



2015 Canberra Conference on

Earth System Governance

Democracy and Resilience in the Anthropocene



Australian National University, 14-16 December

Welcome to Country

We acknowledge and celebrate the first Australians on whose traditional lands we meet, and pay our respects to the elders of the Ngunnawal people past and present.

The cover of the program is a stylized detail of one of the best known artworks at Parliament House - the Forecourt mosaic. The mosaic was designed by Indigenous artist Michael Nelson Jagamara, a leading artist from the Papunya community of the Northern Territory. It is based on his painting Possum and Wallaby Dreaming, which describes a gathering of a large group of people from the kangaroo, wallaby and goanna ancestors. The groups are meeting to talk and to enact ceremonial obligations. The work derives from the sand-painting tradition of the Warlpiri people, and has complex layers of meaning known only to Warlpiri elders.



The local traditional Aboriginal people, the Ngunnawal, have lived here for more than 21,000 years, perhaps from the time when the extreme cold of the last Ice Age eased. This is arguably one of the longest periods of continual habitation anywhere on earth. The Ngunnawal people have developed a way of living and managing the natural resources of the land which has enabled this phenomenon.

The meaning of Canberra (original spelling Koyanberra) is meeting place. The Canberra region is generally understood to have been a meeting place for different Aboriginal clans, suggesting that there was a reliable food and water supply.

As we come together as a community of scholars from around the world to discuss the environment, democracy and resilience, let us keep in mind that we are gathering in the home of one of the oldest and most resilient cultures in the world.

The Ngunnawal people today maintain a close connection to their traditional area and are actively involved in the protection and preservation of their culture.

*Please join us for a traditional smoking ceremony & welcome reception
Sunday 13 December at 7pm
Fellows Bar, University House*

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The conference logo incorporates a watercolour painting by Canberra artist Patrick Bugeja.

About the Conference

This is the 6th Conference on Earth System Governance. Previous conferences have been held in Amsterdam (2009), Fort Collins (2011), Lund (2012), Tokyo (2013) and Norwich (2014).

‘Democracy and Resilience in the Anthropocene’ is the Conference’s overarching theme. Resilience and the Anthropocene are increasingly prominent in contemporary narratives of global environmental change, with important implications for how we think about governance. Can democratic politics at the local, national and global level rise to the challenges that these concepts present? Are the types of governance they appear to promote desirable? What are the consequences of non-democratic politics or politics for resilience, and for transitions and transformations towards more sustainable futures? The Canberra Conference on Earth System Governance will be a lively forum for hundreds of scientists to examine, explore and challenge some of the core ideas underlying earth system governance.

About the Hosts

The Australian National University (ANU) and the University of Canberra are co-hosting this year’s conference. Both universities have strong commitments to research in governance and the environment.

At the University of Canberra, the Institute for Governance and Policy Analysis was established in 2014 to create and sustain a world class research institution for the study and practice of governance and public policy. The Institute has Australia’s largest concentration of scholars specialising in citizen-centric governance and is home to the world leading Centre for Deliberative Democracy and Global Governance.

The Regulatory Institutions Network (RegNet), based at the ANU, has received international recognition as one of the world’s most vibrant governance and regulatory academic centres. Research at RegNet is grounded in the principles of justice, sustainability and human well-being. The Climate and Environmental Governance Network (CEGNet) is based within RegNet and is the Australian node of the Earth System Governance Project. The Fenner School of Environment and Society is also based at the ANU. With over fifty academic staff and more than a hundred PhD students the School is a major focus for integrated environmental research and training.



A Welcome Message from the Chairs

We are pleased to welcome you to the Canberra Conference on Earth System Governance! Whether you have travelled from the other side of campus or the other side of the world, we are very happy that you are able to join us for the next three days. The conference comes at a time when the whole world is focused on the pressing need for a new international agreement to prevent catastrophic climate change. We will reflect on the achievements and limitations of the Paris Conference of the Parties in our Closing Plenary. However, while climate change is dominating the headlines, this conference will additionally address many other urgent environmental issues and the cutting edge research methods that governance scholars are using to approach them. We will examine some very big questions over the course of the conference, from what environmental justice looks like in the Anthropocene, to whether economic growth can ever be 'green'. We will also shine a spotlight on Asia and the Pacific, which is quickly emerging as a pivotal region for earth system governance in the 21st Century. We hope you enjoy the conference and your stay in Australia's capital city!



John Dryzek
University of Canberra



Kyla Tienhaara
Australian National University



Lorrae Van Kerkhoff
Australian National University

A Welcome Message from the Earth System Governance Research Alliance

Welcome to Canberra for the 2015 open science conference of the Earth System Governance research alliance! Each year, our open science conferences bring together the earth system governance research community as well as policy makers and stakeholders to exchange the most recent findings and plan further cooperation. The Earth System Governance conferences do not just take place in different locations; they also reflect the culture of the location and the scientific interests of the local earth system governance research community. This makes each conference a unique experience and a landmark in the continuous development of earth system governance research. While all conferences follow a similar format and use well-established practices like the rigorous double-blind peer review of abstracts, each conference also adds new elements to the conference series. At the Canberra Conference, we are looking forward especially to fruitful discussions on the challenges for democracy in the "Anthropocene", from local to global levels of governance. This topic has been part of our Science and Implementation Plan since 2009; the Canberra conference will now add fresh momentum for a better understanding of the vital questions of legitimacy, accountability, transparency, and democracy in earth system governance. On behalf of our network, we thank the hosts of the conference as well as all sponsors warmly for their generous support. And we thank all of you for joining the conference, for presenting your research, and for participating in the many interesting discussions that will lead, we hope, to new thinking and exciting collaboration in earth system governance research.



Frank Biermann
Project Chair



Ruben Zondervan
Executive Director

Agenda

Sunday 13 December

0830	0930	<i>Registration open in University House Foyer</i>	
0930	1630	Tidbinbilla Field Excursion	
1800	1930	<i>Registration open in University House Foyer</i>	
1900	2030	Welcome to Country/Reception - Fellows Bar Courtyard (University House)	

Monday 14 December

0800	-	<i>Registration open in Hedley Bull Atrium</i>	
0900	1030	Opening Plenary - Coombs Theatre, Keynote Speaker: Arun Agrawal	
1030	1100	<i>Morning Tea - Hedley Bull Atrium</i>	
1100	1230	Parallel Sessions I	
1230	1330	<i>Lunch - Hedley Bull Atrium</i>	
1330	1500	Parallel Sessions II	
1500	1530	<i>Afternoon Tea - Hedley Bull Atrium</i>	
1530	1700	Semi-Plenary I - Coombs Theatre	Semi-Plenary II - Hedley Bull LT1
1700	1730	<i>Break</i>	
1730	1900	Asia-Pacific Viewpoint Annual Lecture - Weston Theatre (Crawford School)	

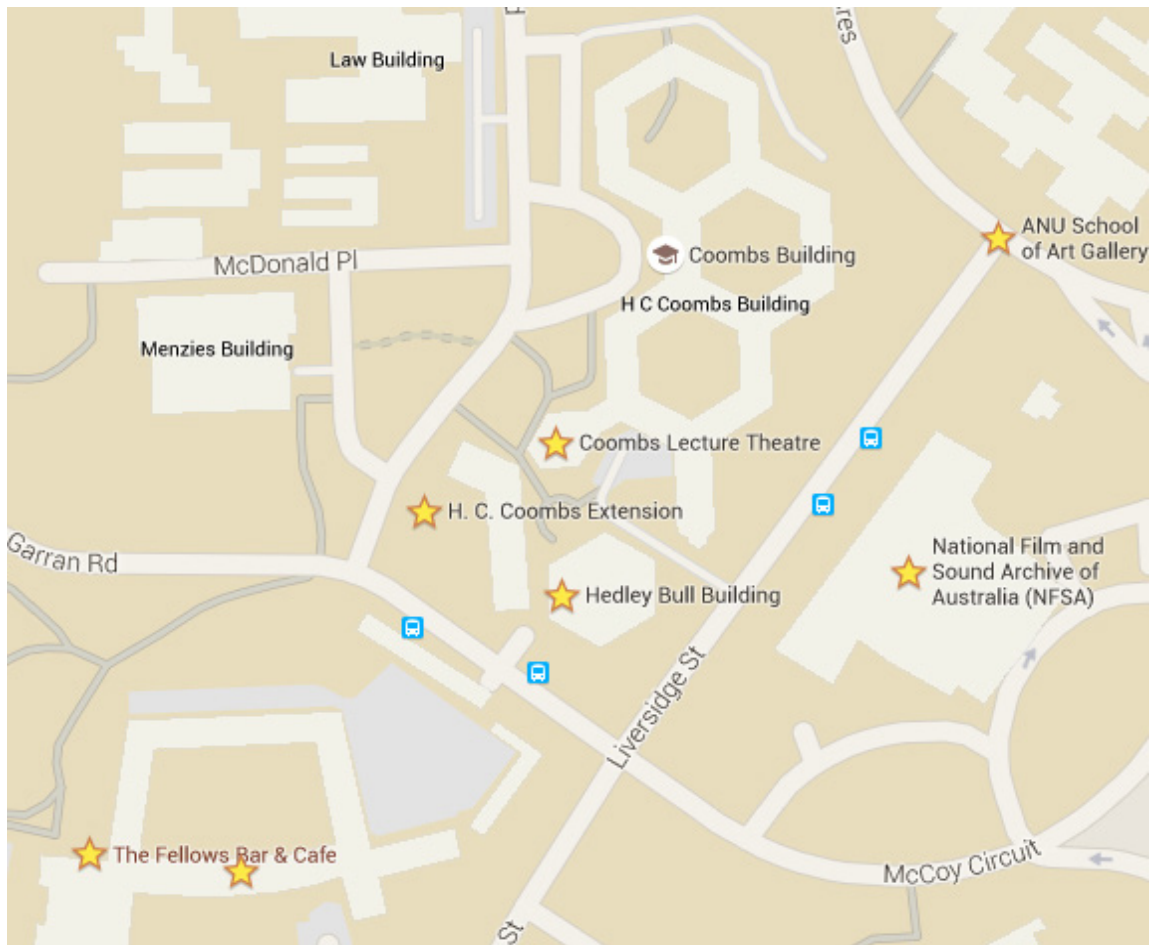
Tuesday 15 December

0800	1100	Breakfast Session on the Sustainable Development Goals (University House)	
0900	1030	Parallel Sessions III	
1030	1100	<i>Morning Tea - Hedley Bull Atrium</i>	
1100	1230	Semi-Plenary III - Coombs Theatre	Semi-Plenary IV - Hedley Bull LT1
1230	1330	<i>Lunch - Hedley Bull Atrium</i>	
1330	1500	Parallel Sessions IV	
1500	1530	<i>Afternoon Tea - Hedley Bull Atrium</i>	
1530	1700	Parallel Sessions V	
1700	1800	Town Hall Meeting (Hedley Bull LT1)	
1800	1830	<i>Buses depart for the National Arboretum</i>	
1830	2300	Conference Dinner - National Arboretum	

