



10 Deserts Project submission to the climate change in WA issues paper – September 2019

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Background about 10 Deserts Project

The 10 Deserts Project (10DP) is an Indigenous-led partnership for healthy country and people. Spanning across five states and territories it takes in, as its name implies, all the ten deserts of Australia.

It is the largest connected network of protected areas in the world with 173 areas recognised as a part of the National Reserve System and the largest network of Indigenous-managed lands in the world with a total of 21 Indigenous Protected Areas.

The project provides a unique opportunity to demonstrate collective action to build environmental resilience at an unprecedented scale worldwide, led by Indigenous organisations with the support of external stakeholders. Strategic collaborations and coordinated responses to key threats will be transformational in assisting Indigenous organisations to develop new and creative responses to challenges of low capacity and landscape scale management. More information on the project can be found at www.10deserts.org

The project is funded by the BHP Foundation and is a collaboration with seven Indigenous led organisations and is supported by international and regional conservation partners. In Western Australia it includes Desert Support Services (DSS – which leads the project), Kanyirninpa Jukurrpa (KJ), Kimberley Land Council (KLC) and Nyangumarta Warrarn Aboriginal Corporation.

The project aims to build the capacity of Indigenous people and organisations to ensure healthy country, healthy people and a strong Indigenous voice for the desert.

10DP is working on a number of local initiatives (through project partners) as well as managing a regional activity where it makes sense for there to be collaboration for example, regional fire management; feral camel control; regional tourism and the like.

Indigenous rangers play a vital role in caring for country – fire management, management of invasive weeds and feral animals, transfer of cultural and ecological knowledge and more.

Throughout our project area, Indigenous rangers are seeing extremes in weather patterns and are witnessing the impact of these conditions. Of particular interest to the project, is the potential role of carbon farming for remote desert communities and related issues of climate change and adaptation.

In responding to the issues paper, our submission will focus on the following:

- transforming energy generation
- regional prosperity
- safe and healthy communities
- water security

- liveable towns and cities
- protecting biodiversity
- strengthening adaptive capacity.

Need for a clear state climate change policy

The 10DP supports the development of a state climate change policy. A clear policy can:

- provide clarity for future investment and activity by all sectors
- stimulate opportunities such as carbon farming, research and renewables
- help prioritise mitigation activities that can reduce the impacts on vulnerable groups and communities.

Impact of climate change on WA

The discussion paper provides a useful overview of the issues, but its use of potential impacts largely focussed on the south-west of the state underlies the need for more information on the impact and vulnerabilities for other regions.

For the purposes of this submission, 10DP will focus most of its comments on the arid lands which comprise approximately 41% or 1.09 million square kilometres of the state.

While many people visualise the deserts as being uninhabited and Saharan in nature the deserts of Western Australia are well vegetated, diverse and fragile. They are host to important salt lakes, wetlands, rocky ranges and woodlands. They are culturally rich, with many remote communities through the desert region. These communities are home to indigenous people who were among the last to come into contact with western culture. For some, this was as late as 1984.

These remote communities and their mainly Indigenous residents will potentially be significantly impacted by climate change. Their traditional lands which are already undergoing drastic change because of the effects of a shifting climate.

Information available through CSIRO summarises the potential impact of climate change in the arid lands as being:

- temperatures have been rising and will continue to rise in all seasons
- more hot days and warm spells
- increased intensity of extreme rainfall events
- rainfall projections are uncertain, and this means that there is also uncertainty in relation to fire weather risks expected in the future¹.

¹ CSIRO, *Climate change in Australia, Projections for Australia's NRM regions*, <https://www.climatechangeinaustralia.gov.au/en/climate-projections/future-climate/regional-climate-change-explorer/sub-clusters/?current=RLNC&tooltip=true&popup=true>, accessed 19 Nov 2019.

However there also remains significant uncertainty or lack of confidence with some of the assessments as to its future impact. Any climate policy and role of the state government needs to ensure that information is analysed and disseminated to ensure that those affected have the best available information and support in adapting to future changes.

Response to identified issues and opportunities

Transforming energy generation

Remote communities which are reliant on fossil fuel generated off-grid power systems are vulnerable to rising temperatures and diesel prices.

Given the dry weather conditions in the arid lands, there needs to be a dedicated program to encourage a shift to renewable energy generation, possibly in two stages with the latter as batteries become cheaper and more reliable.

