



NCCARF

National
Climate Change Adaptation
Research Facility



NEWSLETTER

Director's message

Professor Jean Palutikof, NCCARF Director

March 2012

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Upcoming events:

26-29 March: Conference, 'Planet under Pressure', London, UK.

NCCARF will host the session 'Adaptation to climate change: How, when and where to act when knowledge is incomplete' at the Planet under Pressure Conference in London next week. For more information visit www.planetunderpressure2012.net

April 10 NCCARF Seminar: 'America's Water Crisis and What To Do About It'

Robert Glennon, Professor of Law and Public Policy, University of Arizona.

When: April 10, 5.30-6.30pm

Where: Qld Ecosciences Precinct, Boggo Rd, Dutton Park BRISBANE.

RSVP: <http://glennon-bris.eventbrite.com.au>

April 12 & 19: NCCARF Seminars in Brisbane and Canberra

'The First UK Climate Change Risk Assessment: findings and lessons learned for the health sector' will be presented by Sotiris Vardoulakis of the UK Health Protection Agency.

Brisbane - Thu 12 April 2012, 5-6pm, Griffith University South Bank BRISBANE.

RSVP: <http://vard-brisbane.eventbrite.com>

Canberra - Thu 19 April 2012, 11.30am-12.30pm. Canberra Museum and Gallery.

RSVP: <http://vard-canberra.eventbrite.com>

May 1-3: Water and Climate: policy implementation challenges, Canberra

This conference will provide a forum for presenting strategies for managing a variable and changing climate through the lens of the water sector. For information or to register visit www.climatechange2012.org



Five challenges for adaptation

In 2010, NCCARF together with the CSIRO Climate Adaptation Flagship, organised an international conference Climate Adaptation Futures. It was always intended that this would be the start of a conference series, probably biennial, and this has proved to be the case – the second International Climate Adaptation Futures conference will take place in Tucson, Arizona, in May 2012. There has

been a call for expressions of interest for the Third conference, in 2014, and institutions in five countries have identified themselves as potential hosts. It looks like this is now a well-established event in the conference calendar. NCCARF counts this as a considerable achievement.

It was decided at the 2010 conference that we (the principal organisers from NCCARF and CSIRO) would produce an edited book. This is now approaching completion, and we expect to deliver it to the publishers (Wiley) at the end of May. In the first chapter, the editors of the book set out their understanding of the five greatest challenges for adaptation. Considerable effort went into distilling these challenges from the combined thinking of the editors on climate change adaptation, and so it's worth reproducing them here. They are:

Challenge 1: Balancing impacts, adaptation and mitigation. The current pledges by national governments in the UNFCCC are likely to lead to temperature increases of around 3.5°C, well above the widely accepted threshold for dangerous climate change of +2°C. Pledges by these same governments to fund adaptation in developing countries fall well short of what is required to adapt these countries to such extremes of warming, and indeed there is little doubt that for some countries, for example low-lying island states, such extremes of climate change will be beyond their adaptation limits. Closing this adaptation gap will be a huge challenge.

Challenge 2: Understanding that both incremental and transformative adaptation are necessary to address the challenge of climate change. Whereas incremental change is generally a bottom-up autonomous response to climate change, requiring little or no external facilitation, transformational adaptation is much more likely to require strong policy-led direction in a top-down framework. A corollary of this is that reliance on market forces to

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deliver adaptive solutions will place the emphasis on incremental adaptation, to the extent that opportunities for necessary transformative action may be lost.

Challenge 3: Converting adaptation knowledge into action. We already possess much of the knowledge we need to adapt successfully to climate change. Arguments that the lack of certainty around projections of future climate change, especially at regional and local scales, precludes action, are spurious given that the uncertainties which exist in arenas such as defence expenditure and the financial sector have never had such an effect. What are the barriers and enablers of action, and what can be done to remove the former and support the latter?

