How does ecological risk relate to commercial risk?

THE ROYAL SOCIETY

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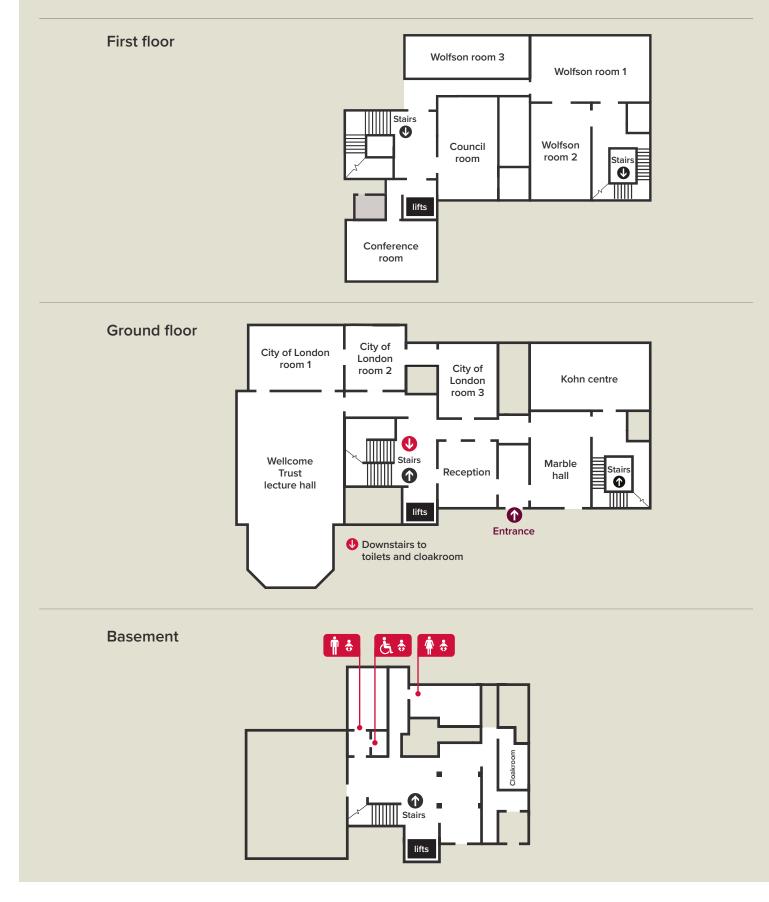
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Welcome

The event will be held in the Wellcome Trust Lecture Hall and the adjoining City of London Rooms on the ground floor.

Royal Society staff will be present throughout the meeting and are identifiable by their red lanyards or gold name badges should you have any questions or need to seek any additional information or support.

We hope you enjoy your time with us, and that the conference proves productive and enjoyable.

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09:15	Arrival, registration, refreshments
09:45	Welcome
	Professor Sir Partha Dasgupta FRS
10:00	Ecosystem services and physical risk
	Chair: Professor Jane Lubchenco ForMemRS
	Dr Tony Juniper CBE
	Professor Louise Heathwaite CBE FRS
	Professor Carl Folke
	Paul Polman KBE
11:30	Break
11:50	Financial Risk
	Chair: Pavan Sukhdev
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12:50	Lunch
13:50	Legal risk to companies and directors
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17:10	Reflections
	Professor Sir Partha Dasgupta FRS
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Agenda: Thursday 3 October

Agenda: Friday 4 October

08:30	Arrival, registration, refreshments
09:00	Investment and supply chain perspectives on the causes of and
	responses to nature loss
	Chair: Dr Sally Uren OBE
	Dr Helen Crowley
	Snorre Gjerde
09:50	Metrics
09.50	What is and is not possible
	Professor Neil Burgess
	Data availability and use
	Professor Andy Purvis
10:30	Panel Discussion
10.50	Chair: Dr Kat Bruce
11:00	Break
11:20	Frameworks for action
	Global policy goals
	Ana Maria Hernandez Salgar
	Architecture for action
	Cathrine Armour
	Reporting standards, tools and initiatives
	Dr Marco Lambertini
12:00	Panel Discussion
	Chair: Professor Jane Lubchenco ForMemRS
12:30	Lunch
13:30	What further science is needed to meet the objectives of Target
	15 of the Global Biodiversity Framework?
	Chair: Emily McKenzie
	David Croft
	Hirotaka Hideshima
	Dr Ian Hudson
	Abyd Karmali OBE
	Dan O'Brien
14:40	Break
15:10	Bridging the gap
	Chair: Professor Louise Heathwaite CBE FRS
	Dr Sharon Brooks
	Dr Heather Tallis
16:00	Reflections
	Professor Sir Partha Dasgupta FRS

Concept note

Introduction

In 2021 Professor Sir Partha Dasgupta FRS published his review into the economics of biodiversity. This set out the many ways in which our economies, livelihoods, and well-being are fundamentally dependent on the natural world. It also demonstrated how our collective demands on nature exceed the natural world's capacity to regenerate – pushing climate and ecosystems towards tipping points beyond which they will not provide the goods and services we rely on.

The Dasgupta Review prompted considerable business interest in what the analysis meant for them and their business models. This conference aims to help businesses understand the commercial risks they face due to ecological risks. The programme has been put together to provide business leaders with answers to three questions:

- Why should I care?
- What should I care about?
- What can I do about it?

As well as promoting business awareness of ecological risk, the conference provides an opportunity for scientists to understand the issues businesses are facing in measuring and managing their nature-related risks. In doing so, The Royal Society hopes to promote greater collaboration between these sectors to deliver solutions to shared challenges.

Day 1

Session 1: Ecosystem services and physical risk

Without nature there is no business. The direct benefits and provisioning services of nature, such as food production, materials for construction, and clean water are well known, especially to businesses that depend on them. The indirect benefits such as climate regulation, pest and disease control, and inspiration for innovation, are often taken for granted and their value not recognised until they are disrupted or lost entirely. Continued pressures on nature from human activities driving land-use change, pollution, and climate change are damaging ecosystems. There is also an increased risk of ecosystems reaching tipping points – abrupt, irreversible shifts in ecosystem states. These tipping points can lead to the collapse of the critical ecosystem services on which businesses rely, causing severe disruptions to operations and supply chains.

Even before we reach these tipping points, the extent of environmental degradation means physical risks are increasingly correlated around the world, limiting the scope for geographical diversification to mitigate these risks. As the climate and nature crises are interlinked, these physical risks include all the risks associated with climate change such as drought, flooding, and extreme temperatures, as well as biological risks such as pests and diseases, loss of pollinators, and overexploitation of wild plants and animals leading to population collapses.

