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Australia's National Drought Policy in a Changing Climate

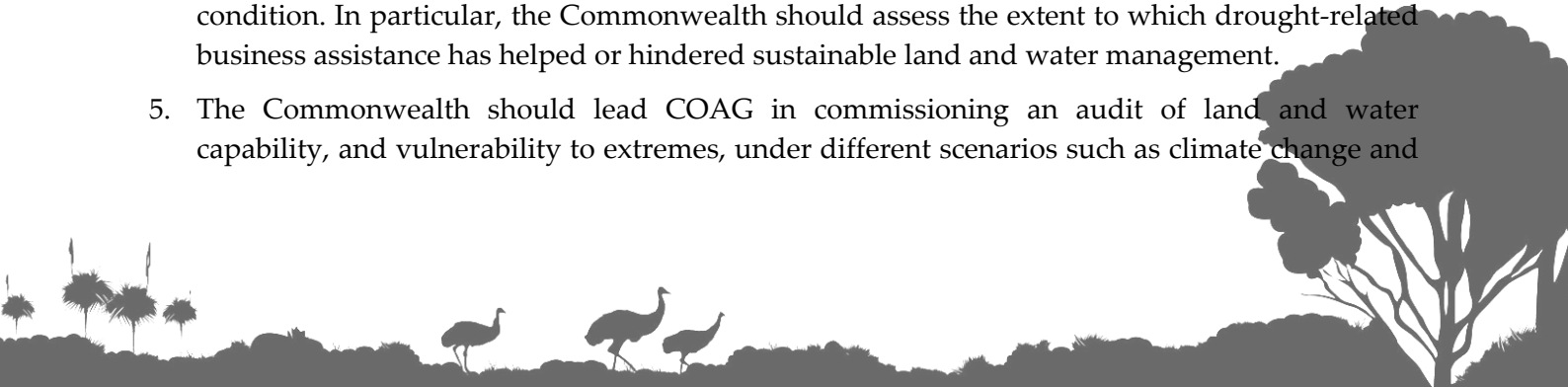
Submission to the Productivity Commission Inquiry into Government Drought Support

Summary and recommendations

A rapidly changing global climate poses enormous challenges for the future of agriculture and sustainable land management across much of the continent. Moreover, environmental deterioration in production landscapes is likely to be exacerbated by some drought-related business subsidies and concessions. The present review affords the Australian Government the opportunity to enact strategic and systemic reform to identify and minimise perverse subsidies, better enable long-term agricultural adaptation and foster ecologically sustainable land-use, in line with National Drought Policy and other public policy objectives.

The Australian Conservation Foundation recommends the following:

1. Taxpayer-funded rural business assistance should be used to raise farm and landscape resilience to climate change and climate variability in line with public good objectives. A priority should be promoting the widespread adoption of environmental best practice, appropriate land-use and resource-use efficiency.
2. Establishment of a clearer, closer working relationship between agriculture, climate change, water and environment portfolios and programs to better identify and secure win-win opportunities to meet national structural adjustment, sustainable regional development and conservation goals.
3. Given the enormous challenges presented by a fast-changing climate, the deterioration of ecosystem services and the rising cost of farm inputs, the Commonwealth should lead the Council of Australian Governments (COAG) in the development of a long-term strategy for food security, agriculture and environmental resilience. The strategy would set milestones for progress, including the management of structural adjustment.
4. Government should establish the relationship between agricultural subsidies and concessions, agriculture's environmental performance, resilience to climate change, and landscape condition. In particular, the Commonwealth should assess the extent to which drought-related business assistance has helped or hindered sustainable land and water management.
5. The Commonwealth should lead COAG in commissioning an audit of land and water capability, and vulnerability to extremes, under different scenarios such as climate change and



oil price. The audit should also identify opportunities to deliver benefits for land and water ecosystems through structural adjustment consistent with national goals.

