Will locavores destroy the planet?

Mick Keogh
Australian Farm Institute

‘Local food’ is an increasingly common concept used in food magazines and restaurant menus, and a local food movement seems to be quickly emerging in Australia, encouraging a greater focus on foods sourced from within a particular region. For farmers and food producers, some of whom are under siege from imported products due to the effects of the high Australian dollar and relatively high labour costs, a move by consumers to favour local foods is welcomed. A greater focus on local foods also provides an opportunity to develop new marketing channels, and to avoid food brands disappearing down the insatiable maw of the major retailers. It also provides an opportunity for smaller producers to develop brand identities and to revitalise regions based on food tourism. For a major agricultural exporter such as Australia, however, the international ‘local food’ movement also brings with it some new risks, and the potential for a retreat from the globalised agricultural markets relied on by much of Australian agriculture. In what would also be a surprise for many ‘foodies’, the local food movement has the potential to dramatically increase agriculture’s impact on the environment.

In the USA, the locavore movement, and more generally the fascination which food experts, writers and some consumers (and even the wife of the US President) have developed with ‘local’ foods is a relatively new phenomena, with the term reportedly first coined in California in 2005. A ‘locavore’ is defined as a person who seeks to only consume food that is grown less than 100 miles away. More generally, the local food movement is a less rigid interpretation of this concept, which involves a preference for locally-produced food. Under the 2008 US Farm Bill, local food is defined as produced and consumed within a state, or that is consumed less than 400 miles from where it is produced. Celebrity authors such as Michael Pollan and Jonathan Safran Foer, have certainly given added impetus to the movement.

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In Europe, a focus on local foods has a much longer history, extending back between 40 and 50 years. The focus on local foods is given effect through certification systems that establish and protect the name of foods that are specific to a particular region, such as Parma ham or Roquefort cheese. Through the use of ‘Geographical Indicators’ the EU recognises the ‘terroir’ or unique combination of agronomic and production characteristics specific to a particular geographic location. While many of these products are exported (and therefore may not necessarily be considered local food by their eventual consumers) the overall objective appears to be to provide an opportunity for local food producers to retain control over the quality and identity of their specific product, and also to benefit commercially.

The growth of the local food movement in Australia has been accelerated by food writers and restaurateurs, intent on identifying better or different food experiences. The movement has attained prominence to the extent it is almost impossible to find a food magazine over recent times that has not included a feature extolling the benefits of local food, and restaurant menus increasingly include geographical locations – such as King Island beef or Tasmanian scallops. There has been a raft of books, internet blogs and conferences on the desirability of local food systems over recent years.

Size of the local food market

While seemingly having a high profile, it is difficult to identify how significant the trend to local food systems has been in either global or Australian food markets.

In Europe, local food systems could be a very significant part of the food market, because distances between producers and consumers are relatively small, and reliance on imported food is low. It was recently estimated that 15% of EU farms sell more than half their total farm product locally (Ciolos 2012), although it is not possible from this statistic to estimate the actual market share of the local food system.

In the USA, the most recent data indicates that ‘local’ – as defined by the United States Department of Agriculture (USDA) – food market sales in 2008 amounted to $4.8 billion, and may have since increased to around $6 billion or $7 billion (Low & Vogel 2011). This amounts to approximately 1.9% of the total US value of gross farm sales, although this includes both farmer to consumer sales, and sales through an intermediary involved in a local marketing channel.

The volume of the farm produce grown in Australia that is marketed through ‘local’ market channels is difficult to judge. One indicator of trends is the steady growth in farmers markets, which are a common outlet for local farm produce, and there have been some comments from major retailers about a preference for sourcing from ‘local’ suppliers. It has been claimed that farmers markets and ‘other alternative fresh food retail markets’ amount to 7% of the market for fresh food in Australia (Australian Farmers Markets Association 2012), but exactly what definitions were used for this categorisation remain unclear. It seems difficult to believe that the approximately 150 farmers markets that operate nationally – most on a weekly or monthly basis – could possibly account for this volume of food sales, so the definition must be much broader than just ‘farmers markets’.

This is reinforced by expert estimates that markets, including farmers markets and central retail markets such as Queen Victoria in Melbourne, Paddys Markets in Sydney and similar in other cities, have a 4% share of fresh fruit and vegetable sales (McKinna 2012). The figure for fresh meats is likely to be considerably less. A best guess is that local outlets – farmers markets, road side stalls and direct delivery – would account for between 1 and 2% of fresh food sales, with the share growing.

Advocates advance a number of reasons for their preference for local food. These often include that the food is fresher and tastes better; that purchasing locally-produced food helps local food retailers and the local rural economy; that people have more confidence in the quality and safety of local food; and that local food is a preferred alternative to the ‘industrialised’ food system, dominated by large multinational corporations.
Irrespective of the validity of the reasons advanced for preferring local food, the movement seems to encompass a strong desire to retreat from the globalised, internationally traded food supply system. A system that has been developed over the last century as transport and food preservation systems evolved, and farm production became more reliant on economies of scale, mechanisation, and industrial inputs such as fertilisers and agricultural chemicals.

