Submission 010
Date received: 26/07/2011

Australian National University

Tuesday 26 July 2011

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CRICOS Provider No. 00120C

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Please find attached a submission by Seán Kerins and myself to the House of Representatives Standing Committee on Climate Change, Environment and the Arts Inquiry into Australia's Biodiversity in a Changing Climate.

We also draw the committee's attention to a recent submission that we made to the Australian Government's Review of Caring for our Country—Australia's Natural Resource Management Investment Initiative (Submission 35, available @ http://caringforourcountryreview.com.au/document/index/1).

We would be happy to provide additional evidence to the Committee if required.

Yours sincerely

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Submission to the Inquiry into Australia's Biodiversity in a Changing Climate

The House of Representatives Standing Committee on Climate Change, Environment and the Arts

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Introduction

This submission concerns the *Inquiry into Australia's Biodiversity in a Changing Climate* by the Standing Committee on Climate Change, Environment and the Arts, with a specific focus on lessons we have learnt from working with Indigenous peoples engaged in cultural and natural resource management (CNRM) projects and climate change issues in northern Australia. It is based on action research currently being undertaken under the five-year research project *People on Country, Healthy Landscapes and Indigenous Economic Futures (PoC)*; located at the Centre for Aboriginal Economic Policy Research (CAEPR), Research School of Social Sciences, the Australian National University. We acknowledge the generous support for the PoC project provided by the Sidney Myer Fund a major Australian philanthropic organisation, as well as support from the Australian National University and the Australian Research Council.

Background

The PoC research project is collaborative, working with seven community-based Indigenous land and sea management (Caring for Country/ranger) groups in northern Australia currently engaged to varying degrees in CNRM activities (for more information see http://caepr.anu.edu.au/poc/index.php). These CNRM activities are undertaken across vast, biologically rich and diverse land and seascapes, many of which are interconnected ecosystems. Our Indigenous research partners in northern Australia include: Dhimurru Aboriginal Corporation; Djelk Rangers; Garawa Rangers; Waanyi/Garawa Rangers; Warddeken Land Management Ltd; Yirralka Rangers; and the Yugul Mangi Aboriginal Corporation.

Together, they manage in excess of 75,000 square kilometres of land as well as many thousands of square kilometres of sea country. Of these groups, four have added their land to the Australian National Reserve System (NRS) through declaration of Indigenous Protected Areas (IPAs), with a further two in the stage-one IPA consultation process. The groups' formal paid workforce of approximately 100 rangers, are funded

through the Australian Government's Working on Country (WoC) program. It is important to note that all of these Caring for Country programs were Aboriginal initiatives that grew out of the Northern Land Councils Caring for Country initiative (NLC 2006) alongside funding for rangers provided by Community Development Employment Projects (CDEP) program. In the 1990s and 2000s a number of CDEP organisations and homeland and outstation resource agencies were instrumental as incubators for such innovative CNRM programs. CDEP continues to play an important role in the development and on-going management of the CNRM groups.

The PoC project has two aims. First, it seeks to assist Indigenous people living in remote regions of Australia to take advantage of emerging economic development opportunities in CNRM. For example, examining how environmental management and livelihoods for Indigenous people living on the Indigenous estate might be both combined or bundled to improve opportunity in what we term 'hybrid economies' (see Altman *et al.* 2009; Russell 2011). And, second to produce evidence-based research that can assist Indigenous CNRM groups reduce institutional barriers to growing the Indigenous land and sea management sector.

The Indigenous Estate—Nationally Important Ecosystems

Indigenous Australians hold land and/or native title rights an estimated 23 per cent of the continent (1.7 million sq kms). We term this the Indigenous estate which is held by, or on behalf of, Aboriginal peoples and/or Torres Strait Islanders under a corporate or group title or in trust. Across the Indigenous estate Indigenous rights and interests in land, while at times significantly compromised, remain strong and vibrant (see Figure 1 The Indigenous Estate and discrete Indigenous Communities).