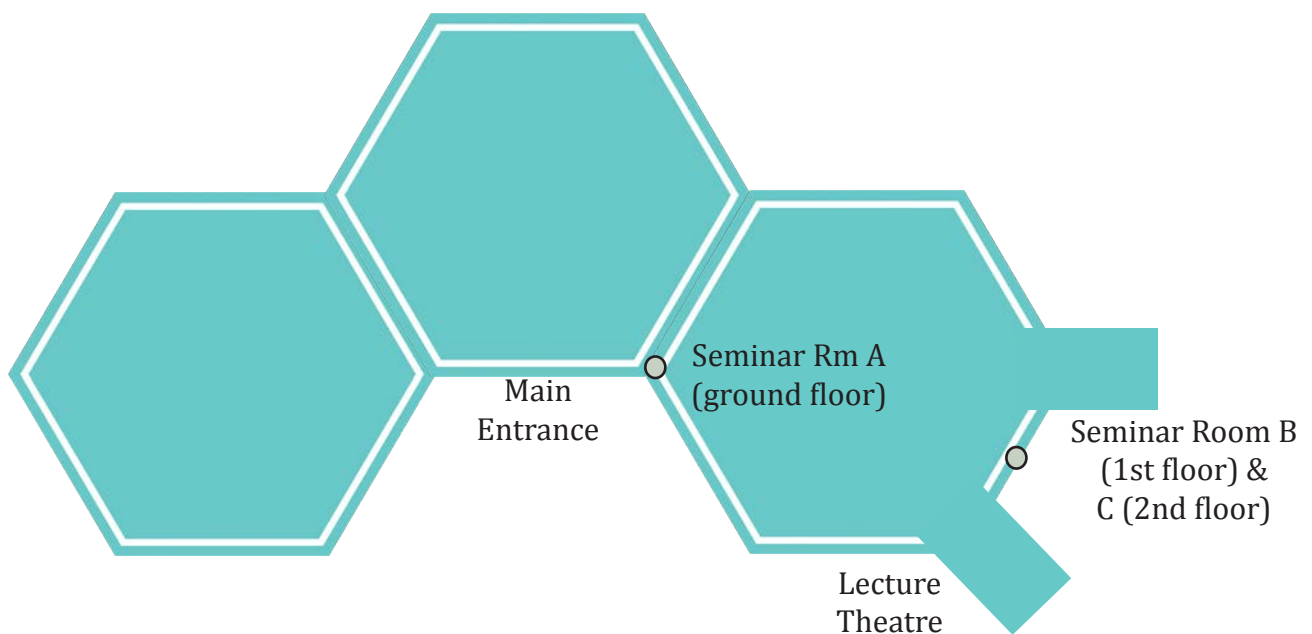
Wednesday 16 December

0900	1030	Parallel Sessions VI	
1030	1100	<i>Morning Tea - Hedley Bull Atrium</i>	
1100	1230	Semi-Plenary V - Coombs Theatre	Semi-Plenary VI - Hedley Bull LT1
1230	1330	<i>Lunch - Hedley Bull Atrium</i>	
1330	1500	Parallel Sessions VII	
1500	1530	<i>Afternoon Tea - Hedley Bull Atrium</i>	
1530	1700	Closing Plenary - Coombs Theatre	

Room Locations



Coombs Seminar Rooms



Plenaries & Semi-Plenaries

Opening Plenary

Monday @ 9am, Coombs Lecture Theatre

Words of Welcome: John Dryzek, University of Canberra
Lorae Van Kerkhoff, Australian National University
Frank Biermann, Utrecht University

Oran R. Young Prize: Michele Betsill, Colorado State University

Keynote: "Governing Natural Resources"
Arun Agrawal, University of Michigan

Arun Agrawal is a Professor at the School of Natural Resources & Environment at the University of Michigan. His research and teaching emphasize the politics of international development, institutional change, and environmental conservation. He has written critically on indigenous knowledge, community-based conservation, common property, population and resources, and environmental identities. His recent interests include adaptation to climate change, urban adaptation, REDD+, and the decentralization of environmental governance. He coordinates the International Forestry Resources and Institutions network, and is currently carrying out research in central and east Africa and South Asia.



Semi-Plenary I - Environmental Justice in the Anthropocene

Monday @ 3:30pm, Coombs Lecture Theatre

Increasing recognition of the Anthropocene, as a new epoch in planetary history, places the earth system's condition and trajectory at the centre of concern: but what are the implications for environmental justice and the allocation of benefits and burdens within and across social-ecological systems, and generations? How can the Anthropocene be conceptualized in terms of inter- and intragenerational equity?

Chair: John Dryzek, University of Canberra

Speakers:



David Schlosberg
University of Sydney



Giovanna Di Chiro
Swarthmore College



Bernadette Resurrección
Stockholm Environment Institute
Asia Centre

Semi-Plenary II - Interrogating the Conceptual Foundations of Earth System Governance - Monday @ 3:30pm, Hedley Bull LT1

This semi-plenary focuses on understanding key concepts which provide new ways of thinking about the challenge of Earth System Governance. It draws on the activities of the Taskforce on the Conceptual Foundations of Earth System Governance which began its work earlier in the year. Two of the presentations engage with critical notions which have been proposed to make sense of the complex challenges facing human societies in the twenty first century - the concepts of Resilience and of the Anthropocene. The third presentation looks more generally at the challenge of critically interrogating key concepts in the global environmental domain.

Chair: Michelle Scobie, University of the West Indies

Speakers:

Lennart Olsson, Lund University

Eva Lövbrand, Linköping University

James Meadowcroft, Carleton University (Skype)



Semi-Plenary III - Science & Governance in a Diverse World Tuesday @ 11am, Coombs Lecture Theatre

Science plays an important role in bringing the dynamics and challenges of the Anthropocene to decision-makers; but how well do we understand the relationships between science and governance across the range of actors, institutions and cultures of our diverse social and political systems? In this semi-plenary we will hear from a panel of experts on their experiences in bridging the science-policy interface.

Chair: Lorrae Van Kerkhoff, Australian National University

Speakers:



Louis Lebel
Chiang Mai University



Dulciana Somare-Brash
Public Policy Institute



Rhondda Dickson
Department of the Environment

Semi-Plenary IV - Can Growth be Green?

Tuesday @ 11am, Hedley Bull Lecture Theatre 1

This semi-plenary tackles an important question that is increasingly arising in discussions surrounding sustainable development and the 'green economy' - is it sustainable for governments to aim for continual economic growth when we live on a finite planet? Although it has been more than forty years since the famous Club of Rome report "The Limits to Growth" was published, the topic has been addressed primarily by ecological economists in the interim and largely ignored by environmental governance scholars until very recently.

Chair: Robert Costanza, Australian National University

Keynote: John Barry, Queen's University Belfast

"Unsustainable economic growth as ideology, myth and modern religion"

Responses: Jennifer Clapp, University of Waterloo & Peter Dauvergne, University of British Columbia



Semi-Plenary V - Earth System Governance in the Asia-Pacific Century - Wednesday @ 11am, Coombs Lecture Theatre

The Asia-Pacific region is home to more than sixty percent of the world's population, the largest gross emitter of greenhouse gases (China) and many tiny island states that are vulnerable to sea level rise. This diverse region is also rapidly emerging as the global economic and political powerhouse of the twenty-first century. What are the implications of this geopolitical shift for earth system governance?



Sun-Jin Yun

Seoul National University



A special question and answer session chaired by Lorraine Elliott (ANU) and open to all members of the College of Asia and the Pacific, ANU.

Sponsored by the Research School of Asia and the Pacific (RSAP).



Xuemei Bai

Australian National University



Pichamon Yeophantong

University of New South Wales



Dulciana Somare-Brash
Pacific Policy Institute

Semi-Plenary VI - Contrasting Emphases in Earth System Governance: Decentralization, Multilateralism, and Deliberation - Wednesday @ 11am, Hedley Bull Lecture Theatre 1

This semi-plenary addresses the question of whether more effective institutions for earth system governance would be more decentralized, more centralized and multilateral, or more deliberative? Or would they involve more productive and creative combinations of these emphases?

Chair: Karin Bäckstrand, Stockholm University

Speakers:

Arun Agrawal, University of Michigan
Frank Biermann, Utrecht University
John Dryzek, University of Canberra



Closing Plenary - Reflections on Paris Wednesday @ 3:30pm, Coombs Lecture Theatre

The 21st session of the Conference of the Parties to the UNFCCC in Paris will conclude the week before our conference. In our closing plenary, several climate governance experts will reflect on what was accomplished in Paris and what challenges remain. The session will close with the announcement of the timing and location for the 2016 Conference on Earth System Governance!

Chair: Kyla Tienhaara, Australian National University

Speakers:

Peter Christoff, University of Melbourne
Robyn Eckersley, University of Melbourne
Ian Fry, Australian National University
Frank Jotzo, Australian National University
Harro van Asselt, Stockholm Environment Institute

Announcement of 2016 Conference: Fariborz Zelli, Lund University



Parallel Sessions

Codes: AP = Asia & Pacific, CF = Conceptual Foundations, CT = Conference Theme and Other, EJ = Environmental Justice, IN = Innovative Session, RE = Resilient Economies, SG = Science & Governance, * = presenting author.

Notes:

Sessions vary by format but all are open to all conference delegates.

Panels are self-governing - please nominate someone to keep track of time (for panels with 3-4 papers, we recommend around 15 minutes per presentation to allow time for discussion).