There is no doubt local food systems have considerable appeal to some consumers. The opportunity to interact with farmers at a local level and gain a greater understanding of production systems is appealing. There is also a view that local food is often fresher and of better quality than ‘industrialised’ food.

From the farmer’s perspective, there is some evidence that price premiums are available through local food marketing channels (albeit at the cost of an added commitment of time on behalf of the farmer), and the potential also exists to use such channels to develop a brand identity that would not be possible through traditional retail food chains. The direct interaction with consumers also provides more immediate feedback on product attributes and quality.

Environmental impacts

One often-claimed attribute of local food systems that is not supported by available research is the claim that local food systems are better for the environment. There have been a considerable number of robust comparisons carried out, and the result is often that the established globalised food supply system has considerable environmental advantages over competing local food systems.

A number of research studies have been carried out to compare the greenhouse emissions and energy use associated with livestock and dairy products from New Zealand that have been transported to the United Kingdom, and similar competing products sourced from the United Kingdom (Saunders & Barber 2008). Table 1 provides a summary of the results of that comparison.

What the table highlights is that the energy and greenhouse emissions associated with the transport of the dairy products from New Zealand to the United Kingdom (UK) are a relatively minor component of the total energy and emission profile of the New Zealand dairy product. The table also highlights that the added energy use and emissions associated with the UK dairy system (where animals are housed for much of the year and require feed and heating) results in the energy and emission footprint of the UK dairy products being almost double that of the New Zealand products, even with the New Zealand transport disadvantage fully accounted for.

A UK consumer opting for the local UK dairy product would unwittingly be selecting a product that has double the energy and environmental footprint of the competing New Zealand product, despite the New Zealand product having been transported almost 18,000 kilometres!

In further comparisons also reported for other commodities, similar results were obtained (Saunders & Barber op.cit.). A comparison for lamb production, for example, revealed that the New Zealand lamb shipped to the UK had an emission ‘footprint’ of 688 kilograms.

Table 1: Energy and carbon dioxide emissions for NZ and UK dairy products per tonne of milk solids.

<table>
<thead>
<tr>
<th>Input</th>
<th>Energy use (MJ/t)</th>
<th>CO₂/t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NZ</td>
<td>UK</td>
</tr>
<tr>
<td>Fuel</td>
<td>4,133</td>
<td>10,429</td>
</tr>
<tr>
<td>Electricity</td>
<td>5,425</td>
<td>4,053</td>
</tr>
<tr>
<td>Fertilisers</td>
<td>8,044</td>
<td>10,715</td>
</tr>
<tr>
<td>Pesticides</td>
<td>1,136</td>
<td>560</td>
</tr>
<tr>
<td>Feed</td>
<td>1,306</td>
<td>21,036</td>
</tr>
<tr>
<td>Others</td>
<td>845</td>
<td>566</td>
</tr>
<tr>
<td>Capital</td>
<td>2,023</td>
<td>1,009</td>
</tr>
<tr>
<td>Shipping (NZ to UK)</td>
<td>2,030</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24,942</td>
<td>48,368</td>
</tr>
</tbody>
</table>

Source: Saunders and Barber (2008).

* Discrepancy in UK total is presumed to be due to rounding.
of CO$_2$-e per tonne of lamb compared to the UK product with an emission footprint of 2850 kilograms of CO$_2$-e – more than four times as high.

Comparisons of onions and apples produced in New Zealand and shipped to the UK revealed that, in comparison with competing ‘local’ products, New Zealand apples had an energy and emissions footprint that was only approximately 68% of that of the UK apples (although the results were dependant on the season in which the comparison was made) and in the case of onions the UK product was better for the environment due to its lower emission and energy footprint, but the difference was less than 10%, and data for some parts of the UK onion supply chain was not available.

This highlights that a number of different factors have an impact on the outcomes of such comparisons. For example, the relative environmental merits of agricultural products sourced from different locations can vary depending on the season used for the comparison. Southern hemisphere fruit and vegetable products are relatively more environmentally friendly in northern hemisphere markets during the northern hemisphere winter, when the only competing northern hemisphere products are those that have been in storage for an extended period or that were produced in greenhouses – all the while requiring the use of additional electricity – which adds to the products’ environmental footprint.

**Efficient food production**

A further aspect of the local food movement that is seemingly at odds with many perceptions is the implications of a ‘local food’ model for the potential of global agriculture to provide sufficient food for a larger future population. While it seems counter-intuitive, a retreat from globalised ‘industrial’ food production on a broad scale would certainly make it more difficult to feed future global populations. There are several reasons for this, as past events such as the Irish Potato Famine highlight.