The risks to their supply chains mean there is a self-interested reason for businesses to reduce their negative environmental impacts, both to increase their resilience to future shocks and to make the most of opportunities from new products and markets. Policymakers can help by ensuring transparency, promoting best-practice, and addressing collective action problems.

Key messages: Business depends on healthy ecosystems. The net effect of current business practices is undermining the capacity of these ecosystems to provide the goods and services that business depends on. Interactions between the climate system and biodiversity mean that passing a tipping point can trigger cascading effects, increasing the likelihood of tipping points being reached in other interconnected systems. As it is very hard to determine how close we are to a tipping point, we must avoid further damage to ecosystems that are showing signs of approaching such tipping points. New approaches to economics and business models are needed to avoid these impacts and policy has an important role in promoting this transition.

Session 2: Financial Risk

Nature-related dependencies and impacts translate into financial risks for the businesses that invest in them, lend to them, and insure them. These risks fall into three categories: physical risk, transition risk and systemic risk. This session will offer perspectives on how these risks play out at a range of scales.

At a macro level, development and central banks face challenges such as asset devaluation and nonperforming loans, while economic disruption causes market volatility. At the corporate level, companies contributing to environmental degradation may see negative impacts on market valuations and capital costs. The insurance and reinsurance sectors are particularly vulnerable, facing uninsurable assets, greater uncertain risk assessments and increased underwriting costs.

Key messages: Nature-related risks lead to economic risks for companies through reduced income and higher costs such as borrowing, insurance and regulatory compliance. Increased economic risks threaten market stability through changes to valuations and liquidity.

Session 3: Legal risk to companies and directors

Companies and their Directors face a wide range of current and future legal risks arising from their dependencies and impacts on nature. Some countries are introducing the crime of ecocide to their criminal codes. Civil society organisations have proved themselves effective at using the courts to hold both governments and businesses accountable for failing to comply with both national laws and international commitments.

In some jurisdictions, Directors could face personal liability and fines for failing to identify and manage naturerelated risks to their business. Companies can be held liable for both their direct impacts on nature and indirect impacts through their supply chains. Policy changes, such as import bans in the EU on products linked to deforestation, could abruptly cut off market access for some companies. Changes to disclosure requirements are likely to mandate that companies report on nature-related risks.

Key messages: Companies and their directors face significant legal risks related to their dependencies and impacts on nature, including potential personal liability for failing to manage these risks in their operations and supply chains.

Session 4: How do ecological risks compare with other supply chain risks?

Many companies have net-zero strategies and supply chain risk management increasingly includes climaterelated risks. Although Boards are less familiar with nature-related risks, climate and nature risks are interconnected and share similarities in their widespread and long-term impacts, providing an opportunity to assess and address the two together. However, there are important differences in the extent to which they are correlated and the scales at which they occur. To manage these risks effectively, companies should conduct comprehensive assessments, use scenario analysis, develop integrated strategies, and implement robust governance structures.

Key message: Companies should integrate ecological and climate risk management into their supply chain risk framework and adopt holistic strategies to boost resilience and sustainability.

Session 5: What can my business do?

Businesses can mitigate ecological risks independently or in collaboration with their supply chain partners. However, some interventions require ecosystem-level cooperation. This could require collaboration between competitors or across sectors that share a dependency on the same ecosystem. Speakers in this session will share their experience of working individually or through sector-wide frameworks to protect nature whilst avoiding anti-competitive practices.

Key messages: Having assessed their nature-related risks, businesses need to determine what interventions they can take alone and where collaboration is necessary. There are precedents for cooperation between competitors whilst complying with competition law.

Day 2

Session 6: Case studies: Investment and supply chain perspectives on the causes of and responses to nature loss

This session will feature perspectives from people involved in the production, retail and investment stages of supply chains. They will discuss topics such as the social and economic pressures on small-scale producers that lead to over-exploitation of nature, the barriers to generating and sharing data between supply chain partners, and opportunities for engagement to address these challenges.

Session 7.1: Metrics: What is and is not possible.

Nature's complexity makes it impossible to measure it in its entirety. There are hundreds of metrics about nature that provide some insight into this complexity, but it is not always clear how they differ or should support decision making.

This talk will explain the various elements of nature that metrics are trying to assess (such as the *state* of nature, the *pressures* that are driving changes in ecosystems, the *response* taken by society to address negative impacts, or the *ecosystem services* nature provides), how effective they are at doing so, and what metrics might be most relevant to business and political decision makers. It will also look at how new technologies like satellite imagery, ecological acoustics and eDNA are increasing our ability to monitor nature and add value to the metrics we use to understand it.

Key messages: Scientists can help businesses understand what metrics are best suited to measuring and managing their nature-related risks, the reliability of the data that underpins these metrics and where new technologies can help.

Session 7.2: Data availability and use

Businesses and policymakers face challenges in accessing and assessing location-specific nature-related data relevant to their infrastructure and activities. Data is available from various digital repositories and databases but it is not always clear how reliable and comparable this data is. This talk will help decision makers using biodiversity data by discussing data standards, quality, and the value of expert partnerships in helping to source decision-grade data, and explore efforts underway to close the nature-data gap.

Key messages: Decision-grade data needs to be up-to-date and location-specific. Not all publicly available data meets these standards, so businesses must carefully select the data on which their nature-related risk assessment and management strategies are based.

Session 8.1: Frameworks for action: Global policy goals

The four goals and 23 targets of the Kunming-Montreal Framework outline global efforts to reverse biodiversity loss while ensuring a good standard of living for all. Some of these targets, such as encouraging nature-related financial disclosures, are specifically aimed at businesses, whilst many others either depend on business action or have serious implications for current business models.

This talk will explain the processes and funding mechanisms through which the Global Biodiversity Framework aims to restore nature and discuss the roles businesses are expected to play. It will also look ahead to the next Conference of Parties to the UN Convention on Biological Diversity (CBD COP 16) and discuss the opportunities for businesses to engage with international decision making.

Key messages: International policy frameworks are emerging that will increase the emphasis on greater private sector investment in conserving and restoring nature.

Session 8.2: Frameworks for action: Architecture for action

The agreement of the Kunming-Montreal Framework has driven increased interest in global scale solutions to nature-related data. This talk will highlight some of the initiatives to develop a global nature-related public data facility to meet the demand for standardised, up to date, high-quality data.

