



## **A New Deal for Northern Australia?**

**Working group 3, September 2009**

# **North Australia: A Provider of Choice for Australia's Ecosystem Services**

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## **North Australia: A Provider of Choice for Australia's Ecosystem Services**

Northern Australia isn't like any other place. It's relatively empty in a crowded world. It has a breathtaking intensity and legendary history that permeates many features of Australia's cultural identity. While it is a special and unique environmental wilderness to many in southern Australia, it equally is the home and economic foundation for our northern communities and traditional owners.

While things have changed a lot in the past four decades of recent north Australian history, the changes are about to accelerate. Australia's southern agriculturalists are looking north to escape the consequences of poor land and water use; droughts that are harder to bounce back from, the insidious creep of dryland salinity and ever dwindling water supplies. Climate change means different things for the north compared to the south, particularly potential increases in the frequency of whopper cyclones. New weeds and pests are changing entire landscapes forever. And all this is happening at a time when the rest of the world is looking to treasure, even pay for, Australia's wilderness values and outstanding biological and cultural diversity.

North Australia has biodiverse and culturally rich landscapes that are recognized as having international and national significance. At the same time, however, the north has such a small proportion of Australia's population and fiscal wealth. These landscape-scale values won't just hang around in good health without dedicated management by the north's people. The pressure for new resource development is ever present. Fire regimes are constantly changing, and unmanaged, have the potential to flip the north's ecosystems in totally new directions. Ever more invasive pests are busy munching away at the north's biodiversity.

These landscape-scale outcomes are not theoretical; they are happening now. Small mammals and bird species are on the decline. On most counts, critical environmental and cultural indicators are in decline across the north.

The key question is who pays to maintain these internationally significant values in the face of the varied threats that they face? Our northern Australian landscapes can not continue to deliver sound ecosystem services, to continue to be the world's culturally-rich wilderness, without substantial and integrated efforts from every consumer, the private sector and all spheres of government. It will also require traditional owners and other landowners and land managers right across north Australia's range and farmlands to play a major role on behalf of Australian society.

Such problems are often still framed in environmental and social terms, and hardly ever in economic ones. The stark reality is that these problems *are* economic. Our natural resources provide the very ecosystem services that are the foundation for our national economy. People and culture provide the human resources. The loss of either simply reflects an economic failure; the failure to account for the social and ecological costs of production and consumption. This does not mean capitalism doesn't work; it just means some of the flaws in the system need to be fixed.

This is why we view the job ahead for north Australia as one of economic reform, not just one of improved environmental management. The economic reform we seek is simply to

see the negative environmental and social impacts of production and consumption in north Australia recognised, valued and paid for. Many would argue that this would cost the earth. We know that not doing so certainly will.

Paying for these services via small, time-limited government programs funded through the sale of assets like Telstra or direct from the mainstream taxation system has been a welcome step in the last twenty years. The small amount of money made available via these systems, however, is only enough to raise recognition of the problems faced in northern Australian landscape, not enough to actually solve them.

A taxation-based or program-based approach simply continues to position environmental losses as being some-else's responsibility (eg it's the government's problem). Only positioning environmental and social costs as part of our mainstream economy will get us close to solving these problems. This means either capturing the costs of these ecosystem services in the cost of consumption, or else enabling the purchase of environmental services as credit for the purchase of permits to use certain natural resources in other areas. Landholders sequestering biodiverse carbon in north Australia for example, could be empowered to sell these ecosystem services as part of a wider scheme designed to cap and trade the right to emit carbon dioxide.

In this paper, we mainly deal with the concept of ecosystem services and how their recognition and payment need to become a new economic driver in north Australia.

### **How Might Ecosystem Service Payments Work?**

The long-term international trend in falling rural commodity prices has meant that consumers are generally paying less for food and fibre. This is happening regardless of the fact that the full cost of production (particularly land and marine degradation, water quality decline and biodiversity loss) is still a long way from being included in the cost of the product getting to market or in the price received by producers. Equally, in the northern Australia, individual land managers cannot be expected to fully fund the public good when there is limited private benefit in them doing so.

Welcome to perhaps one of the greatest, but fixable, flaws in our economic system. Put another way, traditional owners and primary producers who together occupy the vast majority of the north's land mass cannot be expected to go beyond their *duty of care* for the protection of environmental values if the broader community (from local to international level) are not prepared to assist or to meet the cost of public good outcomes that need to be achieved. Equally, however, the north's land managers should not be paid for meeting their duty of care responsibilities.