Between 1845 and 1852, the local potato crop which up to one-third of the Irish population relied entirely on for food experienced a series of catastrophic failures, due to potato blight disease. As a result, it is estimated that up to one million people died of starvation, and one million more were forced by hunger and poverty to emigrate from Ireland, reducing the nation’s population by almost 25% in a few short years. The Irish Potato Famine was by no means an isolated incident at that time. In fact famine is still a common occurrence in many developing nations – in particular in Africa, and major famines have also devastated the Ukraine, the USSR and China during the last century, and continue to plague North Korea, Zimbabwe and the Horn of Africa even today.

Famines, or catastrophic failures of food production systems, have a range of different causes, some of which are natural, and some of which are political. The Irish Potato Famine, for example, was caused by the repeated destruction of the Irish potato crop by a recurring disease, a result of poor agronomic practices and over-reliance on a single crop. It was also caused by a combination of land, tenancy and trade laws which resulted in Irish agriculture being dominated by small-scale tenant farmers with no security of tenure who all relied heavily on that single crop and who did not have access to, or could not afford alternative, non-local food supplies. Those nations and populations that have avoided major famines over the past century are actually those nations that have embraced the globalised, industrialised, internationally-traded food system, and reduced their reliance on local food. For a wealthy, food-secure inhabitant of a developed nation like the USA or Australia, the concept of starvation or food insecurity is so remote that it does not even register. The abundance of food, the seemingly limitless variety of safe, high quality produce that is available irrespective of the weather or the season, and the endless choice of products from all parts of the world is something taken entirely for granted and which represents such a small portion of expenditure by the average consumer that it hardly registers.

It is also easy to overlook the fact that the benefits of specialisation (growing specific crops in areas where they are agronomically best suited and transporting them to distant markets), modern science and scale economies (made possible by mechanisation) mean that the world is now consistently able to produce a surplus of food, which can be safely and efficiently...
delivered to any location on earth in a relatively short period of time.

Some sense of the hidden benefits of food production specialisation arises from the recent estimate that for the USA to maintain current output levels for 40 major food crops and vegetables under a locavore-like production system (where no food is transported more than 100 miles) would ‘require an additional 60 million acres of cropland, 2.7 million tons more fertiliser, and 50 million pounds more chemicals’ (Sexton 2011). The result would be a profound increase in the carbon and energy footprint of the US food system, and the destruction of significant natural habitat due to land use change.

Policy implications

So-called local food systems bring many benefits, but as the preceding discussion has highlighted, they can also bring additional costs, and it is important that these are not overlooked. A global reversion away from current conventional agriculture to much more localised food systems could have important negative environmental consequences, and would also bring considerable additional limitations on the ability of the world to feed itself.

This suggests that while policies that support the development of local food systems may be attractive to policymakers, these should only be adopted if they do not disadvantage existing conventional, specialised agricultural systems. For example, policies that seek to foster local food systems through trade barriers, unnecessary restrictions on the use of new technologies, or the use of inadequate environmental labelling systems are likely to do much more harm than good.

It is also important to recognise that a wholesale adoption of local food systems would have major negative environmental consequences, because the focus on distance travelled by food is misguided. Emissions or energy use associated with transport is often only a very minor component of the total environmental footprint of foods, and therefore reducing transport distances has little effect on the overall environmental impact of a food production system. There are much greater environmental benefits available from encouraging agricultural specialisation and trade, than there are from attempting to limit the distance food is transported.

In all the new-found enthusiasm for local food systems, it is important to recognise that the safe, secure, inexpensive, globalised food system that exists in most developed nations is one of humanity’s greatest success stories, and the principle reason that for the citizens of these nations hunger and famines are an abstract concept, rather than harsh, everyday reality.

References

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Speech by Dacian Ciolos

Member of the European Commission, Responsible for Agriculture and Rural Development

Local farming and short supply chains: enhancing the local dimension of the common agricultural policy

Local Agriculture and Short Food Supply Chains Conference, Brussels, 20 April 2012

Ladies and Gentlemen,

I decided to organise this event on short supply chains because it is obvious that their potential is considerable. However, the subject suffers from both contradictions and prejudices.

The fact is that the demand is there, but it is not structured well enough, it has not been sufficiently well identified, and it is not accessible enough. There is a lack of research, which is something that will probably come up repeatedly in the discussions. Nonetheless, all the available studies concur that there is high consumer demand for local products. This was highlighted once again by surveys conducted in the UK and Germany as recently as last year.

According to a Eurobarometer survey, one in two consumers regret that local products are hard to find and difficult to distinguish from other products. Yet, there is a structural failure to meet these concerns and certain political and business circles harbour deep-rooted prejudices against this type of marketing.

Short supply chains have too long been overlooked. Yet, available data show that already, despite the lack of recognition and support, 15% of EU farms sell more than half of their produce locally.

I have to say, since I took office as Commissioner, I have often been asked: ‘Why do you talk about short supply chains? You promote small and uncompetitive farms that cater to the richest consumers.’ I am sure that this conference will enable us to demonstrate the opposite, to break down these prejudices, to create a new approach to short supply chains and to find effective solutions to end the contradictions that I have just highlighted.