6. Environmental stewardship payment programs should be expanded to help moderate year-to-year variations in farm income and provide for counter-cyclical employment in environmental works in strategic areas, consistent with targets and outcomes laid out in the *Caring for Our Country* program. Stewardship contracts should include specific 'drought clauses' to improve on-farm management of climate risk (to both the business and biodiversity values) and make the contract more attractive to landholders.
7. All governments should introduce minimum environmental performance standards as a prerequisite for receipt of drought-related business assistance, including farm management deposits, income contingent loans, interest rate subsidies, feed & freight subsidies, and any other business support measures. Environmental standards should be progressively introduced with sufficient support (i.e. facilitation, extension, etc.) to enable producers to adjust. A three-tiered approach with reasonably straightforward criteria is suggested, where funds are made available on the basis of improving environmental performance, namely:
 - a. Those businesses with an accredited enterprise environmental management plan, certified organic plan or an environmental management system, with performance targets aligned with regional/catchment plans;
 - b. Those businesses (or groups of businesses) prepared to undertake specific preventative, restorative and proactive conservation activities that align with regional/catchment plans and are above and beyond the regulated duty of care; and
 - c. Those businesses that demonstrate low external input, sophisticated risk management and environmental best practice across all aspects of the business as well as specific ecological recovery activities aligned with regional/catchment and national priorities.
8. The Commonwealth should work with the States and Territories to actively identify and explore ways of encouraging those businesses demonstrating both a high level of risk management and a high level of environmental performance to purchase under-performing properties, extend best practice across a wider area, and strategically protect and restore degraded areas.
9. Governments should redirect a significant portion of funds currently earmarked for rural business assistance to enable landholders to convert - on a permanent basis - some or all of their land to an alternative, more environmentally beneficial use. A competitive bidding system should be used to identify marginal areas with high public (conservation) asset values where current land-use is leading to significant off-site costs.
10. The Commonwealth should redirect a significant portion of current rural subsidies and concessions to leverage private investment in new industries and enterprises that meet high environmental, resource-conservation and profitability criteria.

Preface

The Australian Conservation Foundation (ACF) is committed to inspiring people to achieve a healthy environment for all Australians. For over 40 years we have been a strong voice for the environment; promoting solutions through research, consultation, education and partnerships. We

work with the community, business and government to protect, restore and sustain our environment.

For more information, visit: www.acfonline.org.au.

Introduction: Towards a sustainable National Drought Policy

ACF welcomes this opportunity to contribute to the Australian Government's review of Australia's National Drought Policy (NDP). This submission briefly outlines the environmental case for reform and suggests alternative approaches to achieving the objectives of the NDP.

Australian history is not wanting for reviews of government intervention during drought, the results of these inquiries give little cause for hope that major reforms are in the offing (Botterill 2003). However, in at least one important respect the present review is markedly different from its predecessors: The Rudd Government is the first to demonstrate a willingness to grapple with the realities of climate change for this area of public policy.

This affords Government a historically unique opportunity to:

1. Develop a strategic, proactive and long-term approach to worsening climatic conditions across much of the continent;
2. Substantially improve the delivery of critical ecosystem services (including carbon sequestration) on private land; and
3. Make the shift to distinctly *Australian* farming systems, i.e. profitable enterprises operating within the ecological and resource limits of the country.

ACF's view is that drought-related business assistance measures should be targeted so as to help otherwise viable businesses prepare for recurrent drought and increasingly extreme climatic conditions. Public funds should primarily be used to raise farm and landscape resilience to climate change and climate variability. The priority should be assisting otherwise viable rural businesses to demonstrate a commitment to environmental best practice, appropriate land-use and resource-use efficiency.

To be sure, it is important that governments not abandon people in an increasingly hostile climate. The social and personal impacts of drought clearly demand a compassionate public response. However, ACF agrees with the Agriculture and Food Policy Reference Group's (AFPRG) conclusion that

"Propping up otherwise unviable farmers can make their eventual departure financially and personally more painful" (AFPRG 2006, p181).

The climate change already "in the pipeline" is likely to see many more rural families facing hardship in the next decade and beyond. Ensuring Australia's social security and health care services are up to the task in such circumstances is a pressing matter but should be treated as separate to business assistance issues.