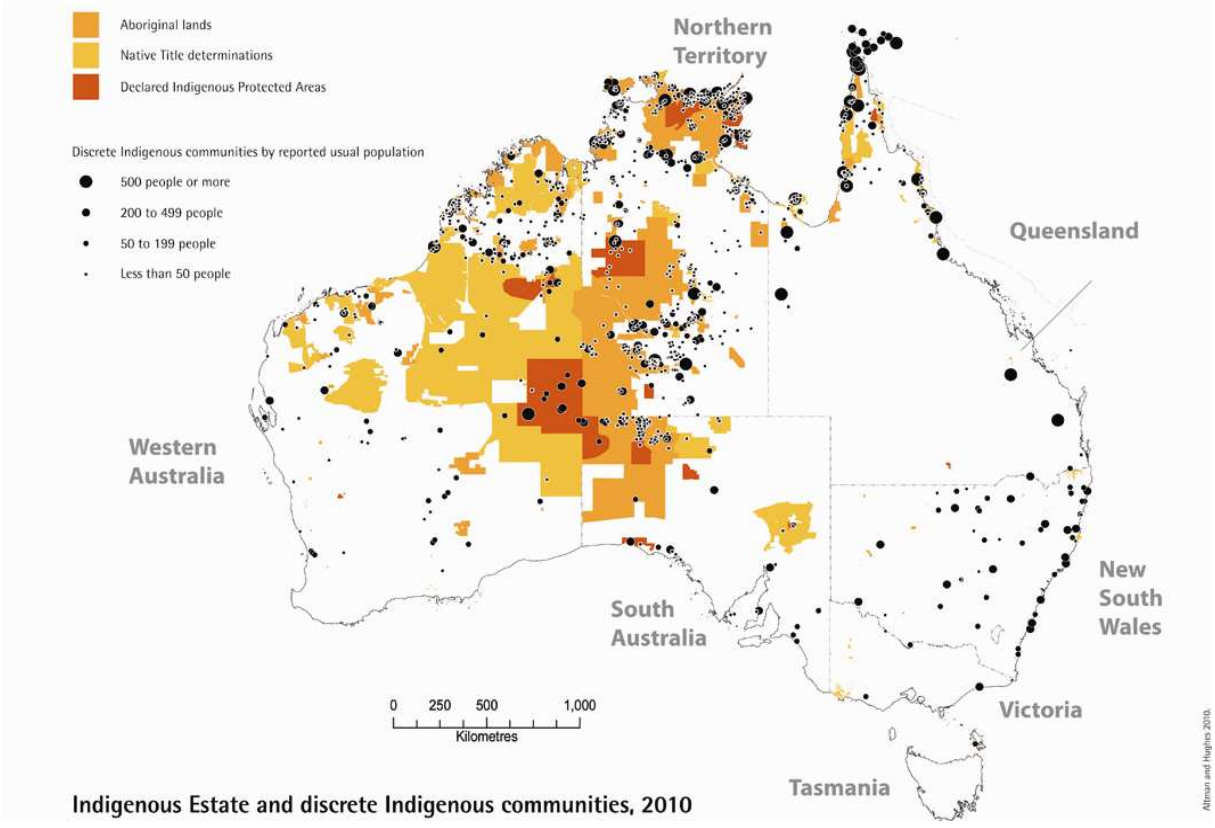
The Indigenous estate has several unique features. The most striking is its concentration in very remote Australia (98.6%), across three jurisdictions—the Northern Territory (49.1%), Western Australia (29.6%) and South Australia (16.5%). It is also predominately where western forms of settlement and commercial development has been most severely limited by a range of geographical factors including climate, soil quality, topography and the availability of water as well as sheer remoteness for regions of relative population concentration in temperate coastal Australia (Altman *et al.* 2007).

While the Indigenous estate may have a low value in regard to mainstream economic activity it has a significantly high value in regard to *terrestrial, marine and freshwater biodiversity* and conservation. For example:

- The Indigenous estate includes an enormously rich diversity of ecosystems spanning a continental-scale climatic gradient from some of the wettest areas in the monsoonal tropics in the north of Australia to some of the driest desert areas in the arid centre;

- Significant portions of the Indigenous estate remain relatively ecologically intact and have not been subjected to the intense level of development pressure experienced in many other areas, particularly in southern temperate Australia.
- Much of the Indigenous estate features vast areas of relatively undisturbed, connected and ecologically healthy functioning environments and waterways that provide a variety of habitats and ecosystems services.
- Much of the Indigenous estate is environmentally intact, which has allowed the persistence of species that have declined or become regionally extinct elsewhere in Australia (Altman *et al.* 2007).

The projected impacts of climate change on species composition and distribution along with continuing development and land-use pressures and increasing water scarcity across Australia mean that the value of the Indigenous estate will become more pronounced especially regarding *connectivity between ecosystems and across landscapes that contribute to biodiversity conservation*. With this in mind we urge the Standing Committee to consider the Indigenous Estate *in total* as a region of 'nationally important ecosystems' or as 'Territories of Difference' (Altman 2010).