At least, this is what I hope, because I am convinced that ‘local food supply services’ have tremendous potential.

They present a modern view of our relationship to food as well as a certain vision of the economic competitiveness of farming and its social and environmental efficiency.

Not only do they eliminate the need for long-haul transport, they also boost local economies and empower consumers to play an active part in the economic development of their local area.
Fishing, aquaculture and carbon: a sometimes confusing mix

The implications of Australian carbon policies for Australian fishery and aquaculture businesses are the subject of a research project that the Australian Farm Institute is currently carrying out for the Fisheries Research and Development Corporation.

The project has three main objectives. These are:

1. To utilise case studies to project the financial implications of Australian greenhouse emission policies on businesses involved in the fishing and aquaculture sector in Australia.

2. To develop, through case studies and workshop processes, a range of feasible response strategies in order to assist the fishing and aquaculture industry to best manage the impact of greenhouse emission policies on their businesses.

3. To identify further issues for research by the fishing and aquaculture industry in order for the sector to successfully respond to the implementation of greenhouse emission policies in Australia.

Fishing businesses are somewhat unique in the economy for a number of reasons. Like other primary production industries such as farming and forestry, fishery businesses have little ability to determine the prices they receive for their product, and are subject to import competition. This means the high Australian dollar is having a negative impact on many fishery businesses, making imported products more competitive. Also like other primary production businesses, input cost increases have a negative impact on business profitability, and the main response available to the business manager is to find ways to increase efficiency, to keep ahead of the cost/price squeeze.

However, unlike other enterprises, fishery businesses are often subject to a broad range of constraints that dictate how they can operate their equipment— including hours of operation and the type of fishing equipment they are able to use, as well as the seasonality of their business. As a result, it can often prove quite difficult to implement business changes aimed at improving business efficiency, because such changes are not possible under the rules by which boats operate. Aquaculture businesses are in a slightly different situation, but are still subject to fairly stringent rules of operation that make changes to business operations more complex than the case for other businesses in the economy.

A number of different fishery and aquaculture case studies have been modelled, firstly to determine the likely impact of carbon policies on the businesses. Initial results indicate that the impact of a carbon price on these businesses will be quite mild, with generally less than 0.3% added to business costs in the first year of the policy, and costs increasing slightly after that time, but not to a great degree.

Critical to these results is the assumption that emissions from off-road fuel use will not be subject to a carbon price for the foreseeable future, as has been indicated by the government. This is a critical assumption, as fuel costs can make up to one-quarter of the total business costs of a fishing trawler, and the addition of a carbon price to the cost of this fuel would have a very significant negative impact on business profitability, and one which the fishery business managers could do little about.

While in general, the impact of the carbon price is projected to be quite small for fishery and aquaculture businesses, there was considerable variation found between different supply chains. For example, some fishery businesses rely on air freight to get their product to international markets, and the government has proposed that fuel used by aircraft will be subject to a carbon price from 1 July 2012. These businesses will face bigger impacts than businesses which only supply domestic markets and are located quite close to these markets.

Aquaculture businesses are often quite substantial consumers of electricity—both to aerate their ponds, and also in their processing and storage facilities. Consequently, these businesses are projected to experience a larger increase in input costs than some other businesses in the economy, although again the total cost impacts in the early years of the carbon policy are quite small.

Because there is some uncertainty about the future treatment of emissions associated with liquid fuel use under the carbon policy, modelling was also carried out of the potential impacts under a scenario in which off-road fuel use (including in fishing vessels) was subject to a carbon price from 2014. The results, not surprisingly, were that there would be increases in business costs of the order of 2–3% for businesses operating trawler vessels once that policy was introduced, and that these costs would increase further if the carbon price increased in the future.

Fishing and aquaculture businesses are in an unusual situation in comparison with other, land-based primary industry businesses, in that the Carbon Farming Initiative (CFI) – which will provide opportunities for farmers and foresters to generate revenue from carbon offsets – is not readily applicable to these businesses. Aquaculture businesses that own an area of land in conjunction with their operations may be able to undertake land-based carbon offset activities.

Fishery businesses may have an opportunity to create carbon offsets through projects involving so-called ‘blue carbon’ which involves taking action to restore seabed or estuarine vegetation. Very high rates of carbon sequestration have been recorded for such projects, although there are a number of issues relating to the ownership and management of such projects that make these more complex than land-based projects.

Australian carbon policies will impact on fishery and aquaculture businesses in a number of ways, and the insights arising from this research project are expected to assist business managers in adapting to a changed business environment in the future.
Free FarmGAS Scenario Tool released

There has recently been renewed interest in the greenhouse gas emissions profiles of farm businesses, options available to farms to reduce or sequester emissions and how farms can participate in a low carbon economy driven by the commencement of the Carbon Farming Initiative in December 2011 and the start of the Australian emission trading scheme (ETS) on 1 July 2012.