Key messages: A global biodiversity data facility would help coordinate action across a range of scales and involving a range of actors. to help deliver global policy goals.

Session 8.3: Frameworks for action: Reporting standards, tools and initiatives

The overall goal of the Global Biodiversity Framework between now and 2030 is to halt and reverse biodiversity loss. To help coordinate action towards this goal, a consortium of 27 organisations convened the Nature Positive Initiative.

This talk will focus on the work the Nature Positive Initiative has done to identify a 'minimum, meaningful, practical, and available' set of proxy metrics for the state of nature.

Key messages: Consensus on a minimum viable set of metrics to assess the state of nature is important for the development, delivery and monitoring of nature conservation and restoration strategies.

Session 9: What further science is needed to meet the objectives of Target 15 of the Global Biodiversity Framework?

This panel discussion will hear from speakers from corporate supply chain businesses and financial institutions to discuss how science can help meet Target 15 of the Global Biodiversity Framework – that businesses assess, disclose and reduce their biodiversity-related risks and negative impacts.

Panellists will discuss why it is important to link state of nature metrics to ecosystem service provision, what kinds of questions can be answered using generic metrics and what has to be case, sector or biome specific. The session will also assess our ability to evaluate the risks from nature loss and returns on investing to conserve and restore nature.

Session 10: Bridging the gap

Having heard from scientists about the state of the art in measuring nature and from businesses about what information they need to inform their decision making, this session will consider the priorities and mechanisms for greater collaboration and alignment between the scientific and business communities. It will also discuss what businesses need from policymakers to encourage ambition and prevent collective efforts being undermined by those unwilling to engage.

Biographies: Planning Committee

Professor Sir Partha Dasgupta FRS (Chair)

Frank Ramsey Professor Emeritus of Economics, University of Cambridge



Partha Dasgupta is the Frank Ramsey Professor Emeritus of Economics at the University of Cambridge and Fellow of St John's College, Cambridge. He is a Fellow of the Royal Society and a Foreign Member of the US National Academy of Sciences, the American Philosophical Society, and the American Academy of Arts and Sciences. His most recent book is *The Economics of Biodiversity: The Dasgupta Review*, 2021, commissioned by the UK's Treasury, which has now been published, with additional material, by Cambridge University Press (2024).

Claudine Blamey Chief Sustainability Officer, Aviva



Currently Chief Sustainability Officer at Aviva. Claudine was previously the Director of Sustainability and Digital Strategy at Argent LLP for 3 years.

Claudine delivered the net zero carbon flights strategy at easyJet in her role as Director of Sustainability. Prior to this she set up the Group sustainability function at Sainsbury's covering sustainable sourcing, operational waste and community activity as well as group charitable partnerships and overall development of group wide sustainability strategy and implementation.

Claudine was responsible for the sustainability strategy for The Crown Estate's business. Claudine joined from SEGRO where she was Head of Sustainability.

Prior to this she was Director of Corporate Responsibility at British Land where she was responsible for Group corporate responsibility policy, implementation and communication.

Before this Claudine was the Environment Manager at Honda (UK). Claudine is on the City Corporation Property Investment Board and was previously on the Board of Business in the Community (BITC) and the Mace Group Responsible Business Board and was Chair of the Institute of Corporate Responsibility and Sustainability (ICRS) from 2015–2017. She is a Fellow of the Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA).

Professor Sebsebe Demissew ForMemRS

Professor of Plant Systematics and Biodiversity, Addis Ababa University



Sebsebe Demissew is Professor of Plant Systematics and Biodiversity at Addis Ababa University and Executive Director of the Gullele Botanic Garden in Addis Ababa, Ethiopia. He obtained his PhD in Systematic Botany from the Institute of Systematic Botany, Uppsala University, Sweden.

He served as the Leader of the Flora of Ethiopia and Eritrea between 1996 until its completion in 2009 in collaboration with Dr Inga Hedberg from the University of Uppsala in which 6000 species with 10% endemics are documented; the project involved 91 scientists from 17 countries. It is one of the few completed Floras in Africa.

His research and teaching are in the areas of biodiversity, ethnobotany, ecology and systematics in Ethiopia and the Horn of Arica. Over the years he has had a number of successful collaborative research projects with institutions in the UK, European Union and Africa. In 2022 he was the recipient of the 2022 Linnean Society Medal (Botany).

Professor Braulio Ferreira de Souza Dias

Director for Biodiversity Conservation and Sustainable Use, Ministry of the Environment and Climate Change (Brazil)



Braulio Ferreira de Souza Dias is a Brazilian biologist with a PhD in zoology from the University of Edinburgh. He has extensive experience in biodiversity, tropical ecology, conservation and ecosystem services, as well as at the science-policy interface, acting as a key negotiator in a number of international initiatives such as the Global Strategy for Plant Conservation (GSPC), the International Pollinators Initiative and the Global Strategic Plan for Biodiversity for 2011–2020 with the 20 Aichi Targets.

Braulio has been a researcher and lecturer at the University of Brasilia since 1982 and has 20 years of experience working in the Brazilian Ministry of the Environment. Braulio is a board member of several Brazilian conservation

organisations and has also been an advisor to the UN Food and Agriculture Organization (FAO) on agroecology and on mainstreaming biodiversity in agriculture. From 2012 to 2017, he was Executive Secretary of the UN Convention on Biological Diversity (CBD) and is currently the Director for Biodiversity Conservation and Sustainable Use at the Brazilian Ministry of the Environment and Climate Change.

Professor Jane Lubchenco ForMemRS

Distinguished Professor of Zoology, Valley Professor of Marine Biology, Oregon State University



Jane Lubchenco, ForMemRS, is Distinguished Professor of Zoology, Valley Professor of Marine Biology at Oregon State University (OSU), on Ioan since early 2021 from OSU to serve as Deputy Director for Climate and Environment at the White House Office of Science and Technology Policy. She is a marine ecologist with scientific and policy expertise in the ocean, biodiversity, climate change, and interactions between the environment and human well-being. She served as Under Secretary of Commerce for Oceans and Atmosphere, Administrator of the National Oceanic and Atmospheric Administration, and inaugural member of President Obama's Science Team from 2009–2013. From 2014–2016, she was the first State Department Science Envoy for the Ocean. She is an elected member of the National Academy of Sciences and the Pontifical

Academy of Sciences, among others, and has received numerous awards including 24 honorary doctorates (most recently from Oxford University).

