



# **SOCIAL AND INSTITUTIONAL RESEARCH PROGRAM**

**1999-2004 PLAN**

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# Introduction

The Social and Institutional Research Program (SIRP) was established by Land & Water Australia in July 1999 to build awareness of all factors which drive or impede improved natural resource management, and to provide options for enhancing the drivers and overcoming the impediments.

Over the Decade of Landcare, there was considerable research into Australia's natural resources. Much of this has been biophysical R&D that has sought greater understanding of the physical, chemical and biological nature of systems. As a result there is now much more basic knowledge in most areas. Land & Water Australia will continue to fund basic research where there is a poor knowledge base, but focus more on applied research and implementation where adequate technical knowledge exists.

A primary focus of Land & Water Australia is the achievement of innovation in improved and more sustainable management of natural resources. It aims to make sure that the R&D it supports is incorporated into the innovation process and that there is strong involvement by the potential users of research results.

The institutional frameworks of society are of key importance in influencing the behaviour of individuals and groups. It has become increasingly apparent, therefore, that the key barriers to continuous improvement in natural resource management are these social and institutional factors and not a lack of scientific knowledge.

Land & Water Australia established SIRP to ensure there is more R&D in the social science dimensions of natural resource management and that biophysical R&D also takes into account social and institutional factors.

The Program will build greater awareness of the impact of social, economic, legal, commercial, policy and institutional factors and provide an improved knowledge base for achieving the following:

- new ideas and options for policy makers in government and industry, land managers and community groups
- better ways and means for biophysical information to be integrated with social and institutional information so that decision-makers and land managers have the necessary information and in useable packages to deal with natural resource management issues
- improved processes whereby research and development results are adopted into practice at different levels in the community, particularly by land managers and catchment groups
- new methodologies and arrangements in research design which strengthens interdisciplinary R&D, encourages the participation of users of R&D results in the research process and which widens the source of research providers to undertake natural resource management R&D.

This Plan describes the challenge faced by the Program; how this challenge will be addressed; the objectives, strategies and performance indicators of R&D activities; the communication strategy and program management.

# The challenge

The use and condition of the country's natural resources are central to the wealth and well being of the Australian community. All people derive benefits and costs, directly or indirectly, from land, water and vegetative resources. The benefits and costs are:

- economic (relating to productive use, including recreation)
- aesthetic (living in or visiting attractive natural areas)
- cultural (identifying with and appreciating the land and the biodiversity of nature)
- heritage (appreciating the evolution of the natural systems and their history, and desiring future generations to have the same appreciation)
- health (having a healthy environment with uncontaminated water, air and food on which human health relies).

## **Background to present state of Australia's natural resources**

The present condition of Australia's natural resources is the result of ongoing natural processes and human habitation. Australia's natural systems have evolved over 45 million years in isolation from other continents and on a very stable geological base.

Human habitation of the Australian continent has a history of around 60,000 years most of which has been with indigenous people. The burning and hunting practices of indigenous people modified plant and animal populations. The population was small in relation to the size of the continent and scattered over the country. Indigenous cultures were based on self sufficiency, meeting needs through harvesting from natural systems and communal governance of natural resources through tribes.

Non-indigenous habitation, initially mainly from European cultures, has a history of just over 200 years. These cultures applied economic and governance systems which have had a major impact on the environment over large areas of the country. Food needs were met through introduced plant and animal species and associated farming systems. This included the cultivation of grain and pasture for cattle and sheep over large areas that required the clearing of native vegetation.

Economic systems were based on production beyond self-sufficiency and trade to meet economic and social wants. Other industries such as forestry, mining and manufacturing which used natural resources were established and had major impacts on the environment, although in more concentrated areas than farming. In comparison with indigenous peoples, the population was much larger and communities were highly urbanised which meant environmental impacts were more intense in urban locations.

European systems of governance were based on private property rights over land that had been granted by the Crown (state) or purchased, with the vesting of unclaimed land, water and forests in the Crown controlled by colonies and later states. The system that emerged is a mixture of private and public ownership with management powers vested in the states. Systems of local government were established by settlers based on towns and rural communities, but local governments were given limited powers and resources in comparison with the tribal and communal governance of indigenous people.

