



Department of Agriculture and Food
Government of Western Australia



29 August 2008

The Secretary
Senate Standing Committee on Rural and Regional Affairs and Transport
PO Box 6100
Parliament House
CANBERRA ACT 2600

Dear Sir

**INQUIRY INTO NATURAL RESOURCE MANAGEMENT AND CONSERVATION
CHALLENGES**

Thank you for the opportunity to provide comments on this Inquiry into Natural Resource Management.

The Western Australian government is currently in 'caretaker' mode prior to the State General Election being held on 6th September 2008. Consequently, it is not possible to provide a comprehensive across-government submission at this time. We have however prepared a draft response from the Department of Agriculture and Food, which we provide as an initial comment on the Terms of Reference for the Inquiry. Further and final submission to the Inquiry will be provided following the State election in September.

Should you require further information in relation to this matter please contact
..... Department of Agriculture and Food Western Australia on telephone

Yours sincerely

Ian Longson
DIRECTOR GENERAL

Att

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INQUIRY INTO NATURAL RESOURCE MANAGEMENT AND CONSERVATION CHALLENGES

Submission from Department of Agriculture and Food Western Australia August 2008

An Inquiry into Natural Resource Management and Conservation Challenges has been established by the Senate, with the Senate Standing Committee on Rural and Regional Affairs and Transport reporting in November 2008 on the following terms:

- 1) The lessons learned from the successes and failures of three decades of Commonwealth investment in resource management including Landcare, the National Heritage Trust, The National Action Plan on Salinity and Water Quality, and other national programs,
- 2) How we can best build on the knowledge and experience gained from these programs to capitalise on existing networks and projects, and maintain commitment and momentum among land-holders,
- 3) The overall costs and benefits of a regional approach to planning and management of Australia's catchments, coasts and other natural resources,
- 4) The need for a long-term strategic approach to natural resource management (NRM) at the national level,
- 5) The capacity of regional NRM groups, catchment management organisations and other national conservation networks to engage land managers, resource users and the wider community to deliver on-the-ground NRM outcomes as a result of the recent changes to funding arrangements under the Caring for our Country program, and
- 6) The extent to which the Caring for our Country program represents a comprehensive approach to meeting Australia's future NRM needs.

This submission is structured into the following components:

1. NRM importance, issues and complexity; and
2. Addressing the Terms of Reference

1. NRM Importance, Issues and Complexity

Why is it important?

The maintenance of the natural resource base and the way the natural resource base is managed is fundamental to the long term economic viability of the State (particularly the agricultural sector), conservation of biodiversity and the wellbeing of current and future populations.

Western Australia's (WA) natural resources support a number of valuable industries that contribute substantially to the State and national economy including¹ water supply and waste management; agriculture and pastoralism; tourism; forestry and wood processing; and fisheries.

Effective partnerships in Natural Resource Management (NRM) are required to effectively manage the environment (including natural and physical resources) for all Australians. This includes taking into consideration ecosystems and the characteristics and expectations of relevant communities. Ecosystems services provide a range of essential benefits for human well-being including supply of basic materials for life (food, water, shelter, clothing).

NRM deals with the adverse impacts on land, water, biodiversity and cultural values associated with our use of the land. NRM is implemented with a leading government structure with separate agencies having distinct roles and responsibilities for management and regulation in delivery of key government NRM programs, and collaboration and partnership with the community.

What are the issues?

Salinity is one of WA's most pressing NRM issues affecting the built environment (roads, railways and buildings) and natural assets (agricultural land, rivers, wetlands and vegetation). Other processes of concern include invasion of weeds and pest animals, acidification of the soil, soil erosion, clearing and degradation of vegetation, and pollution of rivers and wetlands. These issues are exacerbated by increasing pressure from urban, resource and industrial development as well as an uncertain but changing climate regime.

