery Manager, Major Area of Work on Ecosystem Services and Biodiversity for Food and Agriculture at the UN Food and Agriculture Organization (FAO). She presently works as a senior associate to the World Agroforestry Centre, supporting the United Nations' work on agro ecology and true-cost accounting in agriculture.



Mark Goedkoop CEO, PRé Sustainability

Mark established PRé in 1990 and pioneered the field of LCA. Mark is widely recognized as an international thought leader in the field of sustainability metrics and methodology development. He has developed pioneering methodologies for impact assessment (Eco-indicator 95/99 and ReCiPe) as well as initiating development of the world's most widely used LCA software, SimaPro.



Emily Grady Manager, FRESH, World Business Council for Sustainable Development

Emily Grady leads WBCSD's work on the True Cost of Food. She joined WBCSD in June 2015 after completing her Master of Environmental Management degree at Yale University.



Adrian de Groot Ruiz Executive Director, Impact Institute

Adrian de Groot Ruiz is Executive Director of the Impact Institute. Adrian is also the Co-Founder and Director of True Price. Previously, he was Assistant Professor of Finance at Radboud University. Adrian is member of World connectors and alumnus of the Global Shapers Amsterdam.



Michael Hamm Professor of Sustainable Agriculture, Michigan State University

Mike's work is focused on sustainable and regionalized food systems. He is the C. S. Mott Professor of Sustainable Agriculture and Senior Fellow, Center for Regional Food Systems (CRFS) at Michigan State University and currently Oxford Martin Visiting Fellow at the University of Oxford.



Nicholas Holden Professor of Biosystems Engineering, University College Dublin

Nick Holden's research addresses the impact and sustainability of agriculture and food systems at the interface of soil science, system modelling and life cycle assessment. He is deputy director of the SFI Beacon Bioeconomy Research Centre, co-PI for the CONSUS SFI Strategic Partnership with Origin Enterprises Ltd, partner in several H2020 projects and director of two companies, Orbas CTR Ltd (sustainability consulting) and ProvEye Ltd (agricultural intelligence).



John Ingram Programme Leader, Food Systems Group, Environmental Change Institute, Oxford

I am interested in the conceptual framing of food systems; the interactions among the many actors involved and their varied activities, and the outcomes of their activities for food security, livelihoods and environment. I am also interested in the notion of valuation regarding food system resilience



Adele Jones

Head of External Relations, Sustainable Food Trust

Adele has been with the SFT since 2013 and runs their projects on true cost accounting in food and farming and the harmonisation of sustainability metrics. She is also currently undertaking a part time secondment with DEFRA to advise on 'the gold standard of metrics' - an government led initiative encouraging the emergence of a single, scaled set of measures for assessing farm and supply chain sustainability.



Matthew Jones

Head of Programme, Business and Biodiversity, UNEP-WCMC

Matt leads a team working with businesses and their influencers to embed natural capital within private sector decisions. The Business and Biodiversity Programme ensures that businesses have the incentives, capacity, knowledge and data necessary to take well informed decisions which might impact on biodiversity and ecosystem services.

Jessica Jugganadum

Sustainability Reporting Senior Manager, Danone



Nabeela Khan

Investment Manager, CDC Group

Nabeela is a Manager within CDC Group - UK government's development finance institute - focussed on Food and Agriculture investments across Africa and South Asia. This includes investments in the sector through direct equity, debt and funds. Previously she helped build the Impact Accelerator at CDC, a cross-sector, direct investment fund focusing on businesses with more challenging risk-return profile than those typically considered by commercial investors. She brings experience in investment, development finance and public policy.



David Laborde

International Food Policy Research Institute

His research interests include globalization, international trade, measurement and modeling of protectionism, multilateral and regional trade liberalization as well as environmental issues (climate change, biofuels).



Steven Lord

Environmental Change Institute, Oxford

I am a researcher in European Food Futures and Food Systems Modelling at the Environmental Change Institute at the University of Oxford. I am interested in future economic systems involving natural and social capital. I am interested in the use of technology for the tracking and synthesis of food processes in order to calculate and cost externalised impacts of the food system.