### **The impact of European settlement**

The consequence of European habitation of the Australian continent has been that land use and management practices have not been in harmony with natural systems. When European settlers arrived they had no understanding or insight into the special characteristics of Australia's environments and how they could be used in a sustainable way. The farming systems which were adopted did not take into account the long term impact on soils which are generally shallow, weathered, contain little vegetative matter and store substantial salt deposits, or on highly variable water resources. Nor was there any understanding of the relationship between vegetative cover and the quality of soil and water resources so that extensive clearing became the norm.

The consequences of continued use of these farming systems in Australian ecosystems over most of the past two centuries are now evident and well known. Widespread and on-going resource degradation and depletion is increasingly evident in most agricultural regions including:

- extensive dryland salinity;
- extensive soil acidification;
- loss of soil structure;
- erosion;
- widespread weed and feral animal infestation;
- salinisation and eutrophication of water resources; and
- considerable loss of biodiversity.

These impacts have major economic, cultural, aesthetic and heritage costs.

### **Changing community attitudes**

During the 1980s and 1990s, natural resource management has become a major focus of governments, industries, farmers, communities and research organisations. Society has become more open minded about structural change in industries and communities, the integration of new industries with the old (eg. agroforestry with native trees, cultivation of wildflowers and tea trees, bush tucker) and the conservation of natural resources. New attitudes and practices have evolved in response to community discussion, research results and natural resource management programs.

While some progress in advancing ecologically sustainable development is evident, the community has also expressed major concerns about continued degradation and the inflexibility of our institutional arrangements to bring about the necessary changes.

These concerns relate to institutional, policy, legal, economic, commercial and social shortcomings to effectively tackle present and future natural resource management issues.

### **Institutional framework**

The organisation of modern Western societies is very complex in terms of governance, the economy and the way communities are organised and operate. Australia has a relatively small population concentrated in few coastal metropolises (although the total population inhabits a large land mass), but has inherited and built the institutional complexity of populous Western countries. Research has shown some regions, such as the rangelands, with a complex web of more than 100 institutions involved in their administration.

The overall institutional framework is difficult to change, particularly in the public sector as structures are rooted in constitutional arrangements that are rarely amended. This is in contrast to commerce where structures are driven by market forces and the trend has been towards national entities and simplification through rationalisation. In natural resource management, the need for collaboration and coordination across catchments, landscapes and other natural systems is well recognised, but less is known about the best ways for this to be achieved.

### **Policies**

The institutional complexity of Australia also translates into policy complexity. Different jurisdictions and different agencies within the same jurisdiction have over time devised and promulgated a vast array of policies on natural resource management, primary industry and the environment. There are research findings that have shown these to be ad hoc, fragmented and conflicting, particularly in relation to resource regulatory, custodial and utilisation policies. Some policies have survived from past eras with consequences that now conflict with accepted practice and values, such as cases of farmers in conditional purchase or lease situations having to pay the government for not clearing land.

While there have been calls in government and industry for more 'evidence-based policy' (ie. policy based on R&D results), many policies and programs are introduced without sufficient understanding of the social context in which they are to operate or of the underlying economic factors which will determine their success or otherwise.

## **Legal framework**

Research has shown much of Australia's natural resource legislation as being in need of fundamental review. Laws have been overlain with ad hoc amendments or new legislation addressing specific concerns with the result that provisions may be conflicting and inconsistent with the fundamental purpose of the Acts. One study has found well over 100 pieces of legislation covering the management of the Brisbane River and some 800 statutes across Australia with direct or indirect relevance to rivers. More research into ways of simplifying the complexity of Australia's natural resource laws is required to establish a sufficiently flexible legislative framework that encourages changed natural resource use and management practices.

## **Economics**

The market value of natural resources has been the focus of natural resource use and management practices. More recently, community attitudes have become more supportive of non-market values and some research effort has been directed to valuing these non-economic features of natural resources. This is important so that these values can be incorporated into planning and decision-making systems.

The effective integration of economic and non-economic values into natural resource management remains a key challenge for the future, along with research on incentives for public goods such as the environmental values of natural resources. These types of valuations are fundamental to the formation and effective functioning of markets for natural resources. In this respect, there also continues to be a lack of understanding of the role economic factors play in decision making of farmers and other resource managers and the incentives required for changed behaviour.

