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# A journey into the future of the Australian rangelands

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## Abstract

Through our experiences and partnerships at Desert Knowledge CRC we have accumulated a combination of expertise and commitment to tackle the issues facing people in remote Australia, which we are now building into CRC-REP. The three main themes of our research will be: 1) Regional Economies, 2) Enterprise Development, and 3) Investing in People. In this paper we expand on our philosophy, research themes and approach.

## Introduction

For thousands of years the Aboriginal people of the Central Deserts have sung their way into the future by following the songlines laid down by the Ancestors as they brought the rivers and ranges, the peaks and plains, the animals and plants into being.

Faithful singing of past tradition and observation of landscape brought guidance, both physical and spiritual, for the future. This is a lesson that we, the newcomers to Australia, would do well to heed. Our understanding how this great continent functions through time comes with nothing like the depth of experience and wisdom available to its first inhabitants.

One of the great learnings from the work of the Desert Knowledge CRC (DKCRC) is that almost nothing in the deserts is as it seems. It is only when you take the time and trouble to look below the surface, to observe patiently and reflect, that you begin to sense how things really work, how deserts function, how desert species adapt to extreme conditions, how

remote people find their way amid a landscape – physical, political, economic and social – that is constantly changing.

This work of the DKCRC has helped to form a basis for our own ‘songlines’, our own guideposts to the future. But our tracks in the sand are few and recent compared to the tracks of those who went before us. Our experience is brief and transient relative to theirs. In short, we still have much to learn.

Nevertheless, with what we have learned so far to guide me, I should like to escort you on a journey into a desert future, perhaps 20 years from now, the sort of future which we aspire for in the CRC for Remote Economic Participation.

Just as Aboriginal people are accompanied by the Ancestors as guides, so too we hope we will be accompanied in our journey by Aboriginal people and by many other remote dwellers who are our partners in building this future.

CRC-REP has a different mandate to that of DKCRC, although its currency is much the same: acquiring and testing the knowledge and insights that will enable us to live sustainably and prosperously in the remote regions of this continent.

Much of Australia’s real wealth is created in our remote regions, yet many of the people who live there are unable, for various reasons, to fully take part in the national or world economy.

This market failure causes high levels of social and economic disadvantage, and has proved an intractable challenge despite large investments by government and others over many years, as it involves the complex interplay of economic, environmental and societal factors.

Responses to this challenge have suffered from poor data and information, a fragmentary view of the issues, and externally imposed measures, which tend not to work on the ground in remote areas. Then there is the inherent difficulty of conducting research in remote regions, including logistics, expense, environment and cross-cultural misunderstanding.

Through our experiences and partnerships DKCRC we have accumulated a combination of expertise and commitment to tackle the issues facing people in remote Australia, which we are now building into CRC-REP. These issues are urgent – and the time to tackle them is now.

CRC-REP will work with communities, businesses and people in remote regions of Australia to systemically investigate and provide practical responses to the complex issues that drive economic participation.

It will make use of DKCRC's experience, research findings, extensive networks of friends and partners, core knowledge and management systems – all of which are well established and have been tested and proven in the real world.

The three main themes of our research will be:

1. *Regional Economies* – identifying new ways to strengthen the economy of remote regions
2. *Enterprise Development* – building the remote enterprises that can provide jobs and livelihoods for people living in remote regions, communities and settlements
3. *Investing in People* – improving the education and training pathways for people living in remote Australia in ways that are relevant to their situation and needs, consistent and reliable.

A significant part of what we do will help to deliver outcomes under the Australian Government's 'Closing the Gap' national priority, which seeks to halve unemployment, reduce welfare dependency and give Aboriginal people fresh skills and opportunities in business and the workforce (Australian Government 2009).

This may all sound a little abstract, so let me briefly sketch for you my own personal vision of the sort of future our research may help to build, a more prosperous, happy and motivated remote Australia 20 years from now.

## **Future of natural resources**

This future begins with the magnificent natural resources of the remote areas.

As many at this conference are aware, at DKCRC we have been pioneering a new approach to the grazing industries – and one with, I believe, a profound significance to all the world's rangelands.

