Time to rethink farmland environmental policies

Mick Keogh, Australian Farm Institute

According to scientists and environmental groups, the current environmental policy settings in Australia are inadequate to prevent accelerating and irreparable damage to the environment. They variously claim that species loss is continuing and perhaps increasing, land degradation is endemic, native vegetation is being destroyed, and water use is unsustainable. If these claims are correct, then perhaps it’s time to consider a radically different set of policies, and not more of the same. Perhaps it’s time to recruit private landholders to help with these challenges, rather than treating them as the main culprit.

The State of the Environment (SOE) report1 that is prepared every five years by the Australian Government is an attempt to benchmark the state of the Australian environment, and provide some objectivity in what is a sea of opinions, claims and counter claims. As a general rule, the authors of the SOE try to be objective about environmental trends. In the most recent report in 2011, it was concluded that while some progress has been made in restoring the Australian environment:

- pressures of past human activities and recent droughts are affecting our inland water systems
- Australia’s land environment is threatened by widespread pressures
- threats to our soil, including acidification, erosion and the loss of soil carbon, will increasingly affect Australia’s agriculture unless carefully managed
- our unique biodiversity is in decline, and new approaches will be needed to prevent accelerating decline in many species.

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New thinking about agriculture
Time to rethink farmland environmental policies (continued)

It is worth putting these conclusions in context. They were reached at a point in time that is some 30 years after legislation was put in place to protect threatened species in most states. They were reached between 10 and 20 years after laws and regulations were enacted to prevent the clearing of native vegetation on farm land. They were reached some 30 years after the development of the concept of Landcare, under which there has been an enormous effort made to restore landscapes and plant millions of trees. They were reached at the end of a 40 year period during which some 100 million hectares of land (20% of the national landmass) that was previously used for farming has been added to the Australian conservation estate. And they were also reached during a period in which water extractions for agriculture were capped, and have since been reduced by about 20%.

The SOE authors acknowledged that the data used to reach these conclusions is limited, and not comprehensive. As the authors stated:

> Assessing the state of Australia’s environment is inherently difficult. Australia is a big country, with a wide variety of ecosystems and heritage. There are many unconnected means by which we gather and store information on our environment, and accessing this information at a national scale is tremendously complicated and not always possible.

Leaving aside this qualification, if these conclusions are even moderately accurate then it is a very clear indication that the current policy approaches are no longer working, or have reached the limit of their effectiveness, and different approaches are now required.

Despite this, many environmental scientists, and groups like the Total Environment Centre, the Australian Conservation Foundation and the Wilderness Society are demanding more of the same. More legislation and regulations governing how private landholders can manage their land, more areas set aside for conservation, more allocations of water for the environment, and more controls over the harvesting of forests.

This leads to a fairly obvious question, along the lines of: ‘How much more does the environment need, and will increasingly stringent regulatory measures actually achieve any additional benefits?’ At what point will it be deemed that sufficient areas of Australia’s land, and sufficient amounts of water and other natural resources are being managed to preserve the environment, that regulatory controls are sufficiently stringent, and there is no need for additional controls, or the allocation of additional public resources to this task?

The suspicion of many is that this point will never be reached, particularly under the current policy approach, because those advocating for additional resources to be allocated to the environment actually have a vested interest in continuing to highlight and even exaggerate environmental damage. Donations and research grants are triggered by disasters and predictions of doomsday, not reports of environmental successes.

Put simply, this last sentence suggests that the SOE authors consider restoration of the environment to its pre-settlement state is the ultimate objective. Exactly what should happen to the 23 million residents of the nation that would need to be removed to enable this to happen remains unstated!

If the Australian environment is continuing to decline despite all the measures that have been implemented over the past 20 years, and despite the huge amount of the nation’s land and water resources that have been reserved for conservation, then perhaps part of the answer is that the current policy approach has reached the limits of its effectiveness.

For example, there is almost universal recognition that simply locking up land and assuming that somehow it will revert to its pristine, pre-settlement condition is a fallacy. Even the most ardent environmentalists recognise that without management of feral plants and animals, and without the development of appropriate measures to manage fires, conservation areas simply become havens for pests and infernos. Ironically, every new addition to the conservation estate inevitably results in governments spreading available management resources even more thinly, reducing the standard of management on existing conservation areas, and creating more problems for neighbouring landholders. Both the environment and private landholders are worse off as a consequence.