Parallel Sessions I

AP1: Monday 11:00-12:30 *Panel*

Environmental Governance in Asia & the Pacific

Rm: Coombs Seminar Rm A

"Institutionalization of benefit sharing mechanism in community forest of terai region in Nepal"

Bishnu Prasad Devkota (Tribhuvan University)

"Does hydropower development in southeast Asia lead to forest clearance in South America and food insecurity in south Asia? The energy, food, water nexus that links the Mekong Basin with Brazil, Argentina and India and the need for global governance"

David Dumaresq* (ANU)

Geraldine Li (ANU)

Jamie Pittock (ANU)

"Environmental security, disaster diplomacy and military-to-military cooperation in Asia-Pacific"

Dhanasree Jayaram (Manipal University)

CF1: Monday 11:00-12:30 *Panel*

Understanding the Conceptual Foundations of Earth System Governance 1

Rm: Hedley Bull Theatre 1

"Transformations towards sustainability': critical reflections on an emerging concept"

James Patterson* et al. (VU Amsterdam)

"Governing transformation: The case of the sharing economy"

Chris Riedy (University of Technology Sydney)

"Transformational communities: privilege and marginalization in commons-based governance"

Petra Tschakert (UWA)

"How to achieve a low carbon transition: diverging strategies and competing interests"

Oluf Langhelle (University of Stavanger)

CT1: Monday 11:00-12:30 *Panel*

A View from the City: Urban Governance

Rm: Hedley Bull Seminar Rm 3

"Low-carbon city experiments in China: Shanghai as an example"

Yuan Peng* (ANU)

Xuemei Bai (ANU)

"What type of voluntary environmental programmes are effective in a city context, and why? An international fuzzy set qualitative comparative analysis"

Jeroen van der Heijden (ANU)

"Examining interdependent, alternative urban infrastructure practices to reveal diffusion pathways"

Megan Farrelly (Monash University)

EJ1: Monday 11:00-12:30 *Panel*

Non-State Actors in the New Landscape of International Climate Cooperation

Rm: Hedley Bull Theatre 2

"Climate governance and non-state actors' participation in international climate negotiations"

Maria Noelyn Dano (Ateneo de Manila Uni)

"Actors, arenas, interests and ideas: indigenous mobilisations on REDD+"

Heike Schroeder (University of East Anglia)

"From the sidelines to the frontlines: NGOs in global climate governance"

Michele Betsill (Colorado State University)

"Non-state actors and the democratic legitimacy of global climate governance"

Jonathan Kuyper* (Stockholm University)

Karin Bäckstrand (Stockholm University)

"Why UN climate conferences still matter: examining environmental mega-summits as active political sites"

Eva Lövbrand* (Linköping University)

Mattias Hjerpe (Linköping University)

IN1a: Monday 11:00-12:30 *Workshop*

Adaptation Pathways in Theory and Practice: Introducing and Exploring Emerging Adaptation Concepts and their Implementation (Part I)

Rm: Coombs Extension Lecture Theatre 1.04

Session Leader: Michael Dunlop (CSIRO)

RE1: Monday 11:00-12:30 *Panel*

Energy Governance

Rm: Coombs Seminar Rm B

"Power to the people? Challenges to building more democratic, low-carbon energy systems"

Harald Heubaum (SOAS, University of London)

"Energy research within the UNFCCC: a proposal to guard against ongoing climate-deadlock"

Barry Brook et al. (University of Tasmania)

Jonathan Symons* (Macquarie University)

“Performing politics online: a dramaturgical analysis of a coal seam gas controversy”

Carolyn Hendriks* (ANU)

Sonya Duus (University of Canberra)

Selan Ercan (University of Canberra)

SG1: Monday 11:00-12:30

Panel

Governing River Systems

Rm: Coombs Extension Seminar Rm 1.13

“Adapting to increased flood losses in flood damage compensation: A comparative analysis of the U.S. and The Netherlands”

Emmy Bergsma (University of Amsterdam)

“Intersection of civic and autonomous adaptations to flooding in Massachusetts”

Anita Milman* (University of Mass.)

Benjamin Warner (University of Mass.)

“Linking policy, science and people in governance strategies for catchment and river basin management”

Jennifer Bellamy* (University of Queensland)

Brian Head (University of Queensland)

Helen Ross (University of Queensland)

“Gender and the management of climate-related risks: evidence from inland aquaculture in northern Thailand”

Phimphakan Lebel* (Chiang Mai University)

Louis Lebel (Chiang Mai University)

Parallel Sessions II

CF2: Monday 13:30-15:00

Panel

Understanding the Conceptual Foundations of Earth System Governance 2

Rm: Hedley Bull Theatre 1

“Understanding conceptual innovation in the environmental policy realm”

James Meadowcroft (Carleton University)

“Development, resilience and the problem of transitions”

Jon Barnett (University of Melbourne)

“Is resilience a normative concept?”

Henrik Thorén* (Lund University)

Lennart Olsson (Lund University)

Anne Jerneck (Lund University)

“Normative dimensions of sustainability in the Anthropocene - a critical view from the South”

Aliyu Barau (Universiti Teknologi Malaysia)

RE2: Monday 13:30-15:00

Panel

Green Economies, Consumption & Growth

Rm: Hedley Bull Seminar Rm 3

“Green economy policy in the post-2015 development agenda: case of Indonesia”

Mahesti Okitasari (Keio University)

“Overcoming societal addictions: what can we learn from experience at the individual scale?”

Robert Costanza* et al. (ANU)

“Plastic, fish and drought: practical lessons in how to

regulate to reduce consumption in the Anthropocene”

Michelle Maloney (Griffith University)

“Global 4C: a proposal for a World Monetary Union for the strong mitigation of climate change”

Delton Chen* (University of Queensland)

Jonathan Cloud (Fairleigh Dickinson Uni)

Joel van der Beek (Econ. for Peace & Security)

EJ2: Monday 13:30-15:00

Panel

The Justice of REDD+

Rm: Coombs Seminar Rm A

“Grievance and governance in the Anthropocene: lessons from palm oil and REDD+ projects in Indonesia”

Fiona Haines* (University of Melbourne)

Kate Macdonald (ANU)

“Implementing REDD+ in Peru: a challenge to environmental justice”

Fariborz Zelli (Lund University)

“The foreign policy of carbon sinks: Reduced emissions from deforestation and forest degradation (REDD+) as climate foreign policy in Norway”

Jo-Kristian S. Roettereng (NTNU)

IN1b: Monday 13:30-15:00

Workshop

Adaptation Pathways in Theory and Practice: Introducing and Exploring Emerging Adaptation Concepts and their Implementation (Part II)

Rm: Coombs Extension Lecture Theatre 1.04

Session Leader: Michael Dunlop (CSIRO)

IN2: Monday 13:30-15:00

Roundtable

Promoting Reflexive Governance: Democratic Participation and Scientific Expertise in Australian Environmental Policy-Making

Rm: Hedley Bull Theatre 2

Session Leader: Jonathan Pickering

SG2: Monday 13:30-15:00

Panel

Coastal & Ocean Governance

Rm: Coombs Seminar Rm B

“A marine protected area-based interpretation of an environmental justice approach”

Huey-Shian Chung (Australian Centre For Ocean Resources and Security)

“Coastal and ocean governance for the seas of East Asia: transmitting scientific findings for policymaking, decisions, and actions”

Maria Noelyn Dano* (Ateneo de Manila Uni)

Tony La Viña (Ateneo de Manila University)

“Mining the deep seabed for the benefit of mankind as a whole? A reinterpretation of the law of the sea for the Anthropocene”

Rakhyun E. Kim* (Griffith University)

Donald K. Anton (Griffith University)

“Assessing adaptive capacity of coastal resources governance in Cambodia, Vietnam and Australia”

Pedro Fidelman* et al. (University of the Sunshine Coast)

SG3: Monday 13:30-15:00 *Panel*
Earth System Governance & Island States
Rm: Coombs Extension Seminar Rm 1.13
 "Evaluating the role of commitment and narrative in transnational environmental governance networks in the Pacific Islands"
 Ashlie Denton (Portland State University)
 "Towards sustainable futures: key ingredients in determining climate change adaptation funds for Small Island Developing States"
 Gary Best (University of the West Indies)
 "What role might culture play in earth system governance? A pilot study of the Pacific island of Palau"
 Lorrae Van Kerkhoff* (ANU)
 Victoria Pilbeam (ANU)
 "Policy Coherence in climate change governance in Small Island Developing States"
 Michelle Scobie (University of the West Indies)

Parallel Sessions III

CF3: Tuesday 9:00-10:30 *Panel*
Understanding the Conceptual Foundations of Earth System Governance 3
Rm: Hedley Bull Theatre 1
 "Socioenvironmentalism: filling some gaps in the Earth System Governance framework."
 Cristina Inoue*
 Matias Franchini (University of Brasilia)
 "Understanding sustainability to understand earth system governance"
 Michelle Scobie (University of the West Indies)
 "Earth System – Earth Mother: a conceptual analysis from a critical feminist perspective"
 Annica Kronsell (Lund University)

EJ3: Tuesday 9:00-10:30 *Panel*
Architecture: From Fragmentation to Critical Mass
Rm: Coombs Seminar Rm A
 "Mapping the proliferation of rules: a comparative analysis of public and private governance in the mining and forest sectors of Australia, the United States and Canada"
 Graeme Auld* et al. (Carleton University)
 "Mapping and measuring the degree of fragmentation: comparing global climate and forest governance architectures"
 Philipp Pattberg (VU Amsterdam)
 Oscar Widerberg* (VU Amsterdam)
 Marija Isailovic (VU Amsterdam)
 "Navigating knowledge networks - participation and representation in the the diffusion of ideas on geoengineering"
 Ina Möller (Lund University)
 "Critical mass governance: how plurilateral environmental action can have global impacts"
 Luke Kemp (ANU)

IN3: Tuesday 9:00-10:30 *Roundtable*
Can there be a Pedagogy of the Earth System?
Rm: Hedley Bull Seminar Rm 3
Session Leader: Stephen Dovers (ANU)

IN4: Tuesday 9:00-10:30 *Game*
SMART Governance
Rm: Coombs Extension Lecture Theatre 1.04
Session Leader: Eva Streberová (CETIP Network)

RE3: Tuesday 9:00-10:30 *Panel*
Governance and Politics at the Intersection of the Earth System and the Food System I: Food Security and Sustainability
Rm: Hedley Bull Theatre 2
 "Trade and the sustainability challenge for global food security governance"
 Jennifer Clapp (University of Waterloo)
 "Public-private partnerships, sustainable food systems, and gender: rethinking the goals of the G8 new alliance"
 Andrea Collins (Carleton University)
 "The Milan Protocol: prospects for global food governance"
 Caitlin Scott (University of Waterloo)