Further R&D in these areas is required to provide a sound basis for cost sharing, the justification for government expenditure on public goods arrangements and the evaluation of policy options.

## **Commerce**

Farmers have traditionally been seen as the key players in decisions on the uses of natural resources and management practices. As a result, policies and programs to minimise resource degradation and manage resources sustainably have been largely directed to farmers.

In the past decade, there has been significant change in the structure of agriculture and farmers have become only one of a number of major players in natural resource management decisions. Processing companies, food retailers such as supermarkets and fast food chains, banks, agricultural advisers and others now play key roles in decisions about cropping methods, resource use, intensity of production, fertilising and pesticide use.

Some of these decisions have unintended consequences for natural resource management as illustrated by research in a vegetable-growing region. This found that severe soil erosion is occurring due to farmers ploughing up and down slopes because the harvesting machinery used by processors is too heavy to work along the slope.

The implications for natural resource management of the trend to contract production, vertical integration, quality assurance and corporate farming requires more investigation. A key challenge will be the integration of production, marketing and sustainable resource use into modern agri-food systems.

## **Social**

Decisions on natural resource use and management are made in a social context and the cultural values, norms and practices of groups are often major determinants of resulting decisions. This also has major implications for efforts to increase the adoption of R&D results. For example, some research has shown that the level and rate of adoption of new management practices depends on farming styles and that the number of farming styles can vary considerably even in small areas.

Social factors are also a major influence on the success of community groups in natural resource management. Some of the major challenges are the difficulties of building commitment to a common direction, maintaining an enthusiastic and committed driving group in the face of competing community demands, and effective communication where stakeholder groups are directly involved and fully informed.

## **Need for a new focus**

There remains a considerable gap in understanding the social, economic, commercial, legal, policy and institutional factors which are conducive to implementation of reforms and their successful adoption. This is the gap in understanding which Land & Water Australia has identified as often being the most potent constraint to more sustainable use of Australia's natural resources and which has meant that good quality biophysical research and apparently logical policies have low rates of adoption and successful outcomes.

A new focus and major effort is required in the new century to overcome the concerns raised above and ensure that continuous improvement is made to the way natural resources are managed. This will involve:

- building critical mass in community awareness of the key issues and support or ownership of solutions;
- undertaking R&D and analysis which offers integrated and commercially and socially feasible solutions;
- developing natural resource management practices that take account of economic, commercial, cultural, aesthetic, health and heritage values;
- developing social and institutional arrangements and processes for scientific and technological advancement, which are more complementary to the processes of natural systems;
- reforming old institutional frameworks and building new ones which provide the right operational climate and incentives for action to be commercially driven;
- communicating information in useable forms and which outline the practical steps for natural resource managers to take; and

- establishing commercial and community-based arrangements for follow-up advice and support.

# Addressing the challenge

To bring about continuous improvement in natural resource management, it is necessary to increase understanding of all factors that influence and determine decision making and action at all levels throughout the nation.

These range from the natural processes of the biophysical environment through to the institutional arrangements that influence human behaviour.

During the development of Land & Water Australia's Strategic Plan 2001-2006, the Corporation developed a set of Integrating Themes to better describe, analyse and interpret the relationship between human societies and the world around us.

The themes are:

- how people *value and perceive* natural resources;
- how people *learn about and understand* our landscapes;
- how people *live in and manage* natural resources; and
- how people *organise policies, structures and institutions* that influence natural resource management.

The term institution is defined in a broad sense and encompasses:

- systems of governance applying at all levels of society;
- laws, regulations, codes and standards;
- policies and programs established by government, industries and communities to influence behaviour;
- commercial practices including the operations of markets;
- organisations formed by government, industries, business and communities; and
- cultural values, norms and practices of groups.

The institutional framework of society, therefore, is the overall network of institutional arrangements which has the capacity to influence group and individual behaviour at various levels.

The levels at which natural resource management is practised can be categorised as national, state, regional, catchment, local government, town or locality, landscape and property. In the institutional sense, the focus of R&D at the different levels includes the following:

- the national level including the Commonwealth Parliament, the Commonwealth Government and its agencies, inter-governmental forums, and national associations representing industry, community groups and movements;
- the state level including state parliaments, state governments and their agencies, and state associations representing industry, community groups and movements;
- the regional level including regional development organisations and catchment management groups (statutory and non-government);
- local government jurisdictions;

- local community groups which may be based on towns, issues (eg. landcare, health, education, etc) and industries (eg. quality assurance groups);
- markets in which businesses operate; and
- on-farm or the property level.

