

How good is science!?

EIANZ ANNUAL CONFERENCE

ONLINE 9, 10, 16 & 17 November 2021

KEYNOTE SPEAKERS



THE HON. LILY D'AMBROSIO MLA

MINISTER FOR ENERGY, ENVIRONMENT AND CLIMATE CHANGE (VICTORIA)

Liliana (Lily) D'Ambrosio is a member of the Australian Labor Party and has represented the electorate of Mill Park in the Victorian Legislative Assembly since 2002. She was appointed the Minister for Industry and Minister for Energy and Resources following the election of the Andrews Labor Government in 2014. In 2016 she became Minister for Energy, Environment and Climate Change.

Minister D'Ambrosio is a leader in action on climate change, renewable energy and energy efficiency in Australia. She oversaw the passage of the Climate Change Act, Victoria's landmark climate legislation which saw it become the first Australian state to legislate in line with the Paris Agreement for net zero emissions by 2050. The Minister has also overseen an overhaul of the Environmental Protection Act 1970, refocusing the regulatory body to focus on the prevention of harm to human and environmental health.

In 2015, Minister D'Ambrosio oversaw the development and implementation of the Andrews Labor Government's Future Industries Fund, and Sector Strategies to harness Victoria's competitive advantage to target growth industries including the new energy technologies sector.

She remains the only woman responsible for energy across the nine national and sub-national governments in Australia and is a leading advocate for a modernised Australian energy system that facilitates a smooth transition into a clean, reliable and affordable energy future.

PRESENTATION | HOW GOOD SCIENCE DRIVES VICTORIA'S ACTION ON CLIMATE CHANGE

Victoria's Minister for Energy, Environment and Climate Change, the Hon. Lily D'Ambrosio MLA, will detail Victoria's Climate Change Strategy, announced in May. She will discuss Victoria's ambitious renewable energy targets, its sector-wide pledges to reduce emissions and why Victoria has positioned itself as a global leader in the race to a climate resilient net-zero future.



DR GILLIAN SPARKES AM

COMMISSIONER FOR ENVIRONMENTAL SUSTAINABILITY, VICTORIA

Dr Sparkes is Victoria's Commissioner for Environmental Sustainability, an independent statutory role that reports and advises government and the community on the environment. She is pioneering the implementation of the UN SDGs into environmental reporting for Victoria and is leading reforms in environmental monitoring, assessment and reporting, in particular working to maximise the value and potential of spatial data to monitor, manage and report on the condition of Victoria's environment.

Initially an industrial chemist, Dr Sparkes' career spans four decades across the private, public and not-for-profit sectors. Her non-executive roles include Chair of FrontierSI (the former Collaborative Research Centre for Spatial Information), a Commissioner of the Victorian Building Authority Board and board member of the Country Fire Authority (CFA), Industry Capability Network (Victoria) and the Royal Children's Hospital Foundation.

As Chair of Frontier SI, Dr Sparkes is a member of the 2030 Space and Spatial Industry Growth Roadmap Steering Group supporting the growth of the space and spatial industries in Australia. Through this work, Gillian is a strong advocate for the transformative potential of the space and spatial sectors for economic growth and dealing with complex environmental issues associated with pressures such as climate change, urbanisation and population growth.

PRESENTATION | SCIENCE FOR SUSTAINABLE DEVELOPMENT

The 2021 report by Working Group 1 of the Intergovernmental Panel on Climate Change (IPCC) is the 6th Assessment report (AR6) and a comprehensive assessment of the physical science associated with climate change. Scientific advances have enabled many statements on the causes and effects of climate change to be made with increased confidence in AR6 compared with previous reports. AR6 finds that global surface temperatures in the last decade are now warmer than at any time during the last 100,000 years. The window for action is rapidly closing to keep temperatures below the 2 degrees Celsius above pre-industrial levels and to pursue no more than a 1.5 degree Celsius increase with global surface temperatures now about 1.1 degree Celsius higher than in 1850-1900 with human activities explaining the observed warming.

Dr Sparkes will discuss the importance of investment in science and some of the practical implications of the IPCC findings through the lens of her work in various capacities including as the Victorian Commissioner for Environmental Sustainability, a Board member of the Country Fire Authority (CFA) and Chair of FrontierSI, to both demonstrate the impact of climate change in a local context and highlight the critical role that space and spatial science and the sector more broadly does have and increasingly will have, as a key capability to support nations and communities address climate change mitigation, adaptation and response.