Services provided by the north's ecosystems are a foundation part of the Australian economy. Clean air, water, biodiversity and healthy soils are the stuff of life. While all of the north's land managers have a duty of care to look after these resources, if the south wants a higher level of ecosystem service protection in the north, then this means that landscape-scale management needs go beyond the existing regulatory (environmental protection-oriented) statutes (eg. Queensland's *Vegetation Management Act* or the Commonwealth *World Heritage Act*).

In our view, a land manager's duty of care is most simply defined by what existing legislation and regulation says you can or can't do with your land and natural resources. The current body of legislation and regulation, no matter how fragmented these may be,

effectively represent the current state a societal agreement about what is expected of you in the management of your land. The bar representing this duty of care can always be lifted by society over time with new regulation.

Further regulatory reform seeking higher levels of landscape protection however, could result in many enterprises and some north Australian towns and regions becoming unviable. This problem is at the heart of Noel Pearson's current attack on the Queensland government over the *Wild Rivers* legislation. Noel correctly points out that, having ruined their own rivers, southern Australians are effectively regulating land management on traditional and other lands in the north to preserve the nation's remaining wilderness values. We hear clearly in Noel's impassioned pleas that, while he understands why these values need protection, he considers it a little bit rude that all northern Australian's, and economically embattled indigenous communities in particular, be expected to for-go future economic opportunities in the long term *and* pay for the management of land to meet someone else's values in the short term. As such, Australia and the rest of the world finding a way to pay for the north's ecosystem services above current duty of care requirements could deliver tangible benefits to both northern rural/ remote *and* southern urban communities.

Through national and international recognition of the value of the ecosystem services required over and above duty of care obligations, a bridge could be constructed across this north/south divide. Such recognition could result in the proper valuation of ecosystem services and a transfer of some of the responsibility for paying for ecosystem management to southern Australia's largely urban population and other consumers. These are the people that consume Australian products but don't account for the ecosystem services that have been damaged in the production process.

For the ecosystem services payment concept to work in the north:

- nationally agreed expectations of a land manager's duty of care would need to be explicitly defined and agreed at the property scale via some form of agreed but clear Property Management System;
- the apportionment of ecosystem service responsibilities between the land manager and the consumer would need to be determined;
- the nature and value of the ecosystem services that need to be protected would need to be determined. This could best be achieved at a regional scale;
- the strategic priorities for action to secure these ecosystem services would also need to be determined at national and state scales;
- the most appropriate mechanisms for society to pay for these ecosystem service payments and the price to be paid would need to be developed; and
- sound, stable and long term arrangements for strategic planning, target setting, effort alignment and monitoring of environmental improvements would need to be developed and maintained at national, state and regional scales.

The following works through these issues to illustrate how the concept might work.

### *Defining Duty of Care to Underpin Ecosystem Service Payments*

This paper restricts its attention to the possible payment for ecosystem services that are required over and above a land holder's duty of care responsibilities. Specifically defining what constitutes duty of care is a complex process. Lack of clear definition of the concept has been at the heart of regulatory debates for the last two decades.

As mentioned above, one way to cut through the heart of this debate maybe to consider that, at property scale, duty of care can be loosely defined as the sum of the requirements of contemporary legislative and regulatory obligations on that particular property. A good example might be that, in Queensland, farmers can only clear vegetation once they have developed a map of assessable vegetation. If vegetation on their property is “endangered” under definitions within the act, then they will be unable to clear. Despite this regulatory obligation, biodiversity could still be lost in endangered ecosystems through poor fire management, pest invasion or high grazing pressure. While some aspects of pest management are regulated, many aspects are not. Regulating further may well turn a grazier struggling to make a profit into a national park ranger paid for by no one *and* required to foot the operational costs.

When articulated explicitly at property scale, the combined effect of the current legislative and regulatory obligation is the best expression we have of societal agreement about the expected responsibilities of land managers. This expression will be different in different State and Territory jurisdictions, and even between regions and districts within these jurisdictions. The responsibility to fix such regulatory haziness and to define a reasonable “duty of care” however rests with the Australian, State and Local governments. Under a national system, ecosystem service payments perhaps shouldn’t be made for issues or in certain areas where all three levels of government are not agreed that there is a reasonable regulatory regime in place. The funding of environmental services should not be at the expense of, or seen to be in lieu of, sound regulatory frameworks for environmental management.