A specific challenge for R&D is to bring together existing knowledge relating to the themes outlined above and how they operate or apply at different levels and to identify gaps where more research and knowledge generation is required.

Another challenge is to communicate information, new technology and practices to natural resource managers in an accessible, practical and commercially feasible form.

## **SIRP goal**

Continuous improvement in the use and management of land, water and vegetation resources through enhanced knowledge of:

- how people value and perceive natural resources;
- how they learn about and understand natural resource management;
- how people live in and manage natural resources; and
- the processes and governance that influences natural resource management.

## **Action statement**

The Program is committed to innovative R&D related to the social, economic, commercial, legal, policy and institutional factors that will bring about continuous improvement in the management of natural resources. It will focus on:

- building the knowledge base of the social and institutional framework relating to natural resource management (NRM) through R&D;
- producing best practice NRM products and services through R&D, including integrated information packages, decision support systems and assessment tools for measuring the adoption of R&D results and the success of programs;
- building critical mass in the awareness of the social and institutional dimensions of NRM so that change occurs and R&D results are adopted; and
- developing the R&D capacities of researchers and their methods, and improving collaboration and coordination across relevant research activities.

The Program will also ensure that:

- there is a framework for stakeholders to collaborate in addressing the social and institutional dimensions of natural resource management.
- it adopts a national leadership role that will ensure the R&D undertaken addresses priority areas and issues.
- R&D targets the development and communication of tools that facilitate the adoption of solutions by target audiences.
- a clear communication strategy and extension strategy exists for products and services arising from the Program's R&D.

- linkages with other relevant initiatives and programs are facilitated.

## Review and evaluation

A midterm review and evaluation of the Program will be conducted to assess the scope and direction of the Program as a whole. This will include measurement of the performance indicator listed for each strategy in the Plan.

## R&D products/services

The Program will be focused on producing R&D products and services that contribute to achieving its goal and objectives and which result in tangible natural resource management outcomes. These products and services outlined below will be directed to the needs of specific target audiences.

- **For government**, the Program will produce:
  - **policy and program options** which take account of economic, social, legal institutional settings;
  - assessments of **alternative institutional arrangements** derived from comparative analysis of the relative performance of specific instruments and mixes of instruments (eg. regulation, market mechanisms, self-regulation, community-based programs, joint ventures and partnership arrangements); and
  - information on options for **improved statutory instruments** derived through law in context analysis which explores the actual implementation of statutory functions involving those responsible for making decisions under legislation.
- **For industry** associations and groups, the Program will produce:
  - information on **policy options**;
  - natural resource management **principles and guidelines** to include in quality assurance and environmental management system frameworks; and
  - **integrated decision support systems**, information packages and processes to facilitate adoption of best management practices.
- **For community groups**, the Program will produce:
  - **planning and implementation frameworks** for meeting natural resource management objectives in an adaptive fashion at regional and local levels;
  - **integrated decision support systems**, information packages and processes to facilitate adoption at regional and local levels; and
  - **options on structures, processes and information dissemination** for community participation in the governance of natural resources.

- **For researchers**, the Program will produce:
  - information on directions for R&D and priorities;
  - validated methodologies for **interdisciplinary and participatory research** projects and teams;
  - support for and encouragement of **research coordination** and collaboration across Land & Water Australia programs and across organisations (government and private) involved in related R&D; and
  - improved general and specific **research techniques and methodologies** derived from analysis, reviews and consolidation of experience.

## Objectives, strategies and performance indicators

### **Objective 1 A high quality knowledge base of the social and institutional dimensions of NRM**

To develop greater knowledge and understanding of the social, economic, legal, policy and institutional drivers and impediments that influence and determine the adoption of improved natural resource management at all scales.

#### **Rationale**

To bring about greater change in natural resource management practices across all levels (property, catchment, local government area, regional, State and national) much more knowledge is required on the social and institutional underpinning of individual and collective action, decision making and practice.

An enhanced and high quality knowledge base is required to generate new ideas and options for policy and decision-makers and other stakeholders. R&D to generate this knowledge needs to be strategically directed so that conceptual frameworks are coherent, can be applied across program areas and organisations and meet user demand rather than research supply.