However, the resources required to reverse or reduce historical impacts are in many cases beyond the means of even a wealthy nation like Australia. Conservation investments and interventions tend to focus on our environmental and heritage assets that are of greatest value and under greatest threat. With this focus, significant restoration of the environment towards its pre-settlement condition will continue to be elusive.
The same observation is relevant to current policies that attempt to protect native species that are deemed to be threatened or facing extinction. The minute a species is declared threatened, its presence on privately owned land becomes a potential liability for that landholder. While often the potential liability is not immediately apparent, as soon as the landholder seeks to make a change to current land use, the liability emerges. Perhaps not surprisingly, many landholders choose to conceal the presence of those species on their land, and in some cases even take actions to remove those species – the exact opposite of the intent of government policies.

This is a major weakness, given that farmers are the managers of approximately 403 million hectares of Australian land – more than half the total landmass, and almost four times the area of land currently in conservation reserves.

There is nothing particularly new or insightful about the above observations. Some environmental scientists and many private landholders have long argued that there are serious limits to the effectiveness of environmental policies that rely heavily on locking up land, and regulatory controls on private landholders.

What is new in Australia at present is the fact that a number of state governments have initiated serious reviews of current environmental policies, amid growing concerns about their current and potential future effectiveness. The review of Wild Rivers declarations and land clearing regulations in Queensland is an obvious example, as is the current biodiversity legislation review in New South Wales, and proposed changes to the Environmental Protection and Biodiversity Conservation Act by the Australian Government. These reviews are also occurring during a period when national and state governments are under considerable fiscal pressure, and are more likely to substantially reduce funding for environmental programs, than to increase them.

This realisation should surely trigger a desire for some new approaches and new thinking by environmental scientists and environmental groups, rather than repeated calls for more of the same.

The starting point in developing new policies to address the future management of the Australian environment must be the need to have clear objectives in mind, and processes in place to measure performance in achieving that objective.

Agreeing on an overall objective is clearly not a simple process, but surely it is time to recognise that an objective that seeks restoration of the Australian environment to a pre-1788 state is utopian, unrealistic, and unachievable. A much more realistic objective would be to implement policies that seek to optimise the future productive capacity of Australia’s natural resource base, acknowledging the need to consider economic, social and environmental impacts, and recognise that the environment is dynamic and constantly changing.

Being clear on objectives and agreeing on appropriate indicators is a good starting point, but when it comes to future legislative or regulatory measures, some home truths are very evident.

The first is that neither the Australian nor state governments have any appetite to lock up substantial areas of additional land for conservation, and nor are they willing to pay for its maintenance over the longer term. This means that the role of private landholders, and especially farmers, will be critical to any future improved environmental outcomes.

The second, and related home truth is that implementing a regime of regulatory controls over private land that impose all of the costs of public good conservation outcomes on farmers will never result in improved environmental outcomes. In fact, all it will do is seriously alienate the very group that the community will increasingly rely on, in the absence of government resources, in order to achieve improved outcomes.

To be effective, future policies will need to clearly differentiate between regulations that seek to achieve a private or landholder good – such as the prevention of erosion or soil degradation, and regulations that seek to achieve a public good, such as the conservation of biodiversity in general or a particular threatened species. Private landholders should be required to manage land in a sustainable manner, but should not have the cost of achieving a desired public good imposed on them.

Ultimately, the Australian community will need to understand that improvements in public-good environmental outcomes on private land impose a cost on the owner of
that land, and that at the very least that cost for the landholder will have to be shared, if not fully recompensed.

Those who counter-claim that Australian farmers should expect to bear this cost as part of their ownership responsibilities need to understand that continuing to impose increasingly restrictive controls over land use on farms will impede both farm productivity and environmental outcomes, will be increasingly unenforceable, and will also ratchet up administrative and regulatory costs. They might also like to reflect on the fact that Australian farmers receive virtually the lowest levels of taxpayer funding of any farmers globally, and are currently required to carry the full cost burden of environmental regulations impacting on private land ownership, something that no other farmers internationally are required to do.

The approaches to achieving public good conservation outcomes on private land that have been adopted by governments internationally focus on creating long-term ‘markets’ for the provision of environmental services by private landholders. These approaches create real financial value for landholders who deliver environmental services, while at the same time require governments and the community to make decisions about the trade-off between preserving the environment and using the land for other productive purposes.

There has been some trials of these models in Australia, including the Bush-tender program in Victoria, and the Environmental Services Schemes that have been run by various governments at different times. Invariably, these programs have been ad hoc and short lived, have been subject to excessive trials and bureaucratic and scientific meddling, and have only been able to be taken up by very small numbers of landholders, with limited overall impact.

**A new approach**

Taking all this into consideration, how might such a model operate in relation to issues such as native vegetation and threatened species conservation, which are two of the most contentious environmental issues that have impacted on landholders in Australia over the past two decades?

