



NATIONAL PRINCIPLES AND GUIDELINES FOR RANGELAND MANAGEMENT

AUSTRALIAN & NEW ZEALAND ENVIRONMENT & CONSERVATION COUNCIL (ANZECC) AND
AGRICULTURE & RESOURCE MANAGEMENT COUNCIL OF AUSTRALIA & NEW ZEALAND (ARMCANZ)



Managing Australia's Rangelands

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P R E F A C E

In 1992 a national approach to rangeland management was proposed at a meeting of Australia's arid land administrators. As a result, the South Australian Government put proposals to the two ministerial councils with responsibility for the rangelands: the Australian and New Zealand Environment and Conservation Council (ANZECC), and the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ). The Councils jointly established a Working Group to develop a national framework for managing Australia's rangelands – the National Principles and Guidelines for Rangeland Management.

The Rangeland Working Group comprised representatives from State and Commonwealth Governments, and non-government organisations. Governments represented were New South Wales, Queensland, Western Australia, South Australia, the Northern Territory and the Commonwealth (including CSIRO). The non-government representatives on the Working Group initially included; the National Farmers' Federation, Aboriginal and Torres Strait Islander Commission, Arid Lands Coalition and the National Landcare Advisory Committee. The Indigenous Lands Corporation replaced the Aboriginal and Torres Strait Islander Commission during 1996. The Working group was subsequently increased with the addition of representatives from the Australian Local Government Association, Minerals Council of Australia and Tourism Council Australia to reflect the need to address local government views, and tourism and mining industry perspectives in the Principles and Guidelines.

The public consultation process commenced in February 1994 with the release of the Rangelands Issues Paper. It addressed topics concerning use of the rangelands, ecological sustainability, information systems and monitoring, as well as institutional responsibilities. Submissions were invited and a series of 30 workshops were held around Australia to extend the public consultation process. The 182 responses to the Issues Paper were collated and analysed as a key input into the development of a draft policy which was released for public comment in July 1996.

The National Principles and Guidelines for Rangeland Management were developed with input from all rangeland stakeholders, both government and non-government. Endorsement by the ANZECC and ARMCANZ Ministers reflects this extensive consultation and a national collaborative approach to rangeland management.

EXECUTIVE SUMMARY

Australia's rangelands have important ecological significance, are an important economic resource and have significant cultural and heritage values for indigenous and non-indigenous Australians. The management of the rangelands, now and into the future, is therefore of great interest and consequence to the whole Australian community.

Past management practices have led to significant areas of the rangelands being degraded calling into question their long term sustainability under current uses.

The National Principles and Guidelines will establish a framework for those with interests in the rangelands to develop strategies and actions to manage change and ensure a viable legacy for future generations.

The challenge is to balance the diverse economic, cultural and social needs of rangeland residents and users with the need to maintain its natural resources and conserve our biological and cultural heritage.

The report identifies a 25 year vision for Australia's rangelands

The Australian community is committed to achieving ecologically sustainable rangeland management, supporting diverse social, cultural and economic activities.

and a number of goals which must be met to attain the vision

GOAL 1:

Conservation and management of the natural environment

GOAL 2:

Sustainable economic activity

GOAL 3:

Recognition and support for social, aesthetic, cultural and heritage values, diversity and development

Suggested objectives and actions have been identified under each Goal. These, in turn, help identify the roles and responsibilities of the various stakeholders involved in rangeland management.

They cover:

- Ecologically Sustainable Rangeland Management
- Social Issues
- Conservation of the Natural Environment
- National and Regional Strategies
- Research and Development

Of primary importance is the regional approach outlined in the report which if implemented will enable rangeland communities, in partnership with governments, and in consultation with the broader community, to take responsibility for specific issues facing their own regions in a strategic and integrated way. This recognises that although there is much in common across rangeland communities there are also regional differences that need to be addressed at a community level.

Strategic planning is a dynamic process that should respond to shifting priorities, challenges and opportunities. Consequently, the suggested actions in this report should be viewed as dynamic; they should be regularly reviewed and modified over time to reflect strategic developments at both regional and national levels.

I N T R O D U C T I O N

This document provides a framework for rangeland communities, in partnership with governments and in consultation with the broader community, to undertake regional planning to address the diverse social, cultural, environmental and economic issues facing their communities. Planning will provide an opportunity for communities to articulate their goals and aspirations for rangeland management in their regions and identify constructive action. The process will necessarily involve all those with interests in the region and seek to balance the diverse interests of residents, indigenous and non-indigenous communities, local governments, state governments, the range of businesses present as well as the broader Australian community.

At both Commonwealth and State/Territory level there are a range of government policies and programs which impact on rangeland management. Some of these need to be refined to ensure they are more relevant and accessible to rangeland communities in the context of their regional planning processes. Others can now be readily accessed by communities.

It will be up to both communities and governments to communicate and work together to ensure the vision and goals articulated in this report can be met.

The principle of Ecologically Sustainable Development underlies the set of Objectives and Actions suggested in the report. In the Report the term, ecologically sustainable rangeland management, refers in its broadest sense to the sustainable management of the economic, environmental, social and cultural base of the rangelands.

THE RANGELANDS – AN IMPORTANT NATIONAL RESOURCE

Nearly three quarters of Australia is rangeland. Rangelands comprise the low rainfall and variable climate arid and semi-arid areas and, north of the Tropic of Capricorn, some seasonally high rainfall areas. The main ecosystem types are native grasslands, shrublands, woodlands and the tropical savanna woodlands. The rangelands also include the slopes and plains of northern New South Wales and southern Queensland.

There is no clearly defined boundary to the rangelands. Boundaries move according to climatic conditions. Many areas adjacent to rangelands should be managed in similar ways and indeed many of the ecological, economic and social issues of these adjacent areas are similar to those of the rangelands.

The rangelands are a strong element in Australian culture, historical discourse, social imagery, and social history, and have significant cultural and heritage value, for both indigenous and non-indigenous peoples. The rangelands also support diverse cultures and social structures at the individual and community level, as well as a diverse range of business and economic interests.

Recent figures on contributions are: mining (including petroleum) \$12 billion (in 1993–94); tourism \$1.7 billion (in 1992–93); and meat and wool production just under \$1 billion (in 1993–94). Emerging and other small industries contributed around \$200 million in 1992–93, of which three quarter was from wild animal products. These contributions to the economy do not include the traditional hunting and gathering activities of indigenous people and the value of the wider services sector.

The rangelands are also ecologically important because of the significant number of endemic species, high species diversity, areas of ecological and geomorphological integrity, unique ecosystems and habitat for rare, threatened and endangered species. With the benefit of hindsight there is now an appreciation that past management practices and some current ones have, in many areas, proved inappropriate to the rangelands. These practices have resulted in accelerated soil erosion, increased numbers and distribution of weeds and feral animals, reduced water quality, soil salinity, the decline of and changes to native plant communities, and decreased biodiversity. This has led to significant areas of the rangelands being degraded, calling into question their long term sustainability under current uses.

RANGELAND MANAGEMENT – A NATIONAL CHALLENGE

Rangeland management has changed dramatically over the past twenty years and will continue to change as unique problems and challenges for the future continue to arise, and to ensure a legacy for future generations.

A national approach to rangeland management in Australia was proposed at a meeting of arid land administrators in 1992, partly in response to a CSIRO statement on Rangeland Management. In 1993 the Commonwealth Government, through ANZECC (Australian & New Zealand Environment & Conservation Council) and ARMCANZ (Agricultural & Resource Management Council of Australia & New Zealand) acknowledged that Australia's rangelands were a neglected asset and their continuing degradation was an urgent problem requiring a national response. The Commonwealth pledged to work co-operatively with State and Territory Governments, traditional owners, industries, the pastoral community, and special interest and conservation groups to develop a National Strategy for Rangeland Management. Subsequent meetings of ARMCANZ and ANZECC directed that a document be drafted that outlined a set of principles, guidelines and suggested actions that would assist stakeholders developing strategies at the State, Territory and Regional level.

This document identifies an approach that would facilitate and manage change in the rangelands to ensure options for the future are retained. It also represents a fresh opportunity for rangeland communities to build and develop their communities, recognising and including the diverse values and aspirations of all its members.

The challenge is to balance the economic and social needs of the region's residents with the maintenance of land resources and conservation of biodiversity – in other words, how can we manage the rangelands for cultural, social, economic and ecological sustainability and diversity.

ECOLOGICAL CHALLENGES

Australia is one of the world's greatest repositories of biological diversity. In fact, of the twelve nations with the greatest biodiversity, Australia is the only OECD nation. The rangelands comprise a diverse array of landscapes reflecting various ecological, climatic, geological and land use processes. Biodiversity is declining most noticeably with the extinction from rangeland areas of large numbers of medium sized mammal species. The conservation of biodiversity is essential for the maintenance of ecological processes including life-support systems such as clean air and water, and options for future use.

The challenge is to integrate the conservation, preventative and remedial action and ongoing management of rangelands to protect biological diversity and maintain the ecological processes which provide the productive capacity of its natural resources. This challenge is made more difficult by the fragility of many rangeland ecosystems, the unpredictable nature of rainfall and a harsh economic environment.

