



LEARNING TO ADAPT 5

**Building the capacity of Australia's professionals
to respond to climate change**



THURSDAY 1 AUGUST 2013
SCIENTIA BUILDING
UNIVERSITY OF NSW | SYDNEY
9AM – 6PM

To register go to www.eianz.org/eventsplus/event/lta

www.eianz.org

FOREWORD

The climate is changing and there is now a greater understanding of the risks of further climate change . Industry and government need professionals with skills and knowledge to help society adapt to a changing climate.

Adaptation involves undertaking actions to reduce the adverse consequences of climate change, as well as to harness beneficial opportunities. Climate change is affecting a broad array of human and natural systems, with consequences for health, food production, water supplies, the built environment and many other areas vital to our economic and social well-being. Professionals across wide range of sectors, and at all levels within industry and government, will need adaptation to climate change knowledge and skills.

EIANZ and ACCARNSI are progressing the Learning to Adapt series in order to develop and build the capacity of professionals. This event has brought together an outstanding set of speakers and facilitators from across the sciences, the public and the private sector to deliver you an insight into how leading organisations are adapting, and what skills you need to learn to make a professional contribution. Experts will outline a set of core competencies in the areas of risk assessment, climate change science, policy and regulation and carbon management. Subsequent events will deliver training in each, rigorously building the capacity of our profession. We hope you find the day rewarding and, most importantly, are able to apply the learnings to address the challenges presented by a changing climate.

EVENT PARTNERS



Tom Davies
Chair, EIANZ Special Interest Section

PROGRAMME

8.30 am	REGISTRATIONS AND BREAKFAST	
9am	Welcome and Opening Address	Robyn Williams , Science Journalist and Broadcaster, ABC Radio
9.10am	Keynote Speaker	Gerry Hueston , Commissioner, Australian Climate Commission
9.40am	Expert Panel Discussion	Robyn Williams (Moderator), Science Journalist and Broadcaster, ABC Radio Kevin Hennessey , Principal Research Scientist, CSIRO Marine and Atmospheric Research Gerry Hueston , Commissioner, Australian Climate Commission Catherine Bremner , Head of Environmental Sustainability GTSO, ANZ Benedikte Jensen , Head of Division, Adaptation and Science Division, Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education.
10.40am	MORNING TEA	
11am	Regulatory Context for Climate Change Adaptation	Benedikte Jensen , Head of Division, Adaptation and Science Division, Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education.
11.20am	Mitigating Climate Risk for Business	Ben Waters , Director, Ecomagination, GE Australia/NZ
11.40am	Climate Change Adaptation in Business Planning	Olivia Tyler , Group Manager Corporate Social Responsibility Treasury Wine Estates
12pm	Integration of Climate Change and Professional Practice	Ron Cox , Associate Professor, Civil and Environmental Engineering, University of NSW, Convenor, Australian Climate Change Adaptation Research Network for Settlements and Infrastructure (ACCARNSI) Simon Cavendish , Steering Group Lead, Climate Change Special Interest Section, EIANZ Robyn Williams , Science Journalist and Broadcaster, ABC Radio
12.30pm	LUNCH	Mara Bun , CEO, Green Cross Australia: Introducing the Business Adaptation Network
1.30pm	TRAINING SESSIONS	
Stream 1	Climate Change Impacts	Kevin Hennessey , Principal Research Scientist, CSIRO Marine and Atmospheric Research
Stream 2	Risk Assessment	Patrick Gallagher CSC , Principal Manager Risk, Transport for New South Wales Karl Sullivan , General Manager Risk & Disaster, Insurance Council of Australia
Stream 3	Regulation and Policy	Christopher Lee , Manager Impacts and Adaptation, Regional Operations Group, Office of Environment and Heritage, NSW Department of Premier and Cabinet Amanda McKenzie , Senior Communications Advisor, Climate Commission
Stream 4	Carbon Management	Catherine Bremner , Head of Environmental Sustainability GTSO, ANZ Matthew Bell , Partner, Climate Change and Sustainability Services at Ernst & Young
2.45pm	AFTERNOON TEA	
3pm	WORKSHOPS CONTINUE	
4.15pm	Resilient Mindset	Robyn Williams , Science Journalist and Broadcaster, ABC Radio
5pm	Next steps	Tom Davies , Chair, EIANZ CC Special Interest Section Past President, EIANZ NSW
5.15pm	DRINKS AND NETWORKING	

SUPPORTED BY



FUNDING PARTNER: Office of Environment and Heritage - NSW (OEH) The Office of Environment and Heritage works to protect and conserve the NSW environment, including the natural environment, Aboriginal country, culture and heritage and our built heritage, and manages NSW national parks and reserves. Our vision is to support the community, protect, strengthen and enjoy a healthy, productive environment and economy in NSW.



