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Queensland Chicken  
Meat Council

Flower Association of  
Queensland Inc.

Pork Queensland Inc.

Fitzroy Food & Fibre  
Association

Pioneer Valley Water  
Co-operative Limited

Central Downs  
Irrigators Limited

Burdekin River  
Irrigators Association

Emerging Primary  
Industries Group

- Biological Farmers  
of Australia
- Queensland  
Aquaculture  
Industries  
Federation

8 April 2009

Senator Annette Hurley  
Chairman  
Senate Standing Committee on Economics  
PO Box 6100  
Parliament House  
Canberra ACT 2600

Dear Senator,

Please find attached a submission from the Queensland Farmers' Federation (QFF) in response to the inquiry into the policies relating to climate change, in particular the proposed implementation of the Carbon Pollution Reduction Scheme (CPRS).

The Federation represents the interests of 14,000 farmers in the intensive agriculture industry in Queensland. Agriculture contributes over \$12 billion to the Queensland economy and employs over 60,000 people.

QFF appreciates the opportunity to comment to the Senate Select Committee on Climate Policy.

The proposed introduction of a CPRS would represent a significant change to the economic landscape in Australia. The QFF acknowledges the significant contribution Senators on the select committee are making to the debate around the validity of the CPRS as a mechanism for Australia to respond to climate change. .

QFF would be willing to provide further information or presentation to the Committee if required.

Yours sincerely,



Dan Galligan  
Chief Executive Officer

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## **Queensland Farmers Federation (QFF) submission to:**

### **The Senate Select Committee on Climate policy and in particular the proposed introduction of legislation pertaining to the Carbon Pollution Reduction Scheme (CPRS)**

The Queensland Farmers' Federation represents the interests of over 14,000 primary producers in Queensland's intensive agriculture sector. Agriculture is one of the two largest industries in regional Queensland, contributing over \$12 billion to the Queensland economy and employing over 60,000 people state wide, mostly in regional centres. Over 70% of agricultural produce from Australia is exported, with Australia feeding the equivalent of 50 million people in addition to its own population of 20 million.

QFF and its members have been actively engaged in the debate surrounding the policy response to climate change for many years. No sector is as exposed to risks of an increase in climate variability as much as agriculture. Estimates by ABARE suggest that Queensland agriculture faces reductions in production due to climate change effects greater than other states. On a business as usual basis, ABARE estimates that beef production in Queensland could fall by 9.6% by 2030 and 19% by 2050, and sugar production by 12% by 2030 and 17% by 2050. These changes, which would be reflected in massive reductions in Queensland's farm exports, would contribute to a reduction in State GVP of over 8% by 2050.<sup>1</sup>

Primary production faces a major challenges adapting to the effects of climate change. Coping with the policy effects of mitigation should not make this difficult task even harder.

The Government has indicated that agriculture will not be included in the CPRS in the first instance, but there is an intention to include it when 'practical'. This broad approach is supported in principle by QFF. However, regardless of whether agriculture is in or out of the CPRS, it farmers will be impacted by increased input costs across a range of critical resources that farmers rely upon. ABARE estimates that emissions intensive inputs make up around 39% of the costs of cropping and 17% of the costs of extensive grazing operations. Even if agriculture is excluded, it faces a cost increases from the scheme of around 3% for livestock and 4.5% for cropping. If, however, it is included, the cost increases would be 18% for livestock and 6% for crops.

Under either scenario, the costs would be significant.<sup>2</sup>

It is also worth noting that the most emissions intensive inputs to agriculture (fuel, chemicals and fertiliser) have risen sharply in price over the last decade and are likely to continue to do so.