Indigenous Estate and discrete Indigenous communities, 2010

Maintaining Biodiversity in a Changing Climate—the Indigenous Competitive Advantage

It is estimated that across Australia approximately 120,000 Indigenous people reside on the Indigenous estate at 1,200 discrete Indigenous communities (Altman 2006). Of these discrete communities, 1,000 have a population of less than 100 (Altman 2006). Based on such figures, Taylor (2006: 5) indicates that outside the main service and mining towns in very remote Australia 'Indigenous people are by far the majority', and that Indigenous people and their institutions therefore dominate the majority of Australia's remote land mass. We see the Indigenous estate and Indigenous residence, especially in discrete Indigenous communities as in the map above, along with Indigenous Ecological Knowledge (IEK) and local knowledge as three factors that combined might provide Indigenous landowners a competitive advantage in maintaining and managing both biodiversity and ecosystem services across vast tracts of the Australian landscape.

This competitive advantage can be most clearly seen through Indigenous Caring for Country (ranger) programs that operate across much of the Indigenous estate where Indigenous land and sea managers (rangers) have combined Indigenous and western knowledge systems and techniques to manage their land and sea country to mitigate a number of threatening ecological processes including changed fire regimes, the introduction and spread of feral animals and invasive weeds, land disturbance including vegetation clearing and overgrazing and marine debris and pollution.

We, along with our research partners see these programs as an intercultural process comprising various combinations of Indigenous and western knowledge systems and management techniques. To ensure that this intercultural process continues to develop, particular attention and nurturing must be given to the source of IEK which is often rooted in Indigenous languages and cultures and is often regionally specific. The primary vehicle for the intergenerational transfer of this valuable knowledge is through practice. Practice is enormously difficult or impossible when Indigenous peoples are unable to live on their ancestral lands due to the failure of Australian governments to deliver minimal citizenship service entitlements, such as health and education.

Our research indicates that Indigenous engagement in CNRM activities not only contributes to achieving national environmental and biodiversity goals and Indigenous aspirations, it can also make a significant contribution to the broader COAG goals for Indigenous Australians, notably in relation to employment and education targets. However, we have significant concerns that formal Closing the Gap goals might at times be in conflict with Indigenous aspirations and environmental and conservation goals. An example might be the focus in government policy on larger priority communities and Territory Growth Towns and an absence of any clear policy on outstations or homelands across northern and central Australia. We have recently highlighted in a submission to the Australian Government on its draft Indigenous Economic Development Strategy (Kerins

and Jordan 2010) that the Strategy lacks adequate reference to Indigenous engagement in CNRM. This indicates that some portfolios (like the Department of Families, Housing, Community Services and Indigenous Affairs) might be unsympathetic to Indigenous aspirations to work and live on country counter to the environmental goals and climate change initiatives of the Department of Sustainability Environment Water Populations and Communities. Bureaucratic political contestation seems unproductive in this area of environmental policy.

We also note that an appropriate precautionary focus in a rapid climate change situation should be to prioritise major conservation corridors, to enhance connectivity between ecosystems, and investment in land purchase to complete such corridors and provide additional opportunities for enhanced Indigenous engagement in CNRM activities and climate change mitigation activities monitoring in these regions.

How Climate Change Impacts on Biodiversity may flow on to Affect Human Communities and the Economy—Findings from Northern Australia

The key findings of a recent scoping study for the Commonwealth Department of Climate Change, *Risks from Climate Change to Indigenous Communities in the Tropical North of Australia* (Green *et al.* 2009) identified how climate change impacts on biodiversity, Indigenous communities and economies. These included:

> Climate change will impact the natural environment of the north both directly and indirectly, with major flow-on implications for remote communities dependent on natural resources. These impacts are generally poorly understood although it is clear that the role of people in the landscape to manage these impacts will be crucial.
>
> Climate change is likely to exacerbate existing, and create new, health risks for Indigenous people. Proactive adaptation to these risks would lead to no-regrets improvements to health. These strategies should be identified and acted on as soon as possible.
>
> Both transport and communications infrastructure in many areas of the study region are extremely limited. Climate change will cause disruption to the infrastructure that does exist, particularly in coastal regions. Improving key access points, raising new and existing building standards for cyclone-proofing and enhancing the resilience of local energy provision and maintenance systems are critical investments.
>
> Education has an important role to play in preparing northern communities for climate change. However, amendments to current curricula are required to enhance the capacity of communities to adapt and build resilience to climate change impacts. The role of Indigenous knowledge in strengthening cultural resilience must also be specifically recognised in any education program.

> Some economic opportunities may arise from the need to better manage, and in some cases restore, ecosystems for biodiversity conservation and for carbon dioxide mitigation and sequestration activities. Opportunities and livelihood options related to this issue need to be better understood (Green *et al.* 2009: 2).