SG4: Tuesday 9:00-10:30 *Panel*
Adaptation to Climate Change I
Rm: Coombs Seminar Rm C
 "An adaptation pathways approach to analysing adaptation options for natural resource management in Australia"
 Michael Dunlop* (CSIRO)
 Russell Gorddard (CSIRO)
 Paul Ryan (Australian Resilience Centre)
 "Defining adaptation through practice: assessing knowledge use and adaptation goals of the Ecosystems-based Adaptation (EbA) Flagship Projects"
 Anita Milman* (University of Massachusetts)
 Kripa Jagannathan (UC Berkeley)
 "Bringing together climate, science and policy: a study of the interface"
 Margot Hurlbert* et al. (University of Regina)
 "The framing and governance of climate change adaptation projects in the Mekong Region"
 Louis Lebel* et al. (Chiang Mai University)

SG5: Tuesday 9:00-10:30 *Panel*
The Sustainable Development Goals
Rm: Coombs Extension Seminar Rm 1.13
 "Integrating sustainable development law and the Sustainable Development Goals for effective earth systems governance"
 Michelle Lim* (Griffith University)
 Peter Søgaaard Jørgensen (Royal Swedish Academy of Science)
 Carina Wyborn (Luc Hoffmann Institute)

“Narratives of water and governance in the definition of the SDGs”

Juana Lucini* (Uni of the Sunshine Coast)

Bill Carter (Uni of the Sunshine Coast)

Pedro Fidelman (Uni of the Sunshine Coast)

“Government of the people, with the people and for the people? Civil society participation in the shaping of sustainable development goals.”

Carole-Anne S nit (VU Amsterdam)

Parallel Sessions IV

CF4: Tuesday 13:30-15:00

Panel

The Good Anthropocene – Exploring the Meanings of a Big Concept

Rm: Hedley Bull Theatre 1

“The search for a ‘Good Anthropocene’: An urgent need for building greater ecosystemic reflexivity in law and legal institutions?”

Jeffrey McGee* (University of Tasmania)

Jonathan Pickering (University of Canberra)

Sylvia Karlsson-Vinkhuyzen (Wageningen Uni)

“Ecosystemic reflexivity in the Anthropocene: deliberative potential and constraints in the IPCC and the IPBES”

Jonathan Pickering (University of Canberra)

“Imagining a good Anthropocene – tracking the development of a big idea”

Manjana Milkoreit (Arizona State University)

“Good Anthropocene vs. sustainable development – what’s the difference?”

Manjana Milkoreit* et al. (Arizona State University)

EJ4: Tuesday 13:30-15:00

Panel

Environmental Justice & Human Rights

Rm: Coombs Seminar Rm A

“Neoliberal environmentalism or environmental justice in global forest governance? A discursive institutionalist analysis of REDD+ monitoring systems”

Fariborz Zelli* (Lund University)

Tobias Nielsen (Lund University)

Wilhelm Dubber (Lund University)

“A framework for future justice: exploring governance for intergenerational equity and the representation of future generations”

Luke Kemp (ANU)

“Transformative participation, environmental justice, and effective agrobiodiversity governance: a qualitative comparative analysis”

Brendan Coolsaet (UC Louvain)

“Into the great wide open? A human rights perspective on climate geoengineering governance”

Wil Burns (American University)

EJ5: Tuesday 13:30-15:00

Panel

Adaptation to Climate Change II

Rm: Coombs Seminar Rm C

“A story of change: A discourse analysis of EU adaptation policy”

Elise Remling (S dert rn University)

“The local government realities of climate adaptation: exploring the capacity issues of multi-level governance”

Yvette Bettini (University of Queensland)

“New policy networks: sources of resilient adaptation to climate change”

Beth Edmondson (Federation University)

IN5a: Tuesday 13:30-15:00

Workshop

Understanding Global Ocean Governance (Part I)

Rm: Coombs Extension Seminar Rm 1.13

Session Leaders: Pedro Fidelman (University of the Sunshine Coast) and Eduardo Gallo (University of Qld)

IN6: Tuesday 13:30-15:00

Roundtable

Sitting Up and Getting Noticed – How We Can Strengthen Policy Relevance and Impact of Our Competing Issues

Rm: Coombs Extension Lecture Theatre 1.04

Session Leader: Kathryn Bowen (ANU/Melbourne)

RE4: Tuesday 13:30-15:00

Panel

Governance and Politics at the Intersection of the Earth System and the Food System II: Agricultural and Ecological Dimensions of Supply Chains

Rm: Hedley Bull Theatre 2

“Social-ecological systems governance: ‘place’, ‘practice’, ‘knowing’ and citizen action”

Ruth Beilin* et al. (University of Melbourne)

“Corporations and the politics of activism for ‘sustainable’ soy and palm oil”

Peter Dauvergne (UBC)

“Filling the cracks of fragmented global governance: states, business, and the political economy of GM corn”

Matthew Gaudreau* (University of Waterloo)

Jennifer Clapp (University of Waterloo)

SG6: Tuesday 13:30-15:00

Panel

Innovative Teaching & Research Methods

Rm: Hedley Bull Seminar Rm 3

“What do graduates of tertiary programs Earth System Governance need to know? What do they need to be able to do?”

Liam Phelan* (University of Newcastle)

Bonnie McBain (University of Newcastle)

“Reframing environmental research in the social science – results of an international workshop in 2015”

Judy Burnside-Lawry* (RMIT)

Francis Chateauraynaud (EHESS)

Juliet Roper (University of Waikato)

“Informing policy and practice through experiments”

Joannette Bos (Monash University)

Megan Farrelly* (Monash University)

Rebekah Brown (Monash University)

"Influential visualisations in global environmental governance"

Piero Morseletto (VU Amsterdam)

Ross Colliver* (Training and Dev Group)

Moragh Mackay (Charles Sturt University)

Catherine Allan (Charles Sturt University)

Parallel Sessions V

AP2: Tuesday 15:30-17:00

Panel

Indigenous Transformations in the Anthropocene

Rm: Coombs Seminar Rm A

"Role of indigenous transformations in the Anthropocene"

Johanna Nalau (Griffith University)

"Transforming governance structures in Vanuatu: taking into account Kastom, culture, and complex social-ecological challenges"

Paul Nalau (PMO, Vanuatu Government)

"Thinking historically about social transformations and Earth Systems governance: science, environmental change, and the politics of colonisation"

Meg Parsons (University of Auckland)

"Reasserting traditional governance as a method to enable sustainable adaptation pathways in Samoa"

Cilla Brown (University of Auckland)

"Rethinking freshwater systems in Aotearoa New Zealand: governance configurations and ontological conflicts in the Anthropocene"

Karen Fisher* (University of Auckland)

Meg Parsons (University of Auckland)

CT2: Tuesday 15:30-17:00

Panel

Anthropocene Politics: Mapping a Travelling Idea

Rm: Hedley Bull Theatre 1

"Solar geoengineering as 'sociotechnical imaginary' of the Anthropocene"

Jeremy Baskin (University of Melbourne)

"Political economy in the age of the Anthropocene"

Michael Wironen (Gund Institute for Ecological Economics)

"Down to Earth: contextualizing the Anthropocene"

Frank Biermann* et al. (Utrecht University)

"Entering The symbiocene: from dominance to mutualism"

Glenn Albrecht (University of Sydney)

EJ6: Tuesday 15:30-17:00

Panel

Community Engagement

Rm: Hedley Bull Seminar Rm 3

"Conceptualizing transnational democratic networks: A case study of world wide views on biodiversity"

Desirée Fiske (Colorado State University)

"An approach to sustainability via community socio-economic initiatives"

Robin Krabbe (University of Tasmania)

"Innovating from the inside out: Practices for design for social learning in two projects for improving NRM governance in Victoria, Australia"

IN5b: Tuesday 15:30-17:00

Workshop

Understanding Global Ocean Governance (Part II)

Rm: Coombs Extension Seminar Rm 1.13

Session Leaders: Pedro Fidelman (University of the Sunshine Coast) and Eduardo Gallo (University of Qld)

IN7: Tuesday 15:30-17:00

'Panel-Shop'

Innovative Science-Governance Connections in Southeast Asia

Rm: Coombs Extension Lecture Theatre 1.04

Session Leaders: Louis Lebel (Chiang Mai University) and Lorrae Van Kerkhoff (ANU)

RE5: Tuesday 15:30-17:00

Panel

Extractive Industries

Rm: Hedley Bull Theatre 2

"From emissions to extraction: the role of international institutions in governing the shift away from fossil fuels"

Harro van Asselt (SEI)

"Deliberating on regime destruction in the fossil fuel divestment movement"

Jennifer Kent* (UTS)

Chris Riedy (UTS)

"The political economy of fossil fuel extraction and production: an analytical framework for understanding action, inaction and opportunities for change"

Aaron Atteridge* (SEI)

Claudia Strambo (SEI)

"Transnational governance of mineral life cycles: gaps, limits and possibilities"

Graeme Auld* (Carleton University)

Michele Betsill (Colorado State University)

Stacy VanDeveer (Uni of New Hampshire)

SG7: Tuesday 15:30-17:00

Panel

Epistemic Communities & Scientific Knowledge

Rm: Coombs Seminar Rm C

"The relationship between experts and democratic actors in the co-production of knowledge on flood damage compensation: The case of flood insurance reform after hurricane Katrina"

Emmy Bergsma (University of Amsterdam)

"Exploring the role of formal research programmes in global change research: a scientometric analysis of diversity and integration"

Sandra van der Hel* (VU Amsterdam)

Eleftheria Vasileiadou (Eindhoven University)

"Trans-disciplinarity as a new science-policy interface?: A challenge for Future Earth and the international sustainable development agenda"

Norichika Kanie* (Keio University)

Casey Stevens (Providence College)

"How a well-intentioned governance model can inad-

vertently sequester scientists (and their knowledge) from, rather than integrate them into, decision making: examples from three UNESCO Biosphere Reserves (Australia, Canada, and South Africa)”

Glen Hyman (Sciences Po)

Parallel Sessions VI

CT3: Wednesday 9:00-10:30

Panel

Water Governance

Rm: Coombs Seminar Rm A

“A framework of the dynamic components of legitimacy throughout the lifecycle of multi-actor collaborative governance systems for water”