Professor Yadvinder Malhi CBE FRS

Professor of Ecosystem Science, Director, Leverhulme Centre for Nature Recovery, University of Oxford



Yadvinder Malhi's research focuses on the ecological functioning of the terrestrial biosphere, and how this functioning can be measured, protected and restored in the context of global and local change. Much of his work has focused on the tropics, but has recently expanded to temperate, arctic and marine biomes. As Director of the Leverhulme Centre for Nature Recovery, he is also deeply interested in interdisciplinary approaches to the challenge of restoring nature at scale in a way that both effective and socially just.

Professor Dame Theresa Marteau

Director of the Behaviour and Health Research Unit, University of Cambridge



Professor Dame Theresa Marteau is a psychologist and behavioural scientist in the Clinical School at the University of Cambridge, and Honorary Fellow at Christ's College, Cambridge. Her research interests include:

- I. development and evaluation of interventions to change behaviour (principally diet, tobacco and alcohol consumption) to improve population health equitably and sustainably, with a particular focus on targeting nonconscious processes
- II. acceptability to publics and policy makers of government intervention to change behaviour. She is a Commissioner for the EAT-Lancet 2.0 Commission on Food, Planet and Health, focusing on making accessible to 10 billion people healthy diets produced within planetary boundaries.

Emily McKenzie Technical Director at the Taskforce on Nature-related Financial Disclosures



Emily McKenzie is the Technical Director at the Taskforce on Nature-related Financial Disclosures (TNFD). She has worked for 20 years integrating nature in policy, finance, economics and decision-making. Most recently, she led the analytical team that produced the independent, global Dasgupta Review on the Economics of Biodiversity, based at HM Treasury in the UK. Emily previously was seconded to the Capitals Coalition Technical Group where she helped develop the Natural Capital Protocol. Emily worked for a decade in the WWF Global Science team, where she helped establish and lead the Natural Capital Project at Stanford University. She also helped design the Environmental Land Management scheme in England – a major national agricultural subsidy reform programme – based at the UK Department of Environment, Food and Rural

Affairs. Other previous roles include working with the Joint Nature Conservation Committee and the Pacific Islands Applied Geoscience Commission.

Daniella Vega

Senior Vice President for Health and Sustainability at Ahold Delhaize



Daniella Vega has served as Senior Vice President for Health and Sustainability at Ahold Delhaize since April 2021. Daniella brings a wealth of experience across the media, fashion and food retail sectors, in designing and implementing sustainability, putting purpose at the heart of business. In January 2024, Daniella won silver at the European Chief Sustainability Officers Awards at the World Economic Forum in Davos for her leadership in sustainability. Before joining Ahold Delhaize, she was a member of the executive team at Selfridges Group, a UK based department store group. As Group Director of Sustainability, Daniella developed a robust long-term sustainability strategy and focused on empowering others to see the interconnections between themselves, business, society, and the environment. Under her leadership, Selfridges established a strong net zero

carbon strategy, developed a risk-based approach to supply chain transparency, and launched 'Project Earth', a consumer- and brand-facing engagement initiative with the objective of changing the way we shop. She led sustainability teams across four markets and had responsibility for the development and implementation of sustainability strategy, governance and reporting across the Selfridges Group international portfolio. Before joining Selfridges in 2014, Daniella had pioneered the sustainable business strategy for Sky Group, a direct-to-consumer media company, as Head of Corporate Responsibility (UK & Northern Ireland). Her work at Sky brought together her background in media production and her passion for sustainability and was recognised with a Guardian Sustainable Business Award in 2013 for communicating sustainability. Daniella earned her Bachelor Degree in Social Science from the University of Bath and went on to study at Hult International Business School where she earned her Master's Degree in Sustainability.

Sir Patrick Vallance FRS

Sir Patrick served as a member of the Planning Committee in his capacity as Chair of the Natural History Museum. He stepped down from the Planning Committee following his appointment as Minister for Science after the 2024 UK General Election.

Biographies:Speakers and Chairs

Cathrine Armour

Director of Data Initiatives, Task Force on Nature Related Disclosures



Cathrine is the global Director of Data Initiatives for the Task Force on Nature Related Disclosures (TNFD). Previously she was Chief Responsible Investment Solutions Officer for the Principles for Responsible Investment (PRI) and Chief Customer Officer at the UK Hydrographic Office (UKHO).

Having founded her career in geospatial data and technology she is an advocate for open data and committed to the value of data in answering mission critical questions in global policy development and decision-making including commercialisation and economic development.

Advisory Board Member for the National Centre for Earth Observation, and Independent Member of the Board of Governors, Falmouth University. Her academic interest lay at nexus of activist leadership, decision intelligence, and environment and society.

Alison Bewick

Global Head of Group Risk Management, Nestlé



Since 2015, Alison Bewick has been Head of Group Risk Management at Nestlé. Ms. Bewick has more than 20 years of financial and commercial experience with global corporations in various sectors including consumer goods, pharmaceuticals and media. She has held senior finance roles across the full value chain, from research and development, procurement, production, business development, marketing and sales.

Professor Robert Blasiak

Associate Professor, Stockholm Resilience Centre, Stockholm University



Robert is Associate Professor at the Stockholm Resilience Centre at Stockholm University, where he leads research programs on ocean stewardship, marine biotechnology and financial risks of climate change on seafood production. He currently leads the science team working with the science-industry collaboration Seafood Business for Ocean Stewardship (SeaBOS), seeking to understand if keystone actors can trigger transformative change towards ocean stewardship. He received his PhD from the University of Tokyo, and has previously worked with the United Nations University and International Labour Organization.

Dr Sharon Brooks Head of Nature Economy, UNEP-WCMC



Sharon leads a team of dedicated professionals with specialist skills at the interface between the economy and nature. Sharon works closely with businesses, financial institutions, and governments to drive action that addresses the nature crisis and supports sustainable development. This includes supporting development and reform of policies, standards and accountability mechanisms, as well as developing tools, guidance and technical knowledge to build capacity and enable action. Sharon is a Coordinating Lead Author for the IPBES Business and biodiversity assessment. She has over 20 years of experience in international conservation, an MSc in Applied Ecology and Conservation, and a PhD in the field of Conservation and Development.

Dr Kat Bruce Founder, NatureMetrics



Kat is a biodiversity scientist and one of the global pioneers in the use of environmental DNA for large-scale biodiversity assessment. Kat founded NatureMetrics in 2014 to improve the ability of businesses, governments and NGOs to measure and track the state of nature at site-based assets. From a team of 4 scientists, NatureMetrics has become one of the world's leading nature technology companies, helping hundreds of companies to track their impacts and make better decisions for nature across global portfolios of sites. She is one of the founding members of the UK Business and Biodiversity Forum, part of the TNFD data catalyst, and has been involved in both Climate and Biodiversity COPs in recent years as a leading voice in the fast-emerging field of NatureTech.