A pragmatic approach could be to develop bioregional level targets for the amount of land that needs to be reserved purely to maintain the sustainability of farm land. This would, in effect, determine the minimum proportion of land that each farmer owns which they would be required to prudently retain in a largely natural state in order to maintain the sustainability of their land (the private benefit component).

Within that constraint, farmers would then be free to manage their own land optimally, identifying those areas they believe are best suited for conservation, and those areas best suited to production, and having the flexibility available to change these over time as situations dictate. This requirement would give effect to existing obligations that apply in most states under legislation such as the soil conservation or erosion prevention legislation, as well as obligations to manage pests and weeds, but would not include current restrictions imposed by native vegetation and threatened species legislation on privately-owned farmland.

Landholders with insufficient areas set aside for conservation, or who did not wish to set aside some of their own land could, over time, either be encouraged or eventually required to purchase or lease extra areas of conservation land, owned by other landholders in that region, in order to meet their minimum sustainability requirements. Under such
arrangements, existing areas of land maintained for conservation purposes and not used for farming would gain value, restoring equity between farmers who have conservatively managed their land, and those who have cleared ‘fence-to-fence’. Under such a model in Brazil, land retained for conservation purposes sells for virtually the same value as farming land.

Simply requiring landholders to retain areas of land under conservation in order to ensure the land is managed in a sustainable fashion will not necessarily result in improved biodiversity outcomes. Landholders might decide, for example, that an area that currently has high biodiversity values might be preferable to utilise for crop production, and other areas set aside as the required area of conservation.

The approach used to address this problem in many jurisdictions involves the development and use of an environmental benefits index or biodiversity points system. This is a standardised environmental scoring system that allocates points for the environmental characteristics of a particular area of land. For example, an area of land that contains habitat for threatened species or on which threatened species are known to exist would score high points using such an index.

In the United States (US), the Conservation Reserve Program has operated using an Environmental Benefits Index for more than 30 years. The Victorian Government has developed the concept of ‘habitat hectares’ using such a system, the result being that an area of high conservation land is credited with more habitat hectares than the same area of land that does not have high conservation value.

Policies adopted to achieve desired public good environmental outcomes can incorporate the environmental value of specific areas of land in a number of ways. One approach could be that a landholder who owns an area of conservation land with higher biodiversity values gains some discount on the proportion of total area of land that is required to be retained for conservation.

The option also exists that governments could implement incentive schemes that financially reward landholders who enter into long-term conservation agreement under mutually agreeable funding arrangements. Land with high biodiversity values can be given preference in assessing tenders for land to be included in such schemes. This is the approach used under the Conservation Reserve Program operated by the US Government. Under that scheme, landholders can enter into conservation agreements of 15 years in duration, and land that has a high Environmental Benefits Index generally receives a higher per acre rental payment than other land.

A consequence of the adoption of policies such as this is that, over time, land with high biodiversity values increases in value, and this provides an incentive for landholders to protect the biodiversity on their land, or to take action to encourage threatened species or improve biodiversity.

Important, however, is the change in value for land retained for conservation purposes will only occur over time, as landholders become confident that available incentives will persist. The usual government approach of announcing short-term or ‘trial’ initiatives that are only funded for a limited period of time will not create sufficient confidence amongst landholders, and equally importantly, does not fit in with the normal investment horizon for managers of a farm business, which is between 10 and 15 years.

A key requirement for any environmental scoring system is that it is transparent and robust, with independent third-party assessment processes based on published guidelines. Just as importantly, the environmental scoring system does not need to be perfect from the outset. It can be adjusted over time and refined based on experience.

Making changes such as are proposed here would require a pragmatic approach by both governments and landholders, and ideally a staged implementation so that lessons could be learnt and progressively incorporated.

Critics will undoubtedly claim it gives too much freedom to farmers, and places at risk the changes that have been made over the past 20 years. Yet the fact remains that despite almost 100 million hectares (20%) of Australian agricultural land being converted from agricultural to conservation use over the last thirty years, and despite the heavy-handed and cumbersome regulatory arrangements under current biodiversity legislation, experts and conservation groups still claim that species are becoming extinct and the environment is suffering. If this is correct, then to argue for a continuation of these existing regulations in the expectation of a different outcome surely meets the definition of insanity.

Policy settings that create a long-term market for the provision of conservation services and place real financial value on the environmental outcomes achieved by landholders, while at the same time addressing the inherent inequity of current policies, seem to be a much more logical and effective way to address these issues.
The ‘people factor’ in the future of the Australian grains industry

Labour is a key input for Australian grain production and the supply of appropriately skilled people for the industry is critical to the effective and efficient operation of the industry into the future.

