



Implementation Plan for Climate Change Adaptation Research: Indigenous Communities

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1. Background

The Australian Government has identified the need for research that can improve understanding of the resilience and vulnerabilities of Indigenous communities to climate change, and develop a theoretical and empirical basis to inform decision-making about adaptation by Indigenous households, businesses, community groups, and governments.

Aboriginal and Torres Strait Islander people, according to the 2006 Australian Census, account for 2.5 per cent of the Australian population, with a total of 517 000 people (ABS 2006). Numerous factors influence, interact and drive Indigenous communities, the majority of which lie outside of the field of climate change; however all sectors and systems (social, economic, institutional, environmental) are experiencing or will experience the impacts of climate change.

Many Indigenous communities, especially those in remote locations, have inadequate health, and educational services, deficient infrastructure and housing stock, and limited employment opportunities. Such social disadvantage may reduce or limit the capacity of Indigenous individuals, households, communities and institutions to adapt to climate change (Hennessy et al. 2007; Green et al. 2009). The direct biophysical impacts of climate change may cause significant indirect impacts on the social, cultural and physical well-being of affected individuals, households, and communities (Hennessy et al. 2007). However, the climate risks posed to Indigenous people are not uniform and will vary between locations and socio-economic status (Adger et al. 2009; Barnett and Campbell 2010).

The National Climate Change Adaptation Research Facility (NCCARF) has developed the *National Climate Change Adaptation Research Plan: Indigenous Communities* (the Indigenous Communities NARP). This Plan identifies important gaps in current knowledge about Australian Aboriginal and Torres Strait Islander communities vulnerability and capacity to adapt to climate change, and sets adaptation research priorities based on these information gaps.

2. Purpose of this Implementation Plan

This Implementation Plan is designed and written to accompany the Indigenous Communities NARP. Its purpose is to define the most effective way to build (and in some cases initiate) national investments to address the research priorities in the Indigenous Communities NARP. The focus is on:

- Delivering research to address the objectives of the Indigenous Communities NARP;
- Facilitating collaborative arrangements;
- Maximising resources for priority research; and
- Optimising the timing of research investments.

The Implementation Plan outlines opportunities to implement research at this point in time. NCCARF will update the Implementation Plan periodically to ensure that new opportunities are continually developed and harnessed.

3. Preparation of the National Climate Change Adaptation Research Plan for Indigenous Communities

When NCCARF was first set up, it was envisaged that the organization would work to eight themes, and that eight NARPs would be prepared. There was no theme for Indigenous communities and climate change adaptation, and it was envisaged that this topic would be mainstreamed into the other NARPs. However, feedback from Indigenous representation groups on early NARPs, specifically the Indigenous Advisory Committee of the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) on the Marine Biodiversity and Resources NARP, made it clear that a NARP specific to Indigenous communities was required to complete the NARP portfolio. Therefore, in mid-2010, NCCARF began the preparation process for an Indigenous communities NARP.

The National Climate Change Adaptation Research Plan for Indigenous Communities was developed by an expert writing team, and involved widespread consultation, the key features

of which were:

- A *national online survey* of key stakeholders and researchers held in October-November 2010. Over two hundred respondents, from a wide range of stakeholder groups, including Indigenous representative bodies, Aboriginal ranger groups, Indigenous health providers, Indigenous health providers, regional authorities, representatives from the Commonwealth, state and territory governments, local government, non-government organisations, researchers from universities and CSIRO. Respondents were asked to identify areas of crucial concern in terms of current and future impacts of climate change for Indigenous communities and potential opportunities for those communities. The results confirm the cross-sectoral focus of this NARP, with key areas of concern identified including environmental and human health, human security, communication strategies, legislation and policy, traditional knowledge, emergency management, settlements and infrastructure, and food and water security.
- Widespread *public consultation* on the draft version of the Indigenous Communities NARP took place between 25th July and 26th August 2011. This consultation was announced on the NCCARF and the Department of Climate Change and Energy Efficiency (DCCEE) websites, in *The Australian* and *The Koori Mail* (the national Indigenous newspaper). In addition, over 400 emails and letters were sent out informing interested parties of the consultation and inviting responses. Three public information sessions were held in Canberra, Darwin and Cairns in August 2011. Twenty-four formal responses were received from the full range of interest groups – government departments, research organisations, peak industry groups, the business sector, community groups and individuals. All responses from the public consultation were considered by the writing team in preparing the final version of the Indigenous Communities NARP. The high priority research questions which resulted from this process are provided in Appendix 1.