#### **Strategies**

**Strategy 1.1** Consolidate Australian and international knowledge relating to the social and institutional drivers of, and impediments to, improved natural resource management.

**Strategy 1.2** Develop conceptual frameworks that assist the understanding of social and institutional dimensions which determine natural resource management behaviour across all levels.

**Strategy 1.3** Support analyses of the social and institutional drivers of, and impediments to, improved natural resource management at all levels.

#### **Performance indicators**

1. Levels of use of the consolidated knowledge base as measured by surveys of users and web site visits.
2. Acceptance by users of R&D results and the research community of the value of conceptual frameworks to understanding social and institutional factors and in developing NRM policies, programs and actions.
3. Evidence amongst users of R&D results that principles, guidelines and lessons derived from analyses are adopted in NRM actions.

## **Objective 2 Best practice research products and services that integrate biophysical, social and institutional dimensions of NRM and facilitate adoption.**

To generate ideas and develop options for policy and decision makers in government and industry and for land managers and community groups that facilitate continuous improvement in natural resource management.

### **Rationale**

This objective seeks to use the social and institutional knowledge base to provide the information, ideas, tools and practical guidance necessary for stakeholders at various levels to plan and make decisions more effectively in improving natural resource management.

### **Strategies**

- Strategy 2.1** Assessments of alternative institutional arrangements derived from comparative analysis of the relative performance of specific instruments and mixes of instruments (eg. regulation, market mechanisms, self-regulation, community-based programs, joint ventures and partnership arrangements).
- Strategy 2.2** Development of policy and program options for government and industry organisations which takes account of economic, commercial, social, legal and institutional settings.
- Strategy 2.3** Support law in context analysis which explores the actual implementation of statutory functions involving those responsible for making decisions under legislation and which develops improved statutory instruments.
- Strategy 2.4** R&D on options relating to structures, processes and information dissemination for community participation in natural resource management.
- Strategy 2.5** Provide the ways and means for biophysical and social and institutional information/products/technologies to be integrated and made available with the necessary information in useable formats or packages for stakeholders deal with natural resource management issues.

## **Objective 2**

### **Performance indicators**

1. Evidence that the results of comparative analysis of institutional arrangements and instruments are considered and adopted where relevant in policies, programs and other NRM actions at various levels.

2. The level of acceptance and value placed on policy and program options derived from R&D by policy makers and managers in government, industry and the community.
3. Acceptance by legislators and those involved in making decisions under legislation of the value of law in context analyses and evidence of the use of results of such analyses.
4. Evidence that communities are aware of options on structures, processes and information dissemination and adopt them in their NRM activities.
5. Evidence that integrated information packages and decision support systems derived from R&D are trialed and accepted by users, and that new tools and instruments are incorporated into planning and implementation processes.
6. More effective natural resource management practices and processes are achieved at the local level.

### **Objective 3 Critical mass in awareness of the social and institutional dimensions of NRM**

To build critical mass in awareness amongst stakeholders of the social and institutional dimensions of natural resource management so that issues are addressed, solutions are derived and change takes place (See Communication Strategy below).

#### **Rationale**

In order to bring about change, it is necessary that stakeholders have sufficient awareness and understanding of the key issues; the knowledge and tools to make decisions; the options or alternative courses of action which can be followed and the implications and consequences of specific actions. This objective is about the communication of knowledge and information to key stakeholders so that they can plan and make decisions with confidence.

**Strategy 3.1** Brand the Social and Institutional Research Program with recognisable and understandable language and symbols in order to generate awareness, understanding and participation.

**Strategy 3.2** Develop relationships with key people, groups and organisations who will contribute to the achievement of the goal and objectives of the Program.

**Strategy 3.3** Communicate (generally) knowledge of the social and institutional dimensions of natural resource management to research funders, research providers and users of R&D results.

**Strategy 3.4** Communicate (specifically to government and industry policy groups) information on institutional, economic, social, legal and policy instruments and tools that improve the operating environment for natural resource management.

