AdaptNRM Achievements and Outcomes

ADAPTNRM

CLIMATE CHANGE IN AUSTRALIA
IMPACTS & ADAPTATION INFORMATION FOR AUSTRALIA'S NRM REGIONS

AdaptNRM has contextualised national-scale adaptation science for regional natural resource management (NRM) planning. In the process, we pioneered techniques to empower action based on deep engagement and shared learning at a national scale, across many organisations.

KEY HIGHLIGHTS

Collaborating with NRM planners from across Australia, AdaptNRM had the privilege of engaging NRM groups at a national scale and learning from their diverse perspectives.

Five modules were developed with key messages, guides, and data to assist NRM planners with adaptation planning.

The AdaptNRM website, adaptnrm.org, was developed as an accessible point for a broad range of stakeholders to engage with the AdaptNRM modules.

The AdaptNRM National Workshop was held in Melbourne in March 2016. Representatives from over 30 NRM organisations shared their challenges and achievements, highlighting what has collectively been achieved in the sector and why NRM can be a springboard for mainstreaming adaptation across sectors.

Project background

AdaptNRM is part of Stream 2 of the National Resource Management Planning for Climate Change Fund administered by the Department of Environment. The project delivered science information and data products about key climate change adaptation topics that are both regionally and nationally relevant.

The aim of AdaptNRM was to provide NRM planners across the nation with materials and data for adaptation planning that were appropriately translated and contextualised to best suit their diverse needs in terms of content, presentation and accessibility.

Working in partnership

Working in partnership is at the core of AdaptNRM's approach. AdaptNRM worked closely with NRM groups across Australia to develop and refine our work. The project itself is a collaboration between CSIRO and NCCARF, comprising 20 scientists from diverse disciplines.

The AdaptNRM process of deep engagement and shared learning encouraged and facilitated cross-organisation and cross-jurisdiction collaboration to address the challenges of adaptation. To highlight the science of working in partnership, especially at scale, our fifth module on shared learning presents the core principles of our approach along with some of the science behind them.

Our principles were derived from social science, neuroscience, and marketing. Specific techniques included:

1. Building shared understanding with NRM planners and science teams about their different cultures
2. Co-producing examples and case studies of information use with NRM groups
3. Using extended review by NRM groups of written products, including reviews of early outlines and rough drafts, and group discussions to share reviews
4. Producing a suite of final co-produced products designed for different users, accessible and sharable from our website
5. Facilitating discussion-based product delivery sessions to learn from collaborators

AdaptNRM's principles of shared learning

Democratisation of Knowledge

Principles 1 to 6

Solving many of the world's problems and continuing down the path of innovation requires valuing and utilising different types of knowledge in addition to scientific knowledge, and making science accessible to all.

Peer Learning

Principles 7 to 10

People sometimes struggle to view their peers as experts, yet peers are often the people who have been facing the same challenges you have. Deeper learning can be achieved by sharing that experience and context.

1 Culture of Equal Value

Create a culture where different forms of knowledge are valued, thus encouraging a sense of ownership and equality.

2 Real Relationships

Build relationships with individuals, not just 'links' with organisations, to better improve communication and deepen understanding.

3 Co-produce Knowledge

Go beyond consultation and generate co-ownership. Knowledge co-production involves finding ways to work in deeper collaboration with stakeholders from start to finish.

7 Opportunites to Learn

Bring people together - facilitate multiple social learning experiences to encourage peers to share.

8 Shadow Spaces

Encourage individuals to self-organise beyond the boundaries of organisational structures to facilitate learning and growth free from specific deadlines and requirements.

4 Audience Context & Style

Adapt to each of your audiences' language, style and culture of communication to ensure that your message is heard and understood.

5 Flexible and Responsive

Plan activities and projects to allow for flexibility to varying needs – opportunities for shared learning can occur anytime.

6 User Friendly Products

Develop communication products for cognitive impression, not just visual impact, so they are pleasurable and easy to engage with.

9 Build Credibilty

Help others view their peers as credible experts to facilitate collaboration rather than competition.

10 Peer Collaboration

Encourage peers to build on foundational information by collaborating to produce new, contextualised knowledge.

Challenges for NRM planning across the nation

Four key national challenges associated with adapting to climate change in NRM planning include:

1. Making decisions for multiple possible futures

NRM planners must find ways to plan and set objectives considering multiple possible climate futures but also other global change and human response. This necessarily involves a degree of uncertainty but this need not be a barrier to planning.

2. Employing flexible and adaptive planning processes

New information will continue to emerge about the likelihood of future climates and consequences which means planners may need to develop plans that are even more flexible and which can be quickly adjusted to incorporate this new information.

3. Explicitly identifying and preparing for likely future decisions

Planners need to be able to determine which decisions need to be made now and which could or should be made later, identify and monitor the triggers that indicate when a new decision needs to be made, and plan to gather information to support future decision-making.

4. Strengthening the adaptive capacity of people and organisations

There are many people and organisations that manage and depend on natural resources. Successful development and implementation of plans ultimately depends on the capacity of people to be flexible and adaptive throughout all phases of the planning process.

