



Snapshot

Land & Water Australia 2003-2006

Research



Innovation



Development



Land & Water
AUSTRALIA

research • development • innovation



We at Land & Water Australia have made a commitment to meet the highest standards in management performance, and to continually improve as an organisation.

We believe these are encapsulated in the requirements of AS/NZS ISO 9001:2000.

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Vision

The vision that guides and inspires Land & Water Australia is that ...

Australians respect and understand our unique and diverse landscapes.

The Corporation's Mission is:

To provide national leadership in generating knowledge, informing debate and inspiring innovation and action in sustainable natural resource management.

We value

- Making a difference in improving the knowledge base for more sustainable management of Australia's natural resources.
- Productive partnerships, since we neither carry out research, administer legislation, make policy, or directly manage natural resources. Our influence depends entirely on our credibility and our relationships with our partners, clients and stakeholders.
- Excellence in investing in R&D and communicating R&D outputs.
- Our organisation and people.
- Ecologically sustainable development.
- Good citizenship.





Corporate Objectives

In order to fulfil our mission and contribute to the realisation of our vision, we are working towards:

- being at the forefront of Australian thinking on sustainable natural resource management.
- maximising the impact of the Corporation's investments, at a policy and institutional level and at a natural resource management level.
- ensuring that the Corporation targets investment to where it can make a real difference, by meeting critical natural resource policy and management needs.
- maximising the return on public funding invested through the Corporation (currently \$17 for each dollar invested).
- meeting all statutory obligations and accountability requirements in a comprehensive, timely and transparent manner.

Introduction

Land & Water Australia is a statutory corporation established under the provisions of the Primary Industries and Energy Research and Development (PIERD) Act of 1989, within the Commonwealth Agriculture, Fisheries and Forestry portfolio. Land & Water Australia is specifically responsible for research and development (R&D) aimed at the productive and sustainable management of the land, water and vegetation resources underpinning Australia's primary industries and regional communities.

The Minister of Agriculture, Fisheries and Forestry has outlined priorities for the Commonwealth's primary industries R&D corporations (RDCs). One of these priorities is sustainable natural resource management, and the Minister directed Land & Water Australia to promote, integrate and coordinate the R&D needed to achieve:

- ecologically sustainable production systems;
- farming and land use systems that are attuned to natural processes, promote protection of biodiversity, minimise and avoid adverse off-farm impacts and that maintain ecosystem function; and
- a multi-disciplinary approach to R&D that integrates the economic, social and environmental dimensions of natural resource decision-making by landholders.





Opportunities

Australia's natural resource base is a defining element of our national identity, it is central to our quality of life and it underpins more than 30% of our export earnings. Excellence in natural resource management is an economic and ecological necessity for Australia.

The vastness of the continent and the richness of its natural resource endowment means that industries reliant on natural resources (including agriculture and tourism) will continue to be significant contributors to Australia's wealth for the foreseeable future. Indeed, everyone is reliant on our natural resources for the ecosystem services they provide including our drinking water and breathable air among many others.

Among the rural R&D corporations, Land & Water Australia is alone in only receiving its core funding from the Federal Government, and not directly receiving any funding through industry levies. This reflects Land & Water Australia's primary concern with public good issues that are not confined to particular commodities or industry sectors.

The end-users of Land & Water Australia research include: onground managers of natural resources such as farmers; organisations such as catchment and water authorities, river managers and rural industries; local and state government agencies; and policy makers at all levels. The Corporation is determined to better align our R&D with government policies and programs, and to better inform policy with R&D outputs.

The Corporation's clients and stakeholders see the Corporation as a provider of high quality technical and biophysical information and analysis. Increasingly, Land & Water Australia is also valued as one of very few providers of information and insights on socio-economic and institutional issues, assisting other agencies in their policy analysis and formulation.



Challenges

The current quantified costs of land degradation are estimated to be \$1.4 billion annually, equivalent to more than one third of the net value added from agriculture of around \$3.9 billion. The unquantified costs such as the impact on freshwater sources, wetlands, estuaries, fisheries, biodiversity, carbon sequestration, infrastructure and tourism are likely to bring the total annual cost to well over \$2 billion. Based on current trends, these costs will escalate unless there are improvements in resource use and management.