GOLD SPONSOR: INSURANCE COUNCIL OF AUSTRALIA (ICA) The Insurance Council of Australia is the representative body of the general insurance industry in Australia. Its members represent more than 90 per cent of total premium income written by private sector general insurers. Insurance Council members, both insurers and reinsurers, are a significant part of the Australian financial services system.

The private sector insurance industry generates gross premium revenue of \$38.7 billion a year and has assets of \$115.8 billion. The general insurance industry on average pays out \$102 million in claims to policyholders each working day. Insurance Council members provide insurance products ranging from those usually purchased by individuals (such as home and contents insurance, travel insurance and motor vehicle insurance) to those purchased by small businesses and larger organisations (such as product and public liability insurance, commercial property, and directors and officers insurance).



SILVER SPONSOR: AUSTRALIAN CLIMATE CHANGE ADAPTATION RESEARCH NETWORK FOR SETTLEMENTS AND INFRASTRUCTURE (ACCARNSI) The Australian Climate Change Adaptation Research Network for Settlements and Infrastructure (ACCARNSI) is hosted by the School of Civil and Environmental Engineering at the University of New South Wales (UNSW).

ACCARNSI is one of eight Adaptation Research Networks hosted by the National Climate Change Adaptation Research Facility (NCCARF), Griffith University. The aim of ACCARNSI is to initiate and develop effective strategies to respond to climate change through mitigation, adaptation and implementation. It is bringing together researchers and stakeholders with an interest in climate change adaptation for coastal settlements, public and private infrastructure, the built environment and urban regional planning. Research direction will assist government, the private sector and vulnerable regions and communities to make informed decisions on how best to educate, plan and manage adaptation for the risks of climate change on coastal settlements, urban and built environments and infrastructure.



SILVER SPONSOR: Cardno Cardno is an ASX-200 professional infrastructure and environmental services company, with expertise in the development and improvement of physical and social infrastructure for communities around the world.

From early beginnings as an engineering consultancy, Cardno is now a global company on a mission to shape the future for communities. The Cardno group has continued to strategically merge with businesses to augment and enhance the Company's capabilities. This expansion has been supported by organic growth of existing services. One of Cardno's growth successes has been with our Environmental capabilities. We recognise client's battle increasing pressure and demands to demonstrate thorough environmental management practices, and we work with them to comply with regulatory requirements, minimise environmental impacts, minimise energy, water and other resource use and mitigate the impacts of climate change, among others.

Cardno's Environmental capability also extends to the Americas, where Cardno ENTRIX has a robust history of some 25 years, delivering a comprehensive suite of environmental services. Cardno ENTRIX helps clients to obtain Environmental Permits for new and expanded projects, construction monitoring to ensure environmental compliance, and environmental assessments. Cardno draws on the collective expertise of our forward-thinking Scientists, Engineers, Planners and Auditors to implement: Environmental Management, Planning and Approvals; Air Quality and Noise Management; Natural Resource Management; and Climate Change solutions.

Globally, Cardno employs more than 8,000 staff in over 290 offices, to deliver solutions in 85 countries, and we remain committed to helping clients to achieve their commercial objectives.



SILVER SPONSOR: Institute of Environmental Studies (IES) Over the last 20 years the the Institute of Environmental Studies (IES) has contributed to the global vision of sustainable development which we see as socio-economic development that protects and enhances the environment and social justice. Through world-class innovative research and interdisciplinary teaching in environmental studies and management we are responding to the challenges of the 21st century. The IES delivers innovative, interdisciplinary, flexible and practical programs that combine a solid foundation in environmental management with choice from a wide range of cross faculty electives. Our students develop comprehensive knowledge and skills designed to enhance their careers and enable them to play a meaningful role in a sustainable future.