4. Developing the Implementation Plan

This Implementation Plan has been developed using information gained during consultation on the draft Indigenous Communities NARP (see section 2), survey of potential and actual research investors in Indigenous community matters and research providers and further discussions with key stakeholders including prospective partners in research investment and provision regarding:

- How their research objectives and priorities align with those of the Indigenous Communities NARP;
- The nature of their current or future research funding and activity programs;
- Opportunities for collaborating in funding or undertaking research; and
- Possible mechanisms for co-funding and / or research collaboration.

5. Potential Sources of Research Funding

This section outlines potential sources of research funding to address important gaps in current knowledge about Australian Aboriginal and Torres Strait Islander communities' vulnerability and capacity to adapt to climate change including current investment activities and opportunities for collaboration.

5.1 Adaptation Research Grants Program (ARGP)

NCCARF manages the Australian Research Grants Program (ARGP), which has a total of \$27 million to allocate to research to address the priorities identified through the NARPs. In consultation with the Department of Climate Change and Energy Efficiency (DCCEE), it has been decided that up to \$2 million can be allocated as seed-funding for research to address information gaps in decision-making about climate change adaptation for Indigenous Australians through the ARGP.

A requirement of the ARGP is that this funding is used to:

- Fund high-quality end-user focussed research into climate change adaptation;
- Support collaborative, cross disciplinary, cross institutional research where appropriate;
- Build and harness the capacity of the research and end user communities;
- Promote investment in climate change adaptation research including through leveraging funds from other research funding vehicles; and
- Develop information and knowledge products which specifically meet the needs of policy and decision makers and other end users.

NCCARF seeks to initiate and leverage additional funds to support a nationally coordinated effort through targeted application of the funds available in the ARGP. This would aim to bring together resources available from the Australian Government, state, territory and local governments, research organisations, community organisations, and industry to develop information and knowledge products that meet the needs of policy and decision makers and other end users.

There are a number of options for maximising the effectiveness of ARGP funding. NCCARF, may initiate an open research call, may commission research projects, or may form strategic alliances with one or more funding partners.

The ARGP funding is available from 2011/12, and all projects funded through this program will need to be completed by June 2013. Draft final reports will have to be submitted by December 2013. This means that, with the most optimistic time lines with respect to identifying and contracting research projects, only 12 months are available for research to be carried out. This being the case, there is extreme urgency with respect to moving through the process.

The NARP for Indigenous Communities initially identified thirteen research topics. Of these, and using a set of seven objective criteria applied in an evaluation matrix (Appendix 1 of the

NARP), six were identified as of the highest priority, requiring investment in research at the present time.

5.2 Australian Government Departments

5.2.1 Department of Climate Change and Energy Efficiency – Indigenous Carbon Farming Fund

The ongoing Indigenous Carbon Farming Fund will provide support for Indigenous Australians to implement projects under the *Carbon Credits (Carbon Farming Initiative) Bill 2011*, which is currently passing through parliament as part of the wider legislation around greenhouse gas emissions reduction and sequestration.

The Indigenous Carbon Farming Fund is still in its development stages and is not likely to be initiated until mid 2012. Funding will be provided for:

- specialists to work with Indigenous communities to develop carbon farming projects; and
- development of low-cost estimation and reporting tools for abatement activities likely to have high Indigenous participation, such as savanna fire management.

Funding of \$22 million over five years will be available from 2012-13.

The engagement of specialists to work with Indigenous communities will be administered by DSEWPaC. The development of low-cost estimation and reporting tools will be administered by the DCCEE. This is a primarily a mitigation and abatement program; however as it is still in development, there may be options for highlighting adaptation measures which have mitigation benefits.

5.2.2 Department of Agriculture, Fisheries and Forestry (DAFF)

DAFF is the Australian Government Department with primary responsibility for all policy and regulatory matters relating to the Australian land sector. The main Australian Government funding initiatives delivered through DAFF with relevance to the priorities in the *National Climate Change Adaptation Research Plan: Indigenous Communities* is **Caring for our Country**.

Caring for our Country is an Australian Government initiative that seeks to achieve an environment that is healthy, better protected, well managed and resilient, and provides essential ecosystem services in a changing climate.