#### **Performance indicators**

1. The degree of recognition by potential funders, research providers and users of results, who have involvement with the Program, of the name of the Program, its purpose and the nature of R&D conducted under the Program.
2. The extent of an ongoing network of potential R&D partners for projects and postgraduate training under the Program and the level of funding contributions from partners.
3. The level of awareness of the importance of social and institutional factors in NRM amongst R&D funders, providers and users of results who have involvement with the Program.
4. Evidence that social and institutional R&D results are known to, and are valued by policy makers and managers in government, industry and the community.

## **Objective 4 Enhanced and demand-driven R&D capacity in the social and institutional dimensions of NRM**

To develop interdisciplinary and participatory research methodologies and capacities amongst potential research providers and to promote and facilitate the coordination of social and institutional R&D across Land & Water Australia programs and across organisations (government and private).

### **Rationale**

Dealing with natural resource management issues in practical situations requires appreciation and analysis of technical, scientific, social, economic, commercial, legal, policy and institutional considerations as a whole. The interplay of these dimensions is complex and the ability to understand and influence them is crucial in bringing about changes. It is, therefore, important that R&D takes into account all of the factors which impact on natural resource management outcomes. To achieve this requires interdisciplinary approaches, and the involvement of users of R&D results, and collaboration and coordination across related in research activities.

### **Strategies**

- Strategy 4.1** Develop improved research and assessment methodologies, techniques and skills relating to the social and institutional dimensions of natural resource management.
- Strategy 4.2** Promote and support research activities which use validated interdisciplinary approaches to ensure effective integration of biophysical, social and institutional dimensions of natural resource management.
- Strategy 4.3** Promote and support research activities which meet the needs of users of R&D results and which involve them the design, conduct and review of projects.
- Strategy 4.4** Facilitate the coordination of Program activities that are relevant to other Corporation programs and add value the social and institutional components of these programs.

### **Performance indicators**

1. Evidence that new R&D methodologies to deal with the social and institutional dimensions of natural resource management are understood by research providers and are adopted in research proposals and activities.
2. A significant number of the Program's R&D activities involve validated interdisciplinary approaches and teams.
3. A significant number of the Program's R&D activities involve validated participatory approaches.
4. Evidence that other Corporation programs adequately take into account social, economic, commercial, legal, policy and institutional factors in their R&D.

# Communication strategy

Communication will be integral to the Program in relation to how it is conducted and achieving effective outcomes. This strategy is derived from Objective 3, to build critical mass in awareness amongst stakeholders of the social and institutional dimensions of natural resource management so that issues are addressed, solutions are derived and change takes place.

In order to bring about change, it is necessary that stakeholders have sufficient awareness and understanding of the key issues; the knowledge and tools to make decisions; the options or alternative courses of action which can be followed and the implications and consequences of specific actions. This strategy is about the communication of knowledge and information to key stakeholders so that they can plan and make decisions with confidence.

## Communication objectives

The central objectives are to:

- **build commitment** to a vision of sustainable natural resource management where advancing knowledge generated through R&D is adopted at all scales leading to continuous improvement in management practices;
- **create awareness** of the Program, its purpose, outcomes and how stakeholders can contribute;
- **promote the participation** of stakeholders by ensuring the accessibility of the Program Management Committee, the Program Manager and the Program Coordinator and participation of stakeholders in the individual projects;
- **build openness in relationships** and respect for different backgrounds and points of view which will encourage constructive debate and innovative solutions; and
- **develop useable and understandable integrated information** packages and decision support systems for stakeholders and to make this information readily accessible.

## Target audiences

The primary strategy will be to establish networks of key opinion leaders and decision makers in natural resource management who can effectively disseminate information and influence behaviour. Key target groups will be as follows:

- **governments at all levels** (including the Commonwealth, State and Local Governments, statutory authorities, inter-governmental groups) which are funders of R&D and natural resource management programs, policy makers, legislators and providers of incentives and information services;
- **industry associations and groups** which represent individual enterprises to government and other bodies, and are policy makers, providers of information services, and organisers and facilitators of group activities such as quality assurance and training;
- **agri-businesses and advisers** (including rural traders, banks, insurance agencies, accountants, solicitors and consultants) who sell products and services to natural resource managers;
- **community groups** that represent the interests of individuals committed to issues and causes and which are policy makers, providers of information and advice services, and organisers and facilitators of group activities; and
- **research institutions and researchers** within and beyond natural resource management disciplines (and their professional associations) which develop research methodologies, conduct research projects and provide research and information services.