Professor Neil Burgess Chief Scientist, UNEP-WCMC



Professor Neil Burgess main job is the Chief Scientist of UNEP-WCMC, a collaboration center of the United Nations Environment Programme which focuses on biodiversity. At UNEP-WCMC he oversees the scientific and technical work, develops profile and collaborations with external partners interested in the conservation of nature, and promotes the role data and analysis plays in effective conservation delivery. He is also a part time Professor of Conservation Science at the University of Copenhagen in Denmark, and has lived and worked in Scandinavia and Africa for many years running field conservation projects, especially in Tanzania. He has published several books and over 250 scientific papers and has a Google Scholar H-factor of 101.

Lord Robert Carnwath CVO Former UK Supreme Court Justice, Associate Member Landmark Chambers



Lord Carnwath was a member of the UK Supreme Court from 2012 to 2020, having been a judge since 1994 (including from 2005-2012 Senior President of Tribunals). He had been a practising barrister from 1968 (1980-85 Standing Counsel to Inland Revenue; 1985 QC; 1988-94 Attorney General to HRH the Prince of Wales). He has taken a special interest in environmental law, and has given many leading judgments on that subject. He was a founder-member of the EU Forum of Judges for the Environment ("EUFJE"), and of the Global Judges' Institute on the Environment ("GJIE"), and has spoken on climate change and environmental issues at conferences in many parts of the world. He is currently an Associate Member of Landmark Chambers, and (among other academic posts) a Visiting Professor in Practice at the Grantham Institute on Climate

Change and the Environment at the LSE.

David Croft

Group Head of Sustainability, Reckitt



David leads sustainability for Reckitt, the global health and home hygiene company reaching billions of people around the world. He is responsible for their work on environmental and social sustainability worldwide, integrating this within the core business. He works with farmers, communities, manufacturers and customers across an international value chain, alongside Reckitt's global supply chain, brand, and R&D teams. His work stems from a personal goal to develop inclusive growth at scale through the organsiations and partnerships he is part of.David has a wealth of experience from major global companies, holding senior roles within Diageo, Kraft Foods and Cadbury, and the UK retailers, Waitrose and the Co-operative Group. With these, he led technical, quality, marketing and sustainability functions to deliver growth and consumer engagement through

stronger sustainable supply chains, product quality, brand equity and shared value. David also chairs the Business Industry Advisory Council's Development Committee, leading private sector input to the OECD Development Committee. Amongst other external roles, he is a member of the TNFD taskforce, contributing to the development of nature and biodiversity measurement and disclosure.

Dr Helen Crowley

Nature Advisor and Non-executive Director, Pollination



Dr. Crowley has a 30+ year career underpinning her global expertise in biodiversity across public and private sectors designing and implementing nature based and natural climate solutions, nature/biodiversity business strategy, investment and financing opportunities for impact. Her professional work spanned over a decade on conservation strategy and programs with Wildlife Conservation Society in Africa and Madagascar, a decade building corporate sustainability leadership with the luxury group, Kering, and most recently leading the nature focus across all sectors as Managing Director at the advisory and investment firm, Pollination. She is now a Senior Advisor at Pollination and focuses her efforts more broadly as a global advisor to companies and investors guiding the development and implementation of their strategies and initiatives to

align with the transition to Nature Positive and Net Zero and to contribute to building an economy thriving within the safe operating space for humanity. Dr. Crowley also dedicates time to teaching, writing and presenting to build awareness on ways of integrating nature into design and business. To this end she presents often in global fora, podcasts and online courses, co-produced a short documentary film and was noted as one of the top 52 'newsmakers' in Australia in 2022. She is a non-executive Director on the Board of NatureHelm, and also contributes to the Advisory Boards of the non-profits Wildlife Friendly Enterprise Network, Textile Exchange, Capitals Coalition and Savory Foundation and is a mentor to start-ups and innovators through Superorganism and Sustainabelle Advisory. She has a PhD on Ecology from the Australian National University, has led research expeditions with the Australian Antarctic Expeditions to the Sub-Antarctic and the National Geographic Society in Madagascar. She was awarded Chevalier de l'Ordre National from the President of Madagascar for services to the country.

Catherine David Director Behaviour Change and Business Programmes, WRAP



Catherine is a senior leader in the sustainability sector, with experience in developing and nurturing partnerships for impact. Catherine joined WRAP (Waste and Resources Action Programme) in October 2021, bringing experience from roles at The Fairtrade Foundation and The Coop.

Catherine is passionate about building a fairer and more sustainable planet for future generations. Her responsibilities at WRAP include leadership of our business collaboration work - including through our voluntary agreements on food, plastics and textiles - as well as oversight of WRAP's citizen behaviour change activities.

Professor Carl Folke

Professor, Director of the Beijer Institute, Founder and Chair of the Board of the Stockholm Resilience Centre



Professor Carl Folke is Director of the Beijer Institute, Founder and Chair of the Scientific Committee of the Anthropocene Laboratory, the Royal Swedish Academy of Sciences, and Founder and Chair of the Board of the Stockholm Resilience Centre, Stockholm University, Sweden. He is a systems thinker in integrative science for sustainability with a focus on social-ecological systems, resilience, and how progress, prosperity and wellbeing will benefit from reconnecting development to the biosphere foundation. He has a long record of science, policy, and practice collaboration, working with key actors from local landscapes to international bodies and transnational corporations, and is genuinely engaged in the arts-science interface. He is elected member of the Royal Swedish Academy of Sciences and the U.S. National Academy of Sciences

and has received international recognitions, like the Planet and Humanity Medal, the Gunnerus Sustainability Science Award, and the Heineken Prize for Environmental Sciences.

Snorre Gjerde

Lead Investment Stewardship Manager, Norges Bank Investment Management



Snorre Gjerde is Lead Investment Stewardship Manager at Norges Bank Investment Management, the Norwegian sovereign wealth fund. He leads the fund's ownership activities on a number of environmental topics, including nature and biodiversity loss, and engages with companies in close collaboration with portfolio managers. He also works to advance global sustainability standards across markets where the fund invests, and represents NBIM as a Taskforce Member on the Taskforce on Nature-related Financial Disclosures (TNFD). Previously, Snorre worked as an equity analyst in the fund's Equity Strategies department, and for Bank of America Merrill Lynch's Equity Research division in London. Snorre holds an MBA from London Business School, a Master's degree in Financial Economics from NHH - Norwegian School of Economics, and a

CEMS Master's in International Management from NHH and the London School of Economics and Political Science.