ECONOMIC CHALLENGES

In order to meet ecological goals, and maintain community and social structures, rangeland businesses must be self reliant and have a sound economic base. They also need to be resilient and profitable to enable managers to manage for the long term. Pastoral enterprises, which occupy 58 per cent of the land area, have been under considerable pressure from recent climatic and commodity price uncertainty as well as decline in the resource base. Emerging industries such as tourism, or bush foods, including commercial use of native animals, provide some scope for diversification. However matters such as land tenure arrangements, access to flexible financing, appropriate infrastructure improvements, identification and development of markets and access to information and skills and services, need to be addressed if a wider array of economic opportunities is to be realised.

SOCIAL CHALLENGES

Rangeland communities face a range of challenges in relation to their social and cultural needs and aspirations. Withdrawal or downgrading of government and non-government services impact on the quality of life of rangeland residents, often precipitating a downward spiral in the population, morale and income base of communities, as well as providing more narrowly defined role models for young people in these communities.

Indigenous peoples account for 18 per cent of rangeland residents and are significant rangeland users. They have a deep attachment to the rangelands and have much to offer in regard to rangeland management, drawn from generations of experience. They have specific cultural values and aspirations and also face particular economic hardships and social disadvantage which must be included in the consideration of the social issues facing rangeland communities.

MANAGING AUSTRALIA'S RANGELANDS – PRINCIPLES AND VALUES

Through the public consultation process, and further consideration by the Rangeland Working Group, the following set of principles and values was established, against which the details of the Guidelines and suggested Actions have been developed.

- Ecologically sustainable management of natural resources should be the underlying principle, and the principle against which commercial use of rangeland resources must be tested.
- The Guidelines need to be consistent with the range of present national and intergovernmental agreements and strategies and with international obligations.
- Development of regional strategies should rest primarily with local communities and landholders, but in consultation with government and the broader community.
- While legislative and compliance responsibility for ensuring ecologically sustainable management resides with government at all levels, primary responsibility for natural resource management rests with land users, in accordance with regional objectives, planning processes and relevant legislation.
- Present generations are responsible for the health, protection and care of the rangeland ecosystem.
- There should be equitable opportunities for sustainable multiple use and enjoyment, for this and future generations.
- The rights and responsibilities of rangeland titleholders, and others who use or have an interest in the rangelands, should be respected.
- Security of tenure and security of access to resources is required to enable appropriate resource management, sound business planning and the conservation of biological diversity.
- The right to security of tenure should be balanced by a responsibility for ecologically sustainable management of the resource and by safeguards for its ultimate protection.
- While there is a place for both incentives and sanctions in achieving changes in management in the public interest, change is more constructively achieved through encouragement than by coercion.
- Implementation of the objectives of ecologically sustainable development should be applied across the rangelands, irrespective of how the land is held and used.
- The aspirations and inherent rights of indigenous peoples, their relationship with the rangelands, and the need for culturally appropriate negotiation processes, must be recognised.

- A wide range of values (social, cultural, economic, aesthetic and ecological) need to be considered in making balanced decisions about the rangelands; financial analysis alone is an inadequate tool for this purpose.
- Decisions concerning the rangelands need to take account of inter-dependencies and inter-relationships between components of the ecosystem, both within and between regions, and between the rangelands and the rest of Australia.
- Consideration should be given to the effects of episodic events, the spatial variability of processes and the generally long-term biophysical time frame of the rangelands.
- Prevention of any resource degradation is more effective than rehabilitation.
- The precautionary principle should be adopted so that decisions are based on the best data available, lean to the conservative and do not result in irreversible loss of opportunity.
- All rangeland managers, users, special interest groups and administrators should be committed to and involved in the ongoing development, implementation and review of this set of Guidelines and suggested actions.

These principles and values underpin the guidelines and suggested actions proposed in this document.

THE POLICY FRAMEWORK

Recent rural policy and program developments are generally relevant to the rangelands, although some refinement to individual government programs may be needed to better tailor them to meet the specific needs of the rangelands. The Guidelines provide a coherent framework for regional communities to develop their own strategies for action and, where appropriate, utilise government programs in a more integrated way to meet regional objectives.

Progress has also been made in implementing government programs consistent with the *Principles and Guidelines*. Governments are increasingly integrating environmental, economic and social goals in their policies, particularly those focusing on regional approaches. Major improvements have also been made in coordinating related programs and policies, again, particularly at the regional level.

The governments of Australia have developed strategies relevant to the management of environmental resources in the rangelands. For instance, the 1992 National Strategy for Ecologically Sustainable Development guides all activities relating to the use of Australia's natural and environmental resources. Further, the National Strategy for the Conservation of Australia's Biological Diversity specifically addresses many of the activities required to achieve the conservation of biological diversity in the rangelands.

These strategies were developed within the context of the Intergovernmental Agreement on the Environment identifying responsibilities between Commonwealth and State/Territory jurisdictions and recognising that landholders and land managers have prime responsibility for day to day management of much of Australia's environment. The National Principles and Guidelines for the management of Australia's Rangelands builds on and allows for integration of these strategies in the rangeland context.

The Commonwealth Government has recently established the Natural Heritage Trust to provide funds and encouragement for a more rapid and effective shift to ecological sustainability in Australia. The Natural Heritage Trust lays the foundation for a co-operative effort between Commonwealth, State and Territory Governments, local government, regional and community groups, and individual landholders and managers for ecologically sustainable management. The Trust, and the range of initiatives it will support, is based on the recognition that an integrated approach is needed across the spectrum of environment and production objectives to achieve long term and durable outcomes from investments made by communities, governments and land managers.

A REGIONAL APPROACH

The National Principles and Guidelines for Rangeland Management focuses on integrated, coordinated and participative planning processes, with a regional focus and local ownership, including all local or regional stakeholders. These processes, in turn, link back to government policies and programs that can be utilised to meet regional objectives as appropriate.

Regional approaches can enhance coordinated and integrated national planning and management of the rangelands, while, at the same time, accommodating the enormous variability within this vast area. By fostering and facilitating regional approaches within the rangelands, management can be more directly related to the distinctive character and opportunities within specific regions and ensure greater local ownership and responsibility for management decisions.

Developing Regional Planning Processes is central to the achievement of the identified vision and goals in this document. Primary responsibility for the development of such processes lies with rangeland communities but necessarily involves all levels of Government as well as local businesses and environmental and community organisations.

To ensure the values and aspirations of all Australians are recognised, it is important that regional planning processes draw upon the knowledge and skills of the broader Australian community, in particular, groups with specialist expertise in environmental, business, social and cultural issues.

The development of Regional Planning Processes would involve a number of activities, for example:

- identification of stakeholders and clarification of their roles and responsibilities;
- communication with communities and stakeholder groups to ensure a coordinated approach to the development of Regional Planning Processes and to engage their involvement;
- a stocktake of natural, human and other resources;
- a comparison with other rangeland regions to identify potential threats and opportunities;
- identification of national objectives for rangeland management and how local objectives may relate;
- development of partnerships between governments and the community (including relevant stakeholders and industry bodies) to jointly fund activities associated with Regional Planning Processes;
- investigation and development, as appropriate, of alternative production systems and resource uses with linkages to individual business planning strategies;
- accessing and promoting the information and research and development required to overcome identified information and/or knowledge gaps; and
- ongoing evaluation of the process of developing and implementing Regional Planning Processes based on experience.

However, it will ultimately be up to the stakeholders involved in the process to determine content.

A critical element in the focus on regional strategies is the need for facilitators, funded by government but employed by local and regional communities. Facilitators would help communities develop regional planning processes through assisting the development of leadership and other skills within the community and assisting the process for developing strategic goals and actions and making the necessary linkages to government policies and programs. This will be particularly important in the rangelands where low population densities and small communities, as well as disadvantages associated with distance and isolation, make access to resources and information difficult.

ROLES AND RESPONSIBILITIES

REGIONAL AND LOCAL COMMUNITIES

Regional and local communities have primary responsibility for actions based on strategies that meet their local goals (for example, the Southwest Queensland Strategy). Strategies should be based on extensive consultation with all relevant stakeholders and focus on opportunities offered by the natural, economic and social characteristics of each region. Where necessary they should utilise available government support programs.

INDUSTRY

Industries have key roles and responsibilities in the ecologically sustainable management of the rangelands, whether they be mining, pastoralism, tourism, commercial use of native animals or bush food industries. They can provide leadership, help identify regional opportunities, provide resources for implementing regional planning processes, and take responsibility for natural resource management outcomes.

Pastoralism has a long history in the rangelands and is the most widespread form of land use. Ecologically sustainable management of the rangelands by pastoralists is paramount to providing positive natural resource management outcomes for the broader Australian community and to ensure their own business viability in the long run. Business diversification (e.g. commercial use of native animals and development of bush food industries) may increase viability and so reduce the demand on natural resources leading to positive environmental effects. Diversification of uses in the rangelands must also recognise responsibility for duty of care and legal requirements of tenure.

The importance of tourism is increasing in rural/regional areas as communities search for new and innovative ways to increase revenue. Tourism has the potential to increase employment opportunities and help level out seasonality of labour and income in rural and regional communities that have traditionally relied on primary industry. Tourism has the potential to increase consumption patterns, thereby stimulating the economy of small business all year round. Tourism, and particularly ecotourism, could also play a major role in the education of the broader community and heighten awareness on rangelands issues nationally.