Natalya Melnychuk* (University of Waterloo)

Rob de Loë (University of Waterloo)

“Collaborating with power: examining the implications of resource industry firm participation in collaborative approaches to water governance”

Marie Claire Brisbois* (University of Waterloo)

Rob de Loë (University of Waterloo)

“Local watershed governance: reflexive decision making of local citizens”

Margot Hurlbert (University of Regina)

Evan Andrews (University of Saskatchewan)

“Institutional analysis of the sustainability of a community-based drought management system in Japan: the case of the Sanuki Plain in the 1994 Drought”

Kazuki Kagohashi (Nanzan University)

CT4: Wednesday 9:00-10:30

Panel

Accountability, Transparency & Legitimacy

Rm: Hedley Bull Theatre 2

“Private authority and accountability in global environmental governance; a review”

Judith van Leeuwen (Wageningen University)

“Accountability in global environmental governance”

Teresa Kramarz (University of Toronto)

Susan Park* (University of Sydney)

“Transparency and accountability in a new post-2020 climate agreement”

Aarti Gupta* (Wageningen University)

Harro van Asselt (SEI)

“Democratic legitimacy criteria for evaluating global institutional reform proposals in the Anthropocene”

Peter Lawrence (University of Tasmania)

EJ7: Wednesday 9:00-10:30

Panel

Democratic Governance

Rm: Hedley Bull Theatre 1

“Democracy in the Anthropocene”

Robyn Eckersley (University of Melbourne)

“Democracy in the Anthropocene – bringing parties and polarization into the picture”

Fay Madeleine Farstad (University of York)

“Governance for the Anthropocene”

Peter W Tait (Frank Fenner Foundation)

IN8: Wednesday 9:00-10:30 *Academic/Policy Panel*
The Energy, Food, Water Nexus in the Mekong River Basin: Implications for Earth Systems Governance

Rm: Hedley Bull Seminar Rm 3

Session Leader: Geraldine Li (ANU)

IN9: Wednesday 9:00-10:30

Roundtable

Democracy, Divestment and Non-State Governance

Rm: Coombs Extension Lecture Theatre 1.04

Session Leaders: Neil Gunningham & Julie Ayling (ANU)

SG8: Wednesday 9:00-10:30

Panel

Civil Society & the Co-Production of Knowledge

Rm: Coombs Seminar Rm B

“Challenges of science-policy interfaces: experiences from a dialogue between science and civil society about a low-carbon society”

Anna Ernst (Forschungszentrum Jülich)

“Enhancing co-productive capacity in global conservation practice”

Carina Wyborn (Luc Hoffmann Institute)

“New Science for Global Sustainability? The institutionalisation of knowledge co-production in Future Earth”

Sandra van der Hel (VU Amsterdam)

“Science-policy as a complex adaptive system: the governance of knowledge production in Lao PDR”

Elizabeth Clarke* et al. (ANU)

SG9: Wednesday 9:00-10:30

Panel

Sustainable Futures

Rm: Coombs Extension Seminar 1.13

“Live long and prosper: how popular science fiction models of utopian governance shape imagined futures in the Anthropocene”

Elisabeth van de Grift* (CGIAR)

Joost Vervoort (University of Oxford)

“From governance scenarios to climate action: insights from scenario-guided policy development across six global regions”

Joost Vervoort* et al. (University of Oxford)

“Reflecting climate change impacts in governance for the future”

Liese Coulter (Griffith University)

“Reimagining critical infrastructure for community resilience: Interdependent built, information, and social dimensions of critical infrastructure”

Leah Sprain* et al. (University of Colorado)

Parallel Sessions VII

EJ8: Wednesday 13:30-15:00

Panel

Environmental Law

Rm: Coombs Seminar Rm A

"Human dignity and the future of international environmental governance in the light of ICJ Jurisprudence: a normative analysis"

Kshitij Bansal (IPAN)

"Can a systems approach and the Sustainable Development Goals provide a way to operationalise international law for sustainable development to achieve effective earth system governance?"

Michelle Lim (Griffith University)

"International environmental law in the Anthropocene: dead end or bright future?"

Tim Stephens (University of Sydney)

"The socio-legal stories of entrepreneurial subjects in hybrid economic initiatives"

Bronwen Morgan* (UNSW)

Declan Kuch (UNSW)

EJ9: Wednesday 13:30-15:00

Panel

Communities: Building socio-environmental innovation and hope at the local scale

Rm: Hedley Bull Seminar Rm 3

"Roosts, seeds, and climate justice: black cockatoos and their people in Perth"

Donna Houston (Macquarie University)

"Earth jurisprudence, climate justice and sharing law"

Michelle Maloney (Aus Earth Laws Alliance)

"Examining the positive potential of the 'community resilience' concept in the context of urban climate justice"

Lauren Rickards et al. (RMIT)

"Enabling urban climate justice at the local scale"

Wendy Steele et al. (RMIT)

IN10: Wednesday 13:30-15:00

Game

Seeds of a Good Anthropocene

Rm: Coombs Extension Seminar Rm 1.13

Session Leader: Joost Vervoort (University of Oxford)

IN11: Wednesday 13:30-15:00

Roundtable

The Role of the UN in Earth System Governance

Rm: Coombs Extension Lecture Theatre 1.04

Session Leader: Lorraine Elliott (ANU)

RE6: Wednesday 13:30-15:00

Panel

Political Economy

Rm: Hedley Bull Theatre 2

"The global politics of waste, risk and resilience in the Anthropocene"

Kate O'Neill (UC Berkeley)

"Why market environmentalism fails in liberal-market economies: a case study of Australia, Canada, and the United States"

Robert MacNeil (University of Sydney)

"Taming capitalism: the international political economy of renewable energy in emerging and developing economies"

Tabitha Benney (University of Utah)

"Governing for sustainability value"

Fred Gale (University of Tasmania)

SG10: Wednesday 13:30-15:00

Panel

Negotiating Climate Governance

Rm: Hedley Bull Theatre 1

"The land sector in a post-2020 climate agreement: privileging accounting or accountability"

Kate Dooley* (University of Melbourne)

Aarti Gupta (Wageningen University)

Peter Christoff (University of Melbourne)

"Conflicts of interest in Kyoto Protocol negotiations associated with accounting for carbon sequestration in forests"

Ian Fry (ANU)

"Reductio ad unum: a political view on the evolution of the two degree climate target"

Piero Morseletto* (VU Amsterdam)

Philipp Pattberg (VU Amsterdam)

Frank Biermann (Utrecht University)

SG11: Wednesday 13:30-15:00

Panel

Science & Knowledge

Rm: Coombs Seminar Rm B

Reflections on the democratization of knowledge generation in research partnerships for sustainable development"

Cordula Ott (Centre for Dev and Environment)

"Science policy interface and biodiversity: role of local institutions for sustainable management of Chinese caterpillar fungus in the Himalaya"

Uttam Babu Shrestha* et al. (U of Sthn Qld)

"Uncertainty, climate policy framing, scientists, and inclusive development"

Margot Hurlbert* (University of Regina)

Joyeeta Gupta (University of Amsterdam)

"Earth system ethics: a systems approach to ethics for the Anthropocene"

Laura Ballantyne-Brodie* (NYU)

Daryl Taylor (Consultant, VIC, Australia)

Innovative Sessions

IN1: Adaptation Pathways in Theory and Practice: Introducing and Exploring Emerging Adaptation Concepts and their Implementation (Workshop - 2 parts)

Session Leader: Michael Dunlop (CSIRO)

Session Participants: Russell Wise (CSIRO), Paul Ryan (Australian Resilience Centre), Karen Bosomworth (RMIT), Carina Wyborn (Luc Hoffmann Institute), Russell Gorddard (CSIRO), Matt Colloff (CSIRO)

Session Summary: It is becoming increasingly likely that climate change will lead to significant and widespread changes to the ecology of natural and agricultural systems and to the nature of environmental impacts on urban systems and infrastructure, and that these changes will have transformational impacts on people whose well-being is associated with these systems. In many situations, adapting to such changes will be beyond the ability of existing management and decision-making systems, especially where they are oriented towards one-off or incremental adjustments seeking to maintain existing systems in the face of contemporary threats and variation. In response to this, climate adaptation is beginning to be reconceptualised as a 'pathway' with multiple decision points responding to on-going environmental and social changes. This workshop is an opportunity to share experiences of developing and trialling adaptation pathway in Australia and internationally, and to explore some of the key concepts that might combine to define an adaptation pathway approach. The workshop will include a series of interactive sessions to explore key adaptation pathway concepts, and discussion about implementing adaptation pathways in different contexts. The workshop will be suitable both for people who have started working with adaptation pathways and for those new to the approach.

IN2: Promoting Reflexive Governance: Democratic Participation and Expert Input in Australian Environmental Policy-Making (Roundtable)

Session Leader: Jonathan Pickering (University of Canberra)

Session Speakers: Gregory Andrews (Threatened Species Commissioner, Australian Government), Tom Swann (Australia Institute), Annie Lane – Executive Director of Environment, Environment and Planning Directorate, ACT Government, Phoebe Howe (ACT Conservation Council), Carolyn Hendriks (ANU), Chris Riedy (UTS)

Session Summary: One of the foremost challenges for political institutions in the Anthropocene is to develop 'ecosystemic reflexivity'. Reflexivity requires institutions to seek out evidence on ecosystemic shifts—ranging from atmospheric changes to variations in water quality and species movements—and to re-evaluate their priorities in light of those shifts. Two promising means of encouraging reflexivity in environmental governance are to strengthen democratic participation and scientific and other expert input in decision-making. These two modes of involvement may be mutually reinforcing, but at other times may be at odds. This roundtable will explore these relationships by bringing together government officials, civil society representatives and researchers working on environmental governance in Australia, covering issues such as protecting endangered species, divestment from fossil fuels and promoting a renewable energy transition.

