

Better Managing Our Environmental Impacts

To better manage our environmental impacts we have to more strongly inject environmental considerations into our decisions on mainstream land management activities. This paper is about how we can do that.

The short answer is in two parts.

First, we need to think about land management as the management of our impacts rather than it being the management of the resources themselves.

Second, we need to recognise and reward individual land managers for improving verified environmental performance.

And now for the longer answer.

Land management is complex requiring considerable insight and creativity. Decision making in these situations reflects many interacting factors.

The beliefs and values of land managers are important. I am not one of those who claim all landholders to be conservationists. However there are a great number, including myself, who want to be responsible environmental managers.

We don't lack information. I could feed a goat just on what comes through the mail.

We don't lack regulation. Yes there are problems with the nature of environmental regulation and its application but there is no shortage of it.

And it is not for lack of community willingness to support improving land management.

The dominant form of community support is project funding through arrangements such as Caring for our Country, regional and catchment bodies, Landcare and the Environmental Stewardship program. However, generally the projects are short term, narrowly focused, accessed by few landholders and incur great financial and other transaction costs for both agencies and landholders. Failure to get project funding is depressing and costly for those who, in their mind, meet the criteria and don't get funded.

In addition to these problems much time, intellectual horsepower, energy and goodwill is spent identifying and advocating generic goals, generalised indicators and complex monitoring and accountability processes. I know these will be defended to the death by their architects but also I know from long personal experience, as both a landholder and as a project manager, that many of them are ineffective, not sustained and very costly.



We could overcome most of these problems to some extent, but while ever we depend so heavily on a project-by-project approach we do not effectively engage enough land managers at the critical point of their decisions about mainstream property activities. Consequently as land managers we have a less than ideal pull, commercial and otherwise, to improve the environmental impacts of our mainstream farm activities.

Natural resource management – what is it?

Given the amount written about natural resource management (NRM), it is amazing how infrequently it is defined or even explained. In the absence of such definition the term natural resource management can lead to the mistaken view that we are managing resources, a view reinforced by published expenditure on specific resource protection and remedial activities. These figures are based on a very narrow view of impacts on the environment.

The reality is that the vast majority of what we do as land managers has an environmental impact, positive or negative. The national annual cost of these activities Australia wide is in multiples of hundreds of billions of dollars so we'd better get it running on the right track.

I prefer the term “environmental management” to “natural resource management” but either term can be defined as managing the potential and realised impacts of people on the environment to achieve ecologically sustainable development.

The importance of being clear about what environmental or natural resource management means is that it helps us recognise that we are managing impacts on complex ecosystems. To manage our impacts in sustainable ways we need:

- to acknowledge the known and unknown interactions and interdependencies within and between those ecosystems
- integrated approaches that recognise the links between what we do as land managers and the totality of ecosystems - the interactive soil, water, flora, fauna, microbiology and biodiversity
- a whole-of-property landscape linked approach across all land uses taking into account all those things peculiar to each land use (we can do this if we want to)
- to recognise the individuality of land managers and the fact that they each have their own aspirations and capabilities
- to recognise that each land manager is there for an ecological microsecond so it is desirable to have systems that can transfer to the next land manager, building on but not being constrained by past approaches and achievements.

How do we get better outcomes?

The most critical change, and the only one I will cover here, is that we need to improve the effectiveness of NRM partnerships. We need public-private partnerships that lead to effective action by individual land managers.

Currently the emphasis is on partnerships between NRM agencies and between NRM agencies and groups of land managers. This emphasis flows from and reinforces the ubiquitous use of short-term micro managed projects to persuade land managers to improve environmental outcomes. This approach continues to the virtual exclusion of all others despite most investment affecting environmental outcomes lying outside the influences of these projects. The bulk of investment is

made by individual land managers within the context of their varied and changing business and personal aspirations and capabilities. We need incentives that go to the heart of these decision-making processes as a way of reinforcing desirable activity and limiting undesirable activity.

The benefits of, and hence the motivations for, improving land management come from many different sources and they are not of equal importance to all land managers. We need certification standards and verification processes that meet many varied and varying needs, domestically and internationally. We need certification standards that enable and encourage creativity and innovation. Certification verifies the land management of the landholder on a designated property

The focus on impacts, positive and negative, underpins the design and operational features of the ALM Group Certified Land Management (CLM) system. This ensures environmental considerations are an integral part of the business rather than necessarily being solely restricted to a particular conservation or remedial goal. It is a way to form close links between conservation and production, and it is a way to focus on people and what they can do to improve environmental outcomes.

Understandably, much is made of the fact that what farmers do has a direct impact on something like 70% of Australia's land and water. However, the current focus on the interface between mining, gas extraction, tourism and agriculture highlights that the potential impacts, positive and negative, are not just about farming. Additionally, the business and lifestyle of farming increasingly is not just about agriculture and we should not overlook the importance of lands managed by governments and by philanthropic organizations.

What does it cost?

There is an emerging and justifiable concern about the extent and nature of transaction costs in project-based programs. David Pannell estimates that without accounting for landholder transaction costs about 40% of the half a billion dollars allocated to the National Action Plan for Salinity and Water Quality program was spent on transaction costs. There is every reason to presume a similar figure would apply to the Caring for our Country program.