The effect of these impacts either independently or in combination is reduced productivity, loss of ecological services (such as clean water, clean air and a bank of biodiversity), and change in landscape function so that it can no longer support native plants and animals.

Why is NRM so complex?

The complexities of managing for natural resource management outcomes are exacerbated by the complexities of nature itself – these are interdependent and inherently complex systems starting at the cellular level and moving through organisational layers to the ecosystem. Seasonal conditions (rainfall, wind, evaporation) vary from month to month and year to year, and the patterns of the last 100 years will change again in response to a changed global climate. Management interventions in these systems are particularly challenging since:

- There are huge variations in regional issues from land salinity in the south-western agricultural area to wind erosion in northern rangeland areas.
- There is often a long lag time between effort and effect for management actions in natural systems. This is sometimes in the order of 30 to 50 years and well outside the usual boundaries of 'project reporting' for government accountability.
- Resource condition issues do not respect political or social boundaries and cause and effect can be geographically remote – land use activities upstream can cause erosion and pollute rivers affecting multiple users downstream

¹ *Western Australia's Contribution to Improving Natural Resource Management through the National Action Plan for Salinity and Water Quality and extension of the Natural Heritage Trust. A Report to the State Expenditure Review Committee, 12 April 2007.*

- The science and research to predict the most appropriate course of action to improve resource condition is in its infancy in comparison to more traditional fields of study (e.g. medicine, chemistry, engineering). The 'toolbox' is beginning to expand with advances in our understanding provided by long term (20 + year) datasets, remote sensing, and emerging biotechnological fixes.
- Given the vast geographic areas and the diversity of systems (land, water, vegetation) monitoring and evaluation are expensive and the data often difficult to interpret.
- Whilst it is relatively easy to identify short term gains from 'mining' the resource base (e.g. crop production which may result in soil loss through erosion), we are only beginning to be able to translate the longer term loss of ecosystem function into monetary values. Generally, the externalities from most land and water use industries are not effectively captured in the cost base for resource usage.
- There are a range of separate government agencies at national, state and local levels with regulatory, decision-making, management and service delivery responsibilities across the range of the natural resource base.
- NRM is being undertaken on a number of levels from small scale local community work through to international fora.

2. Addressing the Terms of Reference

2.1 *the lessons learned from the successes and failures of three decades of Commonwealth investment in resource management including Landcare, the National Heritage Trust, The National Action Plan on Salinity and Water Quality, and other national programs:*

- Ongoing mismatch between short-term, uncertain funding arrangements / cycles and need for long-term commitment to make a meaningful impact in addressing NRM issues (we note this is covered in 2.4)
- Need to maintain a more holistic approach, rather than revert to ad-hoc, piecemeal efforts of previous programs.
- The targeted approach of NHT2 and NAP have been an improvement on NHT1 but have still not resulted in measurable change in condition of natural resource assets, largely due to the short term of the program and long lead times for recovery and change in natural systems.
- NRM funding programs have focussed on the use of economic instruments (grants, market interventions), information (extension services) and direct intervention (such as rehabilitation works in conservation areas) to deliver improved NRM outcomes.
- NRM funding programs targeted at community and landholder groups have been beneficial in raising awareness of land, biodiversity and water management challenges; however have not necessarily resulted in a change in broader land management behaviours or the condition of the asset. Longer term programs are required to achieve measurable changes. In addition, the variable but sometimes limited capacity and expertise of regional groups and their communities needs to be considered more carefully in planning and implementing NRM programs.

