

Dry Knowledge

Lively Enterprise

MARK STAFFORD SMITH says that deserts abound in innovation and opportunities and describes ways in which they are being harnessed and met in the world's driest continent



Reinhard Frankens/SillPictures

disempowering language of catastrophe embodied in the term 'deserti cation' – language that risks institutionalising desert people as perpetual victims, recipients of welfare or aid.

Desert regions around the world share a unique combination of features. They face variable and unpredictable biophysical, political and market environments outside local control. They are governed by remote centres of power and are a long way from markets. Their resources are generally limited. They often have local (rich patches) such as mineral wealth. And their small populations are dispersed and relatively mobile.

Desert living certainly means coping with slender resources, enormous variability, climatic extremes, and daunting physical challenges. But these same forces drive innovation and create immense opportunities: It is no coincidence that key social changes have emerged from deserts over the centuries.

In the face of adversity, desert people have always innovated and they still do. There is an immense diversity of novel and creative energy in desert regions around the world, but they face the perennial problem of a lack of critical mass. Their populations are often too small to influence policy created in distant cities or markets played out on the world stage. Desert issues are perceived as too secondary to attract coordinated, large-scale research efforts.

Similarly, the hundreds of small-scale innovations created every year in deserts are each individually too small to create a major new industry. They must be drawn together and branded as a single product of desert regions: Desert Knowledge, or the understanding of how to live well – sustainably, economically and harmoniously – in the desert. The world's driest continent is using this idea to seek solutions to the challenges of desert living.

Business partners

In a ground-breaking partnership, for example, desert indigenous communities are working with researchers from Australia's Desert Knowledge Cooperative Research Centre (CRC) to preserve and protect their knowledge about the healing properties of their traditional plant medicines. Laboratory ▶

About one third of the Earth's land surface supports a sixth of its population, a population often disempowered and remotely governed, which was once self-sustaining but is now suffering from desertification. It is easy to focus on the problems of these regions, and they are indeed

manifold. Nevertheless, these are also environments of great energy, inventiveness and opportunity.

It is time that we put a realistic but positive avour into talking about living in the world's deserts. The International Year of Deserts and Desertification offers a chance to move away from the

tests have already revealed bioactive substances in them.

Meanwhile, the food industry is forming business partnerships with indigenous Australian food networks to develop such traditional staples as acacia seeds and bush tomatoes. The growing native foods industry is already diverse, ranging from wild harvesting of plants by indigenous communities in the central deserts, through cottage-industry horticultural production and processing, to large-scale horticulture and harvest trials. The Desert Knowledge CRC contributes research solutions, such as better pest control and propagation technologies for the most popular desert foods.

To take another example, the ‘kangaroo hopmobile’ – which bounces calls from one handset to another to form a virtual network, avoiding the need for building infrastructure – could be a boon in isolated areas worldwide. Each mobile handset serves as a carrier in an ever-moving network which has only a few fixed transmission points. As the range of each user is limited it may take a few hops, from one user to another, for a call to reach its intended recipient. Clever software manages the calls and picks the best route – or set of hops – without phone users even being aware of it. All they have to do is leave their mobile handsets switched on.

Cultural change

Desert regions throughout the world are struggling with the effect of globalisation and cultural change. Australia’s outback communities are responding to these challenges by exploring new systems for self governance, for social and economic renewal, for preserving the world’s most ancient cultures, traditions and landscapes, and for engaging with the national and global economies.

Hundreds of Australian desert businesses have formed a continent-wide network by using the latest communications technology. They have shared ideas and expertise and are forging new export partnerships over thousands of kilometres in industries such as mining services, tourism, food, and sustainable construction, helping to overcome the problem of gaining critical mass. An arid town alliance spanning four Australian states now allows small mining services enterprises

to bid collaboratively for contracts that would be out of the reach of individual members. After just a year, members are reporting real improvements to their bottom lines. Such cooperative business developments fuel economic growth by helping companies to overcome distance, isolation, scale, and limited access to markets.

Indigenous Australians, pioneers of desert living, are emerging as leaders for the 21st century, renewing humanity’s thinking about how it can live successfully with limited resources. Their holistic approach – like that of indigenous peoples elsewhere – are teaching us to think across territorial boundaries and sectors. They also demonstrate the need to integrate

It focuses on the outcomes of applied research to shape understanding of how to live and create wealth sustainably and harmoniously in deserts. And it recognises that people are not going to tackle long-term desertification unless their circumstances rise above subsistence living.

The Desert Knowledge movement aims to create sustainable livelihoods for desert people, to make remote desert settlements more viable, to develop thriving desert regional economies and to increase the social and human capital of desert people. It is helping to build a network of desert knowledge economies which sustain our inland environments and avoid future desertification. In the Year of Deserts and Desertification,



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divergent disciplines rather than to see desertification purely through the single lenses of social science, climate change, or soil erosion. In reality, human and environmental factors are almost always intertwined. The challenges facing deserts are multi-scaled, multi-sectoral and scientifically multi-disciplinary, and affect a wide range of people and interests. These are sophisticated issues that demand sophisticated responses.

Synthesizing traditional Aboriginal knowledge and Western science into a new ‘Science of Desert Living’ in Australia promises an integrated theoretical response to desertification.

the UN is promoting the message that “desertification is a major threat to humanity, compounded by both climate change and loss of biological diversity.” For the people of the Australian inland – and those of deserts worldwide – it provides an opportunity to show how to build a more prosperous, sustainable and secure world, by doing something they are good at: living in deserts, and living in them well ■

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