The Australian Farm Institute (AFI) is undertaking a research project on grains industry skills training and people capacity-building activities. The Grains Research and Development Corporation has commissioned the AFI to undertake this research.

The research project aims to identify the most suitable ‘training and development activities’ for the grains industry to continually innovate and be internationally competitive. Examples of workforce training and development activities include training courses, networking platforms, industry competitions, scholarships and grants, and work exchange programs.

The AFI has completed a limited review of the literature on workforce training and development. The review found that there are two key elements for ensuring an adequate supply of appropriately qualified and trained people for the grains industry, which include:

1) Sufficient student participation in agricultural based courses and training programs.

2) Appropriate course and training program provision and capacity, which are aligned to the needs of the agricultural sector.

The education system that supports the supply of people for the Australian grains industry includes schools, vocational education and training providers (VET) and higher education facilities (universities).

Preliminary findings in the research project suggests that some parts of the education system are constrained due to a one-dimensional focus on training which does not accommodate the speed in which new technologies, new knowledge and new practices arrive and take hold within an industry. Subsequently, the speed of these developments in the grains industry has left some people continually playing ‘catch-up’ in their own job roles and this has led to skills deficits in the industry’s workforce.

The research project is focusing on areas where there has been a shift in skills requirements within the grains industry workforce. Two examples of these shifts include labour resources required for large-scale farm businesses and non-family labour strategies for family farm businesses.

Large-scale farm businesses are increasingly looking to reduce investment in heavy plant and machinery and find labour saving efficiencies by engaging independent contractors for specific tasks. As a consequence, these developments are boosting the demand for contract services on grain farms which in turn is giving rise to a new generation of small businesses with specialised skills in contract work. Therefore, it will be important to identify the most suitable training and development activities that will assist farmers and independent contractors in meeting the future labour requirements of large-scale farming businesses in this research project.

The relatively smaller size of modern families and the fewer number of family members deciding to work on the farm full-time has also meant that farmers are increasingly hiring non-family employees. This has meant that grain farmers are having to learn and adopt new skills in people management. Therefore, it will also be important to identify the most suitable training and development activities that will assist farmers in this transition phase.

This research project will scope the benefits of training and development activities that are suited for grain farmers and farm workers as well as people working in grains industry research, development and extension. The research project will review the investment landscape of training and development activities being provided to the Australian grains industry workforce, and recommend if investments should be rearranged or if new investments should be made. The research project is set for completion by the end of March 2015.

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1 AECGroup (2010), Towards a better understanding of current and future human resource needs of Australian agriculture, Research Report, Australian Farm Institute, Surry Hills, Australia.

2 Agrifood Skills Australia (2014), Environmental scan of the agrifood industry: lucky by design, Industry Skills Councils, Canberra, Australia.
Grains extension systems that transfer knowledge to and between farmers about ways to improve farm productivity and sustainability have undergone considerable change in recent decades. Government agencies have either withdrawn or reoriented their extension services and private-sector extension services have increasingly become more important.

The Australian Farm Institute (AFI) has researched the changes that have occurred in the extension services associated with grains industries in other countries such as the United States (US), Brazil and Denmark. This research included visiting and meeting people in each of these countries to obtain first-hand insights on grains extension services that are relevant to the future of the Australian grains industry. This research was part of a project that received funding support from the Australian Grains Research and Development Corporation.

The US grains industry is serviced by an extension sector based on government backed organisations such as the Land Grant University network, the Agricultural Research Services (ARS) division of the US Department of Agriculture (USDA) and the Cooperative Extension Service (CES). The extension system also includes a strong private-sector research and advisory model which works alongside the public-sector model without any concerns of being 'crowded out'.

The US grains industry has a high degree of integration between public-sector extension service providers and private-sector organisations. This is shown by the way in which university researchers regularly get involved in research activities with private-sector organisations and grain growers. Many of these researchers that support the US grain industry also have extension activities included as part of their job responsibilities.

The Brazilian grains industry public-sector extension system is based around a national government research agency (EMBRAPA), a national network of state-government funded universities that have a strong education and training role, and state-funded research and extension agencies which are mainly focused on supporting subsistence and smaller-scale farm businesses.

Farmer cooperatives are another major provider of extension services associated with the Brazilian grains industry. These cooperatives typically provide grains extension services for members as well as supplying crop inputs and grain marketing facilities.

The crop advisors involved in grains extension services in Brazil are generally responsible for providing farmers with both crop production advice and approval of annual crop production plans. These plans, that are approved by accredited crop advisors, are then used for compliance purposes in order to access some government support programs.