The recently released free online FarmGAS Scenario Tool can assist producers and advisors estimate enterprise and whole farm greenhouse gas emissions using common production data. FarmGAS calculates farm level emissions in the same way that the Australian Government estimates national emissions to report internationally. Some minor modifications have been made to the methodology to ensure FarmGAS calculations are relevant at the farm scale.

FarmGAS estimates greenhouse gas emissions from broadacre livestock enterprises, cropping enterprises, beef feedlots, piggeries and horticultural enterprises. FarmGAS is applicable to northern and southern Australian production systems.

Apart from estimating enterprise and whole farm greenhouse gas emissions, FarmGAS allows a user to modify the standard production and emission factors assumed by the national accounting method. This allows users to better customise the estimates for their farm as well as assess the impact of mitigation and abatement strategies such as improved feed quality for faster growth rates or nitrogen inhibited fertiliser. For researchers, the ability to change production and emissions factors means the effect of research outcomes on farm emissions can be investigated.

The combination of estimating whole farm emissions and the ability to modify emission and production factors means users can investigate the viability of CFI projects and impact on farm emissions.

Some abatement options that can be readily included in FarmGAS are pasture and crop residue management, feed quality and alternative feed options, savanna and crop burning and enterprise structure. To provide guidance on the contribution of sequestration to net farm emissions, a trees enterprise has been included.

FarmGAS allows users to download enterprise and whole farm PDF reports as well as save CSV files to enable further analysis and data manipulation. A gross margin tool is included to enable the economics of abatement strategies to be considered.

To increase adoption of FarmGAS, training sessions have been running across Australia for advisors, extension, research and policy professionals. Since the launch of FarmGAS in March more than 55 people have been trained in how to use and apply the Tool. More training sessions are planned for May in NSW, Western Australia and Tasmania.

FarmGAS is free and available on the Australian Farm Institute website, www.farminstitute.org.au. For more information on the training sessions contact the office on 02 9690 1388 or email, info@farminstitute.org.au

Annual Agriculture Roundtable Conference

Marriott Hotel, Brisbane
13 & 14 November 2012

Each year the Australian Farm Institute convenes a national conference to bring together farm and agribusiness leaders to consider and discuss some of the strategic policy issues of importance for agriculture.

More information will be made available on www.farminstitute.org.au
Should Australia introduce mandatory biofuels?

Martin Ferguson
AM MP
Minister for Resources and Energy

Some days, when you’re filling up at the pump or ordering diesel for the farm it might not feel that competitive – but the fact is that our competitive market delivers the lowest fuel prices to Australians while still encouraging the necessary level of investment in all aspects of the transport fuel sector.

Mandates on the other hand, by their very nature, distort existing transport fuel market outcomes, reduce consumer choice and result in higher fuel charges for consumers.

Investment signals arising as a result of a biofuels mandate focus development on meeting the mandate rather than on innovation. Indeed by removing competition and the incentive to innovate, mandates set the bar too low.

And of course, a mandate for biofuels could also distort Australia’s land use – potentially impacting on food production.

However let me be clear – while I do not support a mandate, I do support advanced biofuels.

The sustainable production and commercialisation of advanced biofuels in Australia brings with it the obvious benefits of supporting jobs in regional areas, providing a competitive alternative to high global oil prices and of course reducing greenhouse gas emissions.

What’s more, advanced biofuels are high energy, drop-in liquid fuels derived from sustainable sources of organic matter that do not typically compete with food or feed production. These include biofuels produced from wood residues, non-edible oilseeds and algae.

Australia is well positioned to take advantage of this opportunity to develop an industry to meet future fuel demand.

In December last year, I released the Advanced Biofuels Study, which was undertaken on behalf of the Australian Government by L.E.K. Consulting and the CSIRO. It identifies the potential for the development of a competitive and sustainable advanced biofuels industry in Australia and prospective technology pathways to get there.

The Study found that Australia has world-class expertise and significant resource potential to build an advanced biofuels industry based on its comparative advantages including extensive land and climate suitable for biofuels production.

It outlines that with limited government support for pilot and pre-commercial stage activities, it is possible that advanced biofuels may become cost competitive with conventional fuels in as little as five to 10 years.


While the production of advanced biofuels is being internationally demonstrated on a commercial scale through projects such as Sapphire Energy’s Luna Country project in New Mexico, Australia is also making progress in this area.

Australian researchers are demonstrating the potential for biocrude to be produced from feedstocks such as algae and wood waste which could then be further refined into a drop-in biofuel.

In the past few months, I have opened three such facilities – a commercial demonstration facility that converts woody material to biocrude at Licella’s site in New South Wales, a pyrolysis to biocrude pilot plant at the Fuels and Energy Institute at Curtin University in Perth, and a macro-algae to biocrude project at James Cook University in Townsville.

To assist with the commercialisation of advanced biofuels I also recently launched the Advanced Biofuels Investment Readiness Program.