Ileana Manera

Sustainable Nutrition Platform Manager, Ferrero

Ileana is responsible of the Sustainable Nutrition Platform in the Technical Scientific Direction of Soremartec Italia Srl, R&D company of the Ferrero Group. She has been in charge of the coordination of the Environmental Sustainability Program of the Ferrero Group for more than 4 years. She has expertise in service-system design with focus on sustainability, Life cycle management (LCM), Life Cycle thinking (LCT), Life Cycle Assessment (LCA), packaging, graphics and communication and also involved in studies combining life cycle assessment and nutrition (sustainable nutrition).



Toby Martin

Asset Manager, Australian Agribusiness Group

Tobias is an assets manager for Australian Agribusiness Group, a private equity investment management corporation. Tobias oversees a mixed agricultural portfolio and holds a Bachelor of Agriculture from The University of Melbourne.



Agnès Martin

Health & Advocacy Director, Danone

Agnès Martin has been working for Danone for the last 26 years where she currently serves as Health Diet Advocacy Director in the Corporate Public Affairs team. Previously, she has been responsible for implementing business scientific strategy, developing and implementing governance principles.



Alison Midgley

Sustainable Finance Specialist, WWF-UK

I have a broad background in the natural sciences, specifically water and ecosystem management (MSc. Imperial College London, BSc. Biological Science from University of Cape Town) and have worked on tracking and mapping green finance (SEMed region), aiding in climate finance strategy development (Uganda), water management and conservation (South Africa) and sustainable forestry (Cambodia).



Anna-Karina Modin-Edman

Sustainability Manager, Arla Foods

She has worked in Arla Foods at corporate level for almost 6 years, in a corporate CSR-function working with environmental impact along the value chain. Has worked with developing a new environmental strategy beyond 2020, including Science Based Targets for the value chain.



Jill Nicholls

Senior Vice President, National Dairy Council

At NDC, I work with our nutrition, product and environmental research teams to develop a range of scientific resources to educate academic, government, and dairy community scientists about dairy's role in healthy dietary patterns and sustainable food systems. I have a doctorate in Nutrition Science.



Will Nicholson

Research Lead, Food Climate Research Network and the Food Foundation

Research lead for a new project for a sustainable and healthy food industry. It will scope out a set of actionable, verifiable and industry-relevant metrics that can be used to assess food business contributions to sustainable and healthy food environments; and it will build a multi-stakeholder partnership within the investment sector to advance the uptake.



Geraldine O'Grady

Head of Sustainability, (Flavours), Givaudan

Geraldine has 20 years experience in the food sector, spanning big FMCG companies, development agencies as well as B2B. She is responsible for sustainability in the Flavour Division at Givaudan, an industry leading flavours and fragrance company. She is passionate about the role of food in a sustainable future and in the achievement of the SDGs. Strongly believes that businesses have a powerful role to play.



Richard Perkins

Food Agriculture & Land Use Specialist, WWF

Richard Perkins has advised on agriculture, environment and land use for over 25 years in the UK and overseas, at WWF and SNH. He currently works to transform the food system to restore the natural environment through governance, innovation, finance, value propositions and thought leadership.



Katharina Plassmann

Senior Scientist Yara International

Katharina is a senior scientist at Yara's Research Center for Crop Nutrition in Germany. She works on the assessment of environmental impacts related to agricultural production and has a special interest in carbon foot printing, climate smart agriculture and agricultural sustainability.



Guy Poppy

UK Food Safety Chief Scientific Adviser, Food Standards Agency/University of Southampton

Professor Poppy has been working on food systems for more than 20 years. Originally focussed on environmental impact and sustainability, recent work has concerned nutrition, safety and standards. He is current a Chief Scientific Adviser in the UK Government and the UK Ag/Food representative for FCO SIN.