Mining has both positive and negative impacts upon the rangeland environment. Ground disturbing activities associated with exploration and extraction require environmental management and rehabilitation. The minerals industry has made a positive contribution to the maintenance and rehabilitation of the rangelands ecology through its involvement in programs such as Landcare and the development of environmental management technologies and techniques that can be applied across the rangelands. As an industry quarantined from climatic unpredictability, it provides an economic "hedge" to communities otherwise dependent upon the pastoral industry.

GOVERNMENTS

Governments' role is to provide leadership, through ARMCANZ and ANZECC in developing policies and ensuring programs are delivered effectively to support and enhance rangeland management. They should also facilitate communities, including through funding locally employed facilitators, to develop and drive their local strategies and planning processes. Governments at all levels must work in partnership with each other, and with regional bodies

and community groups. This will require ongoing and effective communication, particularly during policy and program development.

The Rural Partnership Program was the first government program to adopt the approach of facilitating community access to government programs, through the development of a single integrated strategy for regionally based actions. Programs included the Rural Adjustment Scheme, the National Landcare Program, the Rural Communities Access Program and other Commonwealth and State and Territory programs. This approach has been furthered through the Natural Heritage Trust, which integrates government natural resource management and environmental programs to deliver on-ground assistance to the community for resolving problems associated with maintaining, protecting and replenishing Australia's natural environmental capital.

Governments will also need to review their policies and programs to ensure they facilitate the desired outcomes for the rangelands at both Government and community levels.

An essential part of managing Australia's rangelands is reviewing, monitoring and evaluating the environmental, economic, social and cultural conditions of the rangelands. The two Ministerial Councils will have a central role in determining appropriate processes to report on these aspects. They will also have a role in assessing the impact of the National, State/Territory and Regional Planning Processes.

A range of issues require institutional change, such as clarification of tenure arrangements arising from legal decisions. Such issues will need to be addressed within the political and legal systems at Commonwealth and/or State/Territory level.

Many of the issues and actions identified in this document are already being addressed through existing ARMCANZ and ANZECC structures. In some cases, issues and suggested actions will be the responsibility of and may need to be referred to other Ministerial Councils. ARMCANZ and ANZECC may also need to establish an effective mechanism to oversee and evaluate the implementation of relevant actions that require a National response. Commonwealth, State, Territory and Local governments will need to assess the Guidelines and recommended Actions and implement as appropriate to their responsibilities.

RECOMMENDED ACTIONS

0.1 Governments to assess all current and future policies and programs impacting on the rangelands against the Principles and Guidelines outlined in this document.

0.2 Governments to review existing policies across all jurisdictions and assess their effectiveness, impact and consistency with this set of Guidelines. They should ensure broad community consultation to determine the potential impact on the rangelands of policies and legislation, including international agreements and conventions.

0.3 Communities in the rangelands need to develop tailored (regional) strategies to further the ecologically sustainable management and social and economic viability of the rangelands and, where appropriate access government support programs with an integrated problem solving strategy.

THE 25 YEAR VISION AND GOALS

The Australian Community is committed to ecologically sustainable rangeland management supporting diverse ecological, economic, aesthetic, cultural and social values

Meeting the 25 Year Vision will entail capturing the opportunities for regions and improving the economic, social and ecological status of the rangelands. This will require integrated activities to fully address the challenges and address the institutional barriers to ecologically sustainable management and economic and social viability. The vision encapsulates a future for the rangelands based upon the principles of ecologically sustainable rangeland management. The National Principles and Guidelines for Rangeland Management have three overarching and inter-related goals which need to be met to attain the vision.

1. CONSERVATION AND MANAGEMENT OF THE NATURAL ENVIRONMENT

The rangelands are intrinsically valuable because of their biodiversity, areas of high wilderness quality and other conservation values. Due to many past practices that are now known to have worked against natural ecological processes, significant areas have been degraded, some beyond economic rehabilitation. Natural habitats, species of flora and fauna and economic opportunities have been lost. As an important natural resource, the rangelands require sensitive management and, where feasible, restoration of ecological values on a landscape scale.

2. SUSTAINABLE ECONOMIC ACTIVITY

A sound economic base is required for human involvement in the rangelands to meet the needs of present and future generations. Community structures, the provision of services and the ability of residents to implement conservation measures is to a fair degree dependent on their ability to generate wealth from economic activities such as pastoralism, mining, tourism, etc. The timeframe for measuring sustainable economic activity must be sufficient to encompass the vagaries of climate and markets.

3. RECOGNITION AND SUPPORT FOR SOCIAL, AESTHETIC, CULTURAL AND HERITAGE VALUES, DIVERSITY AND DEVELOPMENT

The rangelands are of cultural and social importance to both indigenous and non-indigenous Australians. It also encompasses a range of diverse cultures and social structures and significant diversity of values and aspirations at individual and community level. This diversity should be both recognised and supported in the development and management of the rangelands.

In common with many rural communities, rangeland communities face difficulties accessing goods and services. This is often due to inappropriate models of service delivery based on urban criteria and quantitative definitions of need. The decline of smaller rural townships as young people leave the area for education and employment has resulted in the further rationalisation of services as critical mass criteria are unable to be met. As a result, indigenous and non-indigenous communities, including pastoralists, are faced with adjustment pressures which raise specific social and community challenges. The special needs of individuals and families within these rangeland communities and the challenges faced by rangeland industries therefore need to be taken into account if the problems associated with remoteness are to be addressed.

Policies and programs which have been developed essentially in response to the definition of a problem or need within an urban context must be considered in terms of not only whether they are appropriate to rangeland communities, but whether they may, in fact, contribute to the dislocation of the social and economic structure of these communities with implications for the quality of life of rangeland residents.

GUIDELINES AND RECOMMENDED ACTIONS

ECOLOGICALLY SUSTAINABLE RANGELAND MANAGEMENT

GUIDELINE 1 – Clear and unambiguous roles for all people and organisations with rangeland management responsibilities, should be outlined, including mutual respect, recognition and support for traditional practices where they are appropriate.

Communities and governments need to clearly identify the rights and responsibilities of all rangeland managers and users to ensure those with the right to manage land are aware of their management responsibilities. Without clear identification of roles and responsibilities there is a risk that any identified actions will not be pursued.

There is an important role for current and future successful native title claimants in the planning and implementation of regional strategies. Their traditional interests should be recognised, supported and, where appropriate, incorporated in regional planning. The interests of pending but unresolved native title claimants also require sensitive consideration.

There is considerable potential for industries to provide net benefits to the environment through specific sectors, such as cultural and ecotourism as well as minesite rehabilitation, which can enhance environmental integrity by encouraging minimal impact activities and restoration.

RECOMMENDED ACTION

1.1 Regional strategies should clearly identify and communicate the roles and responsibilities of all people and organisations involved in rangeland management.

GUIDELINE 2 – Sensitive management of the rangelands is required to protect and restore, where possible, commercial and non-commercial values, provide opportunities for multiple use, and protect biodiversity.

The responses of the rangelands to climatic variations and management actions are often long and unpredictable. Rangeland users need certainty of use and access in order to make long-term investment and management decisions. In return, they must be accountable for what they do and ensure they protect public values. They must also be open to alternative options for resource use, which may require access by other users. Multiple use opportunities must be investigated and accommodated where they prove to be beneficial to ecologically sustainable rangeland management.

This requires resilient rangeland communities which use and manage healthy rangeland systems in an ecologically sustainable way, and which are prepared to deal with longer-term issues such as human induced global climate change. Resource managers will need to adopt best practice and make informed decisions, resulting in: resources used within their capability; financially viable and ecologically sustainable rangeland enterprises; degraded resources rehabilitated, where feasible; and land and water resources, ecological processes, biodiversity and other values in the rangelands protected for the future.

The future condition of the rangelands will be determined by how well they are managed now. An ecological approach to rangelands management means understanding and working with the uncertainties of climate, using fire as a management tool, manipulating total grazing pressure, managing invasive species and protecting those special areas on productive land which provide ecological services – areas such as critical habitats provided by water holes, mound springs, and areas of greater fertility.

The rangelands and their enterprises are distinguishable from other rural areas of Australia, in particular by the scale of their operations. Rangeland managers also live with a high degree of climatic variability, and need better ways of dealing with the unpredictability of climatic events to better manage their businesses.

Business adjustment involves a range of responses to change, which advance the financial standing of the enterprise. Adjustment of this nature is based on good management and planning skills and occurs without direct intervention. It may include a range of strategies related to diversification, multiple use and alternative resource use. The enhancement of management and planning skills, improved access to information, and closer ties with research and development organisations are likely to improve the rate of positive adjustment.

All land requires management, even if it is removed from a particular commercial use. This includes management of land that has been abandoned, is significantly degraded or is sub-marginal for pastoral use. Rehabilitation must be provided for.

RECOMMENDED ACTIONS

2.1 Rangeland managers must use business management and planning principles to ensure that business decisions are based on resource capability and that the outcomes are consistent with regional planning processes.

2.2 Governments and communities should:

- **encourage rangeland businesses to manage change through promoting opportunities for diversification, multiple use and alternative resource use. Where land is no longer suitable for current or alternative commercial use, adjustment strategies may include acquisition for alternative purposes such as nature conservation;**
 - **develop mechanisms for the restoration and future management of degraded lands; and**
 - **promote opportunities for alternative or multiple use of areas held as a common resource, consistent with the principles of ecologically sustainable management.**
-

GUIDELINE 3 – Property rights legislation in all States and Territories should provide secure tenure arrangements (including meeting the needs of indigenous peoples), clear definition of rights and duty of care, and which set an appropriate framework for the diverse and multiple uses within land capability and according to land suitability.