This is the concept of 'precision pastoralism', the use of advanced technologies and telemetry to manage livestock sustainably and well across vast expanses of land. Under CRC-REP this work will continue because we are convinced it holds the key not only to a more profitable grazing sector that employs more people and produces better products, but also to the sustainable management of rangelands at the large scale.

The rangelands make up a third of the Earth's terrestrial surface. They have a prodigious capacity to store carbon and so offset part of humanity's greenhouse impact.

By using precision pastoralism to improve shrub and tree cover across enormous areas we can produce more profitable livestock as well as lock up carbon, protect native species and landscapes. By exploiting recent and new advances in water and landscape conservation and pest control<sup>i</sup> we can also improve both profitability and sustainability.

Indeed, if the current climate predictions are correct, more of the world's warm landscapes are going to dry out and become rangelands, so this knowledge will be even more in demand globally than it is today, for the recovery and renewal of marginal lands.

By 2030, I envisage the export of this knowledge, and the accompanying skills and expertise could be earning us as much as the export of some pastoral commodities, as is already the case with mining knowhow.<sup>ii</sup> This will create new businesses and employ many more people, at higher levels of skill, than at present.

At the same time I envision a day when the TV celebrity chefs of the world will flourish a handful of desert raisins (bush tomatoes), gabinj (Kakadu plum) muntries or ribberries, a

measure of lemon myrtle, a pinch of bush pepper or wattleseed before enraptured audiences of millions.

The exotic and exquisite flavours and aromas of remote Australia, known to Aboriginal people for thousands of years, will become the focus of a new culinary revolution sweeping a globe that is hungry for novelty in food.

Call me a dreamer if you like, but in Australia of the 1960s and '70s, brought up on sparkling Rhinegold and sweet sherry; it wasn't easy to see the makings of today's sophisticated, diverse and totally world-class wine industry. Yet through imagination, research and hard work it happened.

I think that a revolution in bush foods is, if not just around the corner, at least an achievable distance down the track. And I think that it is going to make Australians very proud of both their native foods and of the people who harvest and grow them – as well as creating livelihoods on country and enterprises aplenty.

Aboriginal art and music are already flourishing in the fiercely competitive international arts world. We now face the transition from what were, in effect, cottage industries producing products novel to a wider audience, to professionally run enterprises with global outreach, able to match it with the best the world can send against us.

What is it that distinguishes Australian Aboriginal art, culture and creativity from other art forms? The fact is that it is the oldest intact human knowledge system, tapping the wellsprings of an understanding about landscape and life that has been built over tens of thousands of years.

That is, it tells us more about who we humans really are, than most other cultures can. It helps us to rediscover our roots as people roaming a vast landscape, in touch with a natural order most have long left behind.

That is the core value we have to offer. The important thing is to ensure we build the enterprises, the creative, management and promotional skills to ensure its continued success in the global marketplace and human value system.

As I mentioned, CRC-REP is very much about *Closing the Gap* (Australian Government 2009). We now have a fair understanding of the forces that cause societies, communities and individuals to disintegrate. We know much about how that can be avoided. And, in partnership with the people who have experienced these losses, we are learning very rapidly how to overcome them in future.

We know that, at heart, people need to be involved in doing the things which their own abilities, beliefs, social and family ties bid them. That is when they are most happy, healthy and motivated (Cummins et al. 2003).

By studying carefully both models of success and failure in Aboriginal and non-Aboriginal enterprises, in remote and in city-based enterprises, we plan to build a roadmap for reliable success in remote Australia.

There are scores of highly successful remote Aboriginal enterprises – in mining services, art and culture, tourism, bush foods, health care, construction, repairs and maintenance. And there are thousands of potential enterprises that need to learn from them how to avoid the many pitfalls and setbacks involved in running a remote business.

We believe that sharing this knowledge of how to succeed across remote Australia is entirely do-able and will generate a new wave of economic growth and development around the continent.

The spin-offs from this go far beyond mere commercial success. As the remote economy flourishes, it makes remote regions more attractive as places to live and work. It makes remote communities more diverse and resilient. It sucks in new skills and talents from afar, and keeps local ones at home. It attracts more government services and support. It creates

self-sufficiency and increases respect among outsiders. Like the desert paper-daisy, it releases a thousand seeds that spring to life when conditions are right.