Aarti Ramachandran

Head of Research & Corporate Engagement, FAIRR Initiative

Aarti is Head of Research & Engagements at the FAIRR Initiative, where she oversees the investor network's collaborative engagement and research initiatives, including the ground-breaking Coller FAIRR Protein Producer Index



Olivia Riemer

Research Associate, TMG Think Tank for Sustainability

She works as a researcher at TMG Think Tank for Sustainability on projects including True Value of Food and Farming and Economics of Land Degradation. She graduated from University of Bonn and Swedish University of Agricultural Sciences with a double degree in Agricultural and Food Economics.



Dave Robb

Sustainability Manager, Cargill Aqua Nutrition

Since completing post-doc research in fish quality and welfare interactions, Dave has had a broad range of experiences in aqua feeds. Early projects to improve specific aspects of fish feed sustainability have pulled together into a global role addressing the sustainable value chain for aqua.



Marta Santamaria

Policy Director, Natural Capital Coalition

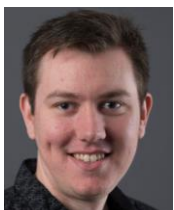
Marta is the Coalition's Policy Director. She has 15 years of experience promoting environmental economics and natural capital valuation, both in the public and the private sectors. Prior to her appointment at the Coalition, Marta worked as Scientific Project Officer for the European Commission's Institute for Energy and Transport. In the past, she has worked for PwC, the Spanish National Research Centre of Energy, Environment and Technology, Red Eléctrica de España and the Universidad de Alcalá. In 2012, Marta was awarded a PhD in Global Change and Sustainable Development from Universidad de Alcalá, Madrid, Spain.



Urs Schenker

Sustainability Specialist, Nestlé

Sustainability expert at the Nestlé Research Center in Lausanne, implementing quantitative methodologies for comprehensive sustainability assessments, including Life Cycle Assessment, Impact Valuation, and Science Based Targets GHG accounting.



Greg Smith

Research Fellow, University of Exeter

I am an environmental economist and research fellow with the Land, Environment, Economics and Policy Institute at the University of Exeter specialising in ecosystem services (mechanism design and valuation) natural capital, and decision support tools.



Diogo Souza-Monteiro

Senior Lecturer in Agribusiness Management, Newcastle University

I am a Senior Lecturer in Agribusiness Management at Newcastle University. My research focuses on the coordination of quality and information in food chains. I have investigated mislabelling mitigation strategies, use of mobile technologies improve healthier food choices and the extent to which nutrition labels and volunteer agreements contribute to healthier & sustainable food supply.



Tom Tomich

Founding Director, UC Davis, Agricultural Sustainability Institute

Professor Tomich is the founding director of the Agricultural Sustainability Institute and inaugural holder of the WK Kellogg Endowed Chair in Sustainable Food Systems at UC Davis. His research spans agriculture and farming systems, economic development, food policy, and natural resource management.



Anna Turrell

Head of Sustainability, Nestlé UK & Ireland

Anna is Head of Sustainability at Nestlé UK & Ireland, where she is responsible for managing the company's sustainability agenda. Prior to joining Nestlé, Anna worked in sustainability consultancy in Europe and Asia.



Vats Varun

Global Lead, Public Policy & partnerships, Syngenta

Varun Vats has joined Syngenta in June, 2012; manages company's relationships with external stakeholders on agricultural environmental sustainability. He also leads the rollout of company's policy positioning and thought leadership on topics material to the company.



Matthew Watkins

Manager, WBCSD

Matthew manages WBCSDs work on measurement & valuation of non-financial capital. He has 8 years of experience working in the field of business and sustainability and holds a Bachelor of Medicine/Bachelor of Surgery, and a Master's Degree in the Environmental Sciences from the University of East Anglia.

**Bo Weidema**

Senior Consultant, 2.-0 LCA Consultants

Cross-disciplinary research within social planning, agricultural science, economics, ecology, biodiversity indicators, life cycle costing, social LCA, sustainability assessment, uncertainty, and ecosystem services. Founder of 2.-0 LCA consultants. Professor at Aalborg University.