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<sup>1</sup> ABARE Australian Commodities Dec 2007

<sup>2</sup> ABARE presentation to QFF forum 22/4/08

There is already a very strong price signal to farmers to use fuel, chemicals and fertilisers more efficiently:

#### **Farm cost increases 1998/9 2008/9**

<b>Cost Item</b>	<b>% increase 1998/9 to 2008/9</b>	<b>% total cash costs (2008/9)</b>
Fuel	153.5	8.0
Fodder & feedstock	106.9	17.9
Fertiliser	70.6	8.0
Chemicals	50.3	6.0

*(ABARE Australian Commodities)*

#### **Whether agriculture is in or out of the CPRS or regardless of the timeframe for when it enters, the sector must be intimately involved in the design of the system at the outset.**

In or out, the CPRS will significantly add to farm costs and poses a challenge to the sector to offset that impost by accelerating productivity growth. The catch 22 will be that many of the improvements that have driven much of the sector's impressive productivity improvement in the past (e.g. nitrous fertilisers, mechanisation, expanded acreage) are emissions intensive and thus costly under an emissions trading scheme.

This submission focuses on the broader policy aspects of the CPRS particularly as it impacts on intensive farming operations. Further, the QFF will focus our analysis on the interaction between CPRS policy, and broader policy objectives on climate change mitigation and adaptation and the social, economic and food security consequences.

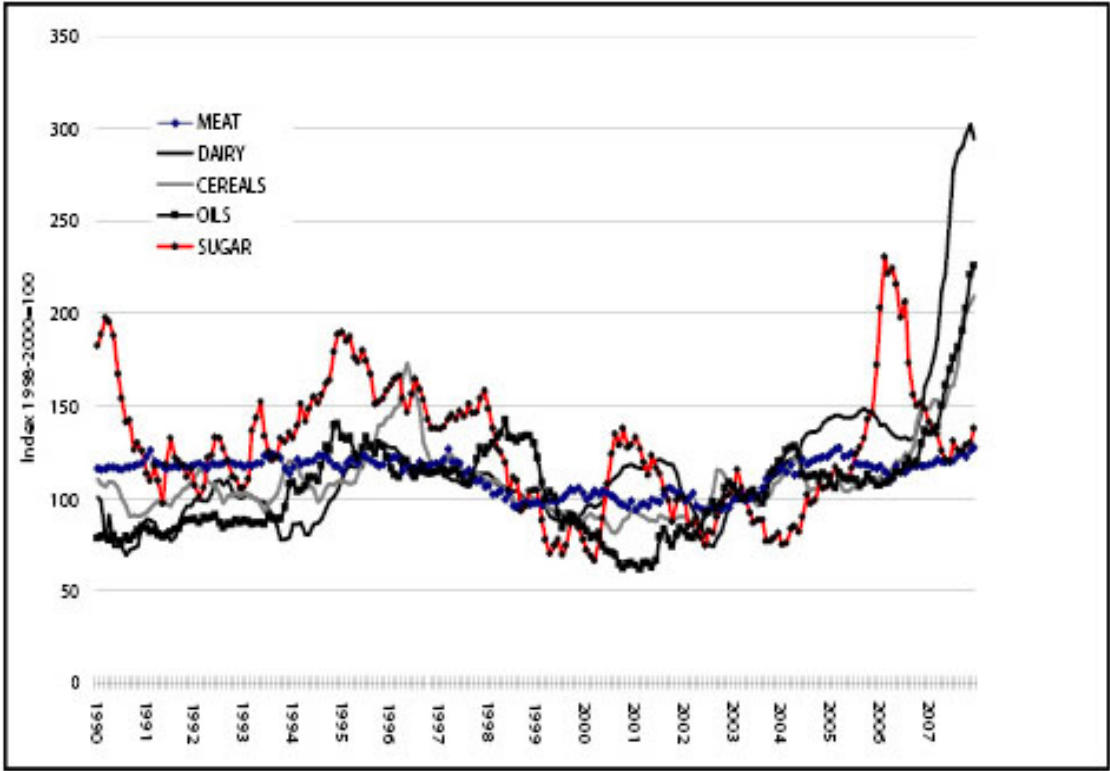
#### **The CPRS in a wider climate change context**