Regional prosperity

In remote communities, Indigenous land management (ILM) programs provide employment and income. They also provide a foundation for other activities that provide broad social, cultural and environmental benefits for residents as well the Australian community as a whole. This role is acknowledged in both the Australian government and WA government's Indigenous ranger programs or funding.

A failure to manage the impact of climate change on remote communities will undermine their sustainability and these important benefits.

The generation of Australian Carbon Credit Units (ACCUs) under the *Carbon Credits (Carbon Farming Initiative) Act 2011* (Cth) is an important way that remote communities, particularly in the north-west can generate increased resources through appropriate climate change policies.

The 10DP is currently investigating the potential for the carbon emissions mitigation and the generation of carbon credits in the arid lands with rainfall below 600mm per annum. If successful, a state climate change policy could be instrumental in supporting ILM organisations to implement appropriate carbon projects.

Safe and healthy communities

ILM organisations and Indigenous rangers can, if resourced adequately, provide an important role in the keeping remote communities safe and healthy. These include:

- implementing carbon farming activities as seen in the north of the state with the savannah burning program
- natural disaster mitigation by implementing more right-way fire in surrounding country

- facilitating with government agencies community fire management plans which can then be implemented to reduce the risk to infrastructure and life
- providing assistance with emergency response to wildfire
- providing assistance with the development and distribution of a remote community education program.

The above roles will though require better coordination across ILM organisations and state government agencies and potentially increased resourcing.

There currently exists a number of examples where collaborations have enabled increased right-way fire management and the development of community fire management plans with limited impact on existing budgets by utilising Australian government funding programs for natural disaster resilience.

A community education program needs to be a balanced and fact-based education program delivered across WA. This would also need include a version for remote communities so that people can start to understand what changes may be coming, how they can adapt and prepare for them.

Water security

With higher temperatures and potentially increased variability of rainfall, remote communities may face increased difficulties in accessing water which is essential for domestic use as well as ensuring that there are shade trees in communities.

With the shift in rainfall patterns and extreme temperatures the following impacts may be felt in remote communities:

- increased extreme summer rainfall events
- increased risk of flooding
- more frequent and intense large-scale fires
- increased evaporation relating to increased temperatures and protracted periods of drought
- pressures on ground water and hydrology

Liveable towns and cities

Remote communities should have a separate focus to towns and cities which by virtue of their location and population numbers have more attention and flexibility.

However, the increase of extreme temperatures on remote communities will also have an impact on:

- social cohesion, as remote community populations will transfer to larger regional centres
- community industries, especially those based around the harvest native resources such as sandalwood and bushfoods

Of particular focus could be:

- shift to renewable energy generation
- developing a program to assist remote communities to develop fire management plans to protect infrastructure and lives
- increased amenity and natural cooling by planting shade trees (in conjunction with better community fire management planning)
- supporting carbon farming initiatives able to be used by remote communities to improve economic sustainability of ILM programs.

Protecting biodiversity

The arid lands are home to a wide range of species including some of the last known wild populations of nationally and state listed threatened species, including the Night Parrot, Greater Bilby, Great Desert Skink, Mallee fowl and Black-Flanked Rock Wallaby. The deserts are also home to a high diversity of reptiles, birds, frogs and mammals that may be under increased environmental stresses as the climate becomes more extreme.

Climate change in the arid lands will potentially exacerbate the decline in abundance and location. This can be managed by supporting ILM organisations to:

- increasing their capacity to implement right-way fire management (i.e. cool season and patchy burning across more country) using both contemporary and traditional methods
- undertaking protective burns for particular species
- collaboration between Indigenous protected areas, other national reserve system (NRS) properties and Indigenous managed lands to improve connectivity and complementary management activities to enable species to adapt and shift location over time.

Strengthening adaptive capacity

Strengthening the adaptive capacity of remote communities will only occur if there is resourcing and support for those communities to focus and initiate ground-up activities.

Of fundamental importance is the acknowledgement of the value of traditional cultural and ecological knowledge (ICEK). In addition to weather and other data, ICEK of country is essential to understanding the impact of climate change on the seasons and the species that live in people's country.

A climate policy could support this by:

- funding a program to develop regional or language based seasonal calendars across the arid lands in WA while there remain old people with first-hand knowledge of traditional hunting and gathering
- development of an educational program (see safe and healthy communities)
- supporting ILM organisations to raise the profile and awareness of climate change and its potential impact and to facilitate localised responses to manage the impacts.

Further information or questions

For further information or clarifications on the submission please contact:

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