The NDP's objectives as stated are entirely laudable and leave a good deal of scope for governments to adopt a more "appropriate, effective and efficient" long-term response, given as the policy aims to:

- Encourage primary producers and other sections of rural Australia to adopt self-reliant approaches for managing a *changing climate*;

- *Maintain and protect Australia's agricultural and environmental resource base during periods of extreme climatic stress; and*
- *Ensure early recovery of agricultural and rural industries, consistent with long-term sustainable levels.*

[emphasis added]

By contrast, McColl and Young (2006) note that most reviews to-date have concluded that national drought policy has, amongst other things:

- Generally tended to shield communities and industries from structural adjustment, and hence prolong the pain and difficulties associated with drought;
- Kept poor land managers on the land longer, making it more difficult for better managers to buy them out, and hence exacerbating land degradation;
- Encouraged over-stocking via freight and fodder subsidies;

To these might be added the failure of drought policy to address anthropogenic climate change; both causes and effects. It is difficult to escape the view of Botterill (2003, pp73-4) that:

“Australia’s drought policy suggests that debates over meteorological, hydrological and other physical characteristics of drought are not as influential on policy directions as the politics of the event.”

Moreover, drought policy still seems to be under the overwhelming influence of short-termism, as though Australians have still not come to terms with the essentially erratic nature of the landscape:

“Droughts are inevitable in Australia... Yet despite the physical hardship, the social heartbreak, the animal suffering, the financial and economic consequences, and the environmental damage we know for certain will occur, we appear to be surprised by the next inevitable drought.” (McKeon, *et al.* 2004, p17)

It is this approach, perhaps fuelled in part by a crisis and conflict-driven media, that perpetuates a tendency on the part of many in the rural sector to see and portray themselves as victims (Botterill 2003). It may well be that this mindset is helping to cripple the capacity of communities and governments to make the changes necessary to minimise social dislocation and environmental deterioration in a time of rapid global change.

Australia’s approach to drought must make the shift away from *ad hoc* crisis management, to one of sophisticated risk management and sustainable land management. We submit that progressive national policy leadership would help to signal an important change in the national mindset regarding drought.

Likewise, making a specific connexion between society’s agricultural adaptation, structural adjustment and land stewardship goals would ensure a more effective whole-of-government approach and more efficient use of limited public resources. This will mean ensuring that drought-related schemes and strategies, as far as possible, reinforce the goals of national programs like the *Caring for Our Country*, *Water for the Future* and the proposed *Carbon Pollution Reduction Scheme*.

Recommendation 1. Taxpayer-funded rural business assistance should be used to raise farm and landscape resilience to climate change and climate variability in line with public good objectives. A priority should be promoting the widespread adoption of environmental best practice, appropriate land-use and resource-use efficiency.

Recommendation 2. A clearer, closer working relationship between agriculture, climate change, water and environment portfolios and programs should be established to better identify and secure win-win opportunities to meet national structural adjustment, sustainable regional development and conservation goals.

Agricultural adaptation and structural adjustment in a changing climate

Given that drought conditions are emerging as the norm across large parts of the country (Hennessy et al. 2008) there is a need for

“...appropriate policies designed to encourage rather than impede structural adjustment in vulnerable areas in the agricultural sector, including already marginal farming enterprises.”
(Gunasekera *et al.* 2008)

The fundamental, long-term challenge facing the country’s legacy as a major food producer and bulwark to global sustainable food security is to re-design Australian farming systems such that they:

- Are resilient in the face of a rapidly changing climate and increasing variability;
- Are highly conservative and efficient in their use of water, energy and non-renewable resources;
- Maintain groundcover and regenerate soil;
- Leave room enough for wild biodiversity, including active conservation management, and restoration of critical areas and environmental water flows;
- Maintain and restore critical ecosystem services, including carbon sequestration;
- Remain highly profitable in good times without losing money in bad times;
- Invest in their human and financial capital;
- Are innovative and responsive to changing demands and pressures – social, economic and environmental;
- Generate meaningful employment and a diversity of incomes in regional communities and beyond;
- Attract and retain talented young people; and
- Produce food, fibre and assorted other products that are in high demand for good prices.