This Program will provide $15 million through competitive grants for activities such as the development of feasibility studies to build the investment case for significant and scalable pre-commercial high energy, drop-in advanced biofuels demonstration projects in Australia.

It builds on the funding already provided to Australian biofuel researchers by the Australian Government through the $12.6 million Second Generation Biofuels Research and Development Program.

But ultimately, the key to a successful and sustainable advanced biofuels industry in Australia will be significant commitment and investment from the private sector.

Martin Ferguson is the Minister for Resources and Energy, and the Minister for Tourism. Martin was elected to federal parliament as the Member for Batman in 1996 and served continuously as a Shadow Minister until the election of the Labor Government in 2007. Previously, Martin was President of the Australian Council of Trade Unions (ACTU) after working for the Federated Miscellaneous Workers’ Union of Australia since 1975.
requirements for biofuel use in transport fuels?

Warren Truss MP  
Leader of The Nationals

Australia should actively promote the use of a range of cleaner alternative fuels. LPG, ethanol blended fuel and biodiesel can reduce our dependence on imported fuel and effectively reduce vehicle emissions, without compromising our food supplies.

If Australia was to adopt E10 blended fuels nationwide over 3,000,000 tonnes of pollution would be avoided. A mandate is the only way of assuring that the benefits of a strong biofuel industry are delivered to Australia promptly and efficiently.

A robust Australian biofuels and LPG industry will ensure greater security of supply in transportation fuels, through the broader integration of E10 ethanol and B5 biodiesel into mainstream use. We could even see E85 blend in widespread use as early as 2020.

Labor has destroyed confidence in the cleaner fuel industry delivering stop-start-stop policy signals. As a result alternative fuels investment has stalled and uptake slowed.

The establishment of a thriving biofuels industry would have many benefits particularly for regional Australia – most notably better environmental outcomes, a more diverse income source for farmers and new jobs created through the construction and operation of biofuel plants. It would also represent a substantial step towards developing national fuel self-sufficiency.

Many of the states have introduced ethanol mandates, or are in the process of doing so. To ensure the best use of resources, a national approach would ensure that each state and territory invested in the alternative fuel mix best suited to its capabilities.

When we consult with industry, we find that most local producers believe they can meet a substantial amount of Australia’s demand.

To assist the further development of a locally-based ethanol and biodiesel industry, The Nationals supported a deferral of the introduction of excise on these fuels, so that the industry could have a secure policy window to become properly established in this country.

We must also ensure that imports of biofuels, which are subsidised by foreign governments, do not receive the benefits of the excise rebate in Australia. Any excise loopholes must be closed to ensure our producers are operating on a level playing field.

It is also important that we work towards a domestic and imported biofuels industry that meets a sustainability standard, including the provision that, in the long-term, fuel production is not at the expense of food security. GMO technology can undoubtedly play a major role in facilitating this objective.

Sustainability standards for biofuels are being developed in several European countries, as well as Brazil, and can encourage biofuel producers to move from food stocks to non-food stock materials for fuel production. Australia predominantly produces biofuels from waste or low grade products. A sustainability standard not only protects Australia’s interests but delivers balance and prevents abuses of the environment in the name of production of biofuels.

Motor vehicle manufacturers are often ahead of fuel suppliers in manufacturing vehicles able to use a range of ethanol blended fuels. In 2010, Holden launched its E85 flex fuel vehicle, able to run on blended fuel from E10 to E85. With emerging technologies now adopting higher ethanol blends, it is realistic to project that by 2020 most new Australian vehicles will be able to use the E85 blends.

Many heavy vehicle manufacturers are experimenting with alternative fuel powered trucks and machinery and with greater encouragement and policy certainty, a revolution in the use of alternative fuels is achievable.

Australia has an abundance of LPG. In 2008–09, Australia produced 5403 ML of LPG and used 3996 ML, of which 2253 ML was for automotive use. Considerable environmental and energy security benefits come with continuing to encourage the use of LPG. The Coalition introduced the LPG Conversion Scheme, which provided a grant of $2000 for the LPG conversion of new or used petrol or diesel motor vehicles or the purchase of a new LPG vehicle.

Labor is phasing the conversion grant down to $1000 over the period to 1 July 2012 and is phasing in excise on LPG.

As a result conversion rates have halved and interest in new LPG vehicles is waning. We support oil exploration activity and will promote further oil exploration in Australia and its territories.

Research on second-generation biofuels, such as ethanol from cellulose and biodiesel from algae, has also faltered over recent times. There are many promising options and more research is essential to optimise the adoption of new technologies and non-food stock materials as well as encouraging car manufacturing innovations. There is also a need to support this research with a renewable energy package including a new consumer information campaign, and new requirements that all petrol engine cars sold in Australia have warranty cover for E10.

The biofuel industry has enormous potential for Australia. The policy settings in this country have been so inconsistent over the last decade that the industry needs a massive boost in certainty and confidence to attract necessary investment to achieve that potential. It will now require the security of a mandate to set the course for the future.