Indigenous land managers face natural resource management (NRM) challenges such as weed and feral animal invasions, and of achieving economic sustainability, which are recognised by the Caring for our Country program through the Indigenous NRM funding.. As part of this funding, the Australian Government established Working on Country recognising that protecting and conserving the environment is a shared responsibility and to provide sustainable employment for Indigenous people. Working on Country builds on Indigenous traditional knowledge to protect and manage land and sea country. Over 600 Indigenous rangers are employed across Australia to deliver environmental outcomes. It is expected that around 680 rangers will be trained and employed through Working on Country by June 2013.

The 2011-12 Caring for our Country business plan sets out the priorities for investment in 2011-12 and the following year to ensure that the Australian Government's five year Caring for our Country outcomes will be achieved. These targets are aligned to deliver outcomes against the six national priority areas.

- Northern and remote Australia
- Community skills, knowledge and engagement
- Increasing the National Reserve System
- Biodiversity and natural icons
- Coastal environments and critical aquatic habitats
- Sustainable farm practices.

Some of these topics align with the Indigenous Communities NARP for Indigenous Communities, but the deadline for Expressions of Interest passed in May 2011. DAFF through Caring for our Country is not in a position to partner with NCCARF in a program that addresses the research questions in the NARP on a program-to-program basis. However, the funding investment through Caring for our Country will assist to build the research capability and infrastructure to aid delivery of the ARGP.

5.2.3 Department of Sustainability, Environment, Water, Population and Communities (Funding provider)

The Commonwealth Environmental Research Facilities (CERF) program is an Australian Government investment (2006-2010) to improve Australia's capacity to understand and respond to priority environmental concerns. The initial research investment was through the creation of national research hubs. This has recently been continued (2011-2014) through the National Environmental Research Program (NERP) which funds research hubs with a focus on biodiversity. This program will provide around \$20 million a year for environmental research to improve our capacity to understand, manage and conserve Australia's unique biodiversity and ecosystems through the generation of research and its delivery to environmental decision makers and other stakeholders.

The Northern Australian Hub has an *Indigenous Natural Resources Management and Livelihoods* theme which will develop adaptive management frameworks which will inform Working on Country Indigenous Ranger and Indigenous Protected Area programs (see Section 5.2.2). Similarly, the Tropical Ecosystems Hub has a number of projects which support community based and adaptive management of marine and tropical ecosystems which, although they are not primarily climate change adaptation focussed, will provide learning for adaptation in Tropical Australia.

5.2.4 Other Australian Government Departments

Several other Australian Government Departments or Divisions within Departments have a direct or indirect interest in climate change adaptation and Indigenous communities. The Departments with currently stated interests in climate change and Indigenous communities include:

- Department of Families, Housing, Community Services and Indigenous Affairs (FHCSIA) as part of its responsibility for the development of social policy for Australia. FHCSIA does not have any programs directly related to climate change

adaptation;

- Department of Innovation, Industry, Science, and Research (DIISR), as part of its responsibilities for innovation within Australian industrial development, and providing research direction and advice to the Commonwealth Government through the Chief Scientist's office (see Section 6.5);
- Department of Resources, Energy and Tourism (DRET), as part of its responsibility for energy planning and tourism industry development.
- Attorney-General's Department (AGD), as part of its responsibility for critical infrastructure assessment and planning;
- The Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS), within the context of its *Land and Water* research program; although this does not refer directly to climate change or adaptation, there are number of current projects regarding Indigenous Communities, sustainability and natural resource management.
- Torres Strait Regional Authority as part of its Land and Sea Management Strategy for Torres Strait: climate Change is recognised as a key future biophysical and social impact.
- Great Barrier Reef Marine Park Authority (GBRMPA), through its management of the Reef Rescue Land and Sea Country Indigenous Partnerships Program which actively engages Aboriginal and Torres Strait Islander Communities in the management and protection of the reef's marine resources and cultural diversity;
- Murray-Darling Basin Authority (MDBA): The MDBA supports Traditional Owners to develop their capacity to effectively participate in Basin planning and other natural resource management processes. The MDBA works closely with two self-determining independent Indigenous organisations the Murray Lower Darling Rivers Indigenous Nations and the Northern Murray-Darling Basin Aboriginal Nations.

Further areas of interest in these and other departments are likely to become apparent as discussions about climate change adaptation progress within the Commonwealth Government and between NCCARF and Commonwealth agencies.

