



# NCCARF Newsletter

Director's message  
Professor Jean Palutikof, NCCARF Director



## Poker games in Copenhagen

As I write this, the world's nations are gathered in Copenhagen to map out the way forward from 2012, when the Kyoto Protocol expires. The Protocol is a binding agreement – by signing, developed countries agreed to limit their greenhouse gases by amounts set in the Protocol.

The gathering in Copenhagen is a Conference of the Parties (COP) who have signed up to the United Nations Framework Convention on Climate Change – see <http://unfccc.int> Although seldom mentioned by the media, COPs are held every year, usually in December. Copenhagen is the fifteenth COP, or COP-15; Mexico, supported by the US, has already offered to host the 2010 COP.

Perhaps the nearest everyday analogy to the COP negotiations is a poker game. Some nations come with their opening bids already on the table – the US has pledged to reduce emissions by 17% by 2020, compared to emissions in 2005. But this rather weak bid can be raised, depending on what other nations are prepared to bring to the table. Some nations are in much stronger positions than others – powerful developed countries field several hundred assorted back-room researchers, scientists and general gofers to support their negotiators, whereas African countries have a team that can be counted on the fingers of one hand. As in any poker game, nothing is decided until the last minute, which on past performance is likely to be the 23rd hour of the 14th day.

The progress made in the run up to Copenhagen was disappointing, and it is highly unlikely a new agreement will be reached at the COP. We can, and must, hope that the nations will leave Copenhagen having agreed in principle to reach a new arrangement to reduce emissions, and that such an arrangement should deliver the cuts in emissions necessary to avoid dangerous climate change. With lower probability, we may hope they will have agreed the general character of that arrangement. This would provide the necessary framework to move forward to a satisfactory conclusion at the 2010 COP.

What is required in order to avoid 'dangerous climate change'? Globally, we emit 50 billion tonnes of CO<sub>2</sub> per annum. To keep temperature increases below 2°C, widely-recognised as the threshold of dangerous climate change, we need to reduce this figure to 20 billion tonnes by 2050. Taking into account population increases, this equates to 2 tonnes of CO<sub>2</sub> per person per year. Currently, each person in the US and Australia is responsible for around 10 times this amount. The figure for China is around 6 tonnes CO<sub>2</sub> per person per year, and for much of Africa around 1 tonne. It is daunting to consider how developed countries can reduce emissions by 80-90%, and how developing countries can achieve a prosperous yet low-carbon future. Nevertheless, properly managed, this challenge presents enormous opportunities for technological innovation and transfer, business and industry transformation and infrastructural change.

Can we do it? Is it possible for Australians to reduce CO<sub>2</sub> emissions from 20 tonnes per capita to 2 tonnes in 40 years? Can we afford not to? We can adapt to the impacts of climate change, but only up to a point. If we continue to emit greenhouse gases with no effort at abatement, the changes in our climate will, without doubt, exceed our capacity to adapt. Therefore, we must wish our representatives in Copenhagen every success.

## 'Report Card' for Australia's marine environment

The Marine Climate Change in Australia 'Report Card' is now available, providing a synopsis of climate change impacts and potential adaptation strategies for Australia's marine environment. The Report Card was developed and funded by CSIRO, NCCARF and the Australian Department of Climate Change. More than 70 scientists from across Australia and overseas contributed to the Report Card supplying baseline data that will be updated biennially. The hard-copy report card is complemented by a comprehensive website. Visit [www.oceanclimatechange.org.au](http://www.oceanclimatechange.org.au) for more information or to obtain copies of the report.



## Forum links climate research nationwide

The Forum for NCCARF Interaction with States and Territories (FORNSAT) has been established to provide a mechanism for Australian state and territory governments to interact with NCCARF and its networks to progress climate change adaptation research nationwide. FORNSAT meets quarterly and comprises NCCARF staff and a representative from each state and territory government. Network convenors and guest speakers are also invited to brief the Forum on particular themes. FORNSAT will enable NCCARF to share research information, explore opportunities for interstate collaboration and cooperation and provide input and advice into national decision-making processes relevant to climate change adaptation research.