There is widespread confusion and lack of understanding about the property rights and responsibilities of rangeland users with regard to, for example, land management and use of natural resources such as wildlife (plants and animals). Notwithstanding the regional diversity of the rangelands, there is a need to make these rights and responsibilities more explicit.

There is significant lack of consistency, even within regions, of lease conditions, including the obligations of both lessee and lessor. There is also a wide range of legislation and regulations covering, for example, access, use and management of rangelands, and its natural resources, in relation to environmental and heritage values, and commercial activities. Increased clarity of roles and responsibilities would increase the efficiency of administration by Government as well as assist rangeland managers and users. Further, legislative and administrative instruments, such as lease conditions, must provide sufficient scope for commercial viability within the requirements for ecologically sustainable resource use and for ecosystem management.

For pastoralists and the minerals industry, security of tenure (ie rights of use) and certainty of tenure (ie knowledge about future rights of use) are important issues. However, the Arid Lands Coalition and the Indigenous Lands Corporation had difficulties with this terminology and preferred to refer to “appropriate” tenure.

For some rangeland users and managers, perceived security of tenure (ie rights of use) and certainty of tenure (ie knowledge about future rights of use) are important. For example, pastoralists predominantly link certainty of tenure with probability of personal investment in infrastructure and ability to secure finance; environmentalists want certainty and security of tenure for biological diversity conservation both on-and off-reserves; indigenous people want their rights acknowledged and access to land for making a living and carrying out traditional practices; and the minerals industry wants access to areas which have mineral potential and certainty of tenure for subsequent developments.

Planning and management in the rangelands needs to be for the long term to ensure ecological and economic sustainability. Certainty of tenure underpins the ability and motivation of managers to take a long term view of their roles and responsibilities in the planning process. It also provides a framework for the assessment of performance. Tenure is a key issue requiring clarification within the institutional framework of government.

Many indigenous people have a deep spiritual connection with the land and this extends to land over which others have legal rights (not necessarily full ownership). As a large proportion of Australia's indigenous population lives in the rangelands, it is important that land tenure systems deliver rights and responsibilities which are appropriate to the cultural and economic needs of both indigenous and non-indigenous peoples.

Some government policy, legislation and administrative practices have had, and still have, negative impacts on ecological sustainability and commercial viability. It is important that governments

continue to review their policies and practices to ensure they don't act as impediments to ecologically sustainable management and economic and social viability of the rangelands.

While governments must take responsibility for the broader policy, legislative and administrative framework, the involvement of rangeland managers is particularly important if ecologically sustainable management and economic viability are to be achieved. Governments must ensure that the community is aware of the need to manage the rangelands in a sustainable way and must help them to participate in, and share ownership of, the policy development process.

RECOMMENDED ACTIONS

3.1 Legislation in all states should include common principles to make explicit the roles and responsibilities of rangeland owners and users, especially with respect to issues such as property rights and duty of care.

3.2 State and Territory Governments should ensure that land tenure legislation takes account of the rights of indigenous people with respect to rangeland management.

3.3 State and Territory Governments should provide clarification of tenure and access to resources to enable users and managers to make appropriate investment and management decisions for ecologically sustainable rangeland management including business viability.

3.4 Land capability assessment must be the basis for all land use planning in the rangelands.

GUIDELINE 4 – Managers need the information, skills and commitment to ensure that rangeland enterprises are economically and ecologically sustainable.

For effective management, rangeland managers need access to up to date information about the resource base and current best practices in rangeland management. They also need the skills and commitment to manage the rangelands sensitively. Their responsibility for managing a national resource places an obligation on the broader community to ensure these managers have the information and support to improve business management, diversify where appropriate into alternative resource uses, and manage the resource in an ecologically sustainable way.

Those barriers that impact on a rangeland manager's ability to access the information and training they require in order to develop business management skills, apply relevant technological developments and engage in ongoing learning, need to be identified and addressed. In particular, innovative and flexible delivery mechanisms are required to overcome barriers of distance and isolation. Affordable access to telecommunications technology is critical to provide access to learning resources and promote communication with others in the community. Effective satellite technology is available throughout Australia but lack of critical mass of current users means total costs make installation and use of the technology prohibitive. The potential satellite market in rural and remote areas is more than sufficient to make access affordable over time. Consequently there is scope for governments to examine options for kickstarting the adoption of satellite technology in rural and remote Australia until adequate economies of scale are obtained.

Local and regional communities need to be involved in the development of training packages and curricula targeted to rangeland communities and businesses to ensure they are appropriate to rangeland circumstances. Rangeland users and managers themselves need to take responsibility for acquiring the resources needed to ensure the sustainability and profitability of their businesses.

RECOMMENDED ACTIONS

- 4.1 Government agencies and training providers should develop training programs in business and financial skills in consultation with regional stakeholders, share available knowledge on best practice in ecologically sustainable rangeland management and encourage acquisition by rangeland communities of broader management skills.**

 - 4.2 Rangeland managers and users should engage in self-directed and continuous learning to develop their business management skills and best practices.**

 - 4.3 Extension services should be tailored to the rangeland environment needs in collaboration with regional groups and managers.**

 - 4.4 Governments should examine options for affordable access for remote and isolated rangeland managers and users to telecommunications technology relevant to their business needs.**
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GUIDELINE 5 – Financial and other institutions that plan and deliver services should be sensitive to the ecological time scale, the climatic variability and the regional differences in the rangelands which affect production levels and take into account the variability of commodity prices.

The rangelands differ from other areas of rural Australia in that the ecology is particularly fragile and the climate is highly variable. This means expectations of managers in terms of production outcomes are different, particularly in relation to their time-scale. These expectations need to be reflected in business strategies, which takes into consideration the delivery of financial and other services to rangeland managers. Regional differences also need to be recognised by service providers when developing their business products.

RECOMMENDED ACTIONS

- 5.1 Communities and governments should ensure that financial institutions and other service providers are involved in the development of regional strategies to ensure that they are aware of the challenges and objectives of their client groups.**

 - 5.2 Government and non-government organisations should ensure that the commercial services they provide are sufficiently flexible to meet the needs of rangeland users.**

 - 5.3 Banking products and other financial services, while being commercially based, should be sufficiently flexible and tailored to meet the specific circumstances of rangeland production and marketing and should consider the overall management and planning capabilities of the rangeland users.**
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5.4 Financial institutions, in consultation with rangeland users and managers, should develop codes of practice which reflect ecologically sustainable rangeland management.

GUIDELINE 6 – The negative impacts of mining, tourism and other industries on rangeland resources should be minimised, and prompt and adequate rehabilitation of rangelands affected by these activities should occur.

In balancing economic and ecological goals for the rangelands, some disturbance of the natural environment is inevitable. It is important that policies and practices are in place to ensure that impacts are avoided where possible, management practices are put in place to ameliorate any residual impacts and that affected areas of the rangelands are rehabilitated.

With mining and petroleum extraction, many of the environmental effects are localised rather than general. Although large-scale disturbance through mining is less widespread than is the case with some other rangeland industries, localised disturbance from mining may be severe, and there is a need to avoid disturbance to biological refugia and other sensitive areas. Appropriate guidelines and safeguards are now required by State and Territory legislation to minimise the effects over the longer term so that the environmental impacts of mining and petroleum extraction need not be significant. Nevertheless, there is potential for impacts on water catchments and underground water supplies which need to be carefully monitored and managed.

For developing industries such as tourism, environmental impacts of localised pressures and associated developments need to be kept to a minimum. However, there is considerable potential for tourism to provide net benefits to the environment through sectors of the broader tourism industry, such as ecotourism, which can add to the value placed upon retention of environmental integrity.

RECOMMENDED ACTION

6.1 Governments should work with relevant mining, tourism and new and emerging industry groups to ensure that legislative requirements and codes of conduct adequately cover all circumstances and aim for positive net benefits to the regional environment and conservation needs where rangelands are affected by these activities.

SOCIAL ISSUES

GUIDELINE 7 – Sensitive re-establishment and adjustment programs should be in place for those whose pastoral businesses are not sustainable.

In common with the rest of rural Australia, agricultural businesses in the rangelands have been responding to adjustment pressures over a long period of time. Declining terms of trade, market demands, capital/labour costs, high interest rates, climatic variability and the removal of support

programs such as the reserve price for wool have put considerable pressure on even the most resilient businesses. As a result, some enterprises are no longer financially viable and others are only marginally profitable.

Changes are required to make current uses more profitable and introduce other forms of sustainable use that capitalise on the diverse natural, cultural, heritage and social assets of the rangelands. Well-targeted incentives are needed to enable the restructuring of existing enterprises and investment in new business opportunities, and to stem further environmental degradation in the rangelands. Access to relevant financial and career counselling along with information support play an important role in assisting the decision-making process in relation to exiting farm businesses and ensuring smooth exit.

RECOMMENDED ACTIONS

7.1 Commonwealth and State/Territory Governments should support programs which aim to improve pastoral business profitability and promote ecologically sustainable rangeland management.