It will therefore be useful for NCCARF to continue investigating funding and co-funding opportunities with Commonwealth agencies.

5.3 State and Territory Government Organisations

Climate change adaptation is progressively being integrated into state and territory strategic planning for services to Indigenous communities. All state and territory governments have departmental administrative arrangements and research capacity in Indigenous issues. A strength of state and territory research arrangements is that government departments at this level are able to respond to external research initiatives that align with existing research objectives by contributing state-based resources and support on a project-by-project basis. It is an expectation of NCCARF that individual research projects will be submitted by state/territory government departments, and/or will involve these departments as active researchers and adaptation practitioners.

5.4 Research and Development Corporations

A number of Research and Development corporations have programs particularly relevant to climate change adaptation and Indigenous communities, and there are potential avenues for collaboration and leveraging with existing funding regimes.

The **Rural Industries Research and Development Corporation (RIRDC)** is a statutory authority established by the Primary Industries and Energy Research and Development Act 1989 (PIERD Act). The Corporation was established by the Australian Government to work with industry to invest in research and development for a more profitable, sustainable and dynamic rural sector. One of its research programs, *Dynamic Rural Communities* has the following relevant objectives:

- Enhance the capacity of rural communities to manage fundamental change
- Generate knowledge for the benefit of rural people, industries and communities in managing natural resources
- Support Indigenous rural development.

This program specifically states that it is to be funded with a contribution from RIRDC funds to deliver co-investment by other partners and commissioned projects.

The **Fisheries Research and Development Corporation (FRDC)** is Australia's leading agency concerned with planning, investing in, and managing fisheries research, development and extension. Its *Communities* program is concerned with improving the resilience of the fishing and aquaculture industry and the communities in which they operate. Given that fishing and aquaculture is an important industry for many indigenous communities, particularly those in the Torres Strait, there may be opportunities for co-investment from the FRDC for projects involving marine and aquatic resources and indigenous communities.

5.5 Australian Research Councils

5.5.1 National Health and Medical Research Council (NHMRC)

The National Health and Medical Research Council (NHMRC) is Australia's peak body for supporting health and medical research; for developing health advice for the Australian community, health professionals and governments; and for providing advice on ethical behaviour in health care and in the conduct of health and medical research. The NHMRC currently funds projects under the Health Challenges of Climate Change special initiative which is a partnership between the NHMRC and DCCEE. This program currently funds projects relevant to Indigenous Communities including a specific project: "Health impacts of climate change on Indigenous Australians: identifying climate thresholds to enable the development of informed adaptation strategies" being led by Donna Green at UNSW. There may be opportunities for future co-investment from the NHMRC for projects involving public health and Indigenous Communities through the NHMRC's Partnerships for Better Health.

5.5.2 Australian Research Council (ARC)

The Australian Research Council (ARC) is often the first port of call for many researchers

and research institutions seeking additional support for research. Grants offered by the ARC under its *National Competitive Grants Program* (NCGP) include *Discovery Project*, *Discovery Indigenous* and *Linkage Project* grants. Through the NCGP, the ARC aims to support research and research training of national benefit. Responding to climate change and variability is identified as a priority goal under the national research priority of *An Environmentally Sustainable Australia*.

The *Discovery Indigenous* scheme provides funding to Eligible Organisations to support research programs led by an Indigenous Australian researcher and build research capacity of higher degree research and early career researchers. The objectives of the *Discovery Indigenous* scheme are to: develop the research expertise of Indigenous Australian researchers; support fundamental research and research training by Indigenous Australian researchers as individuals and as teams; support and retain established Indigenous Australian researchers in Australian higher education institutions; and expand Australia's knowledge base and research capability. To support this program, the ARC recently announced the new *Aboriginal and Torres Strait Islander Researchers' Network* aimed at helping Indigenous Australian researchers and research students seize more research opportunities and advance their research in a supportive environment. A call for proposals for this network will occur in coming months.

Opportunities for funding research into climate change and Indigenous Communities also exist within the ARC Centres of Excellence scheme. No existing Centre has a specific focus on climate change adaptation but several will or could co-invest in research that would support adaptation-related research and improved adaptation outcomes, including:

- ARC Centre of Excellence for Climate System Science;
- ARC Centre of Excellence for Coral Reef Studies; and
- ARC Centre of Excellence for Environmental Decisions.