- The investment of public funds in NRM programs has been able to leverage funding and in-kind effort from community and local stakeholders. The ratio of this leverage is in the order of 1: 3-5 but is rarely quantified or acknowledged.
- For NRM programs to be effective, projects they fund need to be targeted and be supported by scientific evidence of impact and outcome from planned management action. Public funding should be targeted to protection of public assets, which in many areas will involve on-ground rehabilitation or changed management practices on private land in order to achieve the targeted improvement in public assets. Investment frameworks have been developed to assist in this determination, including the Salinity Investment Framework in WA. Where private benefit is involved, intervention should be appropriate for public funding (eg. Research; industry development initiatives).
- A clear governance and implementation framework is needed, that establishes roles and responsibilities for each level in the governance and delivery structure for NRM programs. For example, regional and community NRM groups have limited capacity to undertake technical and scientific work without considerable support from State agencies, but have established as effective coordination and communication organisations.
- In recent years, maintaining technical and scientific capacity at all levels has been difficult in a tight labour market, particularly in WA with recent levels of mining and resources activity. The cycle of training NRM officers to a point where their skills are attractive to other (higher paying) employers is disruptive and demoralising to regional communities.
- Volunteerism is an important result of many NRM funding programs, and future programs should consider how to continue and promote this concept.

2.2 *How we can best build on the knowledge and experience gained from these programs to capitalise on existing networks and projects, and maintain commitment and momentum among land-holders:*

- State agency leadership in the planning and implementation of a State NRM Plan will help by providing a contextual framework for NRM issues at regional and local scale, and strategic direction on priority areas for management.
- As indicated in other points addressing individual terms of reference, clearly defined roles and responsibilities are needed for all Government and community partners in planning, management, delivery and review of NRM programs.
- Comprehensive and high quality regional NRM strategies provide a mechanism to pull together key and regionally relevant components of sectoral resource management plans and priorities, and inform industry plans and policies as to the resource condition outcomes required. They can provide great impetus to partnerships providing cross sectoral and landscape scale responses. The ongoing review and improvement of regional NRM strategies, and integration with State and National priorities for NRM and environmental management is needed, and this will require a core level of investment to maintain continued improvement and development of NRM strategies. In WA, regional NRM Strategies have cost over \$1m each to develop.

- Most regions have used NHT and NAP funding to undertake additional planning studies, risk assessment and resource condition studies that improves knowledge of natural systems. The study reports and results from this considerable investment needs to be captured and accessible to the wider community.

2.3 The overall costs and benefits of a regional approach to planning and management of Australia's catchments, coasts and other natural resources,

NRM is a long term process (potentially over 200 years) so relatively speaking the regional NRM approach is in its infancy. The process will need to undergo regular evaluation and reform to ensure accountability of investment, quantify benefits (and costs of inaction) and to improve implementation.

Community-based approaches to environmental management have become widely adopted over the last two decades, from their origins as an approach to solve local environmental problems (eg. Landcare groups). Up-scaling from local to regional scale to deal with environmental problems that need to be defined and managed at a broader scale (landscape, catchment or region-wide) has not been without its difficulties, and further work on developing capacity at regional level for governance and accountability, management, planning, and community engagement at regional level is needed².

A regional approach to NRM:

- Provides a suitable framework for addressing issues of integration and interdependence in applying management responses to degradation issues in complex natural systems. The regional scale (often used in combination with catchment and local planning and management) is a suitable scale that is effective for integration across biological, agro-ecological, hydrological, and community/social/economic systems.
- Encourages community participation in planning and decision-making. This is a key component of good government, and communities generally now expect to be consulted on matters affecting them and to work in partnership with governments.
- Leads to improved effectiveness by bringing decision-making and action closer to those affected, better understanding of the natural assets valued by the community and their priorities, greater ownership of problems and solutions, and an increased willingness to change.
- Links the enthusiasm and knowledge of local action groups with processes that occur at a regional scale. The development or strengthening of sub-catchment or sub-regional groups has been a strategy of the current regional groups. The role of local groups and their ability to 'up-scale' to reduce the number of levels of bureaucracy could also be considered. Maintaining connection to local groups will be an important consideration in changes to improve efficiency in governance and delivery.

² Marshall, GR (2008) Nesting, subsidiarity and community-based environmental governance beyond the local level *Intl. J of the Commons* 2(1):75-97.