7.2 Commonwealth and State/Territory Governments should provide programs to assist individual re-adjustment out of economically and ecologically unsustainable rangeland businesses to stem further degradation of the rangelands and to reduce the social costs.

GUIDELINE 8 – Self reliant rural towns are required to provide economic and social focal points for rangeland communities and access to improved social services.

The geographic isolation of the rangelands means access to social services and utilities is difficult. For example, access to medical and dental services can be difficult with rangeland dwellers frequently travelling long distances at considerable cost to obtain such access with adverse effects on their long-term health and wellbeing.

Education services and facilities in the rangelands are frequently limited, compared with those available to urban dwellers. Consequently, many rangeland students participate in various forms of distance education, or attend boarding schools at substantial financial cost and considerable disruption to family life.

Other social support services, including financial, relationship, spiritual and personal counselling and legal aid, are also often not readily accessible to rangeland residents. This, and low population densities means participation in regional planning processes and support for local community and social activities can place enormous burdens on the financial resources and time of rangeland residents compared to people in the more densely populated areas of Australia.

Rural towns provide a focal point for business, employment, political, social and cultural activities as well as the provision of services such as health, education, police, finance, legal and accounting, postal, etc.

The decline in rural towns resulting from the emigration of young people and mobile professionals, compounded by the withdrawal of government and non-government services, increases the sense of isolation experienced by many rangeland individuals and families. Such isolation has consequences for the physical and psychological well being of the inhabitants, as well as impacting on the community's ability to embrace new ideas. The ageing of the population, the decline in the community's ability to attract new members and attempts to maintain the remnants of a status quo which may no longer be relevant, reinforce community inertia and an inward looking focus. Suspicion about further change, often resulting in the lack of consideration of a broader range of options to increase the economic and social activity in turn contributes to the further decline in the general welfare and sustainability of the community.

The rapid development of telecommunications technology means that even in very remote areas of Australia access is potentially available via satellite to a range of information and services available through the information superhighway. Additionally, Telstra has indicated it will be upgrading the terrestrial network to better cater for data communications in rural and remote areas. The main barrier to access at this point in development is affordability, but the critical mass of townships provides an opportunity for local communities to identify their information and technology needs and develop strategies for access and control over their own information requirements at the local level. Internet access, through telecommunications technology, can also provide a local focal point for community information for isolated communities and assist communities to link with each other. Although it cannot replace effective face to face delivery of services, it can improve service delivery and the level of service available, eg through providing access to specialist health services and emergency care, distance education, etc.

Social and economic conditions of the rangelands should be monitored in conjunction with environmental conditions.

RECOMMENDED ACTIONS

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- 8.1 Governments and communities should identify gaps in service delivery in the rangelands and work in partnership to implement appropriate service delivery models which address communities' needs and support service providers.**
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- 8.2 Governments should better coordinate and integrate their programs and services to the rangelands, including consultation and liaison with private sector providers and rangeland communities to ensure the best possible delivery of services at a reasonable price.**
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- 8.3 Regional planning should include identification of information needs and development of technological and community solutions.**
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GUIDELINE 9 – There needs to be an awareness of the importance of the cultural and heritage values and social identity of the rangelands and the importance of protection and management of places of national importance.

To generate community and public support for the actions recommended, the value of the rangelands to Australia must be recognised. The rangelands contain important cultural and heritage places for both indigenous and non-indigenous Australians. Understanding and education are crucial to achieving public and community support, and one way to address this could be the development of school curricula programs to develop an appreciation of the cultural, heritage and social values of the rangelands.

Tourism can play an important role in the promotion and protection of cultural and heritage assets as it enables people to better understand the environment which in turn creates a greater awareness of the importance of rangelands, both from a historical and present-day perspective. In particular, ecotourism, which involves education and interpretation of the environment to promote ecological sustainability, has a major role to play in the future use and development of the rangelands.

Cultural, social and heritage values of the rangelands need to be conserved, and resource use planning and management must recognise and promote these values. Active identification of specific places of value (including placement on the Register of the National Estate, State/Territory and local government heritage registers) and management and protection strategies are required.

RECOMMENDED ACTIONS

9.1 Governments, rangeland communities and urban-based communities should jointly implement community education strategies to enhance understanding, appreciation and awareness of the cultural, heritage and social values of the rangelands.

9.2 Identification, enhancement and restoration of cultural, natural and other heritage sites, including sacred sites, and their conservation should be included in regional and other planning processes where appropriate.

CONSERVATION OF THE NATURAL ENVIRONMENT

GUIDELINE 10 – A comprehensive, adequate and representative conservation reserve system should be established, on a national bio-regional basis integrated with conservation management strategies on other land.

As a result of Australia's geographic isolation, a high percentage of the estimated 500,000 Australian species occur nowhere else. Australia is known throughout the world for its unique and diverse native plants and animals, and is one of only 12 megadiverse countries which, altogether, harbour between 60 and 70 per cent of the world's known species.

The vast array of natural assets of Australia's rangelands require sensitive management and, in some cases, special protection. Conservation of these assets will also meet the requirements of the National Strategy for the Conservation of Australia's Biological Diversity, as it applies to the rangelands.

The conservation of biodiversity is essential for the maintenance of ecological processes, life-support systems such as clean air and water, and options for future use. To conserve the ecological patterns and processes in the rangelands, land managers need to:

- work with the uncertainties of climate;
- manage total grazing pressure, invasive species and those areas which help maintain landscape ecological systems (for example, the critical habitats provided by water holes, mound springs, and where fertility is greater, such as in depressions and around trees); and
- protect key areas from tree clearing (for example, endangered and vulnerable ecosystems, arid and semi-arid lands of high degradation potential); and protect areas of high nature conservation value.

In addition to the management regimes adopted by rangeland managers, the establishment of a comprehensive, adequate and representative conservation reserve system is a key mechanism to protect biodiversity and other values and to protect ecosystem processes and functions. The Commonwealth and State/Territory Governments will work towards completion of the conservation reserve system through a process that is both transparent and scientifically based, has appropriate community support and provides fair compensation to affected stakeholders.

Development of a conservation reserve system utilises several scientific criteria to measure the appropriateness of an area forming a part of the National Reserve System, for example, habitat quality, representativeness and threatened species and ecological communities.

Regional planning processes throughout the rangelands will need to consider ecosystems and landscapes that may be of conservation priority and a potentially important component of the National Reserve System. Rangeland owners and managers can further support the National Reserve System through engaging in off-reserve conservation measures – off-reserve conservation having the potential to link areas of reserved land, increasing the robustness and sustainability of ecosystems.

Commonwealth and State/Territory Governments and rangeland managers should accept responsibility for ensuring that the values inherent within a conservation reserve are protected from potentially damaging activities through improved management.

Indigenous people have expressed a willingness to manage some of their lands in accordance with internationally recognised protected areas standards contributing to the achievement of a comprehensive, adequate and representative national reserve system. The Indigenous Protected Areas component of the National Reserve System provides a mechanism for inclusion of Indigenous lands.

RECOMMENDED ACTIONS

10.1 States and Territories will identify areas and resources required to implement a comprehensive, adequate and representative reserve system for the rangelands utilising the scientific guidelines and criteria established for the National Reserve System.

10.2 That off-reserve conservation strategies should be identified and developed to effectively protect key areas and ecological processes within the rangelands and complement the establishment of the reserve system.

10.3 The Commonwealth and State/Territory Governments, in consultation with rangeland managers, users and communities should ensure that land acquired for a conservation reserve system is adequately managed and resourced to maintain biodiversity values.

10.4 Off-reserve conservation of biodiversity should be developed within Regional planning processes and its management should be taken account of in farm business management and other planning processes as part of achieving ecologically sustainable rangeland management.

GUIDELINE 11 – Surface and groundwater resources of the rangelands should be managed in a sustainable manner to ensure long-term quality and availability.

Water is a critical resource in the rangelands. Surface water use in the rangelands is limited because of the highly variable nature of streams, low run-off, a lack of suitable storage sites and high evaporation. This limited availability means that surface water is an important resource for rangeland biodiversity. Periodic and ephemeral flows, for example the flooding of Lake Eyre, are critical in providing habitat that further supports rangeland biodiversity. For humans in the region also, the limited nature of surface water has resulted in many users being largely dependent upon naturally occurring underground reserves.

Flowing artesian water bores and springs have water levels (or pressure levels) that rise above ground, as in most areas of the Great Artesian Basin which underlies a large part of the rangelands. Bore capping and reticulated pipe and trough systems, rather than open distribution systems, are helping to reduce wastage and salting, allowing more efficient use of watering points and reduce the impact of additional water supply for native biodiversity and feral animals.

Several processes are currently underway looking at the use and management of Australia's water resources.

The Great Artesian Basin Consultative Council (GABCC), a partnership between State/Territory and Commonwealth Governments and key stakeholders, is developing a coordinated approach to guide the long term management of the Great Artesian Basin. Administration of groundwater is the responsibility of State and Territory Government water authorities. Groundwater research is carried out at the Commonwealth level by the Australian Geological Survey Organisation (AGSO), working in collaboration on large, regional studies with CSIRO and State/Territory agencies.