Challenge 4: Mainstreaming adaptation – where, when and how? Although it is a widely touted rubric that adaptation should be mainstreamed into organisational activities at the earliest opportunity, in fact this assertion does not stand up to close scrutiny. In the organisational structures of developed countries, premature mainstreaming is likely to stifle efforts to undertake transformative adaptation. In developing countries, early mainstreaming runs the risk of losing the opportunity to leapfrog technology – to avoid investment in centralised coal-fired power stations, for example, and go straight to distributed low-carbon energy technologies.

Challenge 5: Measuring climate change adaptation and evaluating success. How do we know whether adaptation activities have been successful? Indeed, how do we even define ‘success’? How do we ensure that adaptive actions are just and equitable viewed from all perspectives of society? These questions require answers if only to understand whether an adaptation strategy is worth implementing elsewhere. But timescales can be long – some adaptation strategies can be successful in the short-term, but unfit for purpose over decades, and vice versa. Some strategies that are successful for one group or nation may have negative impacts in different social groups or other countries. These normative considerations of the potential for maladaptation make measuring success difficult but essential.

These are the questions and challenges we are going to have to solve if we are to adapt successfully to the impacts of climate change.

Study looks north for adaptation lessons

If WA’s southern city of Bunbury is predicted to become more like hot, dry Geraldton, and Brisbane more like Gladstone, can city managers learn policy lessons from the experiences of these northern regions? NCCARF’s newly-released *Learning from Regional Climate Analogues* project explored the idea that the way communities plan and manage their infrastructure, built form, and services such as health and emergency response are influenced by the prevailing climate. While the study found a range of non-climate factors influenced policy and planning decisions, it also identified climatic factors that may affect policies and plans for delivering services at the local level. The final report is available now at www.nccarf.edu.au/analogues

Research call to open

Expressions of interest open this week for a suite of projects that will synthesise the knowledge generated through NCCARF’s 140 research projects to provide useful information for policy makers.

It will identify key policy-relevant research useful to decision makers in each state and territory, and those with national implications. It will also identify remaining gaps in the knowledge needs of each region.

The project is titled ‘*Supporting evidence-based adaptation decision-making in Australia’s states and territories - synthesis and learning from research to date*’. Applications will be invited this week from qualified individual researchers or research consortia to undertake all, or part, of the project. For more information visit www.nccarf.edu.au/synthesis-and-integrative



Nominate a champion

Do you know someone making a difference on the ground in climate change adaptation? If so, we want to hear about them!

The NCCARF Climate Adaptation Champions program is designed to identify and recognise the quiet achievers making a difference at the sharp end of climate change

adaptation. Champions could include people, organisations and projects that are actively changing behaviour, techniques, businesses and policies to adapt to a changing climate.

NCCARF Climate Adaptation Champions might include:

- excellent communicators, actively involved in exchanging the knowledge needed for climate adaptation;
- people, groups and governments actively involved in making decisions that take climate change impacts into account;
- leaders in their field, assisting others to adapt to a changing climate; and
- inventors, designers and businesses leading the way with innovative ways to adapt.

NCCARF Climate Adaptation Champions will be chosen in four categories: Individual, Community, Business and Government.

Entrants must address at least one of these five main topics:

1. Adaptation for prosperity
2. Communicating for climate adaptation
3. Helping the natural environment
4. Climate-adapted city life
5. Resilient communities

Nominate online at www.nccarf.edu.au/adaptation-champions

Nominations close 31 March 2012.

Champions will be awarded at the 2012 Climate Adaptation Conference in Melbourne in June. Champions will receive a free trip to the conference, including registration, travel and accommodation.

Adaptation research news

Indigenous Communities researchers share in \$2.2 million funding

NCCARF will fund eight projects that explore the skills and capacity of Indigenous Australians to adapt to a changing climate.

The projects span both urban and remote communities from across Australia and the Torres Strait. Some projects focus on working with communities to learn more about how they adapted to previous climate changes, while others explore the factors that impact how vulnerable a community is, and its capacity to adapt. The projects are:

Learning from the past, adapting in the future: identifying pathways to successful adaptation in Indigenous communities.

Dr Meg Parsons, University of Melbourne.

Living change: adaptive housing responses to climate change in the town camps of Alice Springs.

Professor Ralph Horne, RMIT University.