Promoting Resilience in Ecosystems and Human Communities through Building on the Indigenous Competitive Advantage

An essential element in promoting ecosystem resilience is the availability of information on the environmental condition of Australia at a national level. However, we currently seem to be working with data that are of questionable integrity at the regional level. In this regard, as the first step to promote ecosystem resilience, there is an urgent need to develop base-line biodiversity and ecological data to allow assessment of the environmental condition of Australia at appropriate scales and for the long-term monitoring of performance against environmental targets.

This should be undertaken in partnership with Indigenous people especially those living on the Indigenous estate, who, through long histories of occupation, are well placed to monitor and report on the ecological impacts of climate change. We note in some places Indigenous people have reported on issues which may be related to climate change, such as the intrusion of saltwater into sensitive freshwater ecosystems especially in the Torres Strait with rising sea levels. To better understand and monitor these ecological impacts partnerships need to be developed with Indigenous communities to collect base-line data as quickly as possible. There are many communities across Australia well positioned to participate in such research. What is lacking is the scientific input (researchers and resources) and a willingness to actively engage with Indigenous communities.

While we note that there are many Indigenous communities well positioned to participate in such projects, we also take a long-term view of environmental monitoring and the need to invest in cultural and resource management within school curricula so that younger generations of Indigenous people can develop the skills to more effectively participate in long-term environmental monitoring and climate change responses. Projects, which introduce and develop these skills at a young age have been called 'learning through country', and have been trialled for a number of years in some regions with success. They are successful because they recognise Indigenous culture as a reservoir of knowledge and when Indigenous and scientific knowledge systems are merged the result is what Indigenous people refer to as 'two-way' learning/management. An outcome of this approach can be clearly seen in fire abatement projects where Aboriginal land owners working in partnership with western-trained scientists have adopted satellite

imagery and geographic information systems to inform and implement their management decisions and scientists have utilised IEK to inform their science.

We note a modest step in this direction in the 2011-12 Budget with a commitment to $4.1 million over three years to Indigenous Ranger Cadetships to be trialled at six schools in 2012 and a further six more in 2013—with an investment of about $140,000 per annum per school. However, considering the size of the Indigenous estate and the significant role it plays in the delivery of ecosystem services of national benefit and climate change adaptations, we suggest that greater investment be made in more locations and at an earlier stage in schooling. Innovative approaches to education and training through participation in CNRM activities are also acting as an incentive to school retention and transformed behaviours in some locations.

The primary *mechanism to enhance community engagement* and promote resilience in Indigenous communities to respond to climate change involves supporting and resourcing Indigenous organisations. This entails recognising that many Indigenous communities and Caring for Country groups engaged in the provision of CNRM and concerned about climate change issues are extremely small and have limited capacity to engage with state, territory and commonwealth climate change and NRM information and funding processes and/or manage available support. They are in need of an affective organisational base which can provide the management support for their CNRM and climate change activities. It is no coincidence, in our view, that some of the most robust Indigenous land and sea management groups dealing with climate change and community responses are linked as business units of large and successful Aboriginal organisations, such as Bawinanga Aboriginal Corporation and Laynhapuy Homelands Association, both organisations are highly dependent on the CDEP program. However, the current reform of CDEP programs across Australia will significantly reduce this capacity and threatens to undermine land and sea management groups with strong track record.

Are Current Governance Arrangements Well Placed to Deal with the Challenges of Conserving Biodiversity in a Changing Climate?

In our view, current governance arrangements are not well placed to deal with the challenges of conserving biodiversity in a changing climate. We take this view for two reasons.

First, the importance of the Indigenous estate in regards to providing ecosystem services that are of a national benefit, especially in a changing climate and the role of Indigenous peoples in its management has been significantly under-recognised, under-valued and under-resourced. The most significant challenge for owners of the Indigenous estate continues to be gaining access to resources. For example, Indigenous organisations received less than 3 per cent of NRM funds allocated by the Australian government between 1996 and 2005. This increased to 6.7 per cent under Caring for our Country (Hill and Williams 2009) but

considering that Indigenous Australians currently own and manage just under a quarter of the Australia's National Reserve System urgent attention is needed to achieve equity and enable Indigenous communities to better play a crucial role in ameliorating the impacts of invasive species, altered fire regimes and climate change. This will mean recognising the importance of Indigenous community-based organisations that underpin Indigenous CNRM activities and supporting and investing in them.