(after Andrew Campbell *pers. comm.*)

Even so, the latest advice on agricultural adaptation to climate change emphasises the difficulties of so doing without deep cuts in greenhouse pollution levels and sounds a wake-up call to those who assume adaptation will be straightforward:

“[R]esponse strategies need to focus on developing more resilient agricultural systems (including socioeconomic and cultural/institutional structures), to cope with a broad range of possible changes. Enhanced resilience is likely to come with various types of costs or overheads that are often overlooked but that need evaluation. Additionally, given the uncertainties, there is a need for directed change in management, science, and policy that in

turn is monitored, analyzed, and learned from, to iteratively and effectively adjust to actual climate changes that will be experienced in coming decades. *Consequently, adapting agriculture to climate change will be much more systemic than simply a farm-level activity.*" (Howden *et al.* 2007, p. 19695)

[emphasis added]

This suggests a need for an integrated strategic national (i.e. intergovernmental) approach to rural structural adjustment, production and the environment. Such a strategy would attend to the whole supply chain, and not just the farm level. Government would identify market failures and risks to the public good. It would set milestones for progress and include measures that ensure all actors – farmers, financiers, retailers and consumers – are enabled, encouraged and, where necessary, compelled to contribute to climate change adaptation and mitigation.

Recommendation 3. Given the enormous challenges presented by a fast-changing climate, the deterioration of ecosystem services and the rising cost of farm inputs, the Commonwealth should lead the Council of Australian Governments in the development of a long-term strategy for food, agriculture and the environment. The strategy would set milestones for progress, including the management of structural adjustment.

Dealing with perverse subsidies, establishing the basis for cost-effective use of public money

This review presents opportunities to improve both the economic and environmental performance of the NDP, ultimately delivering better public good returns for public investment and better long-term prospects for rural Australia.

Government assistance to the rural sector can prove to be environmentally perverse if it:

- Prevents managers who display a weak or unskilled approach to environmental management from adopting best practices or ecologically sustainable land-uses, or on-selling their property to a better environmental practitioner; or
- Encourages the adoption of poor environmental management practices.

The point is made above that fodder and fuel subsidies, for instance, have worsened production impacts on natural resources by encouraging over-stocking (see also Smith (2003)). Moreover, the NDP will fail to meet the long-term goal of sustainability if it serves to delay or obstruct structural adjustment in response to environmental deterioration associated with past practices and future climate change. In this broad sense, at least, the NDP is not yet an “appropriate, effective and efficient” governmental response.

We submit that the current governmental response to drought is not optimal with regard to the environmental aspects of the NDP’s objectives, and hence is not securing the natural capital that underpins long-term productivity.

To date, it seems that comparatively little effort has been made to underpin the environmental aspects of NDP objectives, except where environmental and agri-environmental programs have been applied *ad hoc* in an attempt to prevent land degradation, and with the usual emphasis on voluntarism as the policy tool of choice.

Even where Envirofund¹ and National Landcare Program² (NLP) grants have been prioritised for natural resource management (NRM) during drought, however, it is not clear how environmentally effective these measures have proven to be, or to what extent they have led to better NRM preparedness during extremes of climate.

At the same time, the cost to the taxpayer arising from environmental and resource deterioration is considerable and rising: The Australian Government has now committed \$2.25 billion over five years for the Caring for Our Country program, and has identified 'sustainable farm practices' as a national priority for expenditure. This follows the previous Government's decade-long multi-billion dollar investment via the Natural Heritage Trust, National Landcare, and related programs³.

Given that governments are now in the process of drawing up investments worth still billions more in new water infrastructure, an audit of land and water capability is urgently needed to identify areas of unsustainable irrigation and unsustainable land-use generally.

It would seem timely to prepare a strong information and data base on the relationship between drought assistance and environmental condition, and review the potential synergies between rural assistance and improved environmental management.

In particular, three pieces of information would seem to be fundamental, namely:

- A rigorous, comprehensive and independent assessment of the extent to which drought subsidies and concessions can help or hinder sustainable land and water management.
- An assessment of the long-term sustainability of Australia's various rural industries in their existing forms and locations given climate change projections.
- Identification of the opportunities to deliver lasting benefits for land and water ecosystems through climate change-related structural adjustment.

ACF is not aware of any such studies having been published, though we note the CSIRO/Bureau of Meteorology report into the future of the exceptional circumstances standard of a one in 20-25 year event (Hennessy *et al.* 2008). Further, we understand that CSIRO and the Australian Bureau of Agricultural & Resource Economics (ABARE) are collaborating on an analysis of the vulnerability of regional Australia to climate change and other stressors (Phillip Glyde *pers. comm.* 2008).