Indigenous voices in climate change adaptation: addressing the challenges of diverse knowledge systems in the Barmah-Millewa.

Professor Dave Griggs, Monash University.

Aboriginal responses to climate change in arid zone Australia - regional understandings and capacity building for adaptation.

Professor Paul Memmott, University of Queensland.

Understanding urban and peri-urban indigenous people's vulnerability and adaptive capacity to climate change.

Professor Daryl Low Choy, Griffith University.

Future change in ancient worlds: Indigenous adaptation in northern Australia.

Professor Steve Larkin and Dr Deanne Bird, Charles Darwin University.

Community-based adaptation to climate change: the Arabunna, South Australia.

Dr Melissa Nursey-Bray, University of Adelaide.

Understanding how the use of intertidal marine resources by Indigenous women in the Northern Territory will be affected by climate change and their preferred adaptation options.

Dr Andrew Campbell, Charles Darwin University and Dr Ann Fleming, Northern Territory Government.

These projects were selected to address the priority research questions in the National Climate Change Adaptation Research Plan for Indigenous Communities, available at www.nccarf.edu.au



King tide, Thursday Island. Image; Annabel Jones.

Study explores life at the limits



Is there a point at which saving a particular ecosystem or society becomes too expensive, too difficult, or simply no longer feasible? A series of recently completed NCCARF-funded reports explores these questions for six key Australian ecosystems

and communities. The six-part 'Limits to Adaptation' project was commissioned under NCCARF's Synthesis and Integrative Research Program to identify the thresholds at which adaptation actions cease to reduce vulnerability.

The goal is to prioritise adaptation actions by determining which are practicable, the time scales over

which adaptation may be effective and how people and ecosystems respond to the damage. The projects are:

- Limits to climate change adaptation in the Great Barrier Reef: scoping ecological and social limits
- Climate change adaptation in the Australian Alps: impacts, strategies, limits and management
- Climate change adaptation in the Coorong, Murray Mouth and Lakes Alexandrina and Albert
- Limits to climate change adaptation in floodplain wetlands: the Macquarie Marshes
- Limits to climate change adaptation for two low-lying communities in the Torres Strait
- Limits and barriers to climate change adaptation for small inland communities affected by drought

All of these reports are now complete and available free for download from www.nccarf.edu.au

A seventh report synthesising the results from all six studies is also being developed.



Climate Adaptation in Action 2012

Sharing knowledge to adapt



2012 NATIONAL ADAPTATION CONFERENCE

26-28 June 2012 Sebel Hotel Albert Park, Melbourne

Conference 2012 takes shape

The NCCARF - CSIRO Climate Adaptation in Action conference is taking shape, with a range of plenary and panel sessions confirmed. More than 40 parallel sessions on a variety of themes are now confirmed. The call for abstracts has closed with more than 500 abstracts received.

An expert panel has reviewed submissions, and applicants selected to present oral and poster presentations will be notified this month to enable them to take advantage of the early bird registration. For conference updates subscribe online at www.nccarf.edu.au/conference_2012

Side events:

A range of pre-conference and side events have been confirmed for Monday 25 June.

The Victorian Centre for Climate Change Adaptation Research will hold its Annual Forum, while NCCARF's Human Health network will also hold a special forum 'Climate Change Adaptation: Responding to Health Issues'. For more information or to register for side events visit www.nccarf.edu.au/conference_2012

Keynote speakers

The NCCARF Climate Adaptation Conference will feature inspiring keynote speakers working at the cutting edge of climate change adaptation research and practice in Australia and around the world.

Confirmed plenary speakers include:

Francis Zwiers, Director, Pacific Climate Impacts Consortium, University of Victoria, Canada.

Tony McMichael, National Centre for Environmental and Population Health, Australian National University.

Mark Howden, Chief Research Scientist, CSIRO Ecosystem Sciences.

Kristie L. Ebi, Executive Director of the Technical Support Unit for IPCC Working Group II.

Peter Cosier, Director and Founding Member of the Wentworth Group of Concerned Scientists.

Mark Rogers, Asset Manager, Infrastructure Investment at Colonial First State Global Asset Management.

Pauline Dube, University of Botswana.

