



NCCARF

National
Climate Change Adaptation
Research Facility



NEWSLETTER

Director's message

Professor Jean Palutikof, NCCARF Director

June 2013

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Upcoming events

Greenhouse 2013 Conference

8–11 October 2013 ADELAIDE
@ Adelaide Convention Centre
More: www.greenhouse2013.com

South West Pacific Climate Change and Disaster Round Table

8 August 2013 BRISBANE
@ Venue TBC
More: www.emergencymanagement.org.au

3rd INTERNATIONAL CLIMATE CHANGE ADAPTATION CONFERENCE:

12 – 16 May 2014 FORTALEZA, BRAZIL

Following very successful events in Gold Coast (in 2010), and Tucson in (2012), the 3rd conference will have a developing and emerging country emphasis, especially focussing on semi-arid and arid lands, although contributions from any region of the world are welcome. The website for abstract submission should open 1st July and close 15th November 2013, see adaptationfutures2014.ccst.inpe.br for more information.

Full registration: \$400; student: \$150.



The end of a journey

NCCARF completes the first phase of operation on 30th June. This is the final newsletter of the current phase. Our achievements since 2008 are considerable and substantial. They include:

- » Over 140 research reports on every aspect of adaptation.
- » Eight networks bringing together over 5000 practitioners and researchers in adaptation to build capacity.

- » Three major conferences: the Gold Coast international conference in 2010 with over 1000 participants from 52 countries; a national conference in 2012 in Melbourne with over 700 participants, and the very recent Sydney conference with more than 550 people attending.
- » Two books: the first a collection of papers from the 2010 conference published by Wiley; the second a set of case studies of historical extremes, seeking parallels between the responses to those events and climate change adaptation, to be published by Cambridge in November 2013.
- » Twelve Policy Guidance Briefs: these address critical topics in adaptation for Australia, based on practitioner workshops held in every State and Territory.

We have identified 14 Adaptation Champions in business, government and the community. These Champions are taking concrete steps to change behaviour, techniques, practices and policies to adapt to climate variability and change. We have held numerous, even uncountable seminars, workshops, early career events, masterclasses, webinars and symposia. We have published newsletters, factsheets, guidance notes and discussion papers by the score. Already, and in a growing stream, our researchers are publishing in the peer-reviewed literature.

I am extremely proud of what we have achieved. Together with initiatives such as the CSIRO Climate Adaptation Flagship, we have built a skilled community prepared to take decisions and act to make Australia ready for climate change. The NCCARF conferences and the NCCARF networks have ensured that this community has the opportunities and frameworks to thrive. With the right governance in place to encourage action, Australia could take a world-leading position in adaptation.

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DIRECTOR'S MESSAGE CONTINUED...

It is rare that an institution is handed a sum of money for a five-year period together with a mission to achieve and minimal instruction on how the money should be spent. And then left to it. That isn't to imply we weren't properly regulated – we were, through the then Department of Climate Change and Energy Efficiency. But the supervision was more about meeting deliverables set out in annual workplans – a must-achieve benchmark. Anything we wanted to do beyond that was encouraged if it was seen to contribute to the overall mission. I have found through a long career that such freedom is rare. It allows an institution to assume the role of 'honest broker' and to undertake the public good work that is essential if the overall goal is to grow national knowledge and capacity.

Although a Phase 2 NCCARF may arise over the coming months, it is unlikely to have the financial resources or security of NCCARF Phase 1. It must inevitably metamorphose into something that is more driven by economic necessity. But I am unsure whether five years has been sufficient to build a robust and self-sustaining community – I have said for some time that another 2-3 years of external support for networking, knowledge adoption and capacity building is required. I hope I am wrong.

I would like to take this opportunity to thank the NCCARF staff, past and present, for their dedication and hard work over the years. They have been part of something that has been important, and has made a difference to the adaptation landscape here and internationally. Without them, NCCARF could not have happened.

Visit www.nccarf.edu.au for more information.

NCCARF Policy Guidance Briefs – full suite available

The final seven briefs were launched at the 2013 Climate Adaptation Conference, Knowledge + Partnerships, on Monday 24th June 2013.

The complete set of twelve Policy Guidance Briefs are available at:

www.nccarf.edu.au/publications/policy-guidance-briefs

Research publication news

NCCARF research portfolio launched at Parliament House



NCCARF completed its research portfolio and on 30 May 2013 launched it for key decision makers in government, industry and the community at a breakfast in Parliament House, Canberra.