A sophisticated national structural adjustment strategy requires a good understanding of the changing social, economic, climatic and ecological parameters of the landscape. Moreover, government should be able to reassure the public that public investments in environmental repair work on private land are not being undermined by production subsidies.

Recommendation 4. Government should establish the relationship between agricultural subsidies and concessions, agriculture's environmental performance, adaptation to climate change, and landscape condition. In particular, the Commonwealth should assess the extent to which drought-related business assistance has helped or hindered sustainable land and water management.

¹ Now discontinued.

² Now merged into the *Caring for Our Country* program.

³ And there is every indication that this level of investment, which, on averaged on an annual basis, represents much less than one percent of recent federal budgets, is far less than what is actually required to arrest environmental deterioration.

Recommendation 5. The Commonwealth should lead the Council of Australian Government in commissioning an audit of land and water capability, and vulnerability to extremes, under different scenarios (climate change, oil price, etc.) using consistent criteria. The audit should also identify opportunities to deliver benefits for land and water ecosystems through structural adjustment consistent with national goals.

Using rural business assistance to deliver sustainable farm practices

A failure by governments to intervene to assist farmers unprepared for drought may result in their degrading the land in attempt to make ends meet. Drought is an immensely stressful situation and people seldom make the best decisions in such circumstances (AFPRG 2006)⁴.

On the other hand, it is our observation that proactive environmental activities, such as those associated with Landcare groups or other community conservation endeavours, can help to relieve personal pressures by providing meaningful goals and social support through difficult times.

The AFPRG argues that natural resource management initiatives, including payments for ecosystem services (PES or stewardship payments), would have positive implication for the capacity of farm businesses to manage their way through drought. In a forthcoming paper prepared for ACF by CSIRO, the authors identify stewardship payments as a potentially reliable additional income stream to drought-affected businesses (Hatfield-Dodds & Proctor, *in press*).

Australian agri-environmental policy has traditionally relied heavily on voluntarism and suasion, with community calls and conservation policy signals to rural businesses more often than not unable to break through the 'noise' generated by commercial drivers of land-use. So, while many landholders have undoubtedly improved their stewardship of soil, water or wildlife, the country is still faced with ongoing ecological deterioration, the scale of which dwarfs voluntary efforts. Landscape decline is a consequence of past decisions made in ignorance and in some cases is still caused by current poor practices.

Moreover, with little more than 0.2 percent of the federal budget dedicated to the *Caring for Our Country* program, we are unlikely to see a major turnaround. It is prudent, therefore, that government actively looks for ways of making significant advances in sustainable agriculture and land-use in the present inquiry and beyond.

Farmers and other landholders should not be expected to bear the whole cost of the transition to sustainable land-use. Equally, however, public subsidies and concessions to agriculture and other business sectors should deliver public good outcomes. Yet ACF can find little evidence that drought-related assistance to the rural sector does anything of the sort. It certainly does not deliver the kind of proactive environmental management needed to arrest the rising costs – borne by both the public and private landholder – of declining landscape health. In Europe, the United States and South Africa, by contrast, receipt of agricultural subsidies is increasingly contingent on the applicant demonstrating a minimum level of environmental performance (White *et al.* 2008; Smith 2003).

⁴ It is therefore not surprising to hear the occasional call by rural politicians to open up national parks and reserves to livestock by desperate graziers, and it underscores the need for a more strategic and integrated approach to drought and land management. See, for example, <http://www.abc.net.au/news/stories/2007/01/08/1822835.htm>

ACF believes that the eligibility criteria for rural business assistance should include minimum standards of environmental performance in the interests of cross-compliance and to ensure the most cost-effective use of public funds.

At the very least, a minimum environmental standard should include the development of an outcomes-based enterprise environmental management plan. Targets set in the plan should be clearly aligned with regional or catchment-level targets and industry best practice. It is important not to lose focus on the need to actually improve environmental performance and not simply draw up plans, however this approach would have several advantages:

- It would likely be more acceptable to the farming community both because it is a low-level entry point and because it would have to be accompanied by investments in extension, training and facilitation. The development of environmental management systems, moreover, can help to identify legal obligations, new business opportunities, and potential efficiency improvements (Watts 2003).
- It would build on the effort already made by the Australian Government to promote the adoption of environmental management systems in agriculture, and that of several industries and firms which are making progress towards improved environmental management (e.g. Cotton Australia's Best Management Practice program, Foster's "footprint" guidelines for vineyards, etc.).
- Beginning with a low entry point, public assistance could then be used to encourage and ensure increasingly stronger levels of environmental commitment, with special conservation efforts targeted to particularly significant parts of the landscape.