Data from the independent Marsden Jacob December 2010 review of the Environmental Stewardship Program show that about 96% of funds over the past four years were spent protecting 26,474 hectares of the vast Box Gum Grassy Woodland for periods up to 15 years. Taking the maximum period of 15 years to be the period of protection, the public sector administrative cost incurred after just four years is already \$20/hectare/year of protection. This transaction cost does not include landholder administrative costs and, most significantly, it does not include non-financial costs such as any negative effects on motivation and creativity.

Important as transaction costs can be, they are dwarfed by the Environmental Stewardship program cost to taxpayers of \$196/hectare/year for on-ground works such as reduced grazing intensity, control of weeds and feral animals and protection of key species and ecological communities. In about the middle of the north-south axis of the Box Gum Grassy Woodland this very conservatively equates to about one quarter the value of the land.

In May this year the Government announced that 'it would invest a further \$84.2 million over four years in a new round of its successful Environmental Stewardship Program'. Successful it might be but at a significant cost.

Cost comparisons are fraught with lack of contextual understandings and inaccuracies. Nevertheless some sense of scale is instructive.

The actions by landholders certified under the CLM system are similar though probably less intense to those undertaken by landholders under the Environmental Stewardship program. The program cost of CLM, including taxpayer and corporate costs and a price on voluntary inputs, is less than 50 cents/ha/year over about three quarters of a million hectares. Conservatively the cost to taxpayers is less than 15 cents/ha/year.

Even closer to home I have a 25-year conservation covenant over about 125 hectares in northern NSW covering forest red gum grassland with a rare Eucalyptus species. The covenant requires grazing being restricted to 15 days each year, control of lantana and prickly pear, no removal or destruction of timber and conduct of a monitoring program. The taxpayer cost excluding transaction costs approximates to \$12/hectare/year.

How do we spend everyone's dollars more effectively?

Besides the obvious requirement to deliver improved environmental outcomes the most important determinant of effectiveness and cost efficiency is having an approach that enables benefits to accumulate from a variety of sources.

Our experience with the CLM system demonstrates that individual landholders may benefit from more efficient use of more productive resources, input cost discounts, product differentiation generally and a price premium for wool, reduced legal risk, greater access to NRM funding, stronger negotiating position with other land users, improved self esteem and interaction with other innovative land managers. Additionally, landholders participating in the CLM system have had their certification costs greatly reduced by corporate support from Elders and from Japanese and Korean textile corporations.

These benefits depend on having a certification system that is credible nationally and internationally and that is linked to the landscape priorities, strategies and targets held by regional and catchment authorities. The keys here are for the system to be based on relevant and auditable standards that are widely applicable on a whole-of-farm basis and which do not constrain innovation, for there to be an independent auditing process, and for landholders and the system administrators to have access to user-friendly web-based software tools.

The need for a whole-of-farm landscape linked approach needs special mention. Over 60% of Australian farmers producing over 70% of produce by value operate two or more industries.

Why would a land manager want to have more than one environmental certification system? How can land managers apply multiple industry-by-industry environmental management systems? What wholesaler or retailer would want to manage industry-by-industry certification systems? What consumer would want to try to understand multiple certification standards? What NRM agency would want to accredit industry-by-industry certification systems?

The basis for public-private partnerships

By far the largest investment in natural resource management is by land managers. While the nature and extent of this investment is mainly influenced by market signals, this should not be taken to discount the rationale for and potential impacts of the policies and programs of public, philanthropic and non-government organisations.

There is a strong case for effective public involvement in natural resource management for a number of reasons:

- pricing mechanisms, a primary determinant of behaviour, do not adequately reflect the breadth of community beliefs and values

- many environmental outcomes, including biodiversity conservation, are mixtures of public and private goods and, by definition, market signals do not provide incentive for the production of public goods
- without public involvement it is hard to limit the causes and impacts of off-site effects and the impacts of the long time lags commonly experienced in environmental management
- many past public policies and involvements have had unintended perverse effects, not least in the area of environmental management generally and in the application of environmental management systems specifically
- fragmentation between industries and NRM agencies, often embedded in legislation, limits the capacity to achieve economies of association between functions and economies of scale.

Public involvement essentially takes the form of persuasion through leadership and through establishing an institutional arrangement which is a complex of interacting organisations, policies, programs, legislation and markets. It is not possible or desirable here to critique all the possible interventions. However, given the purpose of the Reference Panel it is useful to note that the overall effectiveness of the institutional arrangement depends a lot on having complementary interventions.

There are those who have maintained that environmental certification systems need to be industry driven and that there is no place for public support for that type of process.

They are wrong on both counts.

Management systems need to be driven by business managers rather than by some universal concept of 'industry'. Nevertheless it is in the national interest for industry organisations to support and enable innovative business managers.

The case for or against public support should be determined on the basis of whether that support is necessary to deliver a socially desirable goal. It is then a question of determining the right mix of interventions to best achieve that goal.

It is all possible

We need to support individual land managers who credibly design and implement activities and monitor progress against their environmental priorities having taken into account regional, catchment and sub-catchment priorities and strategies and regulatory requirements. To do so will increase the efficiency of use of public funds.

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