Continuous regulatory improvement is an ongoing agenda within society. Each progressive regulatory reform generally raises the bar on duty of care requirements. Whether compensation is due to those land managers that loose productive capacity as a result of regulatory change is a major issue that needs to be faced with each new piece of legislation or regulatory. It is fair to say, however, that northern Australian landholders have worn successive of waves of new legislation and regulation without reasonable compensation or adjustment support.

Political power rests in the south and it is politically easy for southern Australians to continue to keep screwing down on the rights and economic opportunities of north Australian’s with every successive election. In Queensland, this year’s State election saw new regulation proposed on clearing regrowth in endangered ecosystems and 50 meters either side of water courses in all catchments draining into the Barrier Reef. Agricultural activities in high priority reef catchments will also be regulated. World Heritage listing in Cape York will progress as will the progressive listing of new Wild River designations. One can imagine northern Australia’s land managers feeling somewhat punch-drunk after almost two decades of significant legislative reform. Additionally, nearly all these regulatory tools concern protection only, meaning the very values being protected could be lost because of poor land management anyway.

Assuming a reasonable regulatory regime is in place, a basis for the payment of ecosystem services perhaps comes from a single clear statement of the regulatory obligations required by Australian, State and local governments at property scale. A simple Property Management System with appropriate auditing arrangements that determine whether or not land managers are meeting these obligations, or at least are progressing towards this end, might provide a foundation for payment for the provision of additional ecosystem services over and above duty of care obligations.

Establishing absolutely clear definitions and arrangements for defining and benchmarking ecosystem service payments against duty of care foundations may need to be allowed to develop more strongly over time. This would avoid having all the detailed issues within this complex concept resolved in advance of early delivery.

Let us be clear though. The above discussion makes it easy to see how southern Australia finds it simply easier to just pass regulation for the protection of rivers, wetlands, reefs, endangered species, groundwaters and so on in the north. It costs them very little in financial terms. It makes them feel as though they can tick that particular job off their list of environmental promises from the last election.

There are, however, two fatal flaws in this approach by Governments in the south. First, as every new regulatory action further restricts the potential economic or cultural use of natural resources by northern Australians, it eventually creates a profound social and economic injustice for them. Secondly, drawing protective lines on maps in Brisbane, Perth or Canberra does little to actually secure the land management needed to protect these ecosystems. While legal protection is just one action that can be taken, it is the good or bad management of landscapes by people in the north that actually delivers the desired environmental outcomes. Management requires people and resources. It costs money and takes time.

#### *Dividing Public From Private Good*

If, over and above their duty of care obligations, a landowner sets aside a portion of their property for biodiversity conservation and derives no income from doing so, then a public good outcome has been achieved. If preventing excessive soil and nutrient loss from farming/grazing systems over and above duty of care requirements will produce an improvement in farm profitability, then it could be considered that both a private and public benefit has been secured. In such cases, governments may find it more reasonable to provide extension services that are focused on supporting practice change rather than making direct ecosystem service payments.

The complex job of the protection of healthy and restoration of degraded landscapes requires full mobilization of a mix of duty of care and public good actions. It also requires robust dialogue at regional and property level about where the boundary between public and private good lies and the most appropriate delivery mechanism.

#### *Determining the Nature and Value of Ecosystem Services*

There has been considerable research in recent years regarding approaches to the valuation of ecosystem services. Before a nationalized system of ecosystem service payments could be established, effort would be needed to apply current knowledge. In particular, the results of the National Market Based Incentive pilots funded by the Australian and State governments in recent years would be useful.

We would argue, however, that the greatest killer of innovative reform is complexity. The political backlash John Hewson suffered when he struggled to communicate his proposed Goods and Services Tax reminds us why. If for example, we ended up paying some form of consumption tax on products derived from natural resource use, just setting a reasonable and flat figure and getting the system started would be more preferable than an endless cycle of debate about complex cost metrics.

Our general feel is that the job ahead of us in managing the nation's ecosystem services is so big, that we just need to get started, learn as we go, and to adjust the prices we pay for these services over time. We also consider that many of our landscape scale problems are quite tractable with concerted, integrated long term effort, eventually making the cost of managing ecosystem services more affordable over time. Once the last wild camels wandering around the northern deserts are gone, for example, that problem suddenly becomes much cheaper to manage.