Note that these advantages are dependent on independent third-party assessment of farm environmental planning and performance.

An additional strategy entails coupling improved environmental and risk outcomes with assistance to exit the industry, by encouraging the consolidation of properties under best-practice management regimes; that is, by bringing together willing sellers with those with the willingness and wherewithal to take on more advanced environmental management, even on marginal land.

While the market may deliver environmentally-positive consolidation from time to time, we suggest that this is more a case of luck and that public intervention is warranted to address significant market failure. This may involve targeted exemptions of any charges and duties associated with the transaction, as well as additional incentives to encourage environmental benefits, such as conservation covenants.

Linking business assistance and structural adjustment to environmental best-practice, climate risk management and improved resource-use would ensure good cross-compliance and a more genuinely whole-of-government approach to climate change and variability. It would also serve to optimally guide structural adjustment at minimal public cost while advancing towards governments' environmental goals; such as reversing the decline in the quality and extent of native vegetation, addressing the over-allocation of stressed river systems, and so on.

Recommendation 6. Environmental stewardship payments programs should be expanded to help moderate year-to-year variations in farm income and provide for countercyclical employment in environmental works in strategic areas, consistent with targets and outcomes laid out in the *Caring for Our Country* program. Stewardship contracts should include specific 'drought clauses' to improve on-farm management of climate risk (to both the business and biodiversity values) and make the contract more attractive to landholders.

Recommendation 7: All governments should introduce minimum environmental performance standards as a prerequisite for receipt of drought-related business assistance (including farm management deposits, income contingent loans, interest rate subsidies, feed & freight subsidies, and any other business support measures). Environmental standards should be progressively introduced with sufficient support (i.e. facilitation, extension, etc.) to enable producers to adjust. A three-tiered approach with reasonably straightforward criteria is suggested, where funds are made available on the basis of improving environmental performance, namely:

- i. Those businesses with an accredited enterprise environmental management plan, certified organic plan or an environmental management system, with performance targets aligned with regional/catchment plans;
- ii. Those businesses (or groups of businesses) prepared to undertake specific preventative, restorative and proactive conservation activities that align with regional/catchment plans and are above and beyond the regulated duty of care; and
- iii. Those businesses that demonstrate low external input, sophisticated risk management and environmental best practice across all aspects of the business as well as specific ecological recovery activities aligned with regional/catchment and national priorities.

Recommendation 8: The Commonwealth should work with the States and Territories to actively identify and explore ways of encouraging those businesses demonstrating both a high level of risk management and a high level of environmental performance to purchase under-performing properties, extend best practice across a wider area, and strategically restore degraded areas.

Encouraging sustainable land-use

Climate change caused by rising greenhouse gas levels is already underway (IPCC 2007) and the Hennessy *et al.* (2008) suggest that the drying trend evident in southern Australia since mid-century is at least partly attributable to human influence on the global climate.

Evidence is also emerging that land-use change has had profound impacts on rainfall in south-east Australia. A study by McAlpine *et al.* (2007) concludes that extensive land clearing has aided and abetted the impacts of global climate change at the regional level⁵.

While agricultural adaptation is possible to a degree – especially if global atmospheric concentrations of CO₂ and other greenhouse gases can be kept to a minimum – climate change will undoubtedly make cropping and grazing much more difficult overall and in some parts of the country in particular (Howden *et al.* 2007). Climate change, combined with rising fuel and fertiliser costs, and uncertain though likely serious synergistic impacts on global trade, Australia's agricultural sector will have a difficult time avoiding a significant contraction in coming decades⁶. According to Howden and Haymen (2005), South Australia's cropping zone is already shrinking,

⁵ This suggests that strategic revegetation may prove critical in not only sequestering carbon but also in ameliorating the economic and environmental costs of reduced rainfall and hotter weather.