Professor Louise Heathwaite CBE FRS

Distinguished Professor, Lancaster Environment Centre, Lancaster University and Executive Chair, National Environmental Research Council



Louise Heathwaite is a Distinguished Professor at Lancaster University in the Lancaster Environment Centre and is currently serving as Executive Chair of the Natural Environment Research Council, part of UKRI. She is an independent commissioner for the Geospatial Commission in the UK's Department for Science, Innovation and Technology (DSIT) and has previously served as Chief Scientific Adviser to the Scottish Government for Rural Affairs, Food and Environment. By training she is a hydrochemist who combines field and modelling research to understand the environmental impact of land use on water quality. Her research has advanced in-situ high-frequency monitoring of nitrogen and phosphorus fractions in rivers providing unique insight into nutrient cycling that support policy interventions to reduce water quality degradation.

Ana Maria Hernandez Salgar Former IPBES Chair. Senior advisor, CBD COP16 presidency, Colombia.



Internationalist from Jorge Tadeo Lozano University (Colombia). 28 years of expertise in international environmental law, international negotiation on biodiversity, and science-policy interface, with several publications about policy and legislation on biodiversity. Experience, amongst others, as Head of the Office of International Affairs of the Ministry of Environment of Colombia and Head of the international affairs Office at the Alexander von Humboldt Institute. Also, professor at the Rosario University and Javeriana University. Experience at multilateral level as Colombian governmental negotiator to the Convention on Biological Diversity and to the Intergovernmental Platform on Biodiversity and Ecosystem Services, IPBES. Representative of Latin America and the Caribbean (GRULAC) to different bureau of environmental treaties such as the United

Nations Convention against Desertification and Drought (UNCCD) and IPBES. Chair of IPBES from May 2019 to September 2023. Member of the advisory board of the United Nations Decade on Ecosystem Restoration from 2021 to 2023. Since March, 2024, high level advisor to CBD COP16 presidency. Awarded as environmental personality of the year by El Espectador Newspaper in 2019, by the Jorge Tadeo Lozano University in 2020, and by Ecovidrio Awards in 2022.

Hirotaka Hideshima

Counsellor on Global Strategy, Norinchukin Bank



Hirotaka HIDESHIMA has been Counsellor on Global Strategy of the Norinchukin Bank from April 2021. In November 2022, he joined the Taskforce on Naturerelated Financial Disclosures (TNFD). He has been involved in the development of the sector guidance for financial institutions, the getting started guidance, and the discussion paper on value chains. Hirotaka HIDESHIMA has worked for the Bank of Japan from April 1989 to March 2021. He has represented the Bank on the Basel Committee on Banking Supervision (BCBS) between August 2010 and September 2012, and then again between January 2018 and March 2019. He co-chaired the Definition of Capital Subgroup (when it developed the definition of regulatory capital for Basel III), and the Macroprudential Supervision Group (when it developed the G-SIB assessment framework). From July 2002 to July 2005, he was seconded to the BCBS Secretariat at the Bank for International Settlements.

Diane Holdorf Executive Vice President, World Business Council for Sustainable Development



Diane B. Holdorf is the Executive Vice President (EVP) at the World Business Council for Sustainable Development (WBCSD), where she leads efforts to accelerate system transformations in food, agriculture, energy, and health. She joined WBCSD in 2018 as Managing Director of Food and Nature and became EVP for Pathways in 2021. Before WBCSD, Diane was Vice President and Chief Sustainability Officer at Kellogg and held leadership roles at Delta Consultants. She has been recognized for her impact on climate action by GreenBiz and is an Oxfam Sisters on the Planet Ambassador. Diane holds degrees in Public Communications and German from Syracuse University and an Executive MBA from the University of St. Thomas. She serves on several advisory boards, including the Global Commons Alliance and Business for Nature.

Dr Ian Hudson

Head of Environment Nature and Land, Anglo American



Dr lan Hudson is the current Head of Environment Nature and Land at Anglo American, based in London. In this role Ian leads a global team responsible for setting the strategic direction on topics ranging from biodiversity, physical climate change risk, rehabilitation, restoration water stewardship and nature-based solutions. Ian joined Anglo American in 2020 as Head of Environment and prior to Anglo American held a range of executive positions in the energy sector covering a range of operational and corporate functional roles living and working around the world. Ian serves as a Taskforce member of TNFD and has a background in marine science with a PhD from the National Oceanography Centre in the UK and remains active in marine research conservation.

Dr Tony Juniper CBE Chair, Natural England



Tony Juniper CBE is a prominent environmental figure, active in the defence of Nature for 40 years. He has led major organisations, run global campaigns, written many books and advised at the highest levels. He began his career as an ornithologist and went on to join Friends of the Earth, initially leading the tropical rainforest campaign and then was appointed as Executive Director. He worked as an advisor to HRH The Prince of Wales, was President of the Royal Society of Wildlife Trusts and was an Executive Director at WWF-UK. He is now the Chair of the British Government's official conservation agency Natural England and a Fellow with the University of Cambridge Institute for Sustainability Leadership. He has advised many global businesses on their environmental strategies. His books include the multi-award winning What has Nature ever done for us? and

Harmony, which was co-authored with The Prince of Wales. Tony Juniper is a frequent contributor to TV and radio broadcasts and is a prolific speaker on environmental themes. He has received many awards and widespread recognition for his environmental work and in 2017 he was appointed Commander of the British Empire (CBE) for services to conservation.