Second, instruments to measure strategic environmental outcomes at a national scale are weak. There is an urgent need to adopt a continental strategic approach rather than one that is based on a mere aggregation of regional Natural Resource Management plans. It is also important to ensure a national strategic approach and national leadership, but without Canberra domination. It is far from clear if COAG plays a sufficient role in coordinating Commonwealth, State/Territory and regional NRM activities and climate change responses. Clearly COAG is an appropriate forum for discussing national NRM priorities and to marry these with State/Territory initiatives and investments, but there may be need to consider new mechanisms to incorporate Indigenous priorities and perspectives into such an approach given the significance of Indigenous land assets and their ecological values. It might be appropriate for input to come from regional scale organisations like land councils and native title representative bodies into such planning frameworks. Because of the interdependence of ecosystems beyond State/Territory jurisdictions (most clearly evident in the Murray Darling Basin) there is a need for joint agreements for action and inclusion. It is our view that COAG should play this strategic role to improve current arrangements to deal with the challenges of conserving biodiversity in a changing climate.

We end this submission with the following five recommendations:

1. Recalibrate national policy thinking to recognise the massive Indigenous estate as 'nationally important ecosystems';

2. Realign the whole-of-governments response to Indigenous policy development so that it reflects Indigenous aspirations, recognises and supports Indigenous CNRM and its potential role in ameliorating climate change impacts on populations, ecosystems, and natural resources.

3. Address the inequities in providing resources for NRM on and off the Indigenous estate and increase funding and support to Indigenous organisations to empower them to deliver effective CNRM at local and regional scales.

4. Include CNRM, learning through country, within school curricula, especially, but not exclusively, in remote area Indigenous schools and develop more 'two-way' post-school training opportunities in CNRM.

5. Collect 'two-way' biological and ecological base-line data, with Indigenous peoples, to allow for effective and meaningful monitoring of performance against environmental and climate change mitigation targets.

References

Altman, J.C., 2006, *In Search of an Outstation Policy for Indigenous Australians under the new administrative arrangements*, CAEPR Working Paper No. 34, CAEPR, ANU, Canberra, available online @ http://www.anu.edu.au/caepr/working.php#wp34.

Altman, J.C., 2010,'Alternate development for Indigenous territories of difference', *Australian Options* Summer 2010/11, No. 63: 12–15 available online @ http://caepr.anu.edu.au/sites/default/files/Publications/topical/TI2011_5_Altman_Ind_Terr_Diffnce.pdf.

Altman, J.C., Buchanan, G. and Larsen, L. 2007, *The Environmental Significance of the Indigenous Estate: Natural Resource Management as Economic Development in Remote Australia'*, CAEPR Discussion Paper No. 286/2007, available online @ http://www.anu.edu.au/caepr/Publications/DP/2007_DP286.pdf.

Altman, J.C., Biddle, N., Buchanan, G., Ens, E., Jordan, K., Kerins, S. and May, K. 2009. 'Indigenous interests in land and water', in P. Stone (ed.) *Northern Australia Land and Water Science Review 2009 Full Report,* Department of Infrastructure, Transport, Regional Development and Local Government, Canberra available online @ http://www.nalwt.gov.au/files/Chapter_07Indigenous_interests_in_land_and_water.pdf.

Green, D., Jackson, S. and Morrison, J., (eds) 2009, *Risks from Climate Change to Indigenous Communities in the Tropical North of Australia*, Department of Climate Change, Canberra, available online @ http://www.climatechange.gov.au

Hill, R., and Williams, L., 2009, Indigenous natural resource management: overcoming marginalisation produced in Australia's current NRM model, in Lane, M, C, Robinson and B Taylor (eds) *Contested Country, Local and Regional Natural resources Management in Australia*, CSIRO Publishing, Victoria, Australia.

Kerins, S., and Jordan, K., 2010, *Indigenous Economic Development through Community-Based Enterprise', Submission on the Department of Families, Housing, Communities and Indigenous Affairs 'Draft Indigenous Economic Development Strategy*, available as *CAEPR Topical Issue No. 06/2010*, CAEPR, ANU, Canberra, available online @ http://caepr.anu.edu.au/Publications/topical/2010TI6.php.

Northern Land Council, 2006. *Celebrating Ten Years of Caring for Country A Northern Land Council Initiative*, NLC, Darwin.

Russell, S., 2011, The Hybrid Economy Topic Guide available online @ http://caepr.anu.edu.au/others/Other-1306975222.php

Taylor, J. 2006*, Population and diversity: Policy implications of emerging Indigenous demographic trends,* CAEPR DP 283 available online @ *http://www.anu.edu.au/caepr/Publications/DP/2006_DP283.pdf*