The Water Reform Framework developed by the Council of Australian Governments (CoAG) is working to address the use of all water resources in Australia. The aim of the Framework is the implementation of an efficient and sustainable reform of the Australian water industry by the year 2001, and the means of achieving this include the allocation of water to the environment as well as changes to water pricing.

The Natural Resource Management Strategy, one program under the Murray Darling Basin Initiative working through governments and communities, aims to overcome knowledge gaps that impede sustainable natural resource management and develop natural resource management plans in the Basin.

These policy developments will ensure that water resource managers give greater emphasis towards achieving ecologically sustainable surface water flow regimes and underground resources also.

RECOMMENDED ACTIONS

11.1 Water resource management should be part of an integrated framework to ensure the efficient and sustainable use of water, to maintain water quality and to minimise the effects of salinisation, waterlogging and algal blooms and to maintain environmental values.

11.2 Major water management and infrastructure development plans should address both regional conservation requirements and downstream environmental impacts as part of planning for ecologically sustainable development.

11.3 Rangeland managers should include water point management for biodiversity conservation within their property management planning processes.

NATIONAL AND REGIONAL STRATEGIES

GUIDELINE 12 – Policy development processes, within and between all levels of government, should be implemented that will lead to integrated and coordinated programs and services.

For the Vision and Goals identified in this document to succeed, governments at all levels must ensure that they have in place policies and programs which are in line with the Principles and Guidelines. It is also highly desirable that these policies are coordinated across State/Territory borders, between the States/Territory and the Commonwealth as well as with local government and rangeland communities.

Current policies, programs and services of governments at all levels should be reviewed to ensure the desired outcomes for the rangelands at Government and community levels. A range of issues will require institutional change, such as clarification of tenure arrangements arising from legal decisions. Such issues will need to be addressed within political and legal systems and at Commonwealth and/or State/Territory level.

Many of the issues and recommended actions identified in this document are already being addressed through existing ARMCANZ and ANZECC structures but an effective mechanism will need to be established to oversight areas requiring National coordination.

RECOMMENDED ACTIONS

12.1 Commonwealth and State/Territory Governments should consult and report regularly through COAG, ANZECC and ARMCANZ on policy and program initiatives, which would result in the development and communication of consistent and complementary policies and legislation related to Rangeland management.

12.2 Consultative mechanisms between ARMCANZ/ANZECC and local government representatives should be established and utilised to ensure full coordination among all spheres of government with respect to policy development for the rangelands.

GUIDELINE 13 – Regional planning should be flexible and responsive to the ongoing and changing needs of rangeland communities, managers and the environment.

Regional planning is a dynamic process which should respond to shifting priorities, challenges and opportunities. Regional Planning Processes, and planning processes at the business or property level, should be considered as dynamic processes, establishing directions for the future and a framework for action, rather than becoming prescriptive or legalistic documents restricting constructive activity. For this reason, in particular, mechanisms are needed for ongoing assessment of the appropriateness of regional planning processes as they relate to the Vision and Goals outlined in this document.

A major barrier to the development of Regional Planning Processes may be a lack of human capital available in regional and local communities. This would be particularly pertinent to isolated rangeland communities with low population densities, small communities and poor access to resources and information. This could be addressed through the funding of "on-ground" facilitators, who would be employed by the local communities and act on their behalf to facilitate regional planning processes. Their role would be to assist communities gather the resources, training and information they need to develop the strategies and help make the links with government policy and programs. Employment by the communities themselves, of the facilitators, would help generate the community ownership and sense of empowerment needed for successful community-based strategies and foster good working relationships between the community and the facilitator.

RECOMMENDED ACTIONS

13.1 Regional planning processes undertaken in the rangelands should include transparent evaluation processes to ensure that they remain relevant.

13.2 Governments should ensure that all programs, policies and services delivered to the rangelands are subject to regular, public evaluation to ensure they remain relevant and are appropriate to the rangelands.

13.3 Governments should resource communities to prepare regional strategies through facilitation and by providing assistance with accessing relevant government programs through an integrated problem-solving approach

GUIDELINE 14 – The particular rights and interests of indigenous peoples in Rangeland planning and management should be incorporated in Rangeland planning and management.

There are common interests and responsibilities between indigenous peoples and other rangeland residents and users, however, it is recognised that, as the original occupiers of the land, indigenous peoples have particular rights. The *Racial Discrimination (C'wlth) Act* (1975), the *Aboriginal Land Rights (Northern Territory) Act* (1976), the *Native Title (C'wlth) Act* (1993) and the *Aboriginal and Torres Strait Islander Heritage Protection (C'wlth) Act* (1984) identify the recognition by government of associated rights and status of indigenous stakeholders.

The knowledge of indigenous people can make a unique contribution to ecologically sustainable management of the rangelands. Because of their culture, traditions and long occupation of the land, indigenous peoples may have concepts of conservation and land use which differ from those of other rangeland users. The National Strategy for the Conservation of Australia's Biological Diversity recognises that the knowledge of Indigenous peoples is an important contribution to the conservation of Australia's biological diversity. This needs to be recognised in consultation and decision-making processes.

RECOMMENDED ACTIONS

14.1 Local governments, regional and community organisations should seek the full participation of relevant Aboriginal and Torres Strait Islander organisations and communities in undertaking regional planning, using culturally appropriate consultation processes.

14.2 Governments, in consultation with the community, should introduce programs to increase community understanding of the special association of indigenous peoples with the land, and the implications of this association for the management and use of the rangelands.

14.3 Governments and regional/community organisations should integrate, where appropriate, regional plans and strategies of ATSIC, the Indigenous Land Corporation, and native title representative bodies within broader regional strategies.

RESEARCH AND DEVELOPMENT

GUIDELINE 15 – There needs to be an effective program of strategic and adaptive research, development and extension, with direct involvement by rangeland users, managers and communities.

A thorough understanding of ecological and socio-economic rangeland processes is needed to support decisions aimed at ensuring their ecologically sustainable future. To achieve this understanding, decision-makers at all levels need high-quality, relevant information in a user-friendly and accessible form. They require an understanding of the physical, biological, social and economic processes in the rangelands, and their interaction, as well as access to a strategically oriented and adaptive research and development program

The history, in the rangelands, of poor adoption of research and development outcomes, needs to be addressed through more effective extension mechanisms by research organisations. Extension mechanisms need to involve the relevant rangeland communities and users in identifying research gaps, developing and implementing the research and testing the results. Outcomes of research needs to be made available in an easily understandable format to ensure it can be picked up by rangeland users and adapted to their requirements as appropriate.

RECOMMENDED ACTIONS

15.1 Governments and Research and Development Corporations should address the declining resources and capacity in rangelands research.

15.2 Governments should actively encourage relevant Research and Development Corporations to direct a regular portion of their research effort specifically towards addressing issues facing the rangelands and to consult with rangeland users, managers and communities in setting research priorities.

15.3 Scientists working in relevant fields should collaborate with rangeland managers and communities to utilise their knowledge and practical experience to find optimal solutions, and vice versa.

15.4 Research organisations should work with communities and rangeland users to implement the practical outcomes of their research efforts. They should ensure that research information is accessible and easy to understand.

GUIDELINE 16 – Rangeland condition and trends should be assessed through an expanded monitoring and evaluation program that incorporates indicators of production, biodiversity, water resource condition, climate and socio-economic factors on a regional and biophysical unit basis.

In order to manage effectively over time, a good knowledge base is essential for analysing the likely effects of proposed action, as well as for evaluating action in progress or completed.

In respect of the rangeland ecology, the first State of the Environment Report for Australia describes the knowledge base for environmental reporting and management decisions as inadequate.

Ongoing research and development are constantly improving the knowledge base on which decisions are made. In addition, decision making also needs the support of an adequate monitoring program, capable of detecting the condition and trend of rangeland resources, at a regional, land type and property level. The information from monitoring is essential for managers to enable them to manage for desired outcomes and provides a basis for corrective action.

For a monitoring program to be effective in the rangelands, activities and land use practices must be monitored against criteria and indicators that demonstrate ecologically sustainable rangeland management. It is important that criteria developed are agreed to by governments and stakeholders, and that indicators of rangeland condition are based on demonstrable science. Indicators are an important basis for decision-making. Equally important is ongoing climate research and development of decision support systems to enhance the risk management strategies of pastoralists whose livelihood and ongoing business sustainability is subject to climatic unpredictability. Improved understanding of climatic history and more reliable long term forecasting tools would improve long term business management strategies and utilisation of the natural resource base.

Development of social and economic indicators are needed, specifically tailored to rangeland circumstances to enable ongoing monitoring and evaluation of rangeland developments in the long term.

RECOMMENDED ACTIONS

16.1 Governments, in consultation with rangeland users and managers, should develop agreed criteria and indicators for ecologically sustainable rangeland management and business viability.

16.2 Develop comprehensive, cost-effective monitoring programs to underpin implementation of criteria and indicators for ecologically sustainable rangeland management at a range of scales.

16.3 The opportunity created by the National Land and Water Audit must be used to establish a national rangeland monitoring program to determine trends in the long term health of Australia's rangelands at a regional, land type and property level.

16.4 Governments should establish and use effective monitoring mechanisms of socio-economic changes within the rangelands, including access to services and gaps and deficiencies in delivery mechanisms.

16.5 Monitoring data should be used by all decision-makers in their policy development and planning processes and, in particular, by Government agencies in developing State of the Environment and other Reports.