Two early career researchers, Elissa Waters from the University of Melbourne and Dr Lisa Petheram from ANU, who were both actively supported by NCCARF, presented the NCCARF research portfolio to The Hon. Yvette D'Ath, Parliamentary Secretary for Climate Change and Industry and

Innovation (pictured above).

The output from more than 140 peer-reviewed research projects across all aspects of climate change adaptation science and practice was delivered to over 60 policy makers and government stakeholders at the morning event.

Insights into NCCARF research were provided by:

- » Prof. Jon Barnett – *Sea-Level rise roles and responsibilities*;
- » Dr. Matthew Mason – *Understanding the impacts of extreme weather events on buildings and infrastructure*; and
- » Assoc. Prof. Jason West – *Preserving business value through climate change adaptation*.

NCCARF hosted public seminars during the day to raise awareness of the diverse nature of the research completed and its relevance to adaptation decision making across all sectors. These explored adaptation issues around business, emergency management and freshwater resources.

Where can you access NCCARF research?

You can find all NCCARF publications over the next two years on our website at www.nccarf.edu.au. The NCCARF website will be preserved again in November as part of Australia's web archive, Pandora, pandora.nla.gov.au. The State Library of Queensland and the National Library of Australia will catalogue our research final reports over the next few months.

We have also deposited NCCARF reports on the Australian Policy Online website www.apo.org.au, an initiative of the Swinburne Institute for Social Research, where NCCARF helped to establish the Climate Change Adaptation Collection for decision makers.

By the end of September, NCCARF reports will form a core of Terra Nova at terranova.org.au. Terra Nova is the Australian National Data Service sponsored information hub under construction as part of the Research Data Storage Infrastructure Project. Contact Sam Mackay at samuel.mackay@griffith.edu.au if you would like your climate change adaptation research data considered for the collection.

We encourage distribution of all the research accomplished through NCCARF so please contact the copyright holder listed in each report for the appropriate permissions to reproduce material.

News from the Adaptation Research

Settlements and Infrastructure

The 2013 April – June Quarter has seen the release by the Settlements and Infrastructure Network's Infrastructure Node of two additional discussion papers on *Managing estuaries for resilience under climate change: Integrating socio-economic and ecological goals and proposing appropriate strategies* and *A brief appraisal of the potential of pumped storage for New South Wales*.

Since 2010, the Network has supported 17 Honours and Masters research projects focussing on climate change adaptation issues for Settlements and Infrastructure. Funds enabled students to explore their research topics in a more contextualised way by allowing access to materials and opportunities they wouldn't have had otherwise. All grant holders were funded to attend national conferences with a climate change adaptation stream relevant to their research topic, and encouraged to submit papers and/or posters. Final synthesis reports for all recipients are available on the Network website.

The Network has also been involved in the Climate Change Adaptation Good Practice project working with NCCARF to deliver case study material and organise workshops as part of a wider dissemination strategy devised by NCCARF and the Department of Industry Innovation Climate Change Science Research and Tertiary Education to showcase climate change adaptation good practice in action.

And a final congratulations to Honours Research Grant recipient Alianne Rance from the University of Melbourne, who was a Voice of Youth at NCCARF's National Adaptation Conference in Sydney at The Hilton, 25 – 27 June.

More Network news: www.nccarf.edu.au/settlements-infrastructure

Emergency Management

'Fire management in the boreal forest region of Canada: an operations research perspective.'

In this workshop, Professor David Martell (University of Toronto, Canada) outlined how operations research methods had been used to develop decision support systems. Fire managers and their clients can use these to help resolve some of the many strategic, tactical and operational decision-making problems they must address, often under very severe time constraints and usually under considerable uncertainty, in particular to assigning resources to manage the threats to public safety, property and forest resources.

'Crisis and disaster communication for leaders'

Bob Jensen, Principal Deputy Assistant Secretary for Public

Affairs, US Department of Homeland Security, visiting Australia as a Fulbright scholar, noted that we are all facing the impacts of a changing climate and more intense climate events and used Hurricane Sandy as his principle example of crisis communication. He was able to articulate the communication and leadership response to that event, from the role and actions of the President down to the thousands of workers, mobilised pre and post impact. Bob noted communication is not just engagement with media, but with all stakeholders, agencies and community groups. All must be engaged and the communication is a two way process, listening and allowing concerns to be reported.

'South West Pacific Climate Change and Disaster Round Table'

This event will be held in Brisbane on 8 August 2013. The Network is bringing together researchers and agency personnel and emergency managers to share in a round table workshop to discuss the implications of climate change for the work of emergency management across the region. The round table will have representatives from Vanuatu, the Solomon Islands, Fiji, AFAC and the seven Australian fire and emergency service agencies that have twinning arrangements with counter parts in eight south west Pacific countries.