Another recent ARC scheme, *ARC Future Fellowships*, promotes research in areas of critical national importance by giving outstanding researchers incentives to conduct their research in Australia. The aim of ARC Future Fellowships is to attract and retain the best and brightest mid-career researchers and significantly boost Australia's research and innovation capacity in areas of national importance. Preference is given to those researchers who can demonstrate a capacity to build collaborations across industry, research institutions, and other disciplines. Over a five-year period (2009-2013), *ARC Future Fellowships* will offer four-year fellowships to 1,000 outstanding Australian and international researchers in the middle of their career. In addition, each researcher's Administering Organisation will receive funding of up to \$50,000 per year to support related infrastructure, equipment, travel and relocation costs. The first 200 Future Fellowships were announced in September 2009.

5.6 Private Sector

There are often strong linkages between Indigenous Communities and private sector businesses particularly in remote areas which are resource rich. Some companies have specific programs for providing funding for Indigenous projects. Two examples are:

Woodside Oil and Gas has a community investment program where they provide financial and in-kind support to community groups for projects concerned with community health and well-being and environmental health and well being.

The Rio Tinto Aboriginal Fund seeks to improve the status and build the capacity of Aboriginal and Torres Strait Islander people and communities, predominantly through establishing and supporting programmes that deliver sustainable benefits to social wellbeing and economic participation. Although this program does not currently support projects regarding climate change and Indigenous Communities, there is opportunities for groups to apply for support for projects which increase adaptive capacity and resilience in Indigenous communities.

Argyle Diamonds (a subsidiary of Rio Tinto) has a significant investment and capacity building program for Indigenous Communities in the East Kimberley region of Western Australia. This program is aimed at creating resilient communities in the mine's region. Although, climate change and adaptation are not specific elements of their investment program, there are likely to be partnership opportunities aimed at developing adaptive capacity and reducing vulnerability to climate change in the East Kimberley region.

Newmont Mining has clear environmental and community programs aimed at maintaining sustainability and benefiting local communities through engagement, improved facilities and assistance during extreme events. It does not have a specific climate change program; however, there might be opportunities for partnerships, in particular in the area of water management and remote communities.

5.7 International organizations

Many international organisations have research interests and priorities that are similar or identical to some of the research priorities identified in the Indigenous Communities NARP. Even where these research areas appear to be culturally specific, they may benefit from collaborative or parallel research in other cultures.

As an example, the **Christiansen Fund**, a philanthropic organisation based in the United States of America, funds research and development programs which are indigenous led and community based. The Fund's *Northern Australia* program is focussed on building indigenous organisations that create the context and support systems for Traditional Owners to 'Care for Country'. This organisation is currently consolidating its support around several major Indigenous-run organisations in the region, and is not currently seeking or accepting requests for funding in Northern Australia.

5.8 Summary

Resources to undertake projects focussed on the priority research questions in the Indigenous Communities NARP will be available immediately from NCCARF. There are potential funding opportunities during the life of the Indigenous Communities NARP from other organisations, as set out above, where research projects align with the goals, objectives and responsibilities of these bodies. NCCARF will continue to explore investment opportunities for research priorities in the Indigenous Communities NARP in the medium to longer term.

6. Potential Sources of Research Delivery

This section describes the main research organisations that could help implement research into the Indigenous Communities NARP priorities. In some cases, these research

organisations may have access to resources that could be used to assist with funding the research.

6.1 Universities

Universities employ researchers with wide ranging capabilities for research across disciplines relevant to the Indigenous Communities NARP, from highly theoretical approaches which challenge the ways we frame problems through to practical problem solving. Most university-based researchers collaborate closely with research clients such as government departments, industry or community organisations; many partner with research groups in CSIRO, government or industry.

University-based researchers provide a highly flexible and responsive national research capacity. Large groups of researchers from several universities can be assembled to tackle complex multi-faceted problems. Universities generally welcome partnership arrangements with Cooperative Research Centres (CRCs), other research groups (including overseas) and government agencies, but consider costs and benefits on a case-by-case basis.