Hugh Possingham, Director, ARC centre of Excellence for Environmental Decisions and the National Environmental Research Program Environmental Decisions Hub.

Jon Barnett, Convenor, NCCARF Adaptation Research Network on Social, Economic and Institutional Dimensions of climate change.



Last chance for early birds

The special discounted early bird registration rate closes on **4 April 2012**.

Registration fees:

Early bird.....	\$750	Full.....	\$950
Student.....	\$500	Day.....	\$400

Confirmed sessions include

- Climate change adaptation in Australia today.
- Health, society and adaptation.
- Supporting adaptive decision making in the Pacific Basin.
- Policy-relevant knowledge for adaptation: bridging the science-policy gap.
- Maladaptation, misguidance and missed chances.
- Collaborative adaptation: How university-government partnerships turn adaptation research into policy and practice.
- Business as usual? How is business adapting?
- Science for adaptation.
- Climate change adaptation in cities.
- Strategies for supporting reef ecosystem resilience.
- Barriers and limits to adaptation.
- Adapting agriculture to climate change.
- Life cycle assessment - supporting climate adaptation in agriculture.
- Managing Australia's marine ecosystems and resources for a warmer climate.
- International developments.
- Avoiding extinctions in a changing climate.
- Adapting water policy and planning to climate change.
- Enhancing resilience at the marine-land interface.
- Climate adaptive infrastructure and the built environment.
- Visioning a climate change adapted Australia in 2050.

News from the Adaptation Research Networks

Marine Biodiversity and Resources

The Network recently published its summer issue of the Marine Adaptation Bulletin which delves into the concerns, challenges and approaches of marine conservation in a changing climate. Key topics include marine park area planning and management, marine turtle conservation, intertidal wetlands and the impact of sea level rise in South East Queensland, and adaptation insights for the Great Barrier Reef. Download the Bulletin from the ARNMBR website.

Following an announcement of a Parliamentary Inquiry into Australia's biodiversity in a changing climate in 2011, Neil Holbrook, Julie Davidson and Laura Purcell drafted and submitted a response as individual representatives of the Marine Adaptation Network. The submission was accepted and they were invited to appear before the House Standing Committee on Climate Change, Environment and the Arts at its public hearing on 31 January 2012.

Recently, the Marine Adaptation Network released the report *Stakeholder Needs in a Changing Climate*. This document reports on the outcomes from a series of focused strategy meetings held across six Australian states and the Northern Territory in late 2010. It scoped marine stakeholder needs to respond to, prepare for, and manage the risks associated with climate change impacts on the marine biodiversity and resource sectors. Key stakeholder representation at these meetings was provided by industry, government, NGOs and NRM agencies, for marine aquaculture, commercial fishing, marine conservation, and marine tourism. The full report can be downloaded from www.nccarf.edu.au/marine

The National Climate Change Adaptation Research Plan (NARP) for Marine Biodiversity and Resources is currently under review and an update document is being prepared. This follows the preparation of a comprehensive literature review and synthesis of available information regarding funded projects now underway. The review drafting team was led by Network Convenor Neil Holbrook and NCCARF's Richard McKellar. The draft NARP update document is currently being reviewed by invited marine stakeholders. More Network news www.arnmbr.org

Human Health

The Human Health Network will hold a special pre-NCCARF conference expert panel discussion 'Climate Change Adaptation: Responding to Health Issues'. This special session will bring together researchers and end-users to discuss what we are doing to reduce the impact of climate change on human health, exploring what is working, and what is not working so well, and what other adaptation actions we should be undertaking.

Confirmed panellists so far include:

- Kris L. Ebi, Executive Director of the Technical Support Unit for Working Group II (Impacts, Adaptation, and Vulnerability) of the Intergovernmental Panel on Climate Change (IPCC).
- Tony McMichael, Australian National University, a pioneer of research on the health impacts of climate change and author of the Climate Commission's report '*The Critical Decade: Climate Change and Health*'.
- Sophie Dwyer, Executive Director, Health Protection, Queensland Health.
- Dr Liz Hanna, Australian National University and Convenor of the NCCARF Climate Change Adaptation Research Network for Human Health.