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BARRY HUNTER

DJABUGAY BULMBA RANGER COORDINATOR, AUTHOR -
INDIGENOUS LAND SECTION, STATE OF THE ENVIRONMENT
REPORT (AUSTRALIA)

Barry J Hunter is a descendant from the Djabugay speaking people of Cairns hinterland. He grew up besides the Barron River in the rainforest near Kuranda. Barry's experience includes employment in government conservation agencies, mining and exploration industry, community and not-for-profit NGOs, and recently as a consultant working around Aboriginal Land management, carbon industry and community economic development. Barry has over 30 years' experience in Aboriginal affairs particularly in areas of land, natural and cultural resource management.

Barry has a Bachelor of Applied Science from Charles Sturt University and has a keen interest in the work community rangers do in looking after land, fire management and cultural heritage. He has a real passion building community capacity and planning to deliver sustainable social, cultural and economic outcomes within communities. He is the Chairperson for the Aboriginal Carbon Foundation, a Board member of Terrain NRM and the Lead Author, Indigenous Lands, for the Australian State of the Environment Report 2021.

PRESENTATION | TRADITIONAL ECOLOGICAL KNOWLEDGE AND SCIENCE



BILLY VAN UITREGT

LECTURER IN ENVIRONMENTAL STUDIES | VICTORIA UNIVERSITY,
WELLINGTON

Billy van Uitregt has Ngaa Rauru, Whanganui, Tūhoe, and Nederlander tribal and cultural affiliations. He was born and raised in Australia but has returned to his ancestral lands in Whanganui. He lectures in Environment and Earth Sciences at Victoria University, Wellington. In Australia he worked with the Anindilyakwa Land and Sea Rangers in Northern Territory and then with First Nations communities in the South Australian Murray-Darling Basin on water policy. He is currently researching indigenous worldviews and knowledge, particularly around environmental conservation.

PRESENTATION | MĀTAURANGA PĀKEHĀ – UNDERSTANDING WESTERN KNOWLEDGE TRADITIONS THROUGH AN INDIGENOUS FRAMING

Researchers and policy makers around the world are grappling with bringing indigenous voices, worldviews and knowledges into contemporary environmental science, policy and governance. These attempts often replicate the historical power structures that not only place Indigenous peoples under the microscope but also force them to define and defend their cultural values, identities and ways of being and knowing. The title of this talk hopes to make those power structures visible and asks us all to deconstruct, define and defend the assumptions we make as researchers in the "western" academy. My Master's research proposes the development of settler colonial research agenda that places the settler colonial under the microscope to not only bring the "invisible" power structures to light but to provide a means to theorise their deconstruction. In this talk I want to engage you in a conversation about how you think and talk about Indigenous knowledge and science and reflecting on our own cultural values, identities and ways of being and knowing that are embedded in our environmental practice.



DR JEN MARTIN

LEADER, SCIENCE COMMUNICATION TEACHING PROGRAM
SCHOOL OF BIOSCIENCES | UNIVERSITY OF MELBOURNE

Dr Jen Martin spent many years working as a field ecologist until she decided the most useful thing she could contribute as a scientist was to teach other scientists how to be effective and engaging communicators. Jen founded and leads the University of Melbourne's acclaimed Science Communication Teaching Program. She also practices what she preaches: for 15 years she's been talking about science each week on 3RRR radio, she writes for a variety of publications, hosts podcasts and MCs events. Jen was named the 2019 Unsung Hero of Australian Science Communication, received the 2020 University of Melbourne David White Award for Teaching Excellence and is a member of the Homeward Bound Teaching Faculty. Jen's first popular science book, 'Why am I like this? The science behind your weirdest thoughts and habits' will be published in early 2022.

PRESENTATION | WHY SCIENCE IS ONLY AS GOOD AS THE WAY IT'S COMMUNICATED

The COVID-19 pandemic, on top of the climate and biodiversity crises, highlights that we live at a time in which it has never been more critical for scientists be able to communicate the findings, relevance and implications of their work to wide and diverse audiences. And surveys over the last decade have shown many Australians are deeply interested in science. But the same surveys show many people struggle to find information about science that they can understand. At the same time, research has also established that over time, science writing has become more and more difficult for non-scientists, or even scientists in other fields, to understand. Back in 1975, Michael Crichton lamented obfuscation in medical writing but despite his call to action to make scientific writing more accessible, the opposite has occurred. In this talk, Jen will consider why this is the case and what can be done about it.



