

## **SUBMISSION TO INQUIRY INTO NATURAL RESOURCE MANAGEMENT AND CONSERVATION CHALLENGES**

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This inquiry only came to my attention the day before the submission deadline. Therefore my submission is necessarily brief and lacking the level of explanation and detail that this inquiry justifies.

I have a long standing and strong interest in NRM matters as a soil scientist professional who has had to deal with many of the matters raised by the inquiry. I have 36 years of experience as a soil scientist, project manager, am a state representative on national technical committees and a manager of science based work team delivering land resource information.

At one stage I was seconded to Canberra for 12 months to help implement the National Soil Conservation Program. I have been on national working parties preparing a national NRM strategy, an equivalent state strategy and had many consultative/training roles with Landcare groups, regional NRM bodies and stakeholder committees.

I have worked on NRM issues/projects with Commonwealth bodies eg BRS, CSIRO, DAFF, various state agencies (eg water, soils, environmental, primary industries, main roads), local governments, rural industries, NRM regional bodies, Landcare groups, and with other states and territories. I have also held executive positions with the Australian Society of Soil Science and attended national and international conferences on soils and wetlands. Consequently I believe I am well positioned to provide informed comment on this very important inquiry.

MY response is structured about the terms of reference as follows:

- i. 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,

### **Comment**

*The main success of Commonwealth investment in resource management has been to encourage greater community and industry participation. Locally based Landcare groups working with state and/or local government agencies have been effective in many cases. Their funding success however is often a consequence of their ability to submit good funding applications rather than the relative priority of their proposals. By contrast I believe it was a backward step to form NRM regional bodies as they lack the voluntary local drive that Landcare groups developed. NRM regional bodies are really caught in no mans land (see comments in v.)*

*Another major benefit has been that the Commonwealth programs have been able to lead the national agenda on important NRM issues and bring the states and territories along with them. Consequently many good projects of mutual benefit have been funded. However there has been some lack of recognition of the critical role of state government agencies in the process, leading to an inability to achieve outcomes because state resources are insufficient to support the programs. This was particularly serious at the start of the GST when revenue to the states was very restricted. However recent state NRM funding has been allocated to NRM regional bodies through bilateral agreements but state agency funding and capacity to provide services has suffered as a consequence. CSIRO, universities and other bodies are not able to provide these state specific services.*

*One of my frustrations with Commonwealth investment has been the lack of attention to a need for scientific understanding of the landscape processes we are challenged by and a healthy review process of project establishment, progress and effectiveness. As a receiver of Commonwealth funding from time to time, one of the main problems has been delays in project commencement caused by legal issues associated with contracts, ownership of intellectual property, over-prescription of project activities and unilateral changing of project timetables.*

*There has been insufficient focus on the training requirements of NRM professionals to address these issues. With baby boomer staff approaching retirement there is a real threat of the scientific and corporate knowledge gap compromising the whole program of Commonwealth investment. In particular, investment in soil science training is at its lowest ebb and this sort of Australian specific knowledge is hard won over many years of experience. It cannot be imported from overseas and will take some years to recover from, even if we started investing in such training tomorrow.*

- ii. how we can best build on the knowledge and experience gained from these programs to capitalise on existing networks and projects,

### **Comment**

*There are also other related NRM activities that can contribute knowledge and experience to this question.*

*Regardless of the NRM issue, there are some common features that need to be addressed by any national strategy:*

*1. Prevent the problem from getting worse (invest in planning requirements, monitor resource condition and incentives to support avoidance). An important point is that a monitoring program that is not ongoing is not a monitoring program-it needs secure funding to be useful and effective (eg Bureau of Meteorology weather stations).*

*2. Manage the problem where unavoidable (invest in training, technical guidelines, codes of practice, R&D on understanding processes and developing management techniques, incentives and on ground works)*

*3. Remediate severe problem areas (invest in R&D on new methods, isolate eg fence, fertilize and forget, on ground works - commonly very expensive)*

*The key to the next step is to use the existing national technical committees to work hand in hand community/regional partnership representatives and Commonwealth bureaucrats to prepare national strategies where they are lacking and use the strategies as the template for future funding. At times it feels like the different players are on separate planets.*

- iii. and maintain commitment and momentum among land-holders,

### **Comment**

*Successful NRM is based on good science and demonstrated technology and this should form the basis for agreement amongst government and stakeholders of the way forward. If landholders are not convinced of the scientific facts and merits of a particular solution, there will be limited uptake. Eg soil testing and lime application is a scientifically valid solution to agricultural soil acidification and the treatment of acid sulfate soils, therefore Commonwealth subsidies for lime could be seriously implemented in declared areas.*

- iv. the overall costs and benefits of a regional approach to planning and management of Australia's catchments, coasts and other natural resources,

**Comment**

*A regional approach works for some issues but leads to duplication in others, especially where the issue is not region specific and a state-wide or national approach would be more effective.*