6.2 Commonwealth Scientific and Industrial Research Organisation

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) Climate Adaptation Flagship provides the primary CSIRO focus for climate change adaptation research, including research related to the Indigenous Communities NARP. The Flagship focuses on three areas particularly relevant to the Indigenous Communities NARP:

- Future vulnerabilities – assessing vulnerability and adaptive capacity to identify priorities for adaptation or transformation programs
- Future adaptations – understanding how different stakeholders make decisions about adaptation, developing adaptation options suited to different regions and communities, and analysing the benefits of adaptation and key policy actions through modelling; and
- Future drivers - understanding how climate change will affect Australia's international comparative advantages, and how changes elsewhere in the globe (particularly in the Asia-Pacific) will affect Australia.

CSIRO considers partnerships in research investment on a project-by-project basis depending on the mutual alignment of interests. Examples include long-term partnerships in CRCs and other research ventures where the prospects of end-user engagement and research effectiveness are likely to be increased by partnering. CSIRO is not a funding agency *per se* but does co-invest from time to time when there are distinct opportunities to align its research interests with those of partner organisations. The Climate Adaptation Flagship co-invests in three climate adaptation collaboration clusters: Southeast Queensland, Climate and Health, and Coasts.

6.3 State Departments and Agencies

All state and territory governments have departmental research capacity relating to social, economic and institutional factors. A strength of state and territory research arrangements is that these departments can both initiate research projects and respond to external research initiatives that align with existing research objectives. In addition to research capacity, state and territory agencies can often contribute state-based resources and support on a project-by-project basis that ensures that research outputs are well-targeted to impending tactical or strategic decisions or to long-term planning of programs.

6.4 Adaptation Research Network for the Social, Economic and Institutional Dimensions of Climate Change

NCCARF has eight Adaptation Research Networks, one for each of the initial NCCARF themes. Climate change adaptation as it relates to Australia's Indigenous Communities is managed through the NCCARF Adaptation Research Network for the Social, Economic and Institutional Dimensions of Climate Change (SEIDARN), hosted by the University of Melbourne. This Network has a membership of over 300 individuals from universities, government research institutions, and industry. Collectively, the members have a wide range of research capacity and have knowledge of the pathways to public and private sector research investment funds. Direct cash investment is unlikely to be secured through these sources but in-kind research time is possible.

The capacity of SEIDARN to develop appropriate high quality research groups to address the research priorities in the Indigenous Communities NARP is based on the following qualities:

- The SEIDARN convener, co-conveners and theme leaders collectively are leading Australian climate change researchers in the SEID sector and include research with expertise in Indigenous Communities;
- The member institutions of SEIDARN have access to a very wide researcher base;
- SEIDARN has collaborative relationships with other NCCARF research networks that can provide considerable expertise to this research area as appropriate; and
- SEIDARN partners and members have considerable expertise in developing integrated cross-disciplinary research projects.

It is anticipated that SEIDARN will play a key role in building national consortia to address the research priorities.

6.5 Cooperative Research Centres

Cooperative Research Centres (CRCs) bring together researchers from universities, CSIRO, other Australian and state government research organisations, private industry, and/or public sector agencies in long-term collaborative research arrangements. CRCs are funded by the Australian Government through the Department of Innovation, Industry, Science and Research to support research, development and education activities to achieve real outcomes of national economic and social importance.

The principal CRCs which could deliver research addressing the priorities in the Indigenous Communities NARP include:

- **The Lowitja Institute:** This organization hosts the CRC for Aboriginal and Torres

Strait Islander Health and is a research body that brings together Aboriginal organisations, academic institutions and government agencies to facilitate collaborative, evidence-based research into health-related issues of Indigenous peoples. Although they have no specific programs relating to climate change; they have significant capacity building activities which engage both researchers and communities.

- **CRC for Remote Economic Participation:** The CRC's research programs are concerned with the development of regional economies enterprises and individuals. One of its key research programs is 'Adaptive capacity and vulnerability'. Ninti One is the management company for this CRC, which builds on the foundation work of the Desert Knowledge CRC, which completed its activities in mid-2010.

Opportunities for collaboration with these CRCs to deliver and potentially fund national level research into social, economic and institutional dimensions of climate change are still to be fully explored. Opportunities are likely to exist on a project-by-project basis. NCCARF will continue to explore future opportunities for collaboration with these CRCs and others that may be established during the life of this NARP.

6.6 Non-Government Organisations

Many non-government organisations (NGOs) have a national or state focus on conserving and improving Australia's socio-economic well-being. They are often supported by private funds and volunteer commitment and are guided by leading scientists. They have been instrumental in providing information to support policy development, planning and initiatives relevant to the research priorities of the Indigenous Communities NARP.