The panel discussion will take place prior to the NCCARF Conference Registration Reception on Monday 25 June 2012, 1.30pm-4.30pm at the Sebel Hotel, Melbourne. For further details including free registration visit the Network website: www.nccarf.edu.au/humanhealth

Settlements and Infrastructure

Estuarine ecosystems workshop

A recent Estuarine Ecosystems (EE) Workshop held in Port Stephens, NSW proved to be an ideal collaboration between four NCCARF Adaptation Research Networks – ACCARNSI, Marine Biodiversity and Resources, Terrestrial Biodiversity and Water Resources and Freshwater Biodiversity. ACCARNSI Node Co-Convenor, Bill Peirson organised the EE Workshop field trip, a visit to the Tomago Wetlands.

Local government initiatives

ACCARNSI is currently in the process of finalising reports for its Local Government Initiatives Project with the release of its Stage 1 Report on research and evaluation of climate change adaptation tools and application processes used by local government practitioners around Australia and the accompanying '*Portfolio of Case Studies and State-wide Synopses*'. A draft report for the Stage 2 Local Government Survey is near completion with a National Roadshow planned for May/June to present key findings and a decision tree for selecting adaptation tools. The Roadshow will be run collaboratively with the Local Government Association in each state. For further information about this project please contact ACCARNSI at accarnsi@unsw.edu.au.

Early career researcher forum

ACCARNSI has recently put out a Call for Abstracts for its 7th National Forum and Workshops for Early Career Researchers, to be held in Melbourne from 7 to 9 May, 2012. The workshops seek to encourage participation from early career researchers (from tertiary as well as the private sector) currently based in Australia who are doing innovative work in climate change. The program for the

Forum and Workshop will also include sessions themed around Emergency Management and Settlements and Infrastructure with a keynote by Kate White, Senior Lead, Global and Climate Change, US Army Corps of Engineers (USACE). ACCARNSI invites representatives from all Australian states and territories to apply to participate. Each participant must submit an abstract of no more than 250 words and give a presentation at the workshop. Application deadline is Thursday 5 April.

For further information about ACCARNSI and its activities visit our website www.nccarf.edu.au/settlements-infrastructure or email accarnsi@unsw.edu.au

Primary Industries (PIARN)

The Primary Industries Adaptation Research Network (PIARN) hosted the second of its Master Class sessions in Canberra in February, focusing on government policy and its links with primary industries.

The session brought together the same twenty young researchers, consultants, farmers, research managers, extension officers and policy makers who participated in the South Australian Master Class.

Expert speakers at the Canberra Master Class represented all links in the policy-information chain, and aimed to help participants understand the three-way dialogue between researchers, industry and their dependent communities, and policy makers.

Mark Howden (CSIRO) detailed approaches to developing adaptation strategies; Matt Linnegar (NFF) discussed how industry ensures its voice is heard and how policy is influenced by lobby groups; Will Steffen (ANU) provided an international perspective, detailing the current extent of climate change; and representatives from a number of federal departments outlined the policy development process.

The final Master Class, to be held in Townsville in April 2012, will focus on adaptation to extreme events; the impact of climate change and agriculture on the reef; and the banana, northern cattle, sugar and fisheries industries.

In other PIARN news, the Network is offering postgraduate travel grants for attendance at the NCCARF Conference in Melbourne in June. Applications close 30 March. See the PIARN website for more information.

Other events include: a workshop on plant adaptation to CO₂ (Sydney, March 2012); a workshop on climate change impacts on horse health (Adelaide, June 2012); a National Press Club event on 'Food Security in a Changing Climate' (Canberra, March 2012); and PIARN sessions at the NCCARF Conference (June 2012).

More information will be available on the PIARN website. For more primary industries news, sign up for the PIARN newsletter at www.piarn.org.au

Social, Economic & Institutional Dimensions

The Network for the Social, Economic and Institutional Dimensions of climate change has been busy helping NCCARF organise multiple sessions for the forthcoming 2012 Climate Adaptation Conference.