More Network news: www.emergencymanagement.org.au

Freshwater Biodiversity

Ramsar wetlands conservation workshop

We held a workshop on 'Adaptation policy for the conservation and management of nationally and internationally important wetlands' was held at the Arthur Rylah Institute in Victoria from April 16 – 18, 2013, in conjunction with the Society for Wetland Scientists (Oceania chapter) and the Institute for Land, Water and Society (Charles Sturt University).

While wetlands are likely to be amongst the world's ecosystems most vulnerable to climate change, the Ramsar Convention has yet to develop guidance for reporting on changes in the ecological character of wetlands as a consequence of climate change. The workshop brought together an interdisciplinary group of policy makers, managers and researchers to discuss a range of issues including:

- » When is intervention to aid wetland adaptation to climate change feasible?
- » How should management objectives be set for wetlands under climate change and how can management effectiveness be monitored?
- » What are appropriate management responses to climate change for Ramsar listed wetlands?

Outputs from the workshop include a briefing paper for

policy makers and a peer-reviewed synthesis paper for submission to an international journal. For more information, contact Sam Capon, s.capon@griffith.edu.au.

'Autonomous adaptation pathways for Australian biodiversity'

A joint workshop supported by the Networks for Freshwater Biodiversity, Marine Biodiversity and Terrestrial Biodiversity was held from the 28 – 31 May 2013 in northern NSW.

This workshop brought together an interdisciplinary group of researchers to explore the potential for Australian biodiversity to adapt autonomously to projected climate change. The focus was on identifying pathways for *in situ* adaptation through range shifts, genetic diversity or morphologic plasticity. A paper outlining evidence for autonomous ecological adaptation is being synthesised with respect to examples of Australian biodiversity. Options for effective planned adaptation of conservation and natural resource management practices to facilitate autonomous ecological adaptation were also identified and evaluated.

Outputs from the workshop include a synthesis paper for policy makers and a peer-reviewed paper for submission to an international journal. For more information, contact Sam Capon, s.capon@griffith.edu.au.

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

Marine Biodiversity and Resources

Among our final reporting requirements, the Marine Network has produced a final *Marine Adaptation Bulletin*. The theme of this final MAB was *Tourism and Marine Climate Change*. We also released the *Diagnostics for Adaptation in Action: User Guide* – which will be a useful resource for policy and management, and two information sheets, entitled:

- » *Does more mean less? The value of information for conservation planning under sea level rise*, and
- » *The importance of social and economic fisheries data for effective management and conservation: Queensland*.

The Marine Network has also been collating all Network materials to provide a legacy of all contributions from the Network to adaptation knowledge. We had a booth at the NCCARF conference, and enjoyed seeing you all there!

More Network news: www.nccarf.edu.au/marine

Terrestrial Biodiversity

The Terrestrial Biodiversity network launched the *Terrestrial Report Card*, at the NCCARF 2013 conference. The report card aims to summarise current information on known and expected impacts of climate change on terrestrial and freshwater biodiversity in Australia. The information is aimed at a wide audience, and we hope it will be easily understood by all interested parties, from managers,

policy makers and scientists, to the general public. It recommends adaptation options, and highlights current knowledge gaps in the field of climate change adaptation research. The *Terrestrial Report Card* is available as an online resource at: <https://terrestrialclimatechange.org.au>

All of the resources and information for the network will be placed on the Terra Nova website to ensure future access after the network has closed.

More Network news:

www.nccarf.jcu.edu.au/terrestrialbiodiversity

Social, Economic and Institutional Dimensions

The fifth annual Adaptation College event was held in Fiji from the 15 – 19 April. The group spent five days in Fiji learning about adaptation processes in that country, including about the outcomes of Australian aid projects seeking to promote adaptation. The college visited Votua and Bavu villages on the Coral Coast, and were given guided tours of the Nadi Basin, the Ba basin, and the Ra catchment.

The Social, Economic and Institutional Dimensions network helped to organise a session at the NCCARF Climate Adaptation 2013 conference in Sydney. The network also supported members of the Adaptation College to attend the conference.

The network is finalising a review of literature on adaptation in Australian Indigenous communities.

More Network news: www.nccarf.edu.au/social-economic-and-institutional-dimensions

Primary Industries (PIARN)

The PIARN Symposium 'Farm profitability in a food insecure world' in Melbourne on 3rd June 2013 was the final major event for PIARN, with funding of the network ceasing in June 2013.