The grains industry extension system in Denmark is mainly coordinated by the Danish Agricultural Advisory Service (DAAS) which is owned by the Danish Food and Agricultural Council. This council is part of the farmers’ association of Denmark which also includes some food processors and exporters. Danish universities play an important training and research role for the agricultural sector, although there are no dedicated agricultural facilities within Danish universities.

University research activities tend to be at the basic end of the spectrum, with more applied research carried out by a research provider called the Knowledge Centre for Agriculture (KCA).

A feature of the grains industry extension system in Denmark is the close interaction that occurs between researchers working in the KCA, advisors working in the DAAS, and farmers. There is also close interaction between these groups and private-sector agrichemical and bioscience companies, who contract the KCA to carry out variety trials under agreed national research protocols, with the results of these trials subsequently published by the KCA on a routine basis.

The overseas observations of grains industry extension systems in this research project has led to two main conclusions in relation to the future of the grains industry extension system in Australia.

The first is that extension systems internationally will increasingly rely on private-sector extension providers in the future. Therefore participants in the Australian grains industry need to fully recognise these developments and work towards increasing the effectiveness of the ‘public research/private advisor’ model that is evolving in Australia.

The second is that of all grains industry extension systems examined in this research, the Australian system appears to have the least level of interaction between public-sector research providers on the one hand, and farmers and private-sector researchers and advisors on the other. If this issue is not addressed soon, it is likely to become a major weakness in the future of the Australian grains industry.

The research report for optimising future extension systems in the Australian grains industry is readily available to AFI members and can be ordered by non-members through the AFI website.
Does Australia’s current competition legislation provide adequate protection for small businesses and farmers while maintaining a competitive economy? What if any changes might be needed to ensure small businesses have an equal opportunity to compete in the future?

The Hon Bruce Billson MP
Federal Member for Dunkley and the Minister for Small Business

The Australian farming community has long been the ground from which our economy has grown. Australian farmers are renowned for their innovation and enterprising spirit. Small businesses are the engine room of our economy, and nowhere is this more evident than in rural and regional Australia.

With this in mind, the Abbott Government is committed to ensuring efficient businesses, big and small, are able to operate on a level playing field. The Government’s vision is for Australia to be the best place to build and grow small business and family enterprise, and nowhere is this ambition more important to local communities than in rural and regional Australia.

Before the election we promised to identify ways to build the economy and promote jobs. To achieve this we have commenced a comprehensive review of Australia’s competition framework as part of our Economic Action Strategy.

The Harper Review is the first independent review of its kind in more than 20 years. The Review isn’t only examining the current laws, but also the broader competition framework, to increase productivity and efficiency in markets, to drive benefits that ease cost of living pressures and raise living standards for all Australians.

On 22 September 2014, the Review released its draft report, including 52 draft recommendations. A key area of focus for the review was examining the competition provisions and how they relate to the supply chain, of which farmers are a part, to ensure all market participants can compete based on merit, not on muscle.

This meant investigating whether the framework for industry codes of conduct and protections against unfair and unconscionable conduct provide an adequate mechanism to encourage reasonable business dealings across the economy. The Review identified three key forces that are affecting the Australian economy now more than before, and are likely to affect the economy in the coming years:

- the industrialisation of developing nations and, in particular, the rise of Asia and the growing Asian middle class
- ageing of the Australian population and falling workforce participation
- diffusion of digital technologies with their potential to disrupt established patterns of economic activity.

The Government is aware that each of these three key areas affects the farming community as much as any other sector in our economy.

At this stage the Government is not commenting on the merits of any of the draft recommendations as it is important to give the draft report clear air, to allow for open debate on the views it presents.

This is why farmers are encouraged to take the time to read the Review at http://competitionpolicyreview.gov.au and provide your feedback. The draft report discusses a number of areas relevant to farming, small business and agriculture.

One observation was that in recent years the Australian agriculture sector has become strongly market-oriented, with farmers now exposed to competition in domestic and world markets, and governments having largely removed production and trade-distorting support. The panel recommends that governments should resist calls for past reforms to be unwound.

The panel also notes that some stakeholders questioned whether the Australian Competition and Consumer Commission’s (ACCC) application of merger laws is constraining the ability of Australian businesses to achieve efficient scale in order to become globally competitive, for example in the case of Murray Goulburn’s proposed acquisition of Warrnambool Cheese and Butter, which did not proceed because it was held up by the merger approval process. I know this case was of particular interest to farmers, as Murray Goulburn is a farmer-owned co-operative.

The draft report indicates that the potential public benefit from increased scale can be accommodated under the existing legal framework. In addition to the Review the Government is committed to improving the operating environment for small businesses by streamlining government processes.