Postgraduate programs by coursework or research are available on campus and online.

SPEAKERS



Robyn Williams
Science Journalist and Broadcaster
ABC Radio

Science journalist and broadcaster, Robyn Williams, presents Radio National's Science Show, Ockham's Razor and In Conversation. Although he graduated with a Bachelor of Science (Honours) in England, Robyn admits to spending as much time acting as studying. Early in his career he made guest appearances in The Goodies, Monty Python's Flying Circus and Dr Who and stood in for Tom Jones for four months in his TV series. He has conducted countless interviews with scientists on ABC TV on programs such as Quantum and Catalyst, narrated the Nature of Australia series and appeared in World Safari with David Attenborough. Outside the ABC, Robyn has served in various capacities, including President of the Australian Museum Trust, Chairman of the Commission for the Future, and President of the Australian Science Communicators. In 1987, he was proclaimed a National Living Treasure.



Gerry Hueston
Commissioner
Australian Climate Commission

Gerry Hueston has recently retired after a career spanning 34 years with BP with the last 7 years as President, BP Australasia. In his time at BP, Mr Hueston has worked in a variety of management and senior executive roles across the full breadth of BP's activities including five years on the North West Shelf Gas Project. He has significant global experience having been based at various times in the UK and Continental Europe as well as Australia and New Zealand. In his role as Australasian President, Mr Hueston had accountability for BP Refining and Marketing in Australia, NZ and the South West Pacific with oversight for BP Exploration and Production. Mr Hueston is a past Chairman and board member of the Australian Institute of Petroleum, a past Board Member of the Business Council of Australia, a past member of the Chairman's Panel of the Great Barrier Reef Foundation and was Chairman of the BP group of companies in Australia from 2003. He was also a key member of the Business Roundtable on Climate Change and was recently Chairman of the Business Council Sustainable Growth Taskforce. Mr Hueston holds degrees in Science (Chemistry) and Commerce (Accounting and Economics) from the University of Canterbury, Christchurch, New Zealand. He has also completed senior executive leadership programs at INSEAD, Harvard, Stanford, MIT and Cambridge business schools.



Olivia Tyler
Group Manager Corporate Social Responsibility
Treasury Wine Estates

Olivia is a CSR/sustainability professional with over 12 year's industry experience. Currently, she is Group Manager - Corporate Social Responsibilities at Treasury Wine Estates, responsible for the development and execution of the global CSR Strategy for TWE. Key focus areas include:

- Environmental sustainability within TWE's operations;
- Supply chain sustainability looking at both environmental and social sustainability matters;
- TWE's global community investment program;
- Working with regional and brand business units to build brand value from TWE's CSR efforts;
- Leading internal CSR communication efforts with TWE employees building a CSR focussed and supportive culture
- Coordinating measurement & reporting efforts on TWE's CSR achievements
- Industry engagement & thought leadership on CSR related matters

She advises the business on matters of relevance to the CSR program and convenes the TWE Global CSR Council chaired by David Dearie (TWE CEO). Most recently, Olivia was Vice President of the Sustainable Agriculture Initiative - Australia Platform and is currently a Director on the Board of the UN Global Compact Network Australia. Most recently, Olivia was the Global Manager - Environment at Foster's Group joining the business in 2008. Prior to that Olivia held the positions of National Environment Manager at Coca-Cola Amatil and Goodman Fielder, and National Program Manager at the Beverage Industry Environment Council. Olivia holds Bachelors of Environmental Engineering and Marine Science, and is currently half way through her MBA and Melbourne Business School.