**Duncan Williamson**

International Head of Policy, Compassion in World Farming

I am the Head of International Policy for Compassion in World farming, working to convene an International Panel for food. I am developing its work on agricultural diversity and sustainable diets and leading its expansion into new countries. I work with the UN, research institutes and civil society.

**Geert Woltjer**

Senior Researcher, Wageningen University

Background in economics, and now specializing in circular economy, circular agriculture, and true pricing of food.

**Xiaoyu Yan**

Senior Lecturer in Energy & Envir., Exeter

I lead the Exeter Energy, Environment & Economy (4E) research group and work in many interdisciplinary areas around Energy, Water, Food and Environment. At 4E we work with governments, industries and the public to develop novel modelling tools to assess the sustainability of different technologies.

Notes

Acknowledgements

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The Global Alliance for the Future of Food (GAFF) is a strategic alliance of philanthropic foundations working together and with others to transform global food systems now and for future generations.

The future of food is at stake and the status quo is jeopardizing the efforts of many foundations, governments, businesses, farmers, and others, to promote food access, food security, food equity, human health, and a sustainable environment. GAFF believes in the urgency of transforming global food systems, and in the power of working together and with others to effect positive change. Food system reform requires that we craft new and better solutions at all scales through a systems-level approach and deep collaboration amongst philanthropy, researchers, grassroots movements, the private sector, farmers and food systems workers, Indigenous Peoples, government, and policymakers. <https://futureoffood.org/>

FReSH (Food Reform for Sustainability and Health) is one of the key initiatives of the World Business Council's (WBCSD's) effort to drive the transformation of the food system and to create a set of business solutions for industry change.

Launched in January 2017, FReSH brought together 25 WBCSD member companies to transform the food system. More than 30 companies are now part of this project. FReSH turns the conventional ‘farm to fork’ approach on its head by working from ‘fork to farm’ to develop, implement and scale transformative solutions that are aligned with science-based targets. This means starting with people and focusing on their consumption habits. Then working back through the food system – from retail, packaging and distribution to how and what is grown – to determine what levers business can pull to contribute to food system reform in order to create healthy, enjoyable food for all, produced responsibly, within planetary boundaries by 2030. <https://www.wbcd.org/Programs/Food-Land-Water/Food-Land-Use/FReSH>

Natural Capital Finance Alliance NCFA is a global alliance of financial institutions pioneering tools and best practice to manage natural capital risks and opportunities. It is supported by leading researchers, consultancies and practitioners on natural capital. It enables banks, investors and insurers to make better decisions by assessing their impacts and dependencies on nature. <https://naturalcapital.finance/>

Meeting organisation:

The Meeting is organised by the Food System Impact Valuation Initiative (FoodSIVI). FoodSIVI is an initiative between academia, industry and civil society to promote standardised and pre-competitive measurement and monetary valuation of environmental, social and health impacts of food systems. FoodSIVI's overall purpose is to work with other impact valuation and true cost accounting initiatives to help food system actors enhance food systems so that they are more sustainable, resilient and restorative, and deliver better health outcomes. FoodSIVI aims to:

- Improve current impact valuation methodologies and operationalise the Natural and Social & Human Capital Protocols for food systems, and new methods for the valuation of health impacts. Promote the development of standardised and comparable data, and convergence of current methods towards a common agreed approach.
- Promote the inclusion of environmental, health and social data in emerging food information and technology systems and undertake research in the longer term on the utilisation of such systems for impact valuation.
- Initiate and promote uses of impact valuation for food system governance, regulation, public procurement, research, and consumer labelling, through a wide and diverse network.

The Environmental Change Institute University of Oxford, Agricultural Sustainability Institute UC Davis, and Elisabeth Haub School of Law Environmental Law Program Pace University NY, are the academic co-convenors of the FoodSIVI. FoodSIVI is supported financially and non-financially by industry and civil society partners:



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Initiative for valuation of environmental, social and health impacts of food systems