### *Determining Strategic Priorities for Landscape Change*

Apart from understanding the wide range of necessary ecosystem services and their relative value, strategic investment prioritization at national, state and regional level is essential. This would require a robust approach to natural resource management planning at both Commonwealth and State levels, perhaps building on the strengths and key features of Australia's regional natural resource management (NRM) planning model. This would mean the Australian and State governments working with regional communities to better define the state and trend of their critical natural resource assets, setting science based resource condition and management action targets and monitoring progress towards their achievement.

Australia's current regional natural resource management planning system is a great step towards doing this at regional scale, but the system needs continuous improvement. Some region's, particularly those in Western Australia and the Northern Territory, are simply too big to be of local relevance. As whitefella-constructs, they have also struggled to effectively engage traditional owners. Finally, clear feedback mechanisms from regional level to national level and back again would ensure effective two-way communication between the priorities set at different scales.

### **Resourcing Ecosystem Service Payments**

The cost of securing ecosystem services and their delivery mechanisms, particularly in northern Australia, is considerable. Even a very small percentage contribution against gross domestic product (GDP), however, would make massive progress. Let's face facts though; we are currently eroding those assets that underpin GDP. Options that may need to be explored to finance these ecosystem services may include:

- a national environment levy (effectively a special purpose income tax);
- extending the Goods and Services Tax (GST) to include an ecosystem services component on all unprocessed primary products;
- broad adoption of cap and trade systems (eg. better defining the nation's protected area estate and requiring the purchase of biodiversity permits on productive activities to fund broadscale biodiversity management); or
- finding other mechanisms to ensure the full cost is paid for food, fibre, energy and other products directly derived from the use of natural resources.

Additionally, Australia imports food, fibre and energy products. Maybe new mechanisms should be considered to account for production impacts on ecosystem services in their country of origin. If a National Environment Fund, for example, is to manage externalities created by our primary production systems in Australia, then the impact of our reliance on imported food products should also be factored into any proposal to fund environment services both here and in critical global environments.

All these options have strengths and weaknesses and it is perhaps inevitable that a mix of options eventually emerges to cover different situations. We strongly support, for example, including the sequestration of biodiverse carbon into the trading system being established under the Australian government's proposed Carbon Pollution Reduction Scheme. The development of multiple, complex systems addressing an issue at a time, however, should be avoided at all costs.

No matter how it is resourced, the payment of north Australia's land managers to provide ecosystem services to the rest of the world would need to continue for the long term as reversing landscape decline and ensuring that urban environments reduce their national ecological footprint will take time. Taking defined actions to secure improvements may take years to show results. However, with targeted investment, long term monitoring of the results and adaptive approaches to management, results will start to be achieved more quickly than currently expected.

### *Institutions to Deliver Long Term Outcomes*

Sound institutional arrangements are needed to ensure that scarce resources are spent in an efficient, equitable way, targeting priorities and maximizing returns. Such institutions will need to broker regional efforts, lever cash and in kind and coordinate effort from the private, volunteer and philanthropic sectors. Strong institutions of this kind will be even more important if we are to establish some form of longer term program of national investment in ecosystem services at the regional scale.

The regional body model established by the Australian government to distribute \$2.5b of Natural Heritage Trust and National Action Plan for Salinity and Water Quality money is often accepted nationally as the best available model. The foundations for the model have been maintained under the current Australian government's Caring For Our Country Program. While this model is a good start, it will need to more clearly integrate State government and industry efforts at the property scale and the efforts of local government and state agencies. There needs to be a tripartite vision for the successful operation of this model across the north, as well as a longer term financial commitment to supporting the operational health of regional NRM bodies. In areas across northern Australia, where traditional owners dominate the landscape, new or enhanced indigenous land and sea management institutions may be required.

To maintain ongoing community support for ecosystem service payments, a nationally coordinated monitoring and evaluation framework will be required. This framework would be the basis for reporting the achievement of regional environmental management actions against time bound targets. Reporting and accounting arrangements would need to remain landowner and investor friendly. The Wentworth Group of Concerned Scientists, for example, is proposing the adoption of a set of national environmental accounts.