The Network is supporting members of the Adaptation College to attend the conference, many of whom will be presenting papers and helping to chair sessions. The ANU node of the network is preparing an edited volume of papers presented at last year's very successful workshop on the 'Legal and Institutional Dimensions of Adaptation and Extreme Event Management' (to be published by ANU e-press). Planning for this year's workshop on the economics of adaptation, to be hosted by Monash University, is underway.

Finally, the network is offering up to 12 SEI-Adaptation Leadership Awards with a maximum value of \$2000 to support postgraduate researchers and staff in local government to conduct research, develop new collaborations, or attend relevant conferences. The process will be advertised via the network mailing list. To join email Tina Soundias on tinas@unimelb.edu.au or apply via the network website. Applications are due by 5pm April 16. More Network news www.nccarf.edu.au/social-economic-and-institutional-dimensions

Emergency Management

The Emergency Management Network has two events scheduled in March. The first was a public meeting to preview the soon-to-be-released Intergovernmental Panel on Climate Change (IPCC) *Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*.

This free event attracted 180 people and brought together the report's three Australian chapter coordinators to present key conclusions from their work and answer audience questions.

Over the past two years, more than 200 experts from around the world have worked on the IPCC Special Report, which provides an assessment of the latest scientific knowledge on the relationship between climate change and extreme weather and climate events. It looks at how climatic, environmental and human factors combine to create disasters and other impacts on society, and what we can do to reduce risks. The full report is scheduled for release late March 2012.

Another event, a one day workshop, 'Visions of sharing responsibility for disaster resilience' will be held at RMIT's city campus on 29 March 2012 and will examine the idea and practice of sharing responsibility for disaster resilience from a wide range of perspectives.

The principle of 'Shared Responsibility' has shaped emergency management thinking in Australia since the

1990s. It gained significant policy traction following the Victorian 2009 Bushfires Royal Commission and the release of the National Strategy for Disaster Resilience, yet it is not clear what this idea really means or what its implications are for policy and practice. Registered participants in the workshop include researchers, policy-makers, agency and emergency service personnel. More network news <http://emergencymanagement.org.au>

Terrestrial Biodiversity

The Terrestrial Biodiversity network will run the next in its series of adaptation focus workshops 'Bushfires, biodiversity and climate change - developing an adaptive management framework' to understand the efficacy of fire management interventions in Australian flammable ecosystems in a warming world.

This workshop will take place in Hobart, Tasmania from 21-25 May 2012 and will be run by David Bowman from UTas and Dick Williams from CSIRO. Twenty researchers and stakeholders from both national and international institutions will attend this event and a summary of this workshop will appear in the July TRE-bulletin.

Once again the network is offering Honours and Masters project funding and PhD collaborative travel funding which will close on 30 March 2012. All students are welcome to apply but must make a strong case for how their research will directly inform alternative management or assist in natural adaptation of terrestrial biodiversity to climate change.

To find out more or download the application form please go to: <http://nccarf.jcu.edu.au/terrestrialbiodiversity/index.php/General/funding-opportunities.html> More Network news: <http://hosting2.arcs.org.au/terrestrialbiodiversity>

Freshwater Biodiversity

The Network finalised a project that synthesised climate scenarios and water resources projections. The project also looked at cross sectoral collaboration to better understand societal responses to climate change. Further information is available from Carolina Casaril at CSIRO.

The network recently held a successful week-long Masterclass for 20 early career scientists and natural resource managers, and a workshop on adaptation for urban estuaries with the Terrestrial Biodiversity, Marine and Settlements networks. It was a great success, attended by 25 scientists, engineers and managers from around Australia. Two major papers are under preparation to communicate the results.

The Water Governance Theme held a workshop with over 70 researchers, practitioners and policy-makers participating.

A special issue of *Water Resources Management*, featuring contributions from members of the Network, was launched after the workshop.