The issues Land & Water Australia is dealing with typically have significant social, economic and political dimensions. In recent years, successive Land & Water Australia Boards have placed increasing emphasis on the social, economic and institutional dimensions of natural resource management. The Corporation has invested in groundbreaking and influential research in this area. For example, significant elements of the National Action Plan for Salinity and Water Quality focusing on institutional reform have origins in Land & Water Australia-funded research.



Strategic Directions

Land & Water Australia invests at least 70% of its core appropriation in well-targeted research. The Corporation invests about 10% of its R&D funds in an annual General Call for R&D into potential cutting-edge science and emerging NRM issues.

Communication receives special attention from Land & Water Australia, with at least 20% investment. The Corporation's increased communication investment follows a decade of targeted R&D investment in more than 1500 research projects which have created a considerable body of information, insights and knowledge.



R&D Arenas and Themes – the Matrix

The Land & Water Australia matrix of five strategic R&D Arenas and four Integrating Themes is about trying to make integration real and meaningful. The ultimate outcome is improved adoption of sustainable NRM information. The matrix addresses the perennial challenge for most agencies in natural resource management to integrate across:

- issues and programs;
- different scales of activity;
- different jurisdictions;
- ecological, economic and social factors; and
- the spectrum from knowledge generation to its transformation and utilisation.



Arenas

1. Improving sustainability and addressing contemporary issues in primary industries.

The productivity and ecological integrity of the resource base that supports primary industries is the core mandate for Land & Water Australia. We work with the primary industries to find ways to ensure that natural resources are used sustainably while supporting profitable farm businesses and viable rural communities. Key elements of the Arena include dryland salinity, climate variability in agriculture, and irrigation.

2. Managing Australian River Landscapes

Water resources are of crucial importance to Australia and appropriate water management is a national priority. Land & Water Australia is well placed to contribute sustainable river management practices through our role as managers and key investors in the National Rivers Consortium, and the Riparian Lands R&D Program.

3. Managing Vegetation in Rural Landscapes

The depletion, degradation and fragmentation of Australia's native vegetation cover is the most important single cause of dryland salinity, the single biggest driver of biodiversity loss, and among the largest single contributors to net greenhouse gas emissions. The Land & Water Australia-managed Native Vegetation R&D Program, and the Joint Venture Agroforestry Program, managed by RIRDC, form key elements of this Arena.



4. Future Landscapes and Compatible Industries

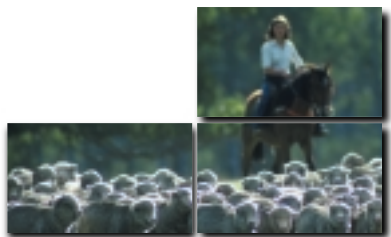
There are significant areas where conventional systems of land use and management are inherently unsustainable. The primary research program in this Arena is Redesigning Agriculture for Australian Landscapes which contributes to our understanding of the gap between conventional broadacre systems and native ecosystems in their management of water and nutrients. Over time this Arena will encourage industries and other resource users to develop new production systems suited to Australian conditions.

5. Cross-cutting activities

Land & Water Australia has another suite of investments that do not lend themselves to easy characterisation with particular resource management issues. The first of these is the Ord-Bonaparte Program (OBP) in the East Kimberley region of Western Australia. The OBP is a major new natural resource management R&D program seeking to underpin ecologically sustainable development in an integrated manner at a regional scale.

The second is the Social and Institutional Research Program which draws upon researchers in fields such as law, political science and social science and for whom natural resource management is a new exciting field.

This Arena also provides resources for R&D and communication activities specifically generated by the National Land and Water Resources Audit and the Integrating Themes.



Themes

These themes provide four powerful lenses through which to examine, analyse and interpret R&D outputs across our entire portfolio. They provide an alternative framework to the issues-based Arenas for synthesising R&D outputs across a number of programs to tell a more holistic and integrated story. The four themes describe the relationship between human societies and the world around us, by asking:

1. How we perceive and value our environment.
2. How we learn about and understand our landscapes.
3. How we live in and manage our natural resources.
4. How we organise policies, structures and institutions (governance) at a societal level.



Capacity-building scholarships and fellowships

To build-up Australia's research capacity, Land & Water Australia invests in young researchers with PhD scholarships, and also in Visiting and Travelling Fellowships. In addition, Community Fellowships, funded by a private philanthropist, assist community members with particular insights into natural resource management to share their stories with a wider audience. These capacity-building activities are a very important adjunct to the research funded by the Corporation, as they provide direct support to the real drivers of natural resource management – people.



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