### **An Emerging Opportunity**

Just as one of the first real opportunities to fund a broader range of ecosystem services in northern Australia emerges, we are currently seeing a retreat towards perverse and minimalist rather than integrated landscape outcomes. Just as the opportunity to direct offsets from the world's emerging carbon trading markets to biosequestration activities



with additional biodiversity, water quality and social advantages, the nation's emerging Carbon Pollution Reduction Scheme has avoided dealing with issues associated with land use change. This is despite the fact that Australia is more at risk from the effects of climate change than we are contributors to it. As high per capita emitters, there is now doubt we need to be reducing our emissions. Our emission reduction scheme, however, needs to deliver a more resilient landscape in the face of climate change. Northern Australian ecosystems like the reef and tropical savannas are at risk if we do not better sequester carbon in the northern landscape.

This has been pushed along by a perhaps understandable focus on making alternative energy options more viable. It has also been pushed along by the problems experienced internationally with early biosequestration activities. Early "plant a tree and ease your guilt" programs and other activities across the globe were tarnished by two festering sores. The first emerged from the lack of accountability and a lack of verification in a number of early, high profile projects. This is a management and governance problem, not a biosequestration problem. In effect, the promise and reputation of biosequestration has been smeared by very human frailties.

The second emerged from the risk of carbon emitting events occurring within biosequestration activities. An example here is that a rainforest planted to sequester carbon could one day burn, re-emitting all that carbon back into the atmosphere. Again, the problem here can often be caused by human frailty rather than a problem with biosequestration *per se*. Good land management, for example minimizes the risk of accidental carbon emissions. Secondly, while carbon cycles can fluctuate, we maybe should be considering that improvements in certain ecological and agricultural systems are leading to an average increase in sequestered carbon. An example here is that better grazing regimes, will on average, have more carbon fixed over a period of time, even if those pastures burn on a regular or even periodic basis.

It is important to consider here that the case against biosequestration is being made without equally spelling out or even calculating the risks associated with other sequestration technologies. Investment in green technology research, for example, may not necessarily lead to effective emission reductions as emissions from new economic growth simply replaces the emissions that have been saved. Cheaper, less emissive energy streams may also increase the use of energy, cancelling the benefits.

More importantly, however, there remains a policy vacuum when it comes to seeking a biodiversity, food security, social or water quality premium on offset carbon. In short, we don't have an integrated response to the problem. If climate change poses catastrophic risk to biodiversity and food security, then it is essential that offset responses, to at least some degree, seek adaptation as well as mitigation outcomes.

If we are to prepare our landscapes and national icons like the Great Barrier Reef to be more resilient in the face of climate change, then there must be a policy emphasis back towards facilitating carbon sequestration options that will enhance adaptation within our landscape in the face of climate change. Given the special opportunities presented by northern Australia, it should be well positioned, if not specifically favoured as a priority area for the provision and purchase of such carbon credits.

*Why Stop at Carbon?*

A cohesive policy response to the global warming itself should have never been about reducing carbon emissions alone. Indeed, it *must*, in parallel, encourage global efforts towards the protection and enhancement of biodiversity and food security. This means not just establishing biodiversity and food security friendly carbon trading systems. It means actually setting up trading systems to offset the impact of our daily and business lives on biodiversity, agricultural sustainability and water quality. In effect, we need an integrated ecosystems services trading system, based on achieving clear targets in respect to water quality, biodiversity and soil condition. Why not throw cultural and poverty reduction trading systems in for good measure. Establishing a carbon trading system alone, particularly one that offers no incentives to achieve the biodiversity and other values needed to adapt to climate change, is business-as-usual.

## **Conclusions**

Northern and southern Australia will never reconcile their differences if the south continues to simply regulate the economic opportunities of northern Australians to deliver the national ecosystem services needed and desired by those living in Australia's southern capital cities. To make the combined reforms needed for the creation of an ecosystem service economy in northern Australia, however, a simple and understandable national policy framework will need to emerge.

Key steps will need to include the Australian government establishing in-principle agreement on the need for society to pay for the ecosystem services in north Australia required beyond the current "duty of care" responsibilities of land managers. The Australian government will also need to, through national partnerships, to secure an appropriate policy and delivery framework for managing ecosystem service payments.

There is limited time to progress, not least because of the continuing decline in critical environmental and cultural services across northern Australia.