2010 International Climate Change Adaptation Conference

## Climate Adaptation Futures

Preparing for the unavoidable impacts of climate change

29 June-1 July 2010, Gold Coast Convention Centre, Gold Coast, Queensland, Australia

## Conference program online now

The NCCARF-CSIRO 2010 *Climate Adaptation Futures* Conference will be held on Queensland's Gold Coast from 29 June-1 July 2010. The draft program is now online.

Confirmed speakers include Steve Schneider (Stanford University) R.K. Pachauri (Chair, IPCC) Chris Field (Co-chair, IPCC Working Group II) Mark Howden (CSIRO) Achim Steiner (UNEP) Neil Adger (Tyndall Centre, UK) and Martin Parry (co-chair, IPCC Working Group II for the Fourth Assessment).

Along with parallel and plenary sessions, a variety of workshops, side events and post-conference field trips are scheduled.

Registrations to attend the Conference are now open with limited places available.

## Call for Abstracts closes 18 January 2010

There is still time to submit an abstract before the call closes on **18 January 2010**.

## Abstracts are invited for the following sessions:

- Adaptation and the community
- Adaptation and development
- The economics and costs of adaptation
- Human security
- Climate extremes and disaster management
- Trans-boundary cooperation for adaptation
- The interface of adaptation and mitigation
- National and international adaptation activities
- National and sub-national case studies of adaptation
- Climate information for users
- Communication of information for adaptation
- Risk communication and behavioural change
- New technologies for adaptation
- Impacts and adaptation in the tropics
- Ecosystems
- Human health
- Water
- Adapting agriculture to climate change
- Coasts, deltas and small islands
- Tourism
- Adapting to climate change in cities
- Scenarios of the future for adaptation
- Climate change and energy

To register, submit an abstract or download a copy of the program visit [www.nccarf.edu.au/conference2010](http://www.nccarf.edu.au/conference2010) For more information and to receive regular updates email [nccarf-conf2010@yrd.com.au](mailto:nccarf-conf2010@yrd.com.au)

## NCCARF Seminar Series continues

NCCARF's popular series of free public climate change adaptation seminars continues in 2010.

If you have seminar suggestions or would like to host a seminar at your institution contact Jeannette Langan [j.langan@griffith.edu.au](mailto:j.langan@griffith.edu.au)

Where possible, media from most previous seminars is made available for download as audio, slides or flash video from the NCCARF website at [www.nccarf.edu.au](http://www.nccarf.edu.au). For more information on the series see [www.nccarf.edu.au](http://www.nccarf.edu.au)

## Next seminar:

**Thursday 11 February, 2010**

*'Climate Change, Natural Disasters and Property Losses'*

**Guest Speaker:** Professor John McAneney, Director - Risk Frontiers, Macquarie University.

**Location:** Queensland College of Art Theatre, Griffith University, South Bank, Brisbane.

Bookings are essential for all seminars to Kerry Fitzgerald [k.fitzgerald@griffith.edu.au](mailto:k.fitzgerald@griffith.edu.au)



# Social, Economic and Institutional Dimensions of Climate Change

## Draft Research Plan opens for comment

The draft National Climate Change Adaptation Research Plan for Social, Economic and Institutional Dimensions of Climate Change is available for comment.

The Plan was developed by a writing team of Australian experts and identifies priority research required to enhance decision-making about adaptation in Australia. It identifies the need for research to improve understanding of the vulnerability and adaptive capacity of

individuals, communities, businesses and industries; the barriers and limits to adaptation; and the governance and institutional arrangements necessary to ensure adaptation is as effective, efficient, and equitable as possible.