Catherine Bremner
Head of Environmental Sustainability GTSO
ANZ

Catherine Bremner is Head of Environmental Sustainability at ANZ. Catherine's role at ANZ is to lead ANZ's environmental sustainability team, ensuring that ANZ continues to deliver on its environmental sustainability commitments globally, including compliance obligations and environmental reduction targets. Catherine comes to the role, from being Chief Operating Officer at Low Carbon Australia, where she invested \$100m fund for energy efficiency and clean energy projects. Catherine is also a member of the expert advisory panel for Climate Works Australia, the Energy Efficiency Council and sits on the energy efficiency advisory committee for Climate Bonds and UNEP Finance Initiative internationally. She graduated from Oxford University in 2001 with a Masters in Environmental Management and her undergraduate degree was in Chemical Engineering from the University of Queensland. Catherine's background is in environmental finance, engineering and sustainability consultancy. Before the role at Low Carbon Australia, Catherine was Head of International Development at the Carbon Trust in the UK - where she spent 7 years, advising large companies on cost-effective energy efficiency and renewable energy investment opportunities.

She has over a decade of experience in finance and environmental sustainability, having also worked with Ecos Corporation and McKinsey & Company in Australia.



Benedikte Jensen,
Head of Division, Adaptation and Science
Division,
Department of Industry, Innovation, Climate
Change, Science, Research and Tertiary
Education.

Benedikte joined the Department in October 2012 from the Department of the Prime Minister and Cabinet where she was a Project Director in the Strategy and Delivery Division. Benedikte has also held senior management roles in the New Zealand government, most recently as Deputy Secretary, Work Directions, for the New Zealand Department of Labour. She was seconded from the New Zealand Treasury to be the Economic and Financial Advisor to the Prime Minister, the Rt Hon Helen Clark, during the Global Financial Crisis. Her management roles have spanned economic strategy, immigration policy, labour market regulation and tax policy. Benedikte was Research Director at the independent think tank, the New Zealand Institute, in 2009, and worked at the Federal Reserve Bank of San Francisco's Country Analysis Unit during a sojourn in the United States in 2005. Benedikte has a Master of Science in Management from Stanford University."

SPEAKERS



Ben Waters
Director, Ecomagination
GE Australia/NZ

Ben Waters leads GE's ecomagination initiative for Australia and New Zealand. Ecomagination is GE's sustainable business strategy under which GE has invested \$7 billion globally in clean tech research and development and generated \$100 billion in revenues since 2005, while reducing greenhouse gas emissions 29%. Ben also leads GE's 5-year, \$20 million strategic technology alliance with Australia's CSIRO. Ben joined GE from the Royal Australian Air Force in 1997 where he served in a variety of key positions. Ben initially supported the F404-GE-400 engine fleet powering the RAAF F/A-18 Hornets and in 2002 became Sales Director and Country Manager – New Zealand with responsibility for Commercial Engines and Engine Services sales. Ben became Country Manager – Australia and Sales Director for GE Aviation in 2004, leading GE Aviation's commercial business in Australia and the Pacific Islands. He led a cross-functional campaign team in GE's successful bid to power the Qantas Group's Boeing 787 Dreamliner fleet of up to 115 aircraft. In 2008, Ben became GE's Commercial Director for Australia and New Zealand leading local partnerships, major customer engagement and cross-business projects. Ben received recognition as Executive Leader of the year in the 2011 Climate Alliance Business Leadership Award for outstanding achievements in climate response within the business community. Ben is Chairman of Sustainable Business Australia Limited and a member of the Strategic Council of The Climate Institute. He is a member of the CSIRO Manufacturing Sector Advisory Council and the Academic Advisory Panel of Bond University's Institute of Sustainable Development & Architecture. Ben has a Bachelor of Aerospace Engineering (Hons) from RMIT and a Grad Dip in Computer Science from the University of Newcastle.



Kevin Hennessy
Principal Research Scientist
CSIRO Marine and Atmospheric Research

Kevin Hennessy is a Principal Research Scientist at CSIRO Marine and Atmospheric Research. He leads the Pathways to Adaptation Theme in the Climate Adaptation Flagship. Amongst over 200 publications, he has looked at the impact of climate change on drought, fire, snow, extreme temperature and extreme rainfall. He was a Coordinating Lead Author of the "Australia and New Zealand" chapter of the 2007 IPCC assessment of "Climate change impacts, adaptation and vulnerability". In 2011, he wrote a chapter on "Climate change impacts" for the CSIRO book "Climate change: science and solutions for Australia".