IN3: Can there be a Pedagogy of the Earth System? (Roundtable)

Session Leader: Stephen Dovers (ANU)

Session Speakers: Janette Lindesay (ANU), Nicholas Engere (ANU), Karen Hussey (UQ), Robert Dyball (ANU), Lorrae van Kerkhoff (ANU)

Session Summary: Much of the focus of Earth System Science (ESS) and Governance (ESG) is research- and (to a lesser extent) policy-focused. This roundtable will discuss how the ideas of ESS and ESG play out in a tertiary education setting that features (i) diverse levels and disciplines of students (and lecturers), and (ii) innovative educational techniques. This session will commence with insights from six educators who teach six courses aligned to (both) ESS and ESG at varying levels and from different perspectives within one broader teaching program, followed by open discussion on the question that is the session title: can there (ever) be a pedagogy of the Earth System? How do different students react to complex and 'very big picture' whole-earth perspectives? What educational and experiential techniques work? Can the Earth System construct speak to future leaders and citizens? How can disciplinary or sectoral parts of the whole be linked? What aspects of the field have purchase and generate interest? Does the Earth System construct itself have purchase? Can there ever be a "pedagogy of the Earth System" that is interdisciplinary, international, and coherent? The six courses drawn upon to ignite discussion are two first year (The Blue Planet; Sustainable Development), one second year (Society and Environmental Change), two third year (Human Futures; Climate Change Science and Policy) and one graduate (Contemporary Perspectives in Environment and Society Interactions).

IN4: SMART Governance (Game)

Session Leader: Eva Streberová (Institute of Forest Ecology SAS (UEL, SAV) & CETIP)

Session Facilitators: Urban Kováč (Institute of Forest Ecology SAS (UEL, SAV) & CETIP), Martin Špaček (Centre of Excellence of Slovak University of Technology and Slovak Academy of Sciences)

Session Summary: SMART Governance represents a concept for analysing and managing individual and group behavior for decision making under complexity. Purposeful behavioural change, considering institutional and ecological fit, is seen essential adaptation building effective, resilient institutional arrangements. The main objective of this session is to model collective actions under controlled conditions to reduce uncertainty of information and complexity of social, technological and biological factors. In particular the focus is on (i) testing novel policies and tools of decision making using experimental and participatory approaches, (ii) develop mechanism for scaling down global issues and policy objectives such as climate change mitigation, land use abandonment or urban sustainability. Communication, ecological dynamics of resources, local norms, power and influence are key variables. Conference participants are invited to test role board games designed to simulate collective actions under controlled conditions.

IN5: Understanding Global Ocean Governance (Workshop - 2 parts)

Session Leaders: Pedro Fidelman (University of the Sunshine Coast) and Eduardo Gallo (UQ)

Session Summary: Global ocean governance needs much improved multi-level coordination in order to address emerging threats and the interconnectedness of Earth-Ocean systems as outstanding challenges of the Anthropocene. Large numbers of individual and organizational actors are involved in governance, management and knowledge generation relating to oceans and coastal seas. If understood as a set of interrelated social networks, ocean governance expresses the values, policies, laws and institutions that guide how timely marine issues are addressed. This workshop thus follows up from another held at the Future Oceans conference in Bergen (Norway) in June 2014. The workshop provides an opportunity for collective/interactive exploration and visualization of current global ocean governance, enabling participant's engagement with discussions on how to address key issues in this emerging science-policy arena. It aims to integrate and visualize the knowledge and perceptions of participants on the current global ocean governance system.

IN6: Sitting Up and Getting Noticed – How We Can Strengthen Policy Relevance and Impact of Our Competing Issues (Roundtable)

Session Leader: Kathryn Bowen (ANU, University of Melbourne)

Session Participants: Nicholas Cradock-Henry (NZ Landcare Research), Noelyn Dano (Ateneo de Manila University), Sharon Friel (ANU), Dougal McInnes (Australian Department of Foreign Affairs), Peter Tait (Frank Fenner Foundation)

Session Summary: Getting an issue on the policy agenda is difficult. In any policy context, there are competing agendas, ideas, personalities and levels of power. The aim of this roundtable is to discuss the challenges that most of us face in getting our issue on the policy agenda. The discussion will not just be on the barriers, but also practical solutions and approaches that the discussants can share that might assist policy salience and influence of an issue. A broad range of discussants with experience within government, the private sector, academia, the UN system and the NGO sector will provide their perspectives in what will be an open discussion that will also invite audience participation.

IN7: Innovative Science-Governance Connections in Southeast Asia (Panel-Shop)

Session Leaders: Louis Lebel (Chiang Mai University) & Lorrae Van Kerkhoff (ANU)

Session Participants: Dany Va (Cambodia), Bach Tan Sinh (Vietnam), Elizabeth Clarke (Laos), Kien van Nguyen (Vietnam), Jennifer Amparo (Philippines)

Session Summary: Bringing the science of the earth system effectively into environmental governance is a complex process that is shaped by a wide range of social, cultural, economic and political drivers. In the global south, these drivers are highly diverse, posing uncertainty in the relevance and applicability of research-based knowledge to local contexts, and the strategies that might facilitate it. Challenges can be exacerbated by the political sensitivities of importing “western” science, and the practical capacity constraints that limit countries' abilities to tailor research to their own needs. However, despite these difficulties, innovative approaches to connecting science and governance have been developing. In this combination of panel and workshop (the “panel-shop”) we explore examples of such innovations in the dynamics between science and governance in the South East Asian region. The aim of this session is to jointly explore the key attributes of innovative science-governance connections, the barriers they successfully overcame, and the enabling factors or incentives that they draw upon, and based on these reflections outline a plausible collaborative research agenda.

IN8: The Energy, Food, Water Nexus in the Mekong River Basin: Implications for Earth Systems Governance (Mixed Academic/Policy Panel)

Session Leader: Geraldine Li (ANU)

Session Speakers: Kien van Nguyen (LHI/ANU), David Dumaresq, Daniel Connell (ANU), Gary Lee (Oxfam Australia), Helen Locher (University of Tasmania/H.L. Consulting), John Dore (DFAT)

Session Summary: Work published in 2012 (Orr et al. 2012. 'Dams on the Mekong River: Lost fish protein and the implications for land and water resources', *Global Environmental Change*, 22(4):932) explored impacts in the Lower Mekong Basin on food security and agricultural land use resulting from expected reductions in wild fish catch due to hydro-dam development. This session examines the implications at the local to global scales for Mekong states of displacement of food supplies due to construction of water infrastructure in the Basin and options for minimising these impacts. The resilience of their food systems and those of linked food exporting states across the globe will be explored. We shall assess the need for enhanced governance systems across the Asia-Pacific region that can account for the increasing linkages in the earth systems nexus of energy, food and water.

IN9: Democracy, Divestment and Non-State Governance (Roundtable)

Session Leaders: Neil Gunningham and Julie Ayling (ANU)

Session Speakers: Charlie Wood (350.org), Harold Haubum (SOAS), Jennifer Kent (UTS)

The failure of government and inter-governmental initiatives to deliver credible climate change mitigation has led non-government organisations and others to look elsewhere for viable strategies. Rather than pressuring governments to take climate action NGOs have sought to engage with the private sector directly, using a plethora of strategies to do so. One novel NGO initiative that has generated considerable interest and, within a relatively short period, has had an impressive impact on both the level and content of public discourse about climate change mitigation is the fossil fuel divestment movement. This roundtable explores the logic of divestment, its effectiveness and its role as a form of democratic politics at local, national and global level.

IN10: Seeds of a Good Anthropocene (Game)

Session Leader: Joost Vervoort (University of Oxford)

Session Summary: This is an interactive game session that focuses on generating creative scenarios about transformations toward a better Anthropocene. The game played in this session has been developed as part of the "Bright Spots – Seeds of a Good Anthropocene" project led by the Stockholm Resilience Centre and supported by Future Earth. The goal of the "Bright Spots" project is to stimulate visionary thinking and action about what a "good Anthropocene" could look like, thinking beyond utopia and dystopia by aiming to identify a wide diversity of current bright spots or seed initiatives that have real potential (through up-scaling or out-scaling, adoption of their principles in other contexts, etc.) for contributing to a good Anthropocene. The identification of these bright spots is one part of the challenge – another challenge is how they can be used to imagine feasible, but fundamentally new and inspiring futures that avoid dystopia and utopia. Out of this need emerged the idea for a scenarios game that provides a mix of building blocks for engaging, challenging but feasible visions of a good Anthropocene.

IN11: The Role of the UN in Earth System Governance (Roundtable)

Session Leader: Lorraine Elliott (ANU)

Session Speakers: Frank Biermann (Utrecht University), Michele Betsill (Colorado State), Fariborz Zelli (Lund University), Susan Park (Sydney University), Rakhyun Kim (Griffith University), Luke Kemp (ANU), Harro van Asselt (Stockholm Environment Institute), Pichamon Yeophantong (UNSW)

Session Summary: Since at least the 1972 United Nations Conference on the Human Environment (the Stockholm Conference), the UN system has become central to the development of normative frameworks and institutional practices to support earth system governance. This has occurred through thematic conferences, the negotiation of multilateral environmental agreements and conventions, an increasing number of issue-specific and general institutional arrangements including those that engage with private authority and agents beyond the state, commitments to development goals, and a host of commissions, working groups of multiple variety, committees, panels and reports that have sought to embed principles based on equity, justice, democracy and social and ecological resilience. Agencies whose original mandates had little to do with environmental challenges or with earth system governance have now become active participants in those debates. As a result, the UN system has come to resemble an earth system governance regime complex - 'overlapping, partly competing, sometimes complementary sets of rules [and steering arrangements] that ... operate without a single source of authority'. This Roundtable, which will be co-sponsored by the Academic Council on the UN System, provides an opportunity to reflect on the role of the UN system in earth system governance.

Asia-Pacific Viewpoint Lecture

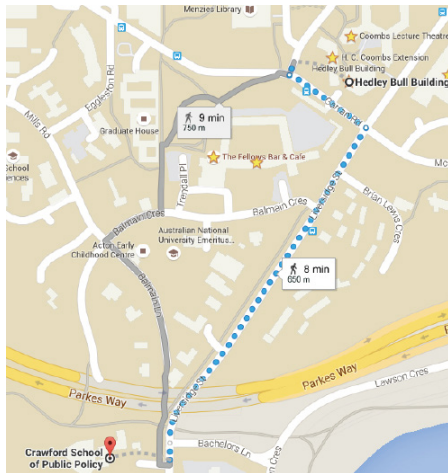
Monday @ 5:30pm, Weston Theatre (Crawford School)

"Governing extinction? The ethics of adaptation in atoll countries"

Asia Pacific Viewpoint began in 1960 as *Pacific Viewpoint*. Since then it has become the leading journal for social, economic and environmental research on the Asia Pacific region - ranked 11th in the world for Area Studies. In 2005 the journal initiated its Annual Lecture series in which a leading scholar is invited to present on a contemporary issue relating to the region. Recent Lectures have involved Anthony Bebbington, Uma Kothari, Henry Yeung,

James Sidaway, John Connell and Richard LeHeron. In this, the 10th Anniversary year, Professor Jon Barnett from the University of Melbourne will give the Annual Lecture as

part of the Earth System Governance conference. All attendees are invited to what should be a memorable and stimulating event.