To comment, please download the Plan and consultation pack from [www.nccarf.edu.au](http://www.nccarf.edu.au)

Comments must be received by **20 January 2010**. Contact Daniel Stock at [d.stock@griffith.edu.au](mailto:d.stock@griffith.edu.au) for more information.

### Update: National Climate Change Adaptation Research Plans

Completed and released: Human Health; Emergency Management.

Completed and pending release: Marine Biodiversity & Resources.

Consultation completed: Terrestrial Biodiversity; Settlements & Infrastructure.

Open for consultation: Social, Economic & Institutional Dimensions.

Preparing draft for consultation: Primary Industries.

Check [www.nccarf.edu.au](http://www.nccarf.edu.au) for updates, especially information on opportunities to review. Contact NCCARF to request a hard copy or summary of a completed NARP.

### Funds to meet health challenges of climate change

A call for applications for funding opens this month for research projects that address the health challenges of climate change identified as priorities in the *National Climate Change Adaptation Research Plan for Human Health*.

The funding call will be conducted through the National Health and Medical Research Council. Funding of more than \$5 million has been made available for the projects by the Department of Climate Change and the NHMRC.

For more information on the application process visit [www.nhmrc.gov.au](http://www.nhmrc.gov.au) Applications for funding close **17 March 2010**.

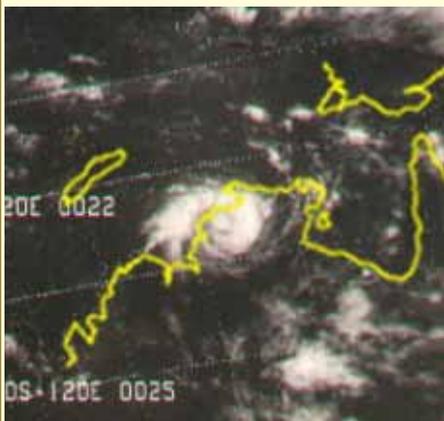
The NCCARF Adaptation Research Network for Human Health will conduct information workshops to assist prospective applicants in Adelaide on 19 January 2010 and in Townsville on 21 January 2010. For more information on the dates and venues for workshops see [www.nccarf.edu.au/humanhealth](http://www.nccarf.edu.au/humanhealth) or contact Haylee Weaver [haylee.weaver@anu.edu.au](mailto:haylee.weaver@anu.edu.au)

### Synthesis and Integrative Research profile: Lessons from historical case studies

Principal investigators have been appointed to lead a suite of historical case studies to be completed under the NCCARF Synthesis and Integrative Research program.

The case studies examine present-day management of climate variability and the lessons that can be learned for adaptation to future climate change.

Although the parallels are not exact, understanding community, institutional and governance responses to climatic events, and their interactions, can inform present-day and future climate change adaptation strategies.



**December 25, 1974: Cyclone Tracy makes landfall. Image: NOAA**

Case Studies for 2009-2010 include:

- *Adaptation Lessons from Cyclone Tracy* led by Professor John McAneney (Macquarie University);
- *East Coast Lows and the Pasha Bulker Storm* led by Professor Garry

Willgoose (University of Newcastle);

- *The 2008 Floods in Queensland: A Case Study of Vulnerability, Resilience, and Adaptive Capacity* led by Professor Armando Apan (University of Southern Queensland);
- *Impacts and Adaptation Response of Infrastructure and Communities to Heat Waves: the Southern Australian Experience of 2009* led by Mr Jim Reeves (Queensland University of Technology);
- *Resilience and Water Security in Two Outback Cities* led by Professor Glen Albrecht (Murdoch University);
- *Drought and the Future of Small Inland Settlements* led by Dr Anthony Kiem (University of Newcastle);
- *Storm Tides* led by Professor Rodger Tomlinson (Griffith University).

The case studies were selected as exemplifying the diversity of severe climate-driven disasters in Australia's recent history. Principal investigators were appointed through a call for expressions of interest from NCCARF partner organisations.