⁶ The seductively optimistic suggestion (e.g. Keogh 2008) that global warming, and the fertilisation effects of enhanced CO₂ concentrations especially, will raise agricultural productivity in the long term is looking increasingly unrealistic (see, for instance, Cline 2007 and The Royal Society 2005).

and Howden *et al.* (2007) emphasise the need to come to grips with what climate change is likely to mean for agriculture and the environment, and hence the need for an integrated policy response:

“At the current relatively early stage of the debate, it is understandable that climate change adaptation is largely being dealt with in isolation from other issues. However, over time, this situation needs to evolve so that climate change is linked with a much broader set of policies. In particular, there is a need for linkage with existing policies on climate risk such as those on drought or structural adjustment, which would otherwise may become poorly targeted.

...Where climate impacts may lead to major land use change, there may be demands to support transitions such as industry relocation and migration of people... Effective planning for and management of such transitions may result in less habitat loss, less risk of carbon loss, and also lower environmental costs compared with unmanaged reactive transitions.” (Howden *et al.* 2007 p. 19692 & 19694)

Many Australian plant and animal communities are already substantially degraded as a result of habitat conversion, over-allocation of water for human use, over-grazing, invasive species, salinisation and so on (NLWRA 2002). Biodiversity in Australia’s agricultural and urban landscapes have experienced the greatest impact. Increasing drought frequency, intensity and extent are likely to have dire consequences for Australia’s biodiversity conservation efforts. While many Australian native species are adapted to high climate variability, the marked speed and depth of climate change underway is likely to cause a further contraction in the range of many plants and animals, and, ultimately, many extinctions, local and global (see, for instance, Lake 2008).

While a retreat of agriculture and pastoralism with no other treatment may result in natural recovery of biodiversity in some areas, overall a more hands-on approach to environmental management will still be required in post-production landscapes. Moreover, an unstrategic abandonment of farming and pastoral country in a time of climate change, may result in further biodiversity decline, especially on those private lands managed for conservation. Proactive landscape management is likely to be required to rebuild ecosystem resilience (a function of habitat structural and functional complexity, and connectivity) and manage ongoing threats.

We suggest that the threats to both rural communities and Australian ecosystems present an opportunity for rural policy, including drought policy, to take a new direction that weds conservation and regional development, with each reinforcing the other. In particular, several studies have pointed to the potential cost-effectiveness of land retirement auctions where the economic productivity of land is marginal and the environmental value is high or where current land-use is degrading productivity and/or environmental quality.

Research in the pastoral zone, in the Western Division of New South Wales, and in Victoria’s Upper Wimmera catchment shows land retirement can render a nett gain to affected industries and to Australia as a whole (Hone 2006). Retiring some agricultural land may help other producers by boosting the price of commodities like wool by reducing overall supply. Additionally, where current land-uses are causing environmental degradation, retiring them from production can also help to save the Australian public money that would otherwise be spent to meet rising management costs.

One study by Latrobe University estimated an \$880 million nett benefit from retiring only 5% of production land in the pastoral zone for conservation purposes (Waschik & Fraser 2005). There doesn’t seem to be any reason why strategies aimed at retiring land for conservation, or re-

allocating of irrigation water to environmental flows for that matter, could not be better aligned with and reinforced by climate-related structural adjustment.

Carefully designed, competitive auctions are one of the fairest and best ways to identify marginal land for retirement, and deliver the desired social, economic and environmental benefits (White *et al.* 2008).

Hatfield-Dodds *et al.* (2007) suggest that the area of private land under active management for conservation could be more than doubled for an annual investment of between \$0.7 and \$1.6 billion. This compares to a potential \$20 billion in yearly revenue generated by the auctioning of pollution permits in the proposed Carbon Pollution Reduction Scheme after a decade without any free allocation. Given the long-term implications for rural communities arising from climate change, and the potential role of land managers in drawing down atmospheric carbon dioxide and building landscape resilience through land retirement and regeneration, it is reasonable to invest, say, 5 percent of CPRS revenue to this end.

However, we are arguably not using public funds currently allocated for drought assistance effectively or sustainably given a rapidly changing climate. Australian governments collectively spent \$714 million on emergency circumstances (EC) payments in the period 2006-07 alone (Productivity Commission 2008). It is therefore reasonable that we look to how these funds could be put to better long-term use. The evidence outlined above suggests that retiring significant areas of marginal land from production and instead paying for them to be managed primarily for conservation is a cost-effective use of taxpayers' money.