Jon is Professor and Australian Research Council Future Fellow in the School of Geography at the University of Melbourne. He is a political geographer who researches the impacts of and responses to environmental change on social systems in Australia, East Asia and the South Pacific. Jon is a Lead Author for the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Working Group II, Ch 12), and he is co-editor of *Global Environmental Change*.

Weston Theatre is in the Crawford School of Public Policy, south of the main conference venue (see map above).

Special Breakfast Session

Tuesday @ 8-11am, Drawing Room (University House)

Regional and National Implementation Challenges of the SDGs:

A roundtable discussion on the 2030 Agenda for Sustainable Development

Key to the discourse of the 2030 Agenda for Sustainable Development is the notion of "national implementation". A vexing puzzle is how the almost 200 states that make up the contemporary international system will be influenced by this aspirational agenda enshrined in 17 Sustainable Development Goals, and how these states will cooperate and compete in shaping international norms concerning what counts as implementation and its measurement. The formulation of the SD Goals and indicators embed the ideas of some of the world's key thinkers on development and global environmental change, but the processes of implementation and its measurement remain inherently political in a manner that scientists may not have fully recognized.

The roundtable discussion will thus bring together prominent natural and social scientists and policy-focused actors who might not otherwise come into contact to share their perspectives on SDG implementation. The discussion will encompass both how implementation should be conceived in OECD states, in terms of regional institutions, and how it should shape the external relations including the aid policies of these states. The ambition is to commence a conversation to be continued at workshops on national implementation and its blockages planned for other parts of the Asia-Pacific in 2016 and beyond.



Norichika Kanie
Keio University &
UNU-IAS



David Griggs
Monash University

Townhall Meeting

Tuesday @ 5:00pm, Hedley Bull Lecture Theatre 1
The Future of Earth System Governance Research

Please join us for an open discussion on the future of earth system governance research, initiated by lead faculty members and research fellows of the network.

Facilitator: Frank Biermann, Utrecht University



Post-Conference Climate Change Institute Event

Wednesday @ 6:00pm, The Auditorium, CIW Building #188
Deciphering the Paris Climate Talks: Where to Next?

A panel of experts who attended the Paris Climate talks will discuss how events unfolded, the decisions made (or not made) and their implications for Australia and the world. What are the prospects for keeping warming to 2°C? Where are we headed now in terms of climate change? How did hopes of a legally-binding agreement match the reality of what happened? What needs to happen next to maintain (or regain) the momentum? What options are open for Australia and Australians?

Opening Address:

H.E Sem Fabrizi, Ambassador, Delegation of the European Union to Australia

Moderator: Mark Howden, Director, ANU Climate Change Institute.

Panel:

Frank Jotzo, Director, Centre for Climate Economics & Policy
Howard Bamsey, former Special Envoy on Climate Change
Luke Kemp, Lecturer, ANU
Doug McInnes, Department of Foreign Affairs and Trade
Alex Gosman, CEO, Australian Industry Greenhouse Network

Closing Address

Brian Schmidt, Leader of the Mainau Declaration on Climate Change

This event is presented by the ANU Climate Change Institute and the European Union Delegation to Australia.

Formal proceedings will finish at 7.30pm and all participants are invited to discuss the talks over drinks and finger food.

Registration is essential:

<https://www.eventbrite.com.au/e/deciphering-the-paris-climate-talks-where-to-next-tickets-18969421049>



Social Events

Tidbinbilla Field Excursion **Sunday 13 December 9:30-16:30**

We invite conference delegates to join us on Sunday 13 December for an excursion to Tidbinbilla Nature Reserve. Tidbinbilla is home to a wide range of Australian animals including kangaroos, koalas, platypus, potoroos, wallaroos, possums, wombats, echidnas, emus, lyrebirds as well as many other birds and reptiles. The Reserve plays a vital role in wildlife management and protection, in particular the breeding programs for the endangered Northern Corroboree Frog, the Brush-tailed Rock-wallaby and Eastern Bettong. Nestled between Tidbinbilla and Gibraltar Ranges the reserve forms part of the Australian Alps National Parks, a series of parks and reserves that span Australia's high country. The Reserve encompasses diverse sub-alpine habitats including wetlands, grasslands, wet and dry forests and woodlands. The Australian Alps are National Heritage listed, recognising that their natural and cultural values are of outstanding national significance.



We will depart by bus from University House (ANU) at 9:30 am and spend the day at the Reserve. Local conservation volunteers will accompany us for a walking tour in the morning. Will we have a picnic lunch (please bring extra water!) and free time to explore until 15:30 when we will depart the reserve.

Conference Dinner at the National Arboretum **Tuesday 15 December @18:30**

The National Arboretum Canberra opened in 2013 and won the World Architecture Festival for Landscape in 2014. The Arboretum is home to 94 forests of rare, endangered and symbolic trees from around Australia and the world. Many of the trees are still young but two of the forests are nearly 100 hundred years old. Over 44,000 trees from over 100 countries are growing across the huge 250 hectare (618 acre) site, making it one of the world's largest living collections of rare, endangered and significant trees. The Arboretum provides an opportunity to conserve threatened species and learn about their growing preferences. It also provides a place for community recreation and culture, ongoing education and research.



Conference delegates will be treated to a delicious meal from Ginger Catering - Canberra's premier caterer with a strong commitment to the local community, to local food producers and sustainable farming practices. We will dine surrounded by panoramic views, stunning architecture and the natural beauty of trees and gardens.

Canberra Attractions

Galleries, Museums & Monuments

The National Museum of Australia is a short walk from the conference venue. The museum explores Australian history and culture, Indigenous history, landscape, people, and the journeys that connect Australia with the world. Admission is free. For more information see: <http://www.nma.gov.au>

The National Film and Sound Archive is directly across the street from the conference venue and houses both exhibitions and an arthouse theatre. General admission is free, charges apply for the cinema. For more information see: <http://www.nfsa.gov.au>

Other notable sites around the capitol include:

- National Gallery of Australia (<http://nga.gov.au>)
- National Portrait Gallery (<http://www.portrait.gov.au>)
- Australian War Memorial (<https://www.awm.gov.au/>)
- Parliament House (http://www.aph.gov.au/Visit_Parliament)
- Museum of Australian Democracy (<http://moadoph.gov.au>)



For more ideas download a free Canberra App from <http://thecanberraguide.com.au> or your preferred app store.

Walks & Wildlife Viewing



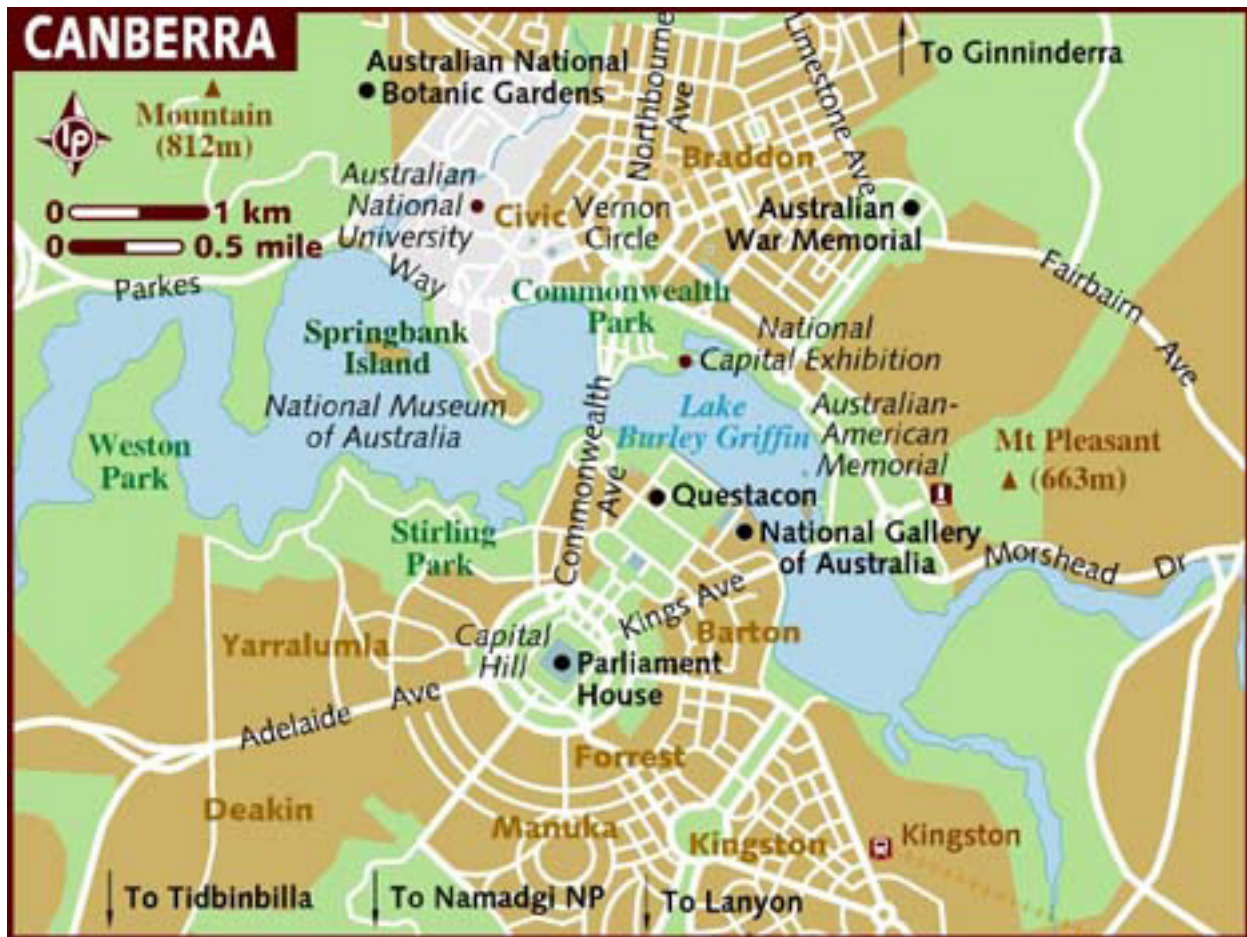
There are many nice walks around campus and the lake. There is an ANU Walks App available from iTunes/Google Play. The campus is home to a wide array of birds including sulphur crested cockatoos, king parrots and blue fairy wrens. Black swans are a common site along the lake. At dusk, keep an eye out for brush tail possums. One particularly nice spot for a stroll is the Australian National Botanic Gardens, a 20 minute walk from the conference venue (head towards the big tower on Black Mountain). From there you can also hike up Black Mountain and go up the tower for spectacular views of the whole city (charges apply - see <http://www.telstratower.com.au>). You may see kangaroos on Black Mountain but you have a better chance in Weston Park or in the Red Hill Nature Reserve on the south side of the lake (a 10-15 minute drive).