Ron Cox
Associate Professor, Civil and Environmental Engineering, University of NSW, Convenor, Australian Climate Change Adaptation Research Network for Settlements and Infrastructure (ACCARNSI)

Ron Cox has been associated with UNSW and the Water Research Laboratory for 40 years. He has a long history of worldwide research in water, coastal and environmental engineering including the early development and subsequent revision of Australian Guidelines for Responding to the Effects of Climate Change in Coastal and Ocean Engineering. In 2008 Ron was awarded Engineers Australia's prestigious Sir John Holland Award for Civil Engineer of the Year, in recognition of his long standing and continuing contribution to the profession and community, particularly in the field of coastal engineering. In January 2009, Ron took up his present position as National Convenor for the Federal Government funded Australian Climate Change Adaptation Research Network for Settlements and Infrastructure (ACCARNSI) which focuses on climate change adaptation research in coastal settlements, built environment, infrastructure, urban planning and management. Ron has been a member of the team that has prepared and recently updated the National (Climate Change) Adaptation Research Plan for Settlements and Infrastructure released through NCCARF.

Simon Cavendish, Steering Group Lead, Climate Change Special Interest Section, EIANZ

Simon has more than 21 years experience developing, promoting and encouraging the adoption of best practice environmental management having previously worked as the Environmental Manager for Theiss QNP and Senior / Principal Environmental Officer for Brisbane City Council, Environment Branch. Simon now runs the consultancy firm EnviroPartners. EnviroPartners was set up in Brisbane in late 2007 to partner with people to deliver a more sustainable environment. Its business objectives are:

- Partnerships with discerning, strategic clients who share similar values and ethics
 - Outcomes that lead to a more sustainable environment, especially impact mitigation
- EnviroPartners provides project and general environmental management support to the mining, infrastructure, building and energy markets; the associated government market; and the community. Simon holds a Master of Science in Environmental Management, a Bachelor of Science Hons in Metallurgy & Materials Science is a certified member of the Institution of Engineers Australia, an Honorary Fellow of the Environment Institute of Australia & New Zealand and was a founding Director of the Infrastructure Sustainability Council of Australia. Simon is a founding member of the EIANZ Climate Change Special Interest Section, established the business plan and is leading the climate change certification committee to develop the rigour and engagement to the intended cc certification.



Patrick Gallagher CSC
Principal Manager Risk
Transport for New South Wales

Patrick Gallagher is the enterprise risk manager at Transport for NSW. He has over 25 years experience in senior leadership, line management and policy appointments in the disciplines of enterprise, operational and business resilience risk management in the public and private sectors in Australia and overseas. Since retiring from the Australian Army he has managed group-level security and resilience risk programs for Qantas Airways and BHP Billiton, and the group enterprise risk and opportunity management program at BAE Systems Australia. Patrick has worked extensively throughout Australia, Asia and the South Pacific, as well as on short engagements in Africa. Patrick holds Master of Business Administration (Executive), Master of Arts and Bachelor of Arts degrees, as well as vocational qualifications in risk and information management. He is also a Graduate of the AICD, a Fellow of the RMIA, and a Member of the ACI. Patrick was awarded the Conspicuous Service Cross in 2000 for his support to humanitarian and military operations in Irian Jaya and East Timor in 1998-1999.

SPEAKERS



Karl Sullivan
General Manager Risk & Disaster Insurance Council of Australia
 As General Manager for the Risk and Disaster Directorate, Karl is responsible for the facilitation of industry policy and initiatives regarding emerging risks as well as coordinating the industries response and partnership with government following a significant disaster event. Karl's team also manages industry level programs to address community resilience, mitigation, building codes, insurance fraud, flood insurance, climate change and underwriting data. Karl brings with him significant experience in strategic risk and planning. Prior to joining the Insurance Council in 2006, Karl was responsible for Response and Mitigation for the Qantas Group of Companies. Prior to Qantas, Karl enjoyed a career in the Royal Australian Air Force.