Warren Truss is a third generation farmer from the Kumbia District near Kingaroy, Queensland. Elected to federal parliament in 1990, he was a senior minister in the Howard Government and became leader of The Nationals in 2007. He is the Shadow Minister for Infrastructure and Transport.
Australia in no danger of running out of bread

The recent Planet Under Pressure Conference held in London, has warned that Australia risks becoming a net food importer, particularly of wheat and this is being driven by population growth and a changing climate. Reporting on the comments of a CSIRO Scientific Director at the Conference, the ABC states Australia at the very least runs the risk of running out of the surplus food currently exported by the end of the century.

This claim seems farcical considering Australia is one of only 15 net food exporting nations and currently exports between 60–70% of its total agricultural production. Australia’s population could grow by up to nearly 60 million people before Australia would run out of food, and all without consuming any more land or water. Even with a changing climate, efficiency gained from innovation, technology and productivity means Australian agriculture will continue to produce more food than it requires.

To demonstrate Australia’s dominance as a wheat supplier in 2010/11 Australia exported 18.5 million tonnes of wheat, despite drought conditions in the West and a wet harvest in the East. This means on average Australia exported 1.4 million tonnes of bulk wheat per month, mostly to Asian countries. Assuming all wheat is of bread quality and it takes roughly 0.6 kg of wheat to make a loaf of bread, the wheat Australia exported in 2010/11 could make up to 30,800 million loaves of bread. ABARE estimate that in 2004, Australia produced 679 million loaves of bread. Despite being a very simplistic comparison, it illustrates that it is highly doubtful Australia will need to import wheat any time soon.

It seems ironic that a researcher, a Scientific Director nonetheless, doesn’t appear to have based public comments on any new or old research or statistics. A quick search of the Australian production statistics reveals Australia is very unlikely to become a net food importer any time soon. Just as concerning, is that the ABC journalist doesn’t appear to have checked the facts either bringing into question the credibility of reporting. It could be reasonable to assume that both the initial comments and the media report are designed to be alarmist and advocatory.

What is important in the discussion of an increasing global population, inequitable food distribution, climate change and productivity is to ensure that Australia can maintain its dominance as a global food supplier and therefore ability to contribute to feeding the malnourished world. To do this Australian producers need strategies and research and development outcomes to enable farming systems that continue to improve productivity but adapt as the climate changes. Significant research, development and extension effort continues to focus on efforts such as new wheat breeds that are tolerant of a variety of changed conditions and management systems that will enable Australian producers to continue to improve productive efficiency, adapt to climate changes and continue to supply the food to parts of the globe that need it more than Australia.

Keep up-to-date with discussions of current issues in Australian and international agriculture policy by visiting the Australian Farm Institute’s blog and chat room ‘Ag Forum’ at: www.farminstitute.org.au/_blog/Ag_Forum/post/
Australian and international farm policy news

Environmental value of MDBA Plan

One of the criticisms of the Murray-Darling Basin Authority’s proposed Basin Plan to return 2800 GL of water to the system was a lack of guidance on the expected environmental outcomes and how these would be valued. A CSIRO report was commissioned on anticipated environmental benefits.

Delivered in early April, the CSIRO report showed that increased environmental water would deliver benefits to red gum forests and other vegetation communities on the lower floodplains. The vegetation communities on the higher floodplains may not fare so well due to channel capacity constraints, flooding of private land and roads and the limits of dam releases. Fish species that use the floodplain wetlands would benefit mostly from the increased volumes of water, but those that spawn during low flows would benefit less. There should be more minor breeding events for water birds but major breeding events will only be triggered by occasional major floods. People living within the Basin should also benefit from improved ecosystem services such as clean water, full water systems, healthy vegetation and increased fish and bird populations.

So what is the value of these and other benefits? According to the CSIRO report, benefits are valued at between $3 billion and $8 billion in 2010 dollars. Importantly benefits accrue disproportionally and are concentrated in two regions; the Murray River and Coorong in the form of native vegetation and improved ecosystem services. Most other regions would receive minor benefits.

However, benefits need to be balanced against costs. The report appears to value costs as an annual figure of $542 million, compared to the long-term, multi-year value for benefits. So while the report provides some clues as to the expected benefits, the true value of benefits on an annual time scale (or costs on a long-term scale), remain elusive.

National agricultural GHG emissions continue to decline

Australia has submitted its 2010 National Inventory Report to the United Nations Framework Convention on Climate Change (UNFCCC) which estimates the nation’s greenhouse gas emissions for the period 1990 to 2010 according to UNFCCC obligations. Overall Australia’s emissions, including net emissions from the land use, land-use change and forestry (LULUCF) sector in 2010 were 580.6 Mt CO₂-e which is an increase of 69.9 Mt on net emissions recorded in 1990. The estimate for 2010 is 12.7 Mt CO₂-e less than estimates for 2009. However Australia is on track to meet its target of 108% of 1990 levels.