Recommendation 9: Governments should redirect a significant portion of funds currently earmarked for rural business assistance to enable landholders to convert - on a permanent basis - some or all of their land to an alternative, more environmentally beneficial use. A competitive bidding system should be used to identify marginal areas with high public (conservation) asset values where current land-use is leading to significant off-site costs.

Leveraging investment in sustainable farming systems and regional development

Twenty-First Century production systems require the marriage of profitability with environmental benefits. Government ought to be actively leveraging large-scale private finance for industries and enterprises better suited to a rapidly changing climate and better able to deliver advanced environmental performance.

A 'leveraging' approach would take account of the three broad layers in the investment chain: capital, land, and technical expertise. Importantly, the scheme would add a powerful new tool to the kit of regional communities; enabling regional bodies, industry associations, co-operatives, landcare and other groups to put farming and land management on track to long-term sustainability. Any such scheme should employ policy instruments and investment vehicles that have been tried and tested in other policy areas, such as business innovation, health care and built infrastructure.

In 2001, the Allen Consulting Group proposed a policy and institutional framework to mobilise large-scale private finance for sustainable production and environmental repair based on:

- Independent accreditation and administration;

- Tax-preferred investment vehicles (e.g. pooled development funds) to raise access to private capital for accredited commercial-environmental ventures;
- An integrated package of taxation offsets and concessions tailored to make environmental investments more attractive, with the aim of revenue neutrality;
- Seed funding for innovative commercial ventures with verifiable conservation benefits;
- Robust accreditation criteria for environmental ventures. Proponents would have to show sufficient experience and expertise – commercial and environmental – in managing the new enterprise. Proposed ventures would be accredited if they demonstrated long-term commercial viability, a high degree of risk management, and involved significant land-use change or new approaches to land management that yield long-term conservation benefits.

More recently, Paul Martin (2007) and colleagues at the University of New England have suggested a similar ‘business model’ that employs adjustments to the taxation arrangements to Managed Investment Schemes to attract investment and philanthropy for conservation-friendly enterprises.

Greening Australia and CSIRO tested the ‘leveraging’ approach as part of a national program of market-based instruments pilots. Their approach emphasised:

- Low-interest public finance issued within a co-investment model – a significant departure from the traditional ‘purchaser-provider’ model;
- ‘Near commercial’ projects with an environmental benefit, rather than only public good environmental benefits,
- Enterprise (i.e. land-use) change, rather than environmental changes at the margins of existing land-uses,
- Larger, landscape-scale change than would normally be provided for under alternative approaches.

An assessment of the GA-CSIRO project concluded that - even in the absence of an enabling policy framework - the ‘leveraging’ approach⁷:

- can deliver significant environmental benefits that other policy mechanisms are unable to deliver;
- target innovative landscape-level change and sustainable land-use options; and
- potentially generate financial returns for future reinvestment in natural resource management.

The assessors believed that the approach is best suited to very large scale projects. This suggests that the model lends itself to landscape retirement and restoration endeavours that also serve to alleviate the burden on the public purse that keeping such areas in increasingly unviable traditional forms of production imposes. It also suggests a significant potential to help communities struggling with recurrent drought to find new, creative and ultimately more self-reliant regional development options.

It should be noted that the general approach is one that receives broad cross-sectoral support.

⁷ See ‘Pilot Land Innovation Fund, Greening–CSIRO Australia’ at <http://marketbasedinstruments.gov.au/MBIsinaction/MBItypesinaction/Usingexistingmarkets/Leveragingprivateinvestment/tabid/229/Default.aspx>

Recommendation 10: The Commonwealth should redirect a significant portion of current rural subsidies and concessions to leverage private investment in new industries and enterprises that meet high environmental, resource-conservation and profitability criteria.

Final remarks

This exploration of the sustainability dimensions of drought policy is by no means exhaustive. ACF would welcome an opportunity to enter into a conversation with the Commission and the Government to further explore the environmental opportunities associated with drought policy reform.

For more information, please contact

Corey Watts, Healthy Rural Landscapes Campaigner

The Australian Conservation Foundation is committed to achieve a healthy environment for all Australians. We work with the community, business and government to protect, restore and sustain our environment.

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