Climate change is an enormous policy challenge for Australia and Australian industry and an emissions trading scheme is just **one** of the policy instruments available to address that challenges. This point is self evident and yet frequently missing from much of the current policy debate about climate change. There are other more cost effective means of addressing climate change in the agricultural sector, and these should not be forgotten. All QFF industry bodies' members have Farm Management Systems programs for farmers which assists them to implement a risk based decision making process to improve farm scale practices in such a way as to improve farm productivity, efficiency and sustainability. Such practices, focusing on improved soil and water management, nutrient management and energy efficiency will reduce carbon emissions over time as well as underpinning farm productivity. Indeed, the progressive uptake of improved farming practices has made a significant contribution to keeping emissions from the agriculture sector at a flat growth trajectory over the past decade.

A key policy question that must also be considered in the overall debate about climate change is the looming global response to food security and the need for an associated increase in farm productivity. Professor Julian Cribb in a recent article argues that the combination of rising world population and rising consumer demand for richer diets will require a 110 per cent rise in global food output over the next 40 years. However, increasing water scarcity, reductions in arable land, soil losses, scarcity of applied nutrients, decline in marine harvests, climate change and competition with biofuels will make this task even harder. He points out that in 2007; the world's supply of grain was at its lowest level since records began in 1960. Such a looming food shortage has international security consequences and global human

displacement triggers.<sup>3</sup> In 2008, World Bank President Robert Zoellick recently urged immediate action to deal with sharply rising food prices, which have caused hunger and violence in several countries. He called on governments to rapidly carry out commitments to provide the UN World Food Program with \$500 million in emergency aid. The following table from the FAO highlights the rapid growth in commodity prices in recent years. While there will be a supply response of some sort, the underlying problems of supply and demand are likely to be with us for some considerable time, climate change among them.<sup>4</sup>

**World Food Commodity Price Indexes - FAO**



In developing a policy for climate change, the Australian Government needs to be conscious of the broader social and economic consequences of global climate change on food production, interacting with other social, economic and environmental forces.

**In developing the CPRS as a tool within its climate change policy, the Government needs to ensure that the scheme does not have perverse consequences for the agriculture and food sector in seeking to meet those challenges. To date there is no evidence to suggest that this analysis has been undertaken**

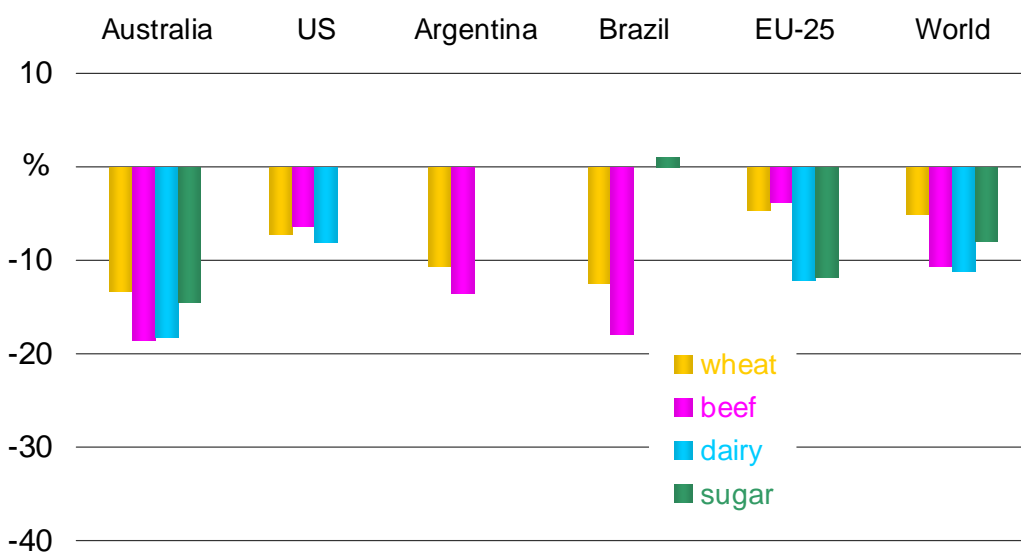
<sup>3</sup> Julian Cribb “The Coming Famine” Discussion Paper March 2008  
<sup>4</sup> Keogh M presentation to the Farm Institute seminar on the ETS 21/4/08