Outcomes of the project will be published and made available mid-2010. Contact Daniel Stock for more information on [d.stock@griffith.edu.au](mailto:d.stock@griffith.edu.au)

## Applications invited for NCCARF Visiting Fellowship Program

From 2010 NCCARF will offer a visiting fellowship program, enabling climate change adaptation researchers from Australia and around the world to spend 2-6 months working with NCCARF, normally on the Gold Coast, Australia. Applicants should have a strong recent publication record, and a clear identified research topic relating to the NCCARF research themes. They should be prepared to be involved in NCCARF research coordination activities. For more information see [www.nccarf.edu.au](http://www.nccarf.edu.au) Applications close **19 February 2010**.

## Network News

### Emergency Management

Adaptation Research Network for Emergency Management Convenor Professor John Handmer has been appointed a Co-ordinating Lead Author for the Intergovernmental Panel on Climate Change *Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*. Professor Handmer will be responsible for the chapter 'Changes in impacts of climate extremes: human systems and ecosystems.'

### Social, Economic and Institutional Network hosts first Adaptation College

The Network conducted the first event in its four-year adaptation college program designed to nurture early-career climate adaptation professionals. The 20 participants were selected from Australian civil society, government, and research groups through a competitive process, and include people who demonstrate potential to become future leaders in their fields. The cohort meets yearly with this year's event *Vulnerability and adaptation in Indigenous Australia* held in Darwin. Future events are: *Adaptive environmental management and policy* (Sydney, 2010); *Legal and policy frameworks for facilitating adaptation* (Canberra, 2011); and *Economic impacts of adaptation and adaptation policies* (Melbourne, 2012).

## Murdoch hosts first WA Climate Change Adaptation Symposium

In early December NCCARF partner Murdoch University hosted WA's first joint NCCARF event, the Western Australian Climate Change Adaptation Symposium in Perth. The Symposium provided a forum for Western Australian researchers to connect with lead researchers from other parts of Australia. The forum:

- provided an important opportunity for building networks,
- showcased latest advancements in climate change adaptation research, with a particular focus on work underway in Western Australia,
- provided an opportunity for the Western Australian research community to learn more about the activities of NCCARF with presentations by convenors and members of the eight Adaptation Research Networks.

## Adaptation Research Networks contacts:

**Terrestrial Biodiversity** co-convened by Assoc Professor Stephen Williams (JCU), and Professor Lesley Hughes (Macquarie). Contact: [stephen.williams@jcu.edu.au](mailto:stephen.williams@jcu.edu.au) [lhughes@rna.bio.mq.edu.au](mailto:lhughes@rna.bio.mq.edu.au)

**Water Resources & Freshwater Biodiversity** convened by Professor Stuart Bunn (Griffith). Contact: [s.bunn@griffith.edu.au](mailto:s.bunn@griffith.edu.au)

**Marine Biodiversity & Resources** convened by Assoc Professor Neil Holbrook (UTAS). Contact: [neil.holbrook@utas.edu.au](mailto:neil.holbrook@utas.edu.au)

**Human Health** convened by Professor Tony Capon (ANU). Contact: [tony.capon@anu.edu.au](mailto:tony.capon@anu.edu.au)

**Settlements & Infrastructure** convened by Assoc Professor Ron Cox (UNSW). Contact: [r.cox@unsw.edu.au](mailto:r.cox@unsw.edu.au)

**Primary Industries** convened by Professor Snow Barlow (Melbourne) Contact: [s.barlow@unimelb.edu.au](mailto:s.barlow@unimelb.edu.au)

**Emergency Management** convened by Professor John Handmer (RMIT). Contact: [john.handmer@rmit.edu.au](mailto:john.handmer@rmit.edu.au)

**Social, Economic & Institutional Dimensions** convened by Assoc Professor Jon Barnett (Melbourne). Contact: [jbarn@unimelb.edu.au](mailto:jbarn@unimelb.edu.au)

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Australian Government

Department of Climate Change



Queensland Government

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