Besides understanding the keys to success in business, we need also to understand the keys to success in education and training. In remote areas these have suffered for far too long from centralised control, transience of skilled teachers, lack of relevance to communities and their specific needs.

At CRC-REP we are out to reinvent remote education so that it overcomes these disabilities. We will try new things, and some will fail. From failure we will learn how to succeed. We will find ways to give remote communities more say about their own life skills and how best to frame their future. We will not be bound by generic models of education and training, but will capitalise on the natural resourcefulness and practicality of remote people.

This applies both at the small scale – a settlement of a few dozen people – and the far, far larger: a region such as the Central Deserts, the Pilbara, the Goldfields, the far northwest, Arnhem Land.

At present, the economies of these regions are primarily driven by mining. They boom when it booms and they bust when it busts. And when the mine closes, they suffer. One of our greatest opportunities lies in discovering ways to break this cycle.

We want to work with the miners and resources giants to discover how we can invest in a more stable and sustainable regional future, how we can develop complementary businesses and industries that do not fold up when mining hits hard times, how we can make greater use of that infallible resource that never runs out, human ingenuity and local knowledge.

Again, we will seek models in centres and regions that are doing it well – translating their current prosperity into skills and infrastructure for the future – and those that are less successful, so we clearly understand the drivers.



And we will look for ways that enable the benefits from economic ‘hot-spots’ – large resource developments – to be spread more widely across less favoured regions.

Finally there is the issue of climate change. This is especially important for remote regions for two reasons – first, their heavy reliance on transport powered by fossil fuels which, one way or another, will not be available in a few decades’ time; and second, because if you live somewhere where it is already over 40 degrees for many weeks a year, the phrase global warming has a real sting to it.

Remote Australia, its landscapes, industries and communities, are especially vulnerable to climate change – be it in the form of heat, storm or drought. But remote Australia is also part of the solution – a large part of the solution.

For one thing we harbour the greatest energy resource on Earth. Studies have shown that more sunlight falls on the Australian deserts than almost any comparable region on the globe, and far more than on any densely settled region (Service 2005). This sunlight is, I am told, good for the next five billion years or so.

Then we have hot rocks – several centuries’ worth of potential electrical power once the technology is developed and proven commercial, right under our feet (Wibberley et al. 2006). As it becomes more economic, renewable energy represents a prodigious resource opportunity – and an equally large opportunity for new jobs, enterprises, industries and livelihoods.

As this energy becomes more available it will attract new industries to the deserts. An example is the vast data storage and processing industry – the so called ‘computer cloud’ – which can be located anywhere on earth, but which needs a lot of energy to keep all those processors cool. As it is far cheaper to move photons around the planet rather than electrons, it makes more sense to co-locate your IT empire with the energy source, rather than the users.

Yes, ladies and gentlemen, in time we may even help run the New York Stock Exchange from Alice Springs – or Bourke! This vision requires political resolve that can come from evidence-based research.

Equally, with the evolution of low-loss power transmission, the opportunity will open up to ship electricity from remote Australia direct to the cities, factories and cars of the eastern seaboard – or even to the industrial heart of Asia, using energy superhighways (e.g., <http://www.desertec-australia.org/>).

Our natural gas, oil and coal eventually dwindle. Our photons never will. They spell lasting prosperity for remote areas.

All this is still a little way off and, some will be saying to themselves, more like fiction than fact today. But, as our Aboriginal people pursuing their songlines knew, if you set off on a great journey, it helps greatly if you have some idea of your destination.

At CRC-REP we know what the destination is, or what it should be. And with our many partners, our friends, our colleagues in research and with good will, and with a common vision of that destination... by crickey, we are going to give it our best shot at getting there.

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<http://catalogue.nla.gov.au/Record/4394814>.

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<sup>i</sup> Refers to camels

<sup>ii</sup> Knowledge is currently the mining industry's 5<sup>th</sup> largest export earner. This merely replicates in grazing what has happened in mining.

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