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SIMON MOLESWORTH AO QC

EIANZ LIFE MEMBER, FELLOW & PAST PRESIDENT

The Hon. Simon R Molesworth AO QC, BA, LLB, FEIANZ, FAICD, FAIML, FVPELA, FFAHS, PIA (Hon.F), C.Env.P., LMEIANZ, M.ICONOMOS, MRSV is a former Judge of the Land & Environment Court of NSW; a former Vice Chancellor's Professorial Fellow, Monash University; a former Adjunct Professor, La Trobe University's Social & Environmental Sustainability Institute, and a Certified Environmental Practitioner. He was one of the founders of: the EIANZ, the Victorian ELS (being first environmental law association in Australia), then the National Environmental Law Association (NELA), the Environment

Defenders Office (EDO) and the International National Trusts Organisation (INTO) all of which he led for many years. As a pastoralist in Outback NSW, focused on promoting agroecology and biodiversity conservation, he founded and leads Landcare Broken Hill's exemplary and award-winning whole-of-community sustainability initiatives under the banner 'Greening the Hill'. With a multi-disciplinary background, wide leadership experience on boards and advisory councils in multiple sectors, he is recognised as an inspirational leader, nationally and internationally, being appointed a fellow of six professional organisations, and the recipient of a multiplicity of honours and awards in all his disciplines, recognising his achievements.

PRESENTATION | THE GREENING THE HILL EXPERIMENT

Convinced that a better understanding of science is critical to the determination of good policy, achieving better planning and securing improved decision-making, a small team in April 2019 launched an ambitious project 'Greening the Hill' in the NSW Far West. Focused on translating science and expertise into action and by continually communicating science to the widest possible audience thereby demonstrating the relevance of science, they believed they could truly bring about beneficial change in their region. Their concurrent objective was to demonstrate to Australia, as an exemplar, that there are pathways that others could embrace. Confronted by deep seated prejudices, an aversion to change, a disadvantaged socio-economic spectrum within the regional communities, an 'out-of-sight, out-of-mind' approach by decision-makers in distant seats of power, a lack of access of resources all within the concurrent almost overwhelming environmental context, the worst drought in the region in Australia's recorded history, Landcare Broken Hill became starkly aware of the limitations of science. This presentation explores the strategies adopted to overcome these challenges and demonstrate that there is hope. 26 months after launching Greening the Hill Mk2, Landcare Broken Hill has grown from zero current members to ~350 volunteers. With multiple strategies devised to bring real differences to the whole Far West NSW community at a time of extreme stress, not only in the midst of the severest drought yet experienced in the NSW Far West, but in the context of the mounting confirmation of the adverse effects of climate change, the remedy was a holistic strategy to engage with the entire community embracing all aspects of environmental management and sustainable liveability. A proactive communication strategy, including 180 radio interviews to date, has been critical. Of all the 46 concurrent projects, the Landcare Sustainability Hub is the standout flagship project - devised to provide a one-stop-shop approach to inspire, educate and involve – it's designed to demonstrate the interlocking nature of ecology and biodiversity conservation, with each component to demonstrate key scientific messages.



DR ALISON COLLINS

DEPARTMENTAL CHIEF SCIENCE ADVISOR | MINISTRY FOR THE ENVIRONMENT / MANATŪ MŌ TE TAIAO

Alison, intrigued from an early age about the how the world works, studied soil science (the mysterious universe beneath our feet) and geomorphology (how landscapes evolve). Seeing many different soils and landscapes became a passion and took her on a journey from the UK, around Europe and into Mississippi before landing almost 15 years ago in Aotearoa New Zealand.

Alison spent 12 years working for Manaaki Whenua – Landcare Research, leading a portfolio of science around ecosystems, soils, land use and informatics. She worked closely with regional councils and central government agencies in understanding and prioritising their science needs, and working with the science community to find ways to facilitate better uptake and use of science. In this capacity she established and became director of a centre for integrating data and science-based tools, facilitating clear and engaging communication.

Alison joined the Ministry for the Environment in August 2017 as Departmental Chief Science Advisor. Still passionate about enabling wise use of science, her role is focused on ensuring 'valued and trusted science for environmental stewardship'. On a day-to-day basis this means translating complex science, navigating the science system so decision-makers can better access and use excellent research, and building capability at the science-policy interface.

PRESENTATION | THE BRIDGE



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