Wine Country

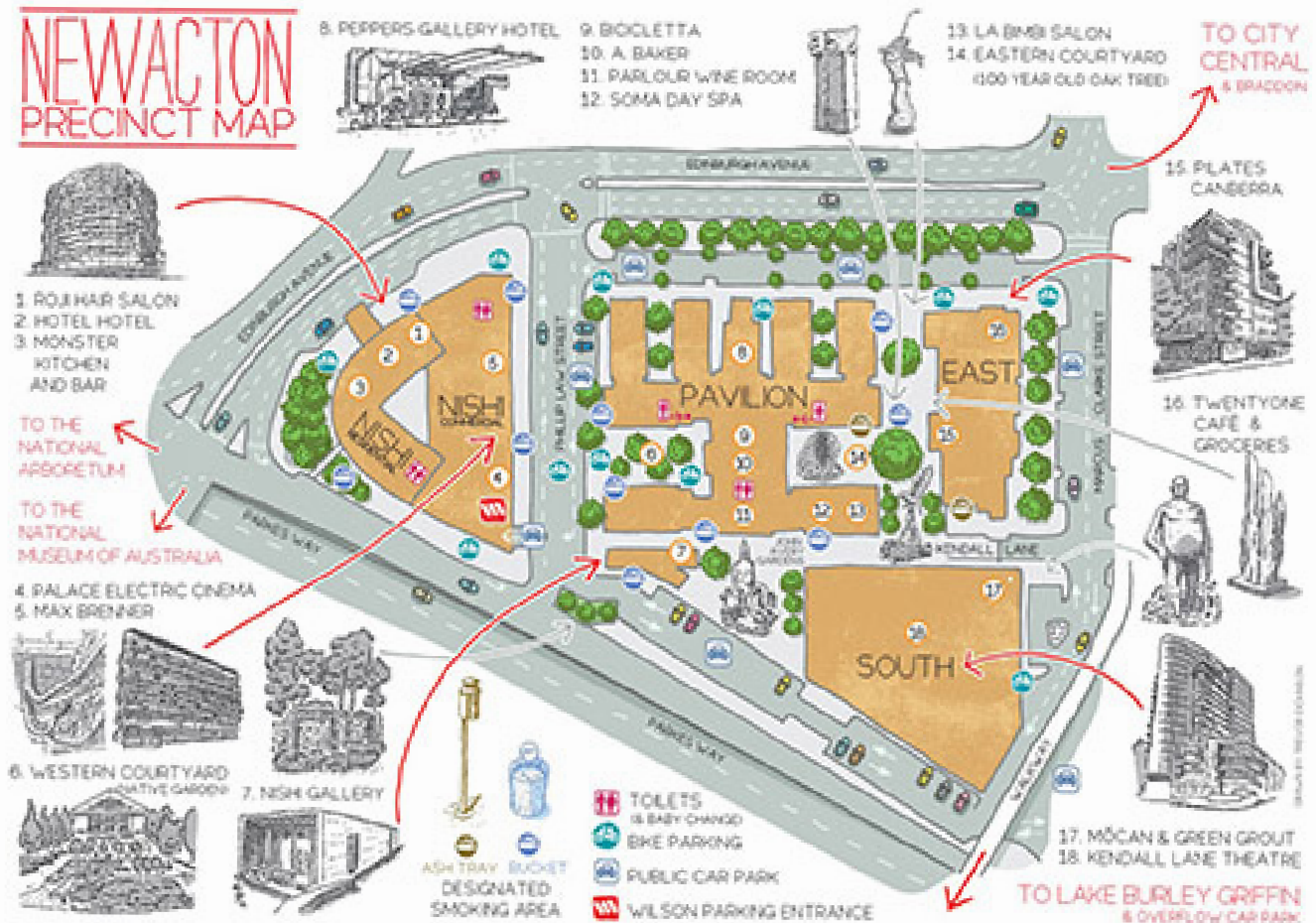
The Canberra District has variations in altitude and micro-climates that make it unique as a wine growing region. 140 vineyards surround the city and there are more than 20 boutique cellar doors within 35 minutes drive of the city. The region is particularly noted for Shiraz and Riesling. Clonakilla's Shiraz Viognier is world renowned. Other wineries worth checking out include Helm Wines (Murrumbateman) and Lark Hill (Bungendore, certified biodynamic).

For more information see:
<http://www.canberrawines.com.au>





NEWACTON PRECINCT MAP



Cafés and Restaurants

ANU Campus

Boffins Restaurant & Bar (\$\$\$)

University House -

<http://unihouse.anu.edu.au/boffins-restaurant/>

Opening Hours:

Lunch: 12:00pm-2:00pm on weekdays only

Dinner: 6:00pm-9:00pm on both weekdays and weekends

Bookings are recommended

Phone: (02) 6125 5285.

Fellows Bar & Cafe (\$\$)

University House - <http://unihouse.anu.edu.au/fellows-bar-cafe/>

Opening Hours:

Breakfast: Mon - Fri: 7:00am - 9:30am

Sat - Sun: 7:30am - 10:00am

Lunch: Mon - Fri: 12am - 2pm

Dinner: Mon - Fri: 6pm - 8pm

Bookings usually not required for small groups.

Phone: (02) 6125 5289.

Gods@Hedley Bull (\$\$)

In the entrance to the conference venue.

Ivy Cafe (\$\$)

Old Canberra House, <http://www.ivy-cafe.com.au>

Opening hours: Monday-Friday 8:30am-5pm

*Beautiful view overlooking Lake Burley Griffin

Wig & Pen Tavern & Brewery (\$\$)

Llewellyn Hall, Building 100

A traditional brewpub with 16 different beers all brewed on the premises. Limited food.

Opening hours: Monday to Thursday: 11.30am - 11pm; Fridays and Saturdays: 11.30am - 12am

Licensed Grocer on Balmain (Building 64B)

Convenience store with wine/beer.

Fast food options are available in Union Court:

Asian Bistro, Sizzle Bento Cafe, Subway, Zambrero
Fresh Mex Grill

New Acton

Močan & Green Grout (\$\$)

19 Marcus Clarke St -

<http://mocanandgreengrout.com>

Fair trade coffee and delicious local food.

Opening Hours:

Breakfast: Mon- Sat from 7am, Sun from 8am

Dinner: Tue-Sat: 6 pm- 9pm

BYO (\$10 corkage) and no advance bookings)

Bicicletta (\$\$)

Unit 1, Ground Floor, NewActon Pavilion -

www.bicicletta.com.au

Housemade pasta and seasonal produce from different regions of Italy and Australia.

Bicicletta Library Bar (\$\$)

Located on the ground floor of the Peppers Gallery Hotel, Bicicletta Library Bar holds an impressive collection of spirits, Australian wines and a tapas style menu.

Palace Electric Cinema

<http://www.palacecinemas.com.au>

Parlour Wine Room (\$\$\$)

Unit 3, Ground Floor, NewActon Pavilion -

<http://www.parlour.net.au>

A wine and tapas bar offering an extensive and personalised selection of the finest wines from the Canberra region, Australia and the world.

Opening Hours: Tues-Sun 12pm-late

Monster Kitchen and Bar (\$\$\$)

Ground Floor Hotel Hotel, New Acton -

www.monsterkitchen.com.au

The menu charts the seasons and uses ingredients from producers as close to the hotel as possible (i.e. honey from the hotel's own beehives!)

Opening Hours: 6:30am - 1am every day.

Bookings call 02 6287 6287

Capitol Bar and Grill (\$\$\$)

QT Hotel - <https://www.qtc Canberra.com.au/food-drink/capitol-bar-grill/> (good for large groups)

Opening Hours:

Breakfast 6.30am - 10.00am, Lunch from 12 noon

Dinner from 6pm. Bookings: 02 6247 1488

Useful Numbers and Websites

Emergencies

If the emergency is of a life threatening nature, dial **000** and state the nature of the emergency.

If dialling from an ANU internal phone you will need to dial **0000**. Your call will be transferred to the appropriate trained emergency operator.

Then call **ANU Security on 02 6125 2249** (extension 52249 from internal phones).

Most ANU buildings have trained first aid officers. Seek help from nearby staffed buildings in the case of medical emergencies.

Transport & Travel

Taxis:

Canberra Elite: phone 132 227 or SMS 0417 672 773 (name, pickup address and time required).
Silver Service: phone 133 100

Buses:

City busses #3 and #7 run from the conference venue to the city centre (Civic). See <http://www.action.act.gov.au> for timetables.

Buses to Sydney (and Kingsford Smith International Airport) depart from the Jolimont Centre on Northborne Ave (a 10-15 minute walk from the conference venue). See <http://www.murrays.com.au> and <http://www.greyhound.com.au> for timetables.

Trains:

Trains run infrequently (2-3 times per day) from South Canberra (Kingston) to Sydney (trip is 4-4.5 hours). See: <http://www.nswtrainlink.info/destinations/south/canberra>

For other travel inquiries there is an STA Travel in Union Court. Phone: (02) 6247 0800.

Conference Wifi

Wifi: ANU Access or ANU Secure

User name : Coombs

Password : c00mb\$2014

Thanks to Our Conference Managers

Greg Vickers, Conference Solutions
Jo Ratcliffe, Conference Solutions



Juliana Rocha, University of Canberra

Thanks to Our Conference Committees

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Stephen Dovers (ANU)
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Lennart Olsson (Lund University)
Heike Schroeder (University of East Anglia)
Michelle Scobie (University of the West Indies)

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