Abyd Karmali OBE Managing Director, Environmental & Social Business Advisory, Bank of America



Abyd Karmali is a Managing Director, Environmental & Social Business Advisory at Bank of America based in London. From 2007-2014, he served as Merrill Lynch's (subsequently BofA ML) Global Head of Carbon Markets. In 2014, he became part of the team supporting the bank's broader capital deployment commitment to mobilise \$1.5 trillion in sustainable finance by 2030 and to reach net zero across by 2050. He has worked for more than 30 years on climate change and sustainable finance and was made an Officer of the Most Excellent Order of the British Empire (OBE) for these efforts in the Queen's New Year's Honours List for 2019. In 2022, Financial News included Abyd its in inaugural list of "The 50 Most Influential in Sustainable Finance" and he received the same accolade in 2023. Before joining the financial sector in 2007, he was a partner in

a management consulting firm in Washington DC, Toronto and London where he advised companies on their climate strategy and also spent two years with the United Nations Environment Programme in Paris as Energy and Climate Change Programme Officer. From 2013 to 2015, Mr. Karmali was selected to serve as one of two inaugural private sector representatives to the Board of the UN Green Climate Fund in Songdo, South Korea. He is a member of the Taskforce on Nature-related Financial Disclosures (TNFD) and serves on the Judging Panel for the Sustainable Development category of the King's Award for Enterprise, the Board of the International Emissions Trading Association, India Advisory Board of The Climate Group, and the Board of NatureFinance. He holds an MS in Technology and Policy from the Massachusetts Institute of Technology

Dr Marco Lambertini

Convener, Nature Positive Initiative



Marco Lambertini is the Convener of the Nature Positive Initiative. Marco was WWF International Director General (2014-2022) and Special Envoy (2023). Before joining WWF he was Global Director of Network and Programme and subsequently CEO of BirdLife International. Marco's experience and career ranges from ecological field research to high level advocacy and international policy, nature reserve management, integrated conservation and development projects, environmental education, NGO development, communications and campaigning, in many countries all over the world. Marco is a member of the China Council (CCICED), a member of the Board of Directors for the Foundation Prince Albert III de Monaco, co-chair of the Nature Action 100 Science Council, former co-chair and now Board member of the Belt and Road Initiative Greening

Coalition, a founding member of the Nature Action Agenda and the Friends of Ocean Action at WEF, outgoing member of the UN Global Compact Board and former co-focal point for UN DESA's Community of Ocean Action on Marine/Coastal Ecosystems. Marco is also former co-chair of the Global Commons Alliance.

Charmain Love

Global Director of Advocacy, Natura &Co



Char is the Global Director of Advocacy where she is focused on supporting the business to take a stand on key issues and deepening relationships with partners who share a focus on engaging in system level change. She also continues to teach and learn with students at Said Business School, University of Oxford where she designed the popular MBA course The Regenerative and Circular Economy: How to Do Business in a Climate Emergency, and the executive course The Oxford Climate Emergency Programme.

Char is a serial entrepreneur having been the co-founder of Volans, Heliotropy and B Lab UK where she held the role of Chair and Activist in Residence.

Waseem Malik Chief Claims Officer, Aviva



Waseem is the Chief Claims Officer of UK & Ireland General Insurance at Aviva. He joined Aviva in 2022 and has extensive experience in the insurance industry having previously worked at AXA Insurance for 16 years including undertaking the role of Executive Managing Director for Claims and also Chief Financial Officer. He is a gualified Chartered Accountant and began his career at PwC.

Dame Julie Maxton Executive Director, the Royal Society



Dame Julie Maxton is the Executive Director of the Royal Society, the first woman in 350 years to hold the post. Before taking up her position at the Royal Society in 2011 Julie was Registrar at the University of Oxford, the first woman in 550 years in the role. She is an Honorary Fellow of University College Oxford, a Bencher of the Middle Temple, a Freeman of the Goldsmith's Company and a Board member of Sense about Science. In the past she has also been on the Boards of the Alan Turing Institute, Blavatnik School of Government in Oxford, Haberdasher Aske's School (Elstree), Engineering UK, Charities Aid Foundation and The Faraday Institute. Originally trained as a barrister at the Middle Temple, Julie combined a career as a practising lawyer with that of an academic, holding a number of senior academic positions, including those of Deputy Vice Chancellor, Professor and

Dean of the Faculty of Law at the University of Auckland, New Zealand. Academic and other recognition Julie has received include a CBE (2017) and Honorary Doctorates from the Universities of Huddersfield, Warwick, Canterbury, Hull, Bristol and Brunel. She is the author of several books and numerous articles concerned with trusts, equity, commercial and property law. Julie was made a Dame in the New Years Honours List 2023.

Dan O'Brien

Sustainability Partner, PwC Canada



As a Partner and leader in the Sustainability and ESG practice in Western Canada, Dan works with clients from various sectors to align their business strategies with the environmental and social challenges and opportunities of the future economy. With over 20 years of experience in environmental consulting and management, he delivers innovative and effective solutions for nature-related risks, climate strategy, energy efficiency, low emission transportation, and environmental management systems. In addition to advising clients on ESG performance and risk assessment, he also contributes to the global discourse on nature-related financial disclosures as a member of the Taskforce on Naturerelated Financial Disclosures (TNFD). He leverages his academic background in quantitative ecology and professional credentials in project management and

environmental auditing to facilitate multi-stakeholder dialogues and support impact and risk assessments. Dan has published peer-reviewed articles on conservation biology, climate change, and species recovery. He is passionate about driving positive change and creating value for both businesses and society.

Jo Paisley President of the GARP Risk Institute



Jo Paisley is President of the GARP Risk Institute, the thought leadership arm of the Global Association of Risk Professionals (GARP). Set up in early 2018, it now largely focuses on climate and nature risk management. She hosts GARP's Climate Risk Podcast. Her career began at the Bank of England where she worked in a variety of roles, across macroeconomics, statistics, supervision and risk. Her last role was as a Director of the Supervisory Risk Specialists Division within the Prudential Regulation Authority, where she was heavily involved in the design and execution of the UK's first concurrent stress test in 2014. She left the Bank in 2015 and joined HSBC as their Global Head of Stress Testing. She has also worked as an independent stress testing consultant, advising firms on how to get the most value out of stress testing.

Paul Polman KBE

Business leader, climate and equalities campaigner



Paul Polman works to accelerate action by business to tackle climate change and inequality. As CEO of Unilever (2009-2019), Paul demonstrated that business can profit through purpose, marrying a long-term, multi-stakeholder model with excellent financial performance. During Paul's tenure, shareholders saw their returns increase by 290% while the company consistently ranked 1st in the world for sustainability. Today Paul works across a range of organisations to advance the UN Sustainable Development Goals, which he helped develop. This includes his work to drive systems change with Systemiq and bold new industry coalitions, including in fashion and food. He leads the UN Global Compact, is an Ambassador for the Race to Zero, and works to develop our next generation of leaders, through the Oxford University Saïd Business School, INSEAD, One

Young World and others. Paul's actively campaigns on a range of human rights issues, including promoting disability inclusion through the Valuable 500 and the Kilimanjaro Blind Trust, which he set up with his wife Kim. Follow him on twitter and sign up to receive his newsletter here. More on <u>www.paulpolman.com</u>.