More Network news www.nccarf.edu.au/water

Contact the networks:

Terrestrial Biodiversity co-convened by Professor Stephen Williams (JCU), and Professor Lesley Hughes (Macquarie). Contact: Coordinator Yvette Williams yvette.williams@jcu.edu.au

Water Resources & Freshwater Biodiversity convened by Professor Stuart Bunn (Griffith). Contact: Coordinator Sam Capon climate.water@griffith.edu.au

Marine Biodiversity & Resources convened by Associate Professor Neil Holbrook (UTas). Contact: Coordinator Clare Brooker arnmbr@arnmbr.org

Human Health convened by Dr Liz Hanna (ANU). Contact: Coordinator Peter Thomas arn.humanhealth@anu.edu.au

Settlements & Infrastructure convened by Associate Professor Ron Cox (UNSW). Contact: Coordinator Tamara Rouse accarnsi@unsw.edu.au

Primary Industries convened by Professor Snow Barlow (Melbourne) Contact: Coordinator Alison Turnbull piarn-coordinator@unimelb.edu.au

Emergency Management convened by Professor John Handmer (RMIT). Contact: Coordinator Frank Yardley frank.yardley@rmit.edu.au

Social, Economic & Institutional Dimensions convened by Professor Jon Barnett (Melbourne). Contact: Coordinator Tina Soundias tinias@unimelb.edu.au

Networks on the net:

Visit www.nccarf.edu.au/adaptation-research-networks



NCCARF on the "Tube"

NCCARF now has its own YouTube channel.

We've developed a series of nine two-minute videos, each covering the key priority research questions identified in one of the National Climate Change Adaptation Research Plans. Topics include: emergency management; freshwater biodiversity; human health; Indigenous communities; marine biodiversity and resources; primary industries; the social, economic and institutional dimensions of climate change and terrestrial biodiversity.

These videos provide an introduction to the key climate change adaptation challenges for a variety of sectors in a succinct, accessible format. View all the videos at www.youtube.com/nccarf

NCCARF News



Managing farms through rainfall uncertainty

NCCARF Visiting Fellow Jim Salinger is collaborating with the Tasmanian Institute of Agriculture (TIA) on a project to improve weather early warning systems and manage agricultural risks and opportunities for Tasmania's potato and dairy sectors.

Positive Indian Ocean Dipole (IOD) and La Niña events can cause climate fluctuations that impact these industries. Positive IOD events often lead to drying of soils earlier in spring, enabling early potato planting, but mean dairy pastures dry out earlier in the season and require supplementary irrigation. Conversely La Niña events can produce wetter soil conditions that delay potato planting by up to a month, especially in heavier, moisture retaining soils. Further climate change is likely to lead to increases in frequency and intensity of winter rainfall in northern Tasmania, which will depress milk-fat production and delay spring potato planting. However, higher temperatures and less rainfall in summer are expected to increase water stress, particularly for rainfed pastures.

Based on this knowledge, the project will develop climate risk management principles to help growers increase their profitability and environmental performance. Jim and project partner Holger Meinke of TIA have recently completed a series of workshops around Tasmania, and findings from the project will be made available on the TIA and NCCARF websites.

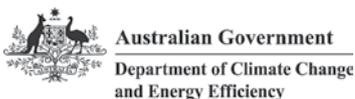


Visiting fellow Robert Glennon

In April NCCARF will host a visit from Robert Glennon, Professor of Law and Public Policy in the University of Arizona Rogers College of Law. He is the author of the highly-acclaimed *Water Follies: Groundwater Pumping and the Fate of America's Fresh Waters*, and more recently *Unquenchable: America's Water Crisis and What To Do About It*. He has served as a consultant and

advisor to government agencies, corporations, NGOs, and law firms. Robert has appeared on television and radio around the world, and his writings have appeared in the *Washington Post*, *the Arizona Republic*, *the Boston Globe*, and *the Arizona Daily Star*. He occasionally blogs for the *Huffington Post*. While in Australia, Robert will speak at a variety of NCCARF and other events. For more information view his speaking schedule at www.rglennon.com/speaking

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If you have comments, feedback or news items you would like included in the next NCCARF Newsletter please contact Jeannette Langan j.langan@griffith.edu.au

To receive this newsletter please subscribe online at: www.nccarf.edu.au/user/register

The views expressed herein are not necessarily the views of the Commonwealth and the Commonwealth does not accept responsibility for any information or advice contained within.

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