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

**Comment**

*The Commonwealth already has some fine national NRM strategies to give it national direction eg the National Acid Sulfate Soils Management Strategy, the Reef Water Quality Protection Plan but in many cases it does not have a balanced investment program to support those strategies. Although there is a Reef Rescue Plan it is too narrow in focus and appears to be grossly imbalanced in terms of funding allocation. The other problem is the lack of national strategy development for many other issues. A program of funding is not the same as a national strategy that acts as a template for investment in priority actions and sets out the roles and responsibilities of all stakeholders.*

*The Commonwealth should take better advantage of the various national technical committees available with vast experience to help advise on developing national strategies and a balanced investment program. The 6 national priorities for Caring for our Country are commendable but where are our strategies to implement these? Where are the national strategies to deal with water erosion, wind erosion, soil acidification, salinity, and soil organic carbon? These are all processes with implications for waterway health, infrastructure damage and in some cases human health.*

*A program of competitive tendering for NRM projects is not a good strategic model for undertaking NRM. It implies the Commonwealth doesn't know what's needed for successful NRM and it hopes someone will come up with the good ideas. While there is always a place for innovative and effective projects, I suggest this approach is not going to achieve the outcomes hoped for.*

- vi. 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

**Comment**

*The creation of Regional NRM bodies is a very inefficient way of supporting natural resource management and has in some cases created another level of government and confused/diluted the roles and responsibilities of all levels of government and industry bodies. Feedback in Queensland from many landholders is that the NRM bodies are seen as just another level of government but without the institutional*

*status or power. In effect they only exist because of government funding and really have to act as consultants and brokers, have to duplicate the state and local government leadership and administrative processes, but deliver services without the discipline of the profit motive.*

*They also compete with state and Federal Government and industry for the same pool of skilled NRM specialists. With the greatest of will, this is not helpful.*

*My observation is that the capacity and effectiveness of regional NRM groups is very uneven and has downgraded the role of local government. Local government in Queensland is responsible for managing NRM issues such as noxious weeds and pests, but have been not approached to take on other NRM responsibilities. They are also well set up through legislation to handle public funds and could establish NRM boards to minimise any potential political interference. In some cases the local governments may be too small but that constraint can be solved through agreed regional organisations of councils that identify one council to act as the host council for administrative matters.*

*I dispute whether substantial public money should be spent on on-ground works as they tend to benefit individuals and there will never ever be enough money. Significant Government money would be better spent on the enabling public good components, such as identified in vii below.*

vii. arrangements under the Caring for our Country program

## **Comment**

*Note my earlier doubts about competitive tendering being a major way to allocate funds as it leads to patchy and ad hoc funding of NRM activities. There needs to be better real world analysis of the potential consequences of the current scheme, which does not get to grips with the balance of issues that need to be addressed. In terms of implementation of an NRM strategy, Caring for country will also be doomed to failure if it does not look at all the measures required for good NRM management. Some of these include:*

*1. Policy, regulation and legislation – the policy settings need to decide the lead agency that deals with NRM, the level of regulation, incentives, assistance conditions and support for the balance of measures required to achieve effective NRM. These policy settings need to be transparent to all.*

*2. Assessment – mapping modelling and monitoring at adequate spatial and temporal scales is needed to determine baselines of resource condition, support process understanding and program progress. This helps to provide some facts on the extent of a particular problem and determine priority areas. This seems to have been not looked at systematically even though the National Land Water Resources Audit made a good attempt at compilation, it was based on historic data. However, there was no systematic and ongoing follow up program to fill data gaps fit for purpose.*

*3. Awareness, education and training - this is needed for land managers and institutions to move from denial to recognition to acceptance to ownership. These measures can take a wide variety of forms.*

*4. Planning and environmental advice - this is needed to provide technical guidelines, codes of practice and day to day advice on planning and environmental matters to support regulation and development assessment.*

5. R&D – this is needed mainly to support advances in assessment technologies, economic and social analysis, understanding of landscape processes and development of innovative management technologies and solutions.

6. Community participation – this provides support for consultative and advisory committees, partnerships with NRM institutions, local Landcare groups etc

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

### **Comment**

*All the measures listed in vii need to be addressed concurrently if you want to effectively achieve sound NRM outcomes. This is a simple checklist but is an easy way to assess the potential effectiveness of previous and current NRM programs. The Caring for Country program does not appear to currently stack up. Although many of the above measures are eligible for funding, it appears to be an ad hoc approach to ensure the right balance of measures get funding. The criteria appear to focus on certain areas, encourage partnerships and matching funding but do not appear to consider the balance of measures needed to address an NRM issue nationally or within a state or region. Even if a particular measure is not funded, someone needs to be responsible.*

*It's stated that Caring for our Country will take a business approach to investment. It will have clear outcomes and priorities, reduced bureaucratic complexity and improved accountability. I would argue that it is technically very difficult to measure the effectiveness of programs in respect to NRM outcomes because of an inability to separate the climate signal and long time delays before a biophysical change can be attributed to a program. However in many cases we know what actions help and improving those inputs is working in the right direction eg improved land management practices, training, better targeting/commissioning of projects. So hand in hand with a business approach needs to be a more informed scientific approach.*