## Farming and climate change:

Queensland farmers know full well the impacts of a highly variable climate. Indeed, the severe drought conditions of the last decade are predicted by some commentators to be the ‘norm’ by 2030 as the climate moves towards a ‘near El Nino state’. Modelling by ABARE shows that Australia will face one of the largest reductions in farm productivity of any major agricultural region, and those Queensland industries like beef and sugar will be hit harder than rural industries in other states. The cost of adapting to climate change will be a significant one for Queensland farmers. That cost will be borne by farmers regardless of whether the world –against all expectations – reaches a global agreement to immediately start reducing emissions.

**This latent context of rising costs of climate change adaptation needs to be borne in mind in considering the extent to which agriculture should shoulder further burdens in mitigation through the CPRS.**

**Climate change impacts on production at 2050, without mitigation or adaptation (% change relative to the reference case)<sup>5</sup>**

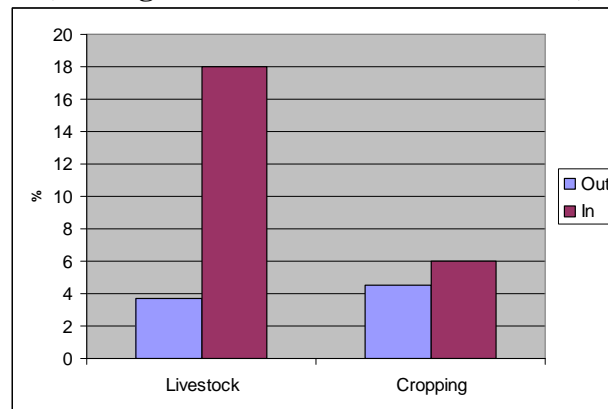


Farming is an energy intensive activity, with around 45% of costs to a cropping operation categorised by ABARE as ‘energy intensive’. With rapid rises in fuel, fertiliser, freight, electricity and water prices in recent years, farmers have had to absorb major cost increases. The increases in fuel and fertiliser costs in recent years would dwarf the likely costs of the first decade of the CPRS. But with fuel and fertiliser costs unlikely to return to previous low levels, any CPRS costs would be additional to those already felt. Significantly for cropping operations, the vast bulk (around 75%) of the impact of the CPRS will be on inputs rather than on emissions from farming, and will be covered from 2010 even if agriculture remains uncovered on its direct emissions until 2015. Preliminary ABARE modelling suggests that a

<sup>5</sup> ABARE Australian Commodities December 2007 p. 667

\$40/t CO<sub>2</sub>e carbon penalty would add 4.5% to the costs of a cropping operation assuming agriculture is out of the CPRS, and 6% if it is covered.

**Impact of a \$40/t CO<sub>2</sub>e carbon penalty on agricultural production costs (%)  
(with agriculture in or out of the CPRS)**



ABARE 2008

Most farm operations operate on very narrow margins, typically less than 3-4%. This is because the price for farm produce is set either by international commodity markets, or by the heavily concentrated retail sector in Australia.

**Indeed, despite rising commodity prices in grains and dairy in recent years, ABARE analysis shows that while average farm prices rose 27% in the last six years (2002/3 to 2008/9), farm costs rose 44%, contributing to a 10% reduction in the terms of trade and a halving of net farm income.<sup>6</sup>**

The biggest cost increases have been in 'energy intensive inputs' notably fuel, fertiliser, chemicals and freight.