COORDINATION AND IMPLEMENTATION

MAJOR ISSUES

Review and implementation of the actions suggested in this document will rest with those individuals and jurisdictions with responsibility for the rangelands, however five major issues have been identified which will require ongoing national coordination to achieve the identified vision and goals:

- implementation of regional planning processes in the rangelands;
- the management of change in rangeland businesses and communities;
- clarification of land tenure arrangements and the development of consistent models across the States/Territories for duty of care in land management;
- the development of criteria, performance indicators and monitoring mechanisms for economically and ecologically sustainable rangeland management as well as social conditions; and
- development of on- and off- reserve conservation mechanisms.

REGIONAL PLANNING PROCESSES

The achievement of the goals and recommendations outlined in this document will most appropriately occur through regional planning processes.

Rangeland communities may require the assistance of Governments to identify opportunities which are specific to their region. Government agencies are often the repositories of information enabling regions to identify trends within and between regions and to capture market opportunities. Many existing Government programs are and will be delivered at a regional level (eg. the Natural Heritage Trust). At a national level there is a continuing need to coordinate assistance to regional communities to facilitate the delivery of services and information and ensure program and policies can be adapted to regional circumstances.

To ensure that regional planning processes retain Government support and community commitment it will be important that ANZECC and ARM CANZ, jointly, identify appropriate models for the development of regional strategies and the delivery of government policies and programs to rangeland regions.

MANAGING CHANGE

The challenges identified in this document focus on managing change in Australia's rangelands to ensure that opportunities are captured and options for the future are not forgone.

Rangeland communities and industry are experiencing a rate of change unprecedented in recent history. The rate of change has resulted in a number of challenges facing rangeland regions, including the need to implement ecologically sustainable rangeland management; to develop

profitable businesses in the face of declining terms of trade and identify and capture new and emerging market opportunities; to halt the current loss of biodiversity and restore degraded landscapes; and provide adequate community services where Government and private sector services are declining.

Australian agricultural policy focuses on helping farmers develop their capacity to respond to changing circumstances. The guidelines recognise the importance of capacity building for rangeland managers in assisting them to achieve ecologically sustainable rangeland management, including business viability. Land managers have traditionally increased their skills and managerial expertise through on-the-job training. With changes in markets and production systems, land managers will need to increasingly engage in formal and informal learning opportunities in all aspects of business management, including natural resource, production, financial and marketing management and the development of personal and communication skills.

Communities are also facing unprecedented change, directly through changes and developments in the delivery of a range of community services, and indirectly through changes affecting their local industries. Communities also need to identify their vision and goals and work towards a sustainable future.

A further focus for structural adjustment in the rangelands is the need for effective management of marginal and sub-marginal lands and restoration of degraded lands to protect biodiversity and other values and facilitate where appropriate, controlled use. The areas of interest covered by both the Standing Committee on Agriculture and Resource Management (SCARM) Rural Affairs Advisory Group (RAAG) and the Standing Committee on Conservation (SCC) may be appropriate for the resolution of these issues within the rangelands.

To ensure that these change processes continue to capture opportunities in the rangelands, ANZECC and ARMCANZ should maintain a continuing involvement in ensuring Government activities support the rangeland industries and communities.

LAND TENURE

All groups with an interest in the rangelands are seeking clarification of tenure arrangements. Further consideration of land tenure arrangements includes the incorporation of duty of care provisions, such as codes of practice established to encourage best management practices throughout the rangelands, regardless of tenure provisions.

The use of ANZECC and ARMCANZ would provide stakeholders with fora for developing strategies which are consistent with Commonwealth, State and Territory Constitutional roles and responsibilities.

CRITERIA AND INDICATORS FOR ECONOMICALLY AND ECOLOGICALLY SUSTAINABLE RANGELAND MANAGEMENT AND SOCIAL CONDITIONS

Monitoring of rangeland conditions is considered to be crucial in providing feedback to land managers, and as such, ecologically sustainable rangeland management is unlikely to be achieved without such monitoring. For a program of monitoring to be successful in distinguishing trends in rangeland condition, it must be implemented through the use of agreed criteria and indicators.

In addition, criteria and indicators required for the development of regional strategies and property management plans must also be tailored to meet the needs of the community and landholders. For example, the SCARM Sustainable Land and Water Resource Management Committee has been working on indicators for sustainable agriculture through its Steering Committee for the National Collaborative Project on Indicators for Sustainable Agriculture.

Criteria and indicators need not be restricted to monitoring the physical environment. Indicators reflecting the economic and social conditions of the rangelands are also important tools for achieving ecologically sustainable rangeland management.

An agreed set of criteria and indicators has two key benefits to economically and ecologically sustainable rangeland management. Extension services within rangeland regions can more appropriately tailor information to the communities they are working with, and the criteria and indicators themselves may form the basis of a national environmental performance-based management system applicable to all industries and land users throughout the rangelands.

Facilitating and coordinating a set of agreed national criteria and indicators must be adopted as a high priority for ANZECC and ARMCANZ. A possible mechanism to achieve this is to engage those areas of current research relevant to the rangelands, in addition to drawing researchers, bureaucrats and stakeholders into the process.

CONSERVATION OF THE NATURAL ENVIRONMENT

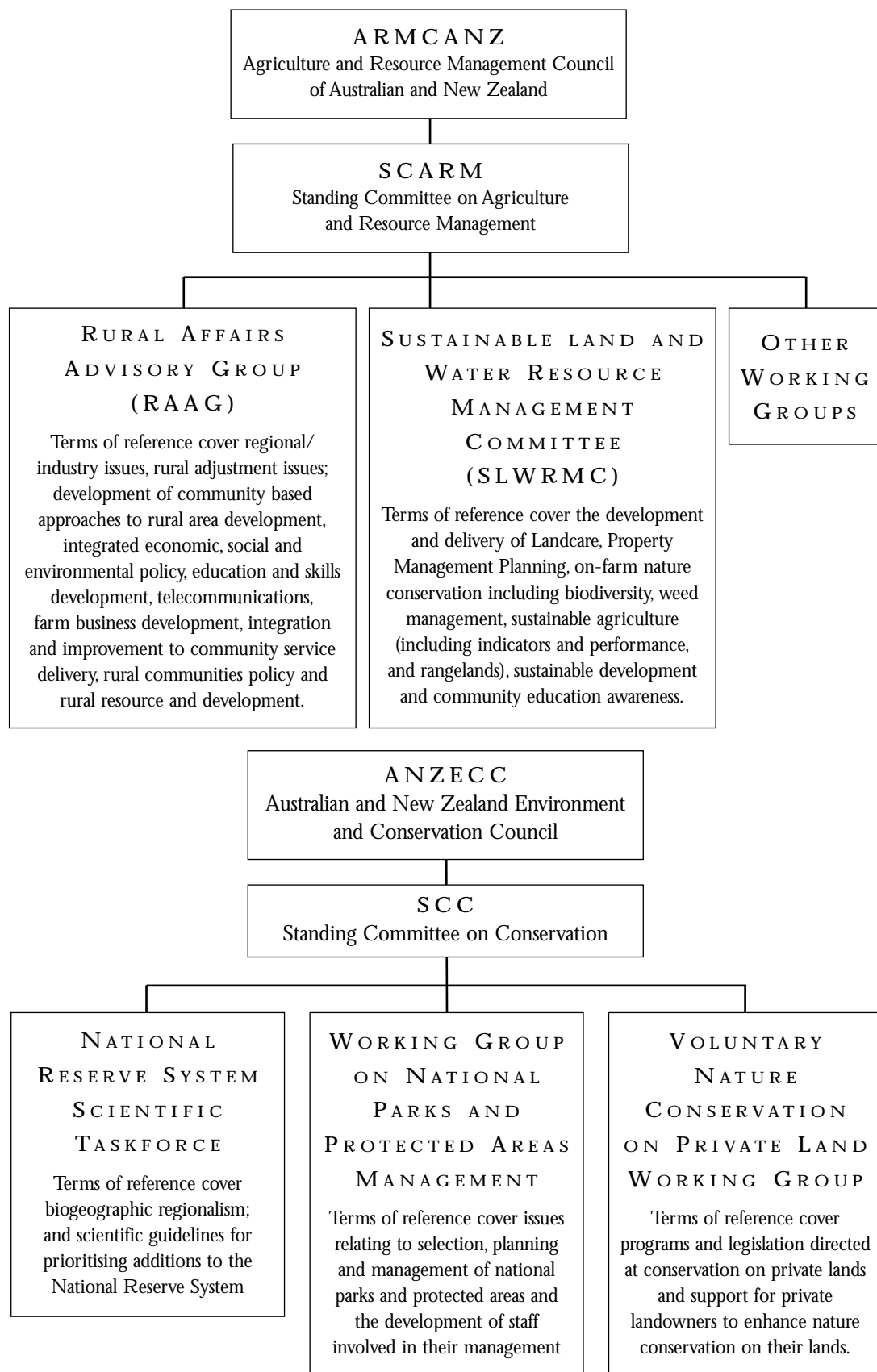
Conservation of ecosystem integrity is essential in maintaining rangeland biodiversity and ecosystem functions and processes. Of particular importance in the rangeland landscape are such ecosystems associated with watercourses, mound springs, endangered and vulnerable species and habitats and ecosystems under threat from processes such as land clearing.