Indigenous Land and Sea Councils/Aboriginal corporations have a unique role in the Australian Research landscape. They are community organisations which represent the traditional owners of regions. They have historically advocated for recognition of traditional land rights, and also for the rights of Indigenous people in other areas such as equal wages and adequate housing.

In terms of research, they mostly play partnership roles, however some land councils play active roles in research and monitoring programs. For example, the Kimberley Land Council (KLC) and the North Australian Indigenous Land and Sea Management Alliance (NAILSMA) partner in facilitating Indigenous rangers to take an active role in the Kimberly Turtle and Dugong marine research project. This project is aimed at gathering information on the movements of the turtle and dugong, their breeding and feeding patterns, as well as the distances they can travel. Partnerships such as this add great value and increase the likelihood of uptake of research outcomes.

Reconciliation Australia (RA) is an independent, not-for-profit organisation established in 2000 by the former Council for Aboriginal Reconciliation. They are the peak national organisation building and promoting reconciliation between Indigenous and non-Indigenous Australians for the wellbeing of the nation. Although not specifically engaged in projects around climate change adaptation, RA works by forming partnerships for success with corporations, Indigenous and non-Indigenous organisations, government and community groups as well as individuals. They are involved in a range of projects aimed at highlighting

and promoting success, building the evidence for positive change, combating Indigenous disadvantage and building respectful relationships between Indigenous and non-Indigenous Australians.

The **Smith Family Foundation** has a *Working with Indigenous Australians* program which aims to keep children, families and communities engaged in learning and provide education experiences and role models. Although this program is not about climate change, there is potential for information generated by research to be fed into learning programs aimed at increasing adaptive capacity and reducing vulnerability to climate change.

6.7 Regional and Local Partnerships for research

There are an increasing number of regional and local partnerships across Australia between universities, other research organisations, and state, regional, and local agencies that have research interests in adaptation to climate change. These partnerships generally seek to deliver research to support development of integrated climate change vulnerability and adaptation strategies, of which social, economic and institutional settings, influences, impacts and responses are critical elements. Two examples are:

- An agreement relevant to Indigenous communities, although not focused exclusively on adaptation, is the Partnership Agreement between Charles Darwin University and the Northern Territory. This is designed to ensure that the economic and social development of the Territory is supported by a robust and resilient University working in partnership with government agencies and the wider community to contribute to education, research, policy development and program delivery.
- In Western Australia the Fire and Emergency Services Authority of Western Australia recently formed a partnership with the Kimberley Language Resource Centre to develop Indigenous translations of Western Australian Emergency Management guidelines to promote the participation of Indigenous people in emergency management decision making by improving the accessibility and relevance of key emergency management literature. The project was commissioned following recent flooding events which had not been experienced in living memory.

6.8 Summary

It is clear there is strong capacity across Australia to undertake and contribute to research efforts that address the priorities in the Indigenous Communities NARP. Commitments of financial or other research inputs from these organisations could become apparent once a research call is issued.

Research capacity to undertake projects focussed on the priority questions in the Indigenous Communities NARP is available from a wide range of providers, including universities, CSIRO, state agencies, private organisations and CRCs. Since most research providers are members of SEIDARN, this body is well-placed to facilitate the formation of the type of integrated research consortia that will be necessary to meet the challenges of climate change adaptation research in this area. However, as some research providers may not be members of SEIDARN, it will also be necessary to ensure that any call for research proposals is widely publicised in the relevant media and web pages.

7. Strategy for National Coordination

While there are currently few funding sources available to support research into priority questions identified by the Indigenous Communities NARP the climate change adaptation research agenda within the Aboriginal and Torres Strait Islander research area is evolving rapidly. A long history of high-quality social, economic and institutional research and analysis provides a good platform for developing further capacity in climate change adaptation research related to Indigenous Communities.

7.1 Immediate investment

NCCARF plans to allocate up to \$2 million from the \$27 million ARGP to research to address the priorities identified by the Indigenous Communities NARP. This appears to be the only program-level funding immediately available to initiate new research addressing the six priority topics identified by the Indigenous Communities NARP and shown in Appendix 1.

The grants funding is available from 2011/12, and all projects funded through this program will need to be completed by June 2013, with draft final reports delivered by 31st December 2012.