Therefore, many cropping operations would cease to be profitable with a 3-4% increase in costs which a \$30-40/t CO<sub>2</sub>e carbon penalty would cause even if agriculture is excluded from the CPRS. With the addition of the costs of climate change adaptation (either in terms of reduced farm productivity or higher costs from increased climate variability) and the impact on farming could be profound.

**Climate change and food security, the Australian response:**

The current global imbalance between supply and demand for food has resulted in a surge in global food prices. The Prime Minister has consistency acknowledged the economic, social and security implications of food security, most recently in a speech to the RSL National conference on 9 September 2008 where he said:

“We need a new approach that brings together all the elements of traditional and non-traditional security capabilities that will ensure Australia responds to the full breadth of the threat spectrum that now confront us:

- Responding to the increased militarisation of our own region;
- Dealing with the continuing threat of terrorism;
- Acting on the challenges to sovereignty facing the Pacific Island countries;
- Preparing for the new challenges of energy security; and

<sup>6</sup> ABARE Australian Commodities June 2008 p 442-3

- Anticipating the impact of climate change on long-term food and water security.”

With rising population, increasing demand for higher profile diets and biofuels production driving demand, and climate change impacting on food production and supply, the global food security situation looks increasingly dire in the longer term. The United Nations, the World Bank, the OECD and the Food and Agriculture Organisation have been working feverishly to seek to address the short term need for increased aid and the longer term need for increased production.

United Nations Secretary General Ban Ki Moon, who has made addressing food security a major global priority, in a speech to the UN General Assembly in July 2008, said:

“We have to reverse years of under-investment in agriculture and change the policies that have magnified the challenges. ....The cost of inaction would be unacceptably high. Over 100 million more people could slide into hunger..... Worse, in 2030, world food demand will have risen by 50 per cent, and by 2050 the world's population will increase by a third. If we do not seek lasting solutions now, more children will die each day, more families will go to bed hungry. The threats left to the next generation will be even greater.

“Addressing the global food and fuel crisis swiftly and responsibly, with the necessary sense of urgency and lasting commitment, will be one of the generational challenges that impact our collective future. Let us all live up to this responsibility.”<sup>7</sup>

Accelerating food production, investment in rural industries, increased aid to developing countries, and reform to free up international trade and commodities markets were key reforms the United Nations has advocated.

**It would be fundamentally immoral for a Government to add to the cost of the production of food for no good policy purpose. While QFF acknowledges that reducing greenhouse gas emissions needs to occur across all sectors of the economy, we are not convinced that increasing the cost of food production is the best means to achieve this.**

While in the industrial sector major improvements to emissions intensity will come from the development and application of new technology, for much of agriculture this will come predominately from changes in farming practices and systems. Some examples could be:

- Reductions in applications of nitrous fertiliser, with nutrient management either based more closely on plant growth needs or based on alternative fertilisers;
- Improvements in soil carbon retention through reduced tillage, increased cover, reduced water logging, and addition of biochar or microbes that might improve soil carbon levels;
- Reduced clearing of vegetation or increased vegetation cover;
- Improved fodder conversion rates with reduced wastage and emissions;
- Improved water use efficiency aligned with nutrient management, energy efficiency initiatives, controlled traffic and reduced tillage techniques;
- Farm-based renewable energy alternatives.

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<sup>7</sup> Ban Ki Boon speech to the United Nations General Assembly 18 July 2008