Professor Andy Purvis

Research Leader, Natural History Museum



Professor Andy Purvis is a Research Leader at the Natural History Museum in London. He heads the PREDICTS project (Projecting Responses of Ecological Diversity In Changing Terrestrial Systems), which aims to model globally how local terrestrial biodiversity responds to human pressures and to use these models to project potential biodiversity futures under alternative scenarios of socioeconomic development. He was a Coordinating Lead Author on the first IPBES Global Assessment of biodiversity and ecosystem services, scientific advisor on Sir David Attenborough's documentary, "Extinction: The Facts", and a contributor to Greta Thunberg's recent Climate Book.

Dr Nicola Ranger

Director, Resilient Planet Finance Lab and Senior Research Fellow, Environmental Change Institute, University of Oxford



Dr Nicola Ranger is Director of the Resilient Planet Finance Lab at the Environmental Change Institute of the University of Oxford, and co-Director of the UK Integrating Finance and Biodiversity Programme. Nicola brings 20 years' experience across government, research and the private sector. She brings significant technical expertise in risk, analytics, economics, finance and fiscal policy as a practitioner and researcher. She works with governments, Central Banks, regulators, financial institutions and international organisations to help align policy and finance with resilience and sustainability goals. Her research covers the interaction between climate, nature, finance, food, water and the SDGs with a strong risk analytics, finance, macro and public policy lens. She has formerly held senior positions at the World Bank, HM Treasury, FCDO, the UK Department for International Development and the London School of Economics and Political Science.

Marc Reinke

Head of the Sustainable Finance Office, De Nederlandsche Bank and co-chair of the Task-Force on Nature Related Risks, Network for Greening the Financial System



Marc Reinke is the head of the Sustainable Finance Office at De Nederlandsche Bank (DNB). DNB is one of the frontrunners when it comes to integrating naturerelated risks beyond climate, such as loss of biodiversity, in its core tasks. Reinke also co-chairs the taskforce on Nature-related Financial Risks within the Network of Central Banks and Financial Supervisors for Greening the Financial System (NGFS).

Dr Nina Seega

Director, Centre for Sustainable Finance, Cambridge Institute for Sustainability Leadership



Recently named by the global news agency Reuters as one of 20 trailblazing women in climate in 2024, Dr Nina Seega is the Director of the Centre for Sustainable Finance at the Cambridge Institute for Sustainability Leadership (CISL) – combining her first-hand finance experience with academic rigour. Under Nina's leadership the Centre's mission is twofold. Firstly, to embed sustainability considerations into every financial decision. Secondly, to change the financial system comprehensively to deliver finance for the Sustainable Development Goals. In addition to her role at University of Cambridge Institute for Sustainability Leadership, Nina is a member of the Sustainable Finance Advisory Panel at the Monetary Authority of Singapore, Strategic Advisory Board on Sustainable Finance at the British Standards Institute, and the Sustainable Finance Scientific Council at S&P Ratings.

Sharif A. Shivji KC Barrister, 4 Stone Buildings



Sharif is known as a leading barrister in company law and commercial litigation and has a substantial international practice. In March 2024 Sharif wrote a landmark opinion on directors' duties, climate change, nature and sustainability. He holds a number of non-executive directorships including as Chairman of the Board of Advocate, the Bar's legal advice and representation charity. He has spent much of his professional life working with financial institutions and was formerly a derivatives trader in London and Hong Kong.

Rebecca Stubbs KC Barrister, Maitland Chambers



Rebecca (KC 2012) is a barrister specialising in company, insolvency, banking and financial services law, often with an international element. She is a particular interest and expertise in governance, directors' duties, climate change, nature and sustainability.

Pavan Sukhdev CEO and Co-Founder, GIST Impact



Pavan is a scientist by education, an international banker by training, and an environmental economist by passion. He previously led the UN's Green Economy Initiative and The Economics of Ecosystems and Biodiversity (TEEB) study. As CEO of GIST Impact, Pavan works with corporations and investors, harnessing the power of impact economics and technology to discover a business's full value contribution to the world. Pavan is a former President of WWF International and has served on the boards of Conservation International, GRI, and the Stockholm Resilience Centre. His work has been recognised through several awards, including the Blue Planet Prize (2016, the Tyler Prize (2020) and most recently, the EAERE European Practitioner Achievement Award in Applying Environmental Economics (2024

Dr Heather Tallis Senior Fellow, Center for Coastal Climate Resilience, University of California



As an interdisciplinary scientist, Dr. Heather Tallis works to bridge nature, the economy and people's lives. Dr. Tallis served as President Biden's policy advisor on nature in the White House Office of Science and Technology Policy, where she drove cross agency action on nature-based solutions, advanced efforts to account for nature in benefit-cost analysis, and with the US Global Change Research Program, created the National Nature Assessment. Through previous work with The Nature Conservancy and the Natural Capital Project, she has used the tools of science, human centered design and innovation to infuse nature into decisions with local communities, governments and the private sector around the globe. She is currently an independent advisor, holding roles across multiple sectors including with the World Wildlife Fund, the University of California, Santa

Cruz, and private engineering and technology companies.

Dr Sally Uren OBE CEO, Forum for the Future



Sally has worked with wide-ranging businesses, non-profits and philanthropic organisations throughout her career and currently leads Forum for the Future's mission to create a just and regenerative future in which both people and the planet thrive. This involves a laser-focus on transforming how the world thinks about, produces, consumes and values both food and energy, and on reimagining the purpose of business in our society and economy. Sally joined Forum in 2002, originally as Head of Business Programme, and is now Chief Executive, having overseen the non-profit's expansion from its UK roots to running thriving programmes across the U.S, Southeast Asia and India. Sally is actively involved in sector-wide collaborations and in one-to-one work with leading businesses, including Target, Olam, Aldi and Aviva Group and more. She regularly speaks at

flagship sustainability conferences while writing for key media publications, all with the desire to influence what people think, feel and do in response to our intensifying social, environmental and economic challenges.

Sally is currently an independent member of Advisory Boards for several global businesses, including Bentley Motors and Ecovadis, and is Trustee for the Galapagos Conservation Trust and an independent Non-Executive Director for the Duke of Sussex's Travalyst sustainable tourism initiative

With a background in ecology, she is particularly passionate about the potential and reality of regenerative business. In December 2017, Sally received an OBE in the Queen's New Year's Honours List for services to sustainability in business.