- It is critical for regional investment plans (plans setting out project priorities for application of public funding to address degradation issues) to be underpinned with evidence of achievable impact in the planned management response. State government and research institutions have a role to play in supporting the development of suitable evidentiary methods and models, due to the key science knowledge and expertise residing in these organisations.
- Regional NRM groups play an important role in engagement and communication with regional communities on understanding NRM issues and prioritising issues and planned investments. Clear role and responsibilities are needed for regional NRM groups and Governments at all levels, to ensure a smooth interface and effective partnerships between community and government(s).
- It is important to ensure the NRM governance model including regional NRM does not duplicate activity and responsibilities, which would create inefficiencies in investments by government and lead to confusion amongst participants in NRM. Mechanisms need to be established to ensure NRM investment is maximised and efficient. This includes investment planning tools and guidelines, and suitable evaluation methods.

2.4 The need for a long-term strategic approach to natural resource management (NRM) at the national level,

- Longer term investment programs (10 to 20 years) are needed in order to maintain programs to address long term degradation and recovery processes in natural systems.
- Long-term resource condition monitoring is required to provide ongoing information on trends in natural systems, effectiveness of remediation programs, and the ability to understand and report on critical high-impact events. This work will contribute to national NRM programs, provide an ability to report at national level and continental scale on a range of issues and environmental values (including reporting on international obligations), and is best funded and managed jointly with State agencies that have the scientific expertise and data capture and management systems.
- There are benefits to Australia in international fora including trade areas from a national governance arrangement for NRM programs. Accreditation of regional NRM plans, the national Framework for NRM Standards and Targets, and the national NRM Monitoring and Evaluation Framework provide a credible and transparent process for reporting on the nation's environmental credentials. Initiatives such as the National Land and Water Resources Audit provide important baseline information on resource condition at a national level. In future, it is likely environmental accounting will be part of the national accounts, providing along with future monitoring, a basis for national triple bottom line reporting.

2.5 The capacity of regional NRM groups, catchment management organisations and other national conservation networks to engage land managers, resource users and the wider community to deliver on-the-ground NRM outcomes as a result of the recent changes to funding arrangements under the Caring for our Country program,

- As noted above (in 2.3), it is important to establish clear roles and responsibilities for all partners in the development and delivery of NRM programs. The strengths of regional NRM groups lie in their connectedness to regional and local communities. Regional groups have a strong role to play in planning and prioritisation of NRM programs, in supporting capacity building across a regional area (eg. NRM Officers) and in communication and engagement with the regional community.
- The implementation and delivery of NRM programs that have a technical or scientific requirement may be more effectively done by other organisations with capacity and expertise for this work, rather than expecting regional NRM groups to be able to deliver all components of NRM programs.

2.6 The extent to which the Caring for our Country program represents a comprehensive approach to meeting Australia's future NRM needs:

- Caring for our Country (CfoC) has only recently commenced, with limited detail on its implementation having been communicated as yet.
- One significant result of the change to CfoC is that NRM delivery organisations now have to compete for project funding with other regions in WA, and potentially across Australia. While this competitive approach provides the Commonwealth with the ability to selectively apply funding to meet their priorities, it risks applying funding to projects that fail to connect effectively across interdependent systems and may limit effectiveness of the action.
- Previously, the Commonwealth and State governments jointly invested in NHT and NAP, providing both a leveraging effect for both governments and the ability to maximise the size and benefits of the investment. The CfoC being run separately from State NRM investments may lead to uncoordinated funding across NRM, risks duplication, and risks inefficient use of funding if project deliverers are poorly selected (eg. funding should be directed to organisations with specific expertise in the work area). It may also negatively impact on current national initiatives (eg. through the NRM Standing Committee) to better coordinate the reporting of environmental data.
- Commonwealth programs need to be better integrated; including Caring for Our Country; exceptional circumstances and drought assistance; the National Water Initiative and the National Plan for Water Security; implementation of the EPBC Act etc.