Mechanisms currently addressing the conservation of these and all rangeland ecosystems include the implementation of a National Reserve System and the development of off-reserve conservation initiatives. Both initiatives are being further developed in other fora (the National Reserve System Scientific Taskforce and the SCC Voluntary Nature Conservation on Private Land Working Group respectively).

ANZECC and ARMCANZ should operate as a national coordination mechanism referring issues to the most appropriate forum for consideration.

COORDINATION

Whilst it is important to identify the issues requiring a National response, it is also important to establish the arrangements for this to occur. The Rangelands Working Group has recommended the establishment of a joint ANZECC/ARMCANZ steering committee charged with progressing the recommended actions. Core membership should comprise representatives of Standing Committee on Agriculture and Resource Management (SCARM) and Standing Committee on Conservation (SCC) and ensure the active participation of community stakeholders.



Membership of the Standing Committee on Agriculture and Resource Management (SCARM) and the Standing Committee on Conservation (SCC) reflects ministerial representation on ARMCANZ and ANZECC respectively and includes representation on both Sub-Committees of a number of State/Territory agencies. The Councils' Standing Committees have advisory groups covering specialist areas relevant to the issues requiring National coordination.

ABBREVIATIONS

AGSO

Australia Geological Survey Organisation

ANZECC

Australia New Zealand Environment and Conservation Council

ARMCANZ

Agriculture and Resource Management Council of Australia and New Zealand

ATSIC

Aboriginal and Torres Strait Islander Commission

COAG

Council of Australian Governments

CSIRO

Commonwealth Scientific and Industrial Research Organisation

NHT

Natural Heritage Trust

OECD

Organisation for Economic Cooperation and Development

RAS

Rural Adjustment Scheme

RPP

Rural Partnership Program

RTIF

Rural Telecommunications Infrastructure Fund

GLOSSARY OF TERMS

AGENCY

Any government organisation.

BEST MANAGEMENT PRACTICE

Best management practice is the use by managers of management approaches which are currently the most effective and sustainable available. "Best practice" evolves as new techniques and approaches are tested and proven to be more effective. In this document best management practice refers to activities by managers at the property, regional or catchment, State/Territory and national level which best achieves the outcomes of economically and ecologically sustainable development.

BIODIVERSITY

Biological diversity, or biodiversity, is the variety of all life-forms, the genes they contain, and the ecosystems of which they form a part. Biological diversity is generally considered at three levels: genetic diversity, species diversity, and ecosystem diversity.

BIOGEOGRAPHIC REGION

Region in which the boundaries are determined by attributes of climate, lithology, geology, landforms and vegetation.

BIO-REGIONAL PLANNING

Regional scale planning which integrates ecological, economic and social factors, and which allows biodiversity conservation and ecologically sustainable development. Where possible, boundaries should reflect broad ecological parameters. Bioregional planning recognises the importance of including all stakeholders in land management and planning.

CARRYING CAPACITY

The maximum population of a given organism that a particular environment can sustain. It implies a continuing yield without environmental damage.

COMMUNITY

The people living in one locality

CONSERVATION

The protection and maintenance of nature while allowing for its ecologically sustainable use.

ECOLOGICALLY SUSTAINABLE DEVELOPMENT

The National Strategy for Ecologically Sustainable Development described ecologically sustainable development (ESD) as follows:

"ESD is development which aims to meet the needs of Australians today, while conserving our ecosystems for the benefit of future generations. To do this, we need to develop ways of using those environmental resources which form the basis of our economy in a way which maintains and, where possible, improves their range, variety and quality"

ECONOMIC SUSTAINABILITY

Economic activity which is profitable over the long term without destruction of the resource base.

ECOSYSTEM

A community of plants, animals and other organisms together with the non-living components of their environment.

ECO-TOURISM

Nature based tourism that involves education and interpretation of the natural environment and is managed for ecologically sustainability. The 'natural environment' includes cultural components and 'ecologically sustainable' involves an appropriate return to the local community and long term conservation of the resource.

ENDEMIC

Restricted to a specified region or locality.

FERAL ANIMAL

An introduced domesticated animal species such as a dog, cat, pig, goat or horse that has reverted to a wild state after escaping or being released in the wild, especially one that hunts and competes with native fauna. Also includes foxes and rabbits.

HABITAT

The structural environments where a plant or animal lives; eg deserts, grasslands, shrublands, woodlands.

HARVESTING

The removal of any living resource from the system.

INDIGENOUS PEOPLES

Strictly, born of an area, but in this document meaning people endemic (ie naturally occurring) to the area.

INTERGOVERNMENTAL AGREEMENT ON THE ENVIRONMENT

An agreement signed in May 1992 by heads of Government of the Commonwealth States and Territories of Australia, and representatives of local government in Australia to provide a mechanism by which to facilitate a cooperative national approach to the environment.

LAND DEGRADATION

Land (soil, water and natural vegetation) degradation refers to undesirable changes in plant composition and soil and land surface characteristics.

LANDCARE

Voluntary community land conservation groups and associated land, water and nature conservation activities. Provides an opportunity for people to work out solutions to their local land degradation problems, with or without government assistance.

MOUND SPRINGS

Springs associated with mounds, or accumulations, of sediments that may be up to eight metres high and tens of metres across. The springs emerge as seepages, as flowing springs, or form pools of standing water. They fringe the Great Artesian Basin and are of great significance as foci for plant and animal life, providing refuges in generally dry regions.

MULTIPLE USE

The use of a resource for more than one purpose; eg the use of a pastoral property for pastoralism and ecotourism.

NATIONAL STRATEGY FOR ECOLOGICALLY SUSTAINABLE DEVELOPMENT

A broad strategic and policy framework under which all Commonwealth, State and Territory governments have agreed to cooperatively make decisions and take actions to pursue ecologically sustainable development in Australia. Local government authorities are not bound to observe the terms of the strategy; nevertheless, the Local Government Association has endorsed the strategy and will do all within its power to ensure compliance.

NATIONAL STRATEGY FOR THE CONSERVATION

OF AUSTRALIA'S BIOLOGICAL DIVERSITY

A broad strategic and policy framework, by which the Commonwealth and all State and Territory governments have agreed to measures to protect Australia's biological diversity and maintain ecological processes and systems. It incorporates the concept of ecologically sustainable use of our biological resources, and is the primary policy instrument for fulfilling Australia's obligations under the Convention on Biological Diversity.

PASTORALISM

The husbandry of domesticated grazing animals on natural or exotic pasture.

PEST SPECIES

A plant or animal that causes an undesirable effect in the region it inhabits. It may be native or introduced. 'Pest' is a relative term; a pest to one person may not be a pest to another.

PRECAUTIONARY PRINCIPLE

The principle that, where there are threats of serious or irreversible environmental damage, then a lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental damage.

PROPERTY MANAGEMENT PLANNING

The incorporation of all aspects of environmental and commercial matters into the planning of the operation of a farm business. Integrates objectives of improved profitability and ecological sustainable natural resource use. In this whole systems process, producers identify their personal objectives in the context of broader community aspirations.

RANGELAND

The internationally recognised term for land where livestock are grazed extensively on native vegetation, and where the rainfall is too low or erratic for agricultural cropping or for improved pastures.

REFUGIA

Areas:

- i) that have been protected from great changes in the environment (such as climate, wildfire, flood) so that relic populations of plant and/or animal species have been able to continue to exist;
- ii) where species persist for short periods when large parts of their preferred habitat become unsuitable;
- iii) where threatened species have retreated because of environmental changes set in train by human settlement.

RESOURCE

Anything that is used by people. A renewable resource can renew itself (or be renewed) either because it recycles quite rapidly (water), or because it is alive and can reproduce (organisms and ecosystems). A non-renewable resource is one whose consumption necessarily involves depletion.

RESOURCE CAPABILITY

The capability of a resource (eg land, vegetation) to sustain a particular use without degradation.

SAVANNA

Area of tropical or subtropical grassland with scattered trees. A dry climate, punctuated by a distinct summer wet season, encourages the growth of grasses and discourages the growth of trees.

STAKEHOLDER

Any person, institution, organisation, agency, department, authority, club, association or the like which has any interest in, or association with an area whether they reside there or not. This does not only mean a financial interest. Includes the public.

STOCKING RATE

The number of organisms per unit area (usually applied to grazing farm animals).

STRUCTURAL ADJUSTMENT

Change in the use and distribution of capital resources in response to external forces such as economic, social or environmental change. It can be a managed process to meet individual and community goals.

SUSTAINABLE MULTIPLE USE

See ecologically sustainable use and multiple use.

TENURE - CERTAINTY OF

Knowledge about future legal rights to use of land.

TENURE - LAND

The title by which rights are held over a property; eg freehold or leasehold.

TENURE - SECURITY OF

Legal rights to use land for specific purposes.

TOTAL GRAZING PRESSURE

The total impact of all grazing animals on a particular area; includes the impact of both domestic and feral stock.

UNSUSTAINABLE PRACTICES

Practices which are not ecologically sustainable.

USER

Any government and non-government stakeholder who actually uses an area.

WILDERNESS AREAS

Large areas in which ecological processes continue with minimal change caused by modern development. Indigenous custodianship and customary practices have been, and in many places continue to be, significant factors in creating what non-indigenous people refer to as wilderness.