NCCARF plans an open research call to address the highest priority research questions in the Indigenous Communities NARP. NCCARF will:

- Provide information about the ARGP research call on the NCCARF website;
- Advertise the Call through its mailing lists and through advertisements in the *Kourri Mail* and *The Australian*;
- Coordinate evaluation processes associated with the identification of research projects;
- Support the successful research projects through contract negotiation with Griffith University;
- Manage the research portfolio through to a successful conclusion;
- Work with research groups to communicate and publicise the results from their research for the benefit of climate change adaptation capacity building in Australia.

This research investment program will target, for immediate investment, the six priority research topics identified in Appendix 1. These six research priorities are considered to be a logical first choice to ensure a coherent body of information is built which meets the priority information needs of policy and decision makers at the present time.

NCCARF will play a lead role in embedding the information and knowledge outputs from the research into Australian communities, and in the communication of research outputs to policy and decision makers at all levels.

8. Impediments and Risks

Australia has a small research community relative to the challenges of building and delivering a national research program to address the priorities in the Indigenous Communities NARP. While existing research capacity in the social sciences will provide a good platform, building further research capacity will be necessary.

9. Monitoring

Success in developing and implementing research directed towards priorities in the Indigenous Communities NARP will be measured in terms of the extent to which:

- End users are engaged throughout the research cycle;
- The capacity of the Australian research community is expanded;
- Research products are adopted by end users, primarily policy and decision makers;
- Research collaboration and coordination occurs;
- The research budget is built nationally;
- Financial resources are leveraged to address the priority research questions; and,
- The Indigenous Communities NARP promotes further adaptation research.

10. Communication and Engagement

It is essential that the needs of research end-users in Aboriginal and Torres Strait Island communities be taken into account early in the design of research projects, to ensure that research outputs are useful, and of value to a variety of stakeholders. Much of this research involves issues where problem identification and research framing are substantial research issues in their own right: working out the right question is often more important than working out the answer. This will involve strong participatory engagement between researchers and end users or research partners.

The implementation of the Indigenous Communities NARP therefore requires significant engagement with end users in Indigenous communities and appropriate government agencies. Commitments of cash or in-kind financial resources should not be the only evidence of the significance of such research/end user partnerships, as there are many end users who have no capacity to contribute in this way. Indeed, an inability to fund research may be a defining characteristic of vulnerability to climate change. Instead, evidence of commitments may be expressed in other ways, such as: letters of support; commitments to contribute to project planning, monitoring, data analysis, and review of findings; a willingness to act as broker between groups and to assist in participant recruitment; or a contribution to the dissemination of findings.

NCCARF and the Adaptation Research Networks have established a number of mechanisms to involve end users in the research process. These mechanisms include linking end users and researchers in the research planning and development process and identifying information needs through symposia and stakeholder workshops. The communication of research outputs will be tailored to suit the information needs of identified and targeted end users.

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Appendix 1: Priority Research Questions in the National Climate Change Adaptation Research Plan for Indigenous Communities

In the area of ***Identifying climate risks and the implications of climate change for Indigenous populations:***

Topic 1 *Understanding how interactions between social, cultural, institutional, economic and biophysical processes make Indigenous individuals, households, communities, businesses, and institutions sensitive to climate risks, and the identification and evaluation of strategies to reduce this sensitivity.*

In the area of ***Identifying Indigenous vulnerability and adaptive capacity***

Topic 4 *Understanding how and why different Indigenous households, communities, businesses and institutions are vulnerable to the impacts of climate change, and the identification of strategies to reduce this vulnerability.*

Topic 5 *Understanding the capacity of Indigenous individuals, households, businesses, and institutions to adapt to climate change, and the identification of strategies to enhance this capacity.*

In the area of ***Extreme weather events emergency management***

Topic 8 *Understanding the capacity of Indigenous individuals, households, communities and institutions to prepare for, respond to, and recover from extreme weather events, and the identification of strategies to enhance adaptive capacity.*

In the area of ***Indigenous population movement, displacement, community relocation and severe climatic variation***

Topic 9 *Understanding the relationship between Indigenous population movement and severe climate variation.*

In the area of ***Climate change adaptation and Indigenous biodiversity management***

Topic 11 *Understanding how the use of marine, terrestrial and freshwater biodiversity resources by Indigenous peoples and groups will be affected by climate change.*