The symposium was an exploration of future research and policy directions for Australian agriculture under future climates. Leading researchers, farmers and industry figures led the discussion, examining the current impacts of climate variability on agricultural industries, strategies to optimise future farm profitability, and how national and international carbon policy could support these responses.

The symposium program and speakers' PowerPoint presentations are available on the PIARN website at: www.piarn.org.au/news/2013/jun/06/symposium-farm-profitability-food-insecure-world

A summary of insights and recommendations from the symposium sessions are currently being developed into the final report for the network.

More Network news: www.piarn.org.au

NCCARF Climate Adaptation 2013 Conference review

NCCARF held its 2013 Annual Conference in Sydney from 24 to 27th June. Around 550 people attended the event, drawn from universities, research organisations, all tiers of government, business, industries and consultancies. We were very pleased to receive silver sponsorship from CSIRO and the NSW Office of Environment and Heritage.

A highlight of the NCCARF conference is always the first day, co-organised with CSIRO, when we hold our Workshop for Postgraduate Students. Something like 60 postgrads from across Australia attended this event, which is an opportunity for them to network, to showcase their conference posters and practise their presentations. They heard from David Dodman, from IIED in London, about his career and reflections on what contributes to success.

The main event began on Tuesday, and the conference was opened by the Lord Mayor of the City of Sydney, Clover Moore. It was fascinating to learn what inner Sydney is doing around building sustainability and greening the city. We built a 40 minute presentation to illustrate the achievements of NCCARF over its first five years, with brief personal and video appearances by international and national scientists as well as stakeholders in business and government.



The conference then got down to business. In total, we had 14 plenary speakers, 33 panellists, 314 oral presentations and 177 speedtalk poster presentations. The dinner was held on the Wednesday evening, and a highlight was the presentations to NCCARF's 2013 Adaptation Champions, named on this page. Even so, around 50 people managed to get up in time for a business breakfast which started at 7am.

As an example of the richness of the conference, there was a notable plenary on the Thursday morning 'Where do people fit in' (photo below). We heard from David Dodman, talking about the urban poor in developing countries, from Stewart Cohen (University of British Columbia) looking at the translation of knowledge into action, Melissa Nursey-Bray (University of Adelaide) describing the adaptation challenges of the Arabana people in the Lake Eyre Basin, and accompanied by two of her Arabana colleagues, and Habiba Gitay (World Bank) looking at the ingredients of successful climate resilient development.



There is much information about the conference on the website at www.nccarf.edu.au/conference2013.

2013 Climate Adaptation Champions

At the conference, NCCARF announced the [2013 Climate Adaptation Champions](#). These awards highlight people taking concrete steps to change behaviour, techniques, practices and policies to adapt to an uncertain future. We looked for people, businesses and organisations who are champions of practical and innovative ways to adapt to climate change.

The 2013 NCCARF Adaptation Champions are:

Business: Sydney Water for incorporating climate risks into their long term planning to deliver water to more than 4 million people annually.

Individual: Brian Foster for his continued service to NRM groups and farm communities on the Eyre Peninsula. (photo below)



Community: Green Cross for the Harden Up Program providing innovative online resources to assist Queenslanders to prepare for and manage severe weather events.

Government: South Australia State Government and South Australia Local Government Association for their partnership in the SA Climate Adaptation program which has shown long term commitment to enact climate adaptation policies for South Australia. (photo below)



NCCARF news

Adaptation Good Practice Project

Peer to peer learning is a very effective way of building capacity. NCCARF received funding from DIICSRTE to identify a number of exemplars of adaptation good practice from around Australia and to develop case studies clearly identifying the criteria that led to the work being successful.

We identified 16 case studies in business, local, regional and state government from around Australia. We worked with a variety of people to develop the case studies and we prepared succinct easily accessible products.

We also made videos of some of the examples of good practice to enable people to hear directly from some of the practitioners. Outreach activities were conducted around Australia.

We prepared a synthesis report which captured the key learnings, similarities and synergies.

The 17 products are available on the NCCARF Local Government Portal at: www.nccarf.edu.au/localgov

To hear more or discuss further, please contact David Rissik, d.rissik@griffith.edu.au.

NCCARF going forward

Many questions have been asked about what will happen to NCCARF with the cessation of Commonwealth Government funding. We are pleased to announce that NCCARF will continue in a limited capacity.

Five of the founding Partner Universities have decided to contribute some funds to maintain NCCARF as a bridging entity into next year. Some limited activity will take place and NCCARF will look to build partnerships with anyone looking to fund climate change adaptation research projects.

Those interested in knowing more should contact Jean Palutikof, j.palutikof@griffith.edu.au, or David Rissik, d.rissik@griffith.edu.au.

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