Image: AdaptNRM National Workshop; Source: Lilly Lim-Camacho

ADAPTNRM MODULES:
ADAPTATION INFORMATION DESIGNED TO ENGAGE

The NRM Adaptation Checklist **provides ideas for how to adjust the planning process to meet the four key challenges of adaptation for planning.**

Weeds and Climate Change **summarises knowledge for strategically tackling existing and future invasions by plant species, in the context of a changing climate.**

Implications of Climate Change for Biodiversity **suggests new ways to consider the magnitude and types of changes in biodiversity, using a whole-of-biodiversity modelling approach.**

Helping Biodiversity Adapt **introduces new principles needed for biodiversity conservation in a rapidly changing world and provides practical guidance and tools to achieve them.**

Sharing the Learning **introduces pillars and principles for shared learning to inspire the deliberate use of techniques to bring together diverse knowledge and perspectives for effective adaptation planning.**

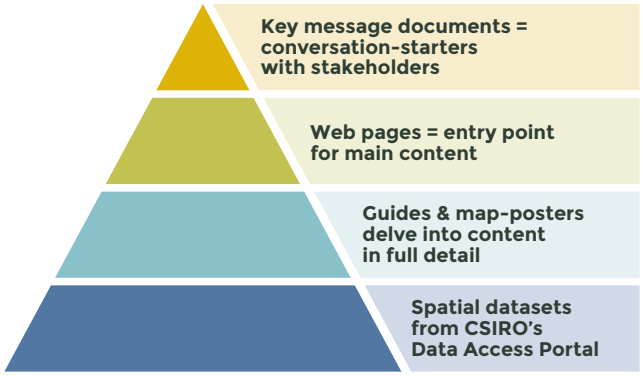
Project outputs

To support NRM groups and their stakeholders to meet these challenges, early engagement with NRM planners identified five key topics for module development (see Box on the left).

For each module, a set of information materials was produced, including technical guides, datasets and maps, key message summaries, and webpages hosted on ***adaptnrm.org*** (see Figure below).

This information was packaged to make it accessible through multiple points, inspired by the different ways that individuals learn and share information.

The shared learning module also incorporated opportunities for NRM groups to collaborate and learn from each other, including the National Workshop hosted in March 2016.



AdaptNRM product types and intended use

"The AdaptNRM project has had great success as well as being an example of translating/brokering information. Presenting science in a palatable format – very, very user-friendly."

"An exceptional project that uniquely used a true bottom-up approach and included scientists."

"Rare to work with a 'central agency' with such a progressive and respectful approach."

Image: Common tree snake (Dendrelaphis punculatus); Source: Peter Lowik

Outcomes and achievements

Did we engage deeply enough at a national scale to improve the capacity to adapt?

Systematic collation of feedback from NRM planners demonstrated the value delivered by AdaptNRM:

93% agreed it improved the **capacity** of their regional NRM organisations to plan for climate change

90% agreed it improved their **access to information** about climate adaptation and its application in NRM planning

90% agreed it would enhance their **longer-term capacity** for integration of climate into NRM plans

80% agreed AdaptNRM products and information will be used in an **on-going way,** after the life of the project

80% indicated the things they had learnt about **engagement processes** through the AdaptNRM project will be used in an on-going way, after the life of the project

93% indicated that AdaptNRM had **improved links** between NRM practitioners and researchers and scientists

> "Great interactive, iterative and supportive process. Very professionally managed and great outcomes – this work has certainly enhanced our capacity to appropriately plan and consult with our communities."

Where to from here

AdaptNRM, through the NRM Fund, has laid the groundwork for delivering relevant adaptation science information at a national scale. One key to long-term adaptation will be to build on this cross-jurisdictional success to support NRM groups to operationalise their plans in innovative, adaptive ways.

The AdaptNRM philosophy of co-development and co-production through collaboration is one that can be carried forward to future projects and research programs. Our engagement model can be built into any project seeking to empower evidence-based action across a range of stakeholders. We also envisage the continuation of AdaptNRM in providing other users, as well as NRM groups, with tailor-made scientific information.

For research program design and delivery, the AdaptNRM journey has identified a need for:

- ongoing support to encourage uptake of information provided
- a stronger focus on process and relationships, not just products, to strengthen capability over the long term
- a national approach to support cross-collaboration and learning, not just with neighbours, but with like-minded organisations near and far

> "The products produced are of high value to us as an NRM region. Some help communicate with other stakeholders (e.g. weeds) while others are fit for purpose and can be used immediately to support planning and delivery."

Image: Staff tree planting day on a landholder's property at Quellington; Source: Wheatbelt NRM

REGIONAL NATURAL RESOURCE MANAGEMENT PLANNING FOR CLIMATE CHANGE FUND

The Regional Natural Resource Management Planning for Climate Change Fund supported regional NRM organisations across Australia to revise their existing regional NRM plans to incorporate climate change adaptation and mitigation approaches using up-to-date climate information.

Through Stream 2 of the programme, NRM planners with strong local and community connections were linked with researchers and extension specialists to help ensure that the regional plans draw on the best available information.

There were 10 major projects delivered under Stream 2 of the NRM Fund, including:

- a project delivering new climate projections for all of Australia
- one impacts and adaptation project for each of eight clusters of NRM groups; and
- an additional impacts and adaptation project delivering cross-boundary information through the efficiency of a national approach (AdaptNRM).

The projects commenced in 2013 and finished in June 2016.

FURTHER INFORMATION

www.adaptnrm.org

www.terranova.org.au/repository/national-project-adaptnrm-nrm-collection

Veronica Doerr

T. +61 2 6246 4099
E. veronica.doerr@csiro.au

Lilly Lim-Camacho

T. +61 7 3327 4730
E. lilly.lim-camacho@csiro.au

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