Emissions from the agricultural sector were 79.5 Mt CO₂-e for 2010, down from 86.5 Mt CO₂-e in 1990 and 84 Mt CO₂-e in 2009. Overall agricultural emissions have declined by 8.1% from 1990 and have largely been driven by drought conditions and associated effects on animal and crop production. Agricultural emissions are still dominated by methane, 62.6 Mt CO₂-e and nitrous oxide, 16.9 Mt CO₂-e and agriculture still remains the main contributor of methane and nitrous oxide to the national account.

By 2010, net LULUCF emissions had decreased by 55 Mt, or 59.3% from 1990 levels and decreased an additional 7.8 Mt CO₂-e (17%) from 2009 estimates. The long-term decline in LULUCF emissions is still principally driven by the clearing bans in NSW and Queensland. On a Kyoto Protocol accounting basis, where only a sub-sector of UNFCCC LULUCF categories as well as afforestation/ reforestation and deforestation activities are accounted, emissions declined by 17.2% from 2009 levels.

Overall, the energy sector is still the main contributor to total net emissions in 2010, contributing 76.9% of total net emissions, despite a slight (0.7%) year on year decrease. Agriculture is a distant second, at 14.6%, despite a 5.4% drop from 2009 emission estimates.

Professional agriculture

Professional agricultural capacity seems to be an issue cutting across the world’s top agricultural producing countries. The recent AFI Occasional Paper, Professional agriculture – a case of supply and demand, highlighted the sizeable job market for agricultural roles in Australia but also the dwindling number of agriculture graduates to fill these roles.

In the US, Deputy Secretary for Agriculture, Kathleen Merrigan has been grappling with a similar challenge. The average age of US farmers is increasing and there are few graduates in the university system to fill professional roles in American agriculture. Fuelling the problem was that agriculture topped a US based and widely discussed, list of ‘useless’ degrees.

The message to future professionals in both countries is common, the global demand for agricultural products is at an all time high, the need for innovation, efficiency and clever ideas will be critical to meet demand and the opportunity is there to be a part of an exciting future.

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In the news

The Institute was itself the topic of an article by Andrew Marshall in The Land, ‘Ag interest is big business for AFI.’

Surging interest in agriculture is translating into good business for the farm sector’s leading policy and issues ‘think tank’ the Australian Farm Institute (AFI).

‘For a lot of these companies and institutions we’re helping them have a closer connection with the industry without them needing to be in the agri-political arena,’ Mr Keogh said. ‘They tend to genuinely see and think of their contribution to agriculture as a long-term involvement and they need to be fully prepared to handle what might happen next.’ (17/02/12)

Risk was the topic of the Autumn 2012 Farm Policy Journal which informed the Farm Weekly article ‘Growing only grain a major pain says AFI’ (15/03/12), The Land article ‘Grain’s rising volatility’ (21/03/12), and the Weekly Times article ‘Risks mount for wheat farmers’ (28/03/12). Also on the topic of risk, the Stock & Land article ‘Big positives for farmers: ABARES’ reported:

Australian Farm Institute executive director Mick Keogh told Outlook 2012 that agriculture was not only Australia’s most volatile business, but agriculture in Australia rated as second only to Uruguay in its risk rating based on farm production output. He said while grain croppers had led the rise in the past decade of borrowing activity, partly because of attractive gross margins for grain production specialists, he doubted if enough attention was paid to gross margins per hectare. (12/03/12)

Leslie White quoted Institute staff in his Weekly Times article, ‘Farmers losing voice in Canberra’.

[I]f donations did not influence policy, then ‘why are they made? The agriculture sector is not in the hunt when it comes to those sorts of numbers and that sort of influence. Public funding of campaigns acts as a buffer and removes some incentive to completely sell out to highly commercial lobbying organisations.’ (29/03/12)

Out and about

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

- AARES Conference, Perth
- GRDC Northern Updates: Coolah, Coonamble and Nyngan, NSW
- Fisheries Research and Development Corporation and Queensland Seafood Industry Association Conference, Brisbane
- ABARES Outlook Conference, Canberra
- The Institute of Chartered Accountants in Australia Public Practitioners Conferences: Hunter Valley, NSW; Gold Coast, Queensland; and Toowoomba, Victoria
- Marcus Oldham College Carbon Farming Initiative Forum, Geelong, Victoria
- Namoi Catchment Management Authority Seminars: Bendemeer, Mullansey and Wee Waa, NSW
- Future Farming Jamoooro 2012, Dapto, NSW
- National Council of Wool Selling Brokers of Australia Board, Yennora, NSW
- Department of Agriculture, Fisheries and Forestry, Reducing Emissions from Livestock Research Program, Armidale, NSW
- National Natural Resource Management Knowledge Conference, Adelaide
- Victorian Farmers Federation Annual Conference, Bendigo, Victoria
- Young Country Club, Young, NSW