## Collaboration

Collaborative relationships regarding communication activities will be established with other organisations involved in similar R&D activities, in the implementation of natural resource management policies and programs or in the provision of products and services. This includes the National Land and Water Resources Audit; the Murray-Darling Basin Commission; Environment Australia; Agriculture, Fisheries and Forestry - Australia; other national R&D corporations, CSIRO, state natural resource management agencies, industry organisations, the environmental movement and their organisations, agribusiness and local communities.

## Messages

It is essential to effective adoption of R&D results, that target audiences fully understand the importance of the social, economic, commercial, legal, policy and institutional dimensions to natural resource managers. Key messages generated from the Program will, therefore, be widely communicated to stakeholder as they arise.

## **Tactics**

The communication plan will be implemented through two broad strategies. One of these will comprise generic activities including:

- branding the Program in simple and understandable terms so that target audiences understand what it is about;
- using Land & Water Australia to advise on progress and results and to invite feedback;
- using Land & Water Australia publications to provide information about the Program;
- conducting workshops, seminars and briefing sessions for stakeholders; and
- features in selected media when appropriate.

The other strategy involves communicating the progress and results of individual R&D projects through the established communication channels of Land & Water Australia.

## **Resources**

The total budget for the Program includes an allocation of around 30% for strategies to achieve Objective 3. The duties of the Program Manager in relation to the Program and of the Program Coordinator also include a substantial commitment to effective communication. In addition, individual R&D projects within the Program will incorporate a communication strategy and research providers will be expected to play a key role in communicating their respective projects.

# Program management

## Planning

The potential field of social and institutional research which takes account of all levels and all factors is considerable and beyond the practical scope of a single program. This Plan has been developed to provide strategic guidance to the implementation of the Program by identifying key priority issues for R&D and by focussing on the need for collaboration and integration with related R&D undertaken through other Corporation programs and relevant research activities of other organisations.

The Social and Institutional Research Program Plan is driven by Land & Water Australia's strategic plan. It will advance the Corporation's mission in relation to desired R&D outcomes, consultation with stakeholders, communication of results and program management processes.

The Plan provides a five-year outlook and set of objectives and strategies for the Social and Institutional Research Program. During this time, its relevance and validity will be continually monitored against the needs of stakeholders and a changing operating environment. Flexibility to change the Plan will be an inherent characteristic if better ways are discovered. The Plan will be widely distributed and communicated to Program stakeholders.

In order to progress the Plan year-by-year; it is complemented by an Annual Work Plan that sets out the priorities, outcomes, activities and milestones to be achieved during the forthcoming year. The annual planning process will involve evaluating R&D investments to date and seeking collaboration on forthcoming projects and activities.

Input from other research funding agencies, stakeholders (especially regional organisations), users of R&D and selected research providers will be sought in the formulation of each plan. This will be achieved through a regular forum on social and institutional R&D in natural resource management and cognate areas. The forum will enable greater coordination in the NRM field designed to enhance communication and collaboration across this field, with particular emphasis on communicating planned R&D activities and foreshadowing possible future activities. This will ensure that collaboration begins at an early stage of R&D design.

## **Program management structure**

The Program will be managed according to Land & Water Australia's program management model including:

- a **Program Management Committee** comprising a Board director, a program manager, and external members who can bring special expertise or contacts to the Program. The Committee will be responsible for the overall direction of the Program and the approval of Program activities.
- a Land & Water Australia program manager who will be responsible for overseeing the development, implementation, operation and evaluation of the Program.
- the **Program Coordinator** of the Social and Institutional Research Program who will be responsible for: providing advice to the Program Management Committee and the Program Manager on strategies for implementing the Program; assisting Program partners with the development of proposals for research projects and the selection of projects; providing information on the Program to target audiences; working with coordinators/managers of other programs within and outside the Corporation to ensure maximum synergy; and facilitating cooperation between researchers, land managers, industry and community groups, government agencies and other stakeholders.

## **Program design and implementation**

The Social and Institutional Research Program will incorporate the related Corporation program 'Integration and Adoption of R&D Results at the Catchment Scale'. The rationale is that adoption of R&D results depends on the interplay of social, economic, legal, policy and institutional arrangements that influence decisions. In addition, a key objective of the SIRP is the integration of biophysical and social R&D across programs in formats which can be managed by researchers and end users. Similarly, projects that emerge from the Land & Water Australia's General Call, and which meet the SIRP objectives, will be incorporated into the Program at an appropriate stage.