We are providing small business the support they need to thrive. There are many factors that farmers can’t control, but as a government we want to ensure that we do all that we can do to make running a farm easier.

The Government’s small business policy agenda focuses on cutting taxes, reducing red tape burdens, improving the operating environment for family farms and making it easier for the farming community to engage with government.

Australian farming communities deserve the Government’s assistance and support - our primary producers are world class. That is why we want to ensure the operating environment for farmers is also world class.

Every day in government, knowing how hard farmers are each working in their farming business, makes us even more committed to ensuring we have the right framework in place for their success.

The Hon Bruce Billson MP is a Member of the Australian House of Representatives and was first elected in March 1996 to represent the constituency of Dunkley.

Bruce was sworn in as the Minister for Small Business in September 2013.
Mick Keogh  
Executive Director  
Australian Farm Institute

One of the biggest challenges associated with competition law in Australia is that the law takes a ‘black and white’ approach to what is fair or unfair market behaviour. The reality is that every market is slightly different, and actions that might be ‘unfair’ in some markets may not be in others.

An example of the ‘black and white’ approach to competition law is the current legal cases which have been initiated by the Australian Competition and Consumer Commission (ACCC) against major supermarkets. These legal cases are painstakingly slow, because the process of collecting evidence is inherently difficult.

On the one hand, supermarket suppliers are very reluctant to come forward, knowing full well that if as a consequence of being identified as a complainant they lose their supplier status, this can be the end of their business. On the other hand, supermarkets collect and retain an enormous store of market information, but will not willingly disclose this unless forced to, especially if that information is potentially damning.

As a result, it has taken the ACCC more than three years to get to the point where there is a belief that sufficient evidence is available to launch legal proceedings. What happens next is up to the court system, but it is a reasonable wager that it will be at least another two years before court proceedings, and the inevitable subsequent appeals process, reach a conclusion.

Ultimately, a judge or judges need to make a threshold decision about whether particular actions by market participants amount to ‘unconscionable’ or unfair market behaviour, and are therefore subject to a penalty, or whether the actions undertaken constitute fair behaviour, and are ultimately to the benefit of consumers. Depending on which side of the very fine line called unconscionable conduct the courts decide this case falls, the result will either be millions of dollars of fines for the accused, or complete exoneration.

Given that there are few strong precedents associated with the provisions of this legislation, there is a great deal of uncertainty for both the ACCC and the retailers about which way this decision will fall.

An alternative is to adopt a preventative rather than a curative approach, which has parallels with the use of the ‘precautionary principle’ in environmental legislation. Under such an approach, the focus is on identifying those market situations where the potential for unfair or unconscionable behaviour is higher, and adopting precautionary policy responses in those markets to reduce the risk of anticompetitive behaviour.

There is a well-established analytical approach that has been developed for the consideration of mergers in the USA by the US Department of Justice that provides a robust foundation for such policy. The first step is to define the boundaries of the ‘market’ being considered. The next step is to assess the degree of ‘concentration’ in that market, by considering the market share held by the major market participants.

This is usually analysed by calculating the Herfindahl-Hirschman Index (HHI), which is simply the sum of squares of the market shares of participants in the market. A market dominated by a very small number of major participants will have a very high HHI, whereas a market with many participants will have a very low HHI.

The HHI can then be used as the basis of a decision-making framework about appropriate policies to ensure markets remain fair. At lower HHI levels, there would generally be no need for market-specific policies. In mid-range situations, ‘light’ policies such as the encouragement of voluntary industry codes and dispute resolution processes may be appropriate. In more concentrated markets, mandatory industry codes and compulsory reporting of market information such as prices and volumes in order to improve market transparency may be an appropriate response.

In the most concentrated markets or those in which natural monopolies exist, an appropriate policy approach may be to implement regulated pricing or mandatory access codes that ensure new competition can emerge. Ultimately, in the most concentrated markets, mandatory divestment may need to be considered, as was the case for Bell Telephone in the USA in 1982.

Most of the likely policy responses identified above are already adopted in different situations in Australian markets, but there is no overall framework that helps to identify when specific policies may be appropriate, and just as importantly when they are no longer needed.

By adopting a more objective methodology to assess market concentration, and by establishing in advance the potential policy responses appropriate to different concentration thresholds, market participants could have much more certainty about the policy framework under which they operate, and a much clearer understanding of the type of behaviour that is considered appropriate in that market.

Utilising policies such as mandatory market information disclosure in more concentrated markets not only improves market transparency, but can also act as a market ‘antiseptic’ because dominant market participants are aware that the availability of this information makes unfair behaviour much easier to detect and take action against. This is in stark contrast to the slow and laborious process of collecting market information which is the current situation in Australia.