Christopher Lee
Manager Impacts and Adaptation Regional Operations Group Office of Environment and Heritage NSW Department of Premier and Cabinet
 Chris has Bachelor of Arts (Hons) from the University of NSW, specialising in development economics and a Masters in Environmental Management from Macquarie University. He has a broad background having worked at the Reserve Bank, universities in Australia and Singapore, and his own publishing company. Since 2005 he has worked for the NSW Office of Environment and Heritage in its many forms, firstly as an economist in Economic Services and more recently in climate change policy. Chris is currently the Manager of Impacts and Adaptation in the NSW Office of Environment and Heritage and leads NSW policy and program development in Climate Change Adaptation. Chris has been working on climate change policy for the past four years. He has led the development of methodologies and implementation of Integrated Regional Vulnerability Assessments in regional NSW, and the ongoing development of an Adaptation Strategy for metropolitan Sydney. He has had a leadership role in the development regional climate projections for NSW and driving end user engagement to deliver locally relevant information.



Amanda McKenzie
Senior Communications Advisor Climate Commission
 Social entrepreneur, lawyer, communications expert and passionate climate change and sustainability advocate. Amanda is the 2009 joint Young Environmentalist of the year after co-founding two environmental advocacy organisations, the Australian Climate Change Education Network (ASCENT) and the Australian Youth Climate Coalition (AYCC) at the age of just 23. Amanda served as National Director of the AYCC for three and a half years (two of those with co-founder Anna Rose). The AYCC has grown into one of the nation's largest and most successful youth run organisations with 58,000 individual members and 25 organisational members. Currently the Senior Communications Advisor at the Climate Commission Amanda works to communicate climate change science and climate change policies and projects.



Matthew Bell
Partner, Climate Change and Sustainability Services, Ernst & Young
 Matthew is a Partner at Ernst & Young and the leader of its Climate Change and Sustainability practice in Sydney, specialising in carbon market advisory and greenhouse gas assurance. Matthew is a published doctoral-level scientist, and was previously the head of the project office for Climate and Energy in the Government Department responsible for the UK's involvement in the European Emissions Trading System. Since moving to Sydney in 2007 Matthew has worked with Australia's leading companies on their sustainability and carbon strategies. He holds committee memberships for the ACCA Global Sustainability Forum, the Asia Pacific Real Estate Association's Sustainability Committee, and is currently supporting the International Integrated Reporting Committee's (IIRC) working group on 'value'. Matthew is a registered National Greenhouse and Energy Auditor in Australia, and is also a visiting lecturer at the University of Sydney.



Tom Davies
Chair, EIANZ CC Special Interest Section
 Tom is Chair of the EIANZ CC Special Interest Section and a past president of NSW Division. Tom conceived and established the Learning to Adapt initiative and is committed to ongoing professional development to support CC adaptation efforts. Tom is a Founding Director and Chairman of Edge Environment and has been working closely with the Insurance Industry to establish the Australian Resilience Taskforce, an insurance industry entity that is delivering collaborative projects to deliver more resilient built environments. Tom holds a Masters in Environmental Management from UNSW, and a BSc in Chemistry from Bristol (UK). Tom resigned his commission and left the British Army in 2003 to turn his hand to the environment agenda. Tom founded the Environmental Professionals Forum and continues to contribute to EIANZ to develop and build the profession.



Mara Bun, CEO, Green Cross Australia
 Mara Bun began her colorful career as a Financial Analyst with the international investment bank Morgan Stanley, spending five years in their New York and San Francisco practices where she specialized in high technology corporate finance. In 1989 she joined a World Bank Nepali earthquake reconstruction project in Kathmandu, then moved to Australia embracing leadership roles with Greenpeace Australia and CHOICE in the 1990s. Mara returned to investment banking as Senior Internet Equities Analyst at Macquarie Bank in 1999, covering Internet equities during the dotcom boom and its demise. She was a Director in the Allen Consulting Group's Sydney public policy economic consulting practice, and later joined CSIRO as Director of Business Development and member of CSIRO's Executive Management Council. Mara is founding CEO of Green Cross Australia (www.greencrossaustralia.org). Green Cross Australia helps people adapt to our changing climate, catalysing business, research and community partnerships that empower the community to take practical actions that advance sustainability and community resilience. Green Cross excels in digital communications through six interactive platforms that reach 340,000 Australians. Its primary school environmental education program 'Green Lane Diary' has inspired 78,000 students around Australia since 2010.