To implement Program strategies, the Program Management Committee will approve the R&D activities to be funded using Land & Water Australia's approved processes of tendering, commissioning or a general call for applications. Research areas and projects will be aligned with the Program's objectives, namely:

- to develop a high quality knowledge base on social and institutional dimensions of NRM;
- to develop best practice research products and services that integrate biophysical, social and institutional dimensions of NRM and facilitate adoption;
- to build critical mass in awareness of the social and institutional dimensions of NRM; and
- to develop an enhanced and demand-driven R&D capacity in the social and institutional dimensions of NRM.

Project proposals will be judged against Land & Water Australia's investment criteria, which include:

- establishing the national significance of issues and associated R&D;
- identification of underlying causes of failure to manage resources sustainability (technical, market or institutional failure);
- identification of an appropriate role for the Corporation;
- identification of intervention strategies and the risks, costs and benefits of these strategies; and
- analysis of potential returns on R&D investment possibilities.

In addition, a set of 12 supplementary questions will be applied where relevant as recommended in the consultancy report, *LWRRDC 1999. Social, Economic, Legal, Policy and Institutional R&D for Natural Resource Management: Issues and Directions for LWRRDC. Occasional Paper 01/99.* (This publication is available from **Canprint Communications**: Freecall 1800 776 616, Email: [lwa@canprint.com.au](mailto:lwa@canprint.com.au).) These criteria will be clearly set out in project briefs.

## **Funding**

Funding of \$2.3 million is available for new projects from 1 July 1999 to 30 June 2004. In addition, continuing projects from the *Integration and Adoption of R&D Results at the Catchment Scale* Program will be transferred to the Program as well as relevant General Call projects. Opportunities for joint funding through collaborative arrangements with other stakeholders will be actively sought where this can add value to the Program.

## **Program evaluation**

The Program Manager and Program Coordinator will develop schedules for reviews on individual projects that will be incorporated in the Annual Work Plan. Review outcomes will be reported to the Program Management Committee.

A thorough mid-term review and evaluation of the Program will be conducted to assess the scope and direction of the Program as a whole. This will involve the Program Management Committee, the Land & Water Australia Board, key collaborating agencies and stakeholders.

Key performance indicators for the review will be:

- completion of commissioned R&D projects and achievement of effective outcomes;
- effectiveness of integration of disciplines in R&D projects;
- extent of incorporation of social science dimensions into other program areas;
- effectiveness communication of R&D outcomes and products to end-users;
- degree of collaboration and joint funding on future R&D projects; and
- effectiveness of the Program Management framework.

## Key principles

1. The R&D undertaken through the Social and Institutional Research Program will be focussed on the evolution of policy, institutional and management arrangements that are adaptive to changing situations, informed by knowledge and evidence, result in learning by those involved and participatory, in the sense of involving users in the design and conduct of the R&D.
2. This Program will complement and enhance the roles of other public and private interests in natural resource management. The Program will inform stakeholders of the range of policy and management options available. It is not Land & Water Australia's role to advocate particular policies, institutional arrangements or management structures; rather, it is intended that the R&D supported through this Program will enable policy makers, managers and stakeholders to better identify options with greater confidence.
3. The Program will build the skills and capacities of R&D providers, policy makers and other stakeholders in assessing social and institutional factors to achieve more effective outcomes in natural resource management.
4. The Program will encourage collaboration in social and institutional R&D from both organisations involved in natural resource management and outside the field as a means of introducing new perspectives and ideas.
5. R&D will be supported to build the theoretical and methodological basis of social and institutional research in natural resource management.
6. R&D will also be sponsored to allow an expression of different theoretical and methodological approaches which produce innovative options for managing natural resources.
7. An integral aspect of the Program will be to improve communication and access to information of R&D outcomes in this field, in concert with other relevant bodies.
8. Through this Program, Land & Water Australia will develop existing arrangements or establish new arrangements and linkages to improve the overall coherence of the ESD/NRM field.
9. The Program will work to ensure there is sound common conceptual understanding of interdisciplinary and participatory R&D.