Mick Keogh is the Executive Director of the Australian Farm Institute. Previously, Mick was the General Manager Policy, NSW Farmers’ Association.
Estimates Aussie farmers feed 60 million – aren’t bad!

How significant Australia’s agriculture sector might be as a future source of food for hungry Asian consumers is a subject of some debate. Many media reports throw around the term ‘Asia’s food bowl’ without considering either the scale of Asian food consumption, or the scale or potential of Australian food production. Invoking the term ‘Asia’s food bowl’ creates the impression that Australia could be a major future supplier of food to the region, yet the sheer scale of the population suggests that Australia’s role in feeding Asia could be quite limited.

There is obviously a need to get a proper perspective on this issue, however, getting a definitive answer on exactly how many people Australian agriculture could feed is not a simple question.

Australia is a major agricultural exporting nation, and depending on the measures used, ranks comfortably in the top 10 nations in the world as a net exporter of agricultural products (exports minus imports). However, a significant proportion of Australia’s agricultural exports are non-food items – products such as wool, cotton, hides and skins, and animal feeds.

Even after separating out exports that are clearly non-food items, there are a range of other agricultural exports, including some grains, vegetable oils, animal fats and sugar that are commonly used in industrial processes or for animal feed, and hence probably cannot strictly be counted as food exports.

Leaving that issue aside, the challenge in gaining an understanding of the significance of Australia’s food exports lies in the fact that different agricultural products are consumed in different amounts by different people, depending on their dietary preferences.

One way of arriving at a rough approximation of the role that Australian agriculture could play is to use standard factors to convert all the volumes of different foods that are produced in Australia into calorific or energy equivalents. Armed with this information, and with statistics about the average daily calorie consumption of people in different nations, it is possible to arrive at some rough approximation of the number of people that Australian agriculture has the capacity to provide food for. This of course assumes people just want to consume calories, and are not fussy about the different types of foods they eat.

Utilising data compiled by the Food and Agriculture Organisation of the United Nations (FAO), Australia’s total annual food production for the 2011 year provided sufficient kilocalories to feed 111,453,662 persons, assuming that each of those persons consumed 3265 kilocalories per day, which is the average daily kilocalorie intake per capita for Australia.

However, the average daily kilocalorie intake per capita for Asia is 2678 kilocalories which is lower than the Australian figure. Based on this dietary intake (and first deducting the calories required by Australians), this would leave sufficient kilocalories to feed 108,207,882 persons in Asia.

There are, however, losses and wastage that occur as agricultural products are subject to processing and transported from farmgate to export destination, so it is probably more realistic to base calculations on the actual number of kilocalories of food exported from Australia, rather than the volume of farm production.

Based on calculations utilising export data, Australian food exports would provide sufficient kilocalories to meet the annual needs of 76,961,219 persons based on current average daily Asian dietary intake, or 63,124,759 if the average daily dietary intake of people in Asia increased to the level consumed by the average Australian. That, of course, assumes that no loss or wastage occurs from the time that the food is unloaded at the export destination port to the point of consumption.

A realistic assumption is that there is probably at least 20% of the food Australia exports wasted before it gets in the hands of end consumers, meaning that Australian food exports would provide sufficient calorific intake for 61,536,975 people, based on the current average daily calorific intake of people in Asia.

Interestingly, the figure of 60 million has been commonly used as an estimate of the number of people that Australian food exports could feed, based on the rough approximation that Australian agriculture currently produces sufficient food for approximately 23 million Australians (ignoring imports), and exports about two-thirds of total production. Turns out that the rough estimation is probably pretty close to the mark!

On that basis, each of Australia’s 120,000 farmers annually produces sufficient food for 707 people – not a bad effort, given the challenging environment in which farmers operate under here in comparison with overseas locations!
Crimea river of gas

The political cesspool that is Eastern Ukraine continues to seep its way into Australian agriculture. In August, Russia enacted retaliatory sanctions against a host of NATO aligned members including Australia with beef and butter exporters hit hardest domestically.

Overall, ramifications are expected to be mild, although pressure will be put on Australian exporters to expand their presence in ASEAN and other regions in order to offset the loss of Russian trade.

Nevertheless, analysts are turning their focus to fertiliser markets connected to Russian gas supply. The agricultural sector is now one of many concerned with European dependency on Russian gas.

The ongoing conflict has galvanised efforts by European governments to reduce the reliance Russian gas imports. In light of the crisis, the United Kingdom’s former climate and energy security envoy, Rear Admiral Morisetti said:

> Recent events in Ukraine and the Middle East have served to highlight the vulnerability of our energy supplies and the political straitjacket that results from our over-dependence on fossil fuel imports from these volatile regions.

> The quickest and most effective form of energy security is to use less, EU leaders are currently discussing whether to mandate energy efficiency improvements of 30% by 2030; studies show that we can go to 40% without incurring economic penalties, and Ukraine shows that we must.

Although these measures will do little to dampen immediate volatility of input prices, precipitation of European measures to stabilise the market in the medium to long term could emerge as an unforeseen benefit from the turmoil.

Short term, there remain fears that supply into Europe will be cut off causing a ripple effect across energy and fertiliser prices around the globe. Governments, particularly in eastern bloc countries have been stockpiling in response, however risk remains that Australian farmers could see input prices nudged higher before the crisis is resolved.

Canada winning the legume race to Delhi

Gather all ye vegans and lovers of filling albeit vaguely unappetising foodstuffs – ‘dried, shelled leguminous vegetables’ are shaping up as the agricultural commodity to watch as free trade talks with India ramp up.

Size and composition of agricultural trade into India is significantly different from the East Asian agreements just inked. Beef and dairy exporters will be less of a priority during these negotiations. Of the US$511 million in agricultural exports to India last year around US$200 million (40%) were dried legumes.

Currently imports from major exporters incur tariffs between 30–50% depending on the product. Australian legume producers could expect to feel a tailwind should these tariffs be eliminated. So too could overseas competitors like Canada – currently India’s largest legume import partner. Official Indian figures reveal Canada supplied 32% of dried legumes imports, over double Australia’s 15%.

Future market composition of Indian legume imports will depend in part on how the current Indian FTAs negotiations pan out. Canada and India completed their eighth round of negotiations in June 2013. Lodged in the proposed agreements is a separate arrangement regarding pulses.

Specifically on pulses, India agrees to reduce tariffs to free over a five year period, with the reductions done in equal annual stages from the date of entry into force of the agreement Canada’s market share is set to increase.
In the news

The Institute’s Executive Director, Mick Keogh, recently attended a rural debt summit in Canberra, between government, banks and farm bodies. He was quoted in the *ABC Rural* article by Lucy Barbour and Craig Zonca, ‘Banks commit to providing more information on rural debt’ (24 September 2014):

> Mr Mahar says the NFF wants information on the levels, locations and causes of rural debt...

> Chairman of the National Rural Advisory Council, Mick Keogh, agrees. ‘We know the aggregate debt level for Australian agriculture, and the Reserve Bank of Australia tracks that. But when it gets down to more regional or local numbers the situation is much less clear. ABARES did a report on the beef industry about a month ago and that highlighted that the debt levels were increasing in the northern beef sector,’ he said.

> ‘I think probably the drought has exacerbated this, but I guess really it’ll come down to information from the banks and other financial providers about what exactly the nature of the debt problem is in that region.’

Out and about

Recently the Institute’s Executive Director, Mick Keogh, has spoken at:

- Livestock Saleyards Association of Victoria Inc, Melbourne
- Case IH dinner, Sydney
- Brownhill Cup Presentation – AgQuip, Gunnedah, New South Wales
- WA Extension Seminar – CSIRO Perth, Floreat Park, Western Australia
- Committee for Economic Development of Australia (CEDA) Future of the Wheatbelt Forum, Northam, Western Australia
- Australian Superannuation Investment Conference, Alice Springs, Northern Territory
- 2014 Nuffield Australia National Conference, Launceston, Tasmania
- Rural Debt Roundtable, Canberra
- CEO Institute, Sydney
- Australian Lot Feeders’ Association BeefEx, Gold Coast, Queensland

The Institute has recently run a series of seminars on: The ‘people factor’ in the future of the Australian grains industry – observations from overseas and implications for Australia. The workshops started with a presentation by Mick Keogh on grain advisory and extension systems in the US, Brazil and Denmark with reference to how they compare with the systems in Australia. This was followed by workshop sessions convened by the Institute’s Senior Research Officer, Adam Tomlinson, discussing the effectiveness of workforce training and development activities available to the Australian grains industry. Workshops were held in Birchip, Cunderdin, Clare, Spring Ridge, Goondiwindi and Harden, in late September and early October 2014.

Fertilizer Australia and the Australian Fertiliser Services Association (AFSA) held the Fertilizer 2014 conference in Adelaide on 1 October. Adam Tomlinson, the Institute’s Senior Research Officer, delivered a presentation on ‘Fertiliser Scenario Outputs from the FarmGAS Calculator’ during the session entitled ‘Carbon farming and industry stewardship’.

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