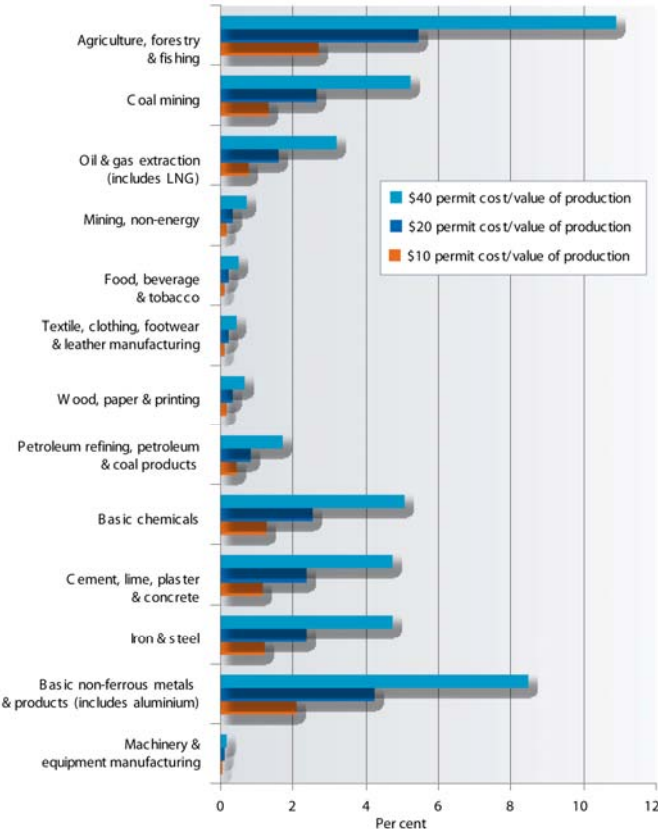
Practice change could deliver the mitigation efforts needed. Significantly, many of these practice changes would also improve farm resilience in adapting to climate change, as well as contributing to natural resource management policy objectives. The question is what is the most cost effective means of promoting practice change with minimal impact on industry. This is particularly pertinent to agriculture because of the social and political sensitivity of food price rises.

This is a debate which needs to be had in the lead-up to 2013. The question of whether agriculture is included in the CPRS should not just be a ‘technical’ one limited to the technical questions of measurement. Rather, it should look at the socio-economic questions of the impact on food prices and the social consequences that might then entail.

**The morality of a Government policy that significantly increases the cost of food when there could be more cost effective means of achieving the Government’s policy objective of reducing greenhouse gas emissions from agriculture needs to be carefully considered**

It is worth noting that if agriculture is included in the CPRS from 2015, it will face the largest permit bill (as a percentage of value of production) of any industry, as highlighted in the Garnaut Report in July 2008. .

**Ratio of permit costs to value of production<sup>8</sup>**



A government policy that increases the cost of the production of crops by 6%, of beef by 18% and of dairy produce by possibly 12%, along with increases in energy costs will inevitably be regressive. Low income households spend twice as large a proportion of their income on food

<sup>8</sup> Garnaut Draft Report July 2008 p. 208 based on DCC & ABS data



compared to high income households. A government policy that deliberately increases the cost of food will be socially regressive and hurt low income earners hardest. While the Government has promised to allocate substantial funds to compensation, the reality is that many tens of thousands of Australian households fall outside the potential compensation loop. Many farming families would fall into that category, outside the reach of substantial tax cuts or social security payments as a means of compensation. Further, if agriculture is introduced into the CPRS at a later stage (e.g. 2015), the window for negotiation of realistic and effective compensation mechanisms will more than likely be closed.

Higher production costs will make agriculture less competitive in international markets. Between 2010 and 2015, intensive agriculture faces cost increases of 1 – 4% (depending on the carbon price) but will not be able to pass that cost on as NO OTHER COUNTRY is proposing to fully cover agriculture in that period. Even New Zealand’s ETS is proposing a slow start, with 90% allocations of free permits when agriculture enters the system in 2013. Australian agriculture will then be placed at a considerable trade disadvantage, but the rules of the Trade Exposed Emissions Intensive (TEEI) mean that no sector of agriculture would be eligible for any compensation ahead of 2015 (other than limited relief on fuel). The following table of the impact of the CPRS on some energy intensive outputs highlights the lack of relief:

**CPRS impact on farm inputs and proposed treatment (assuming \$20/t CO2e penalty)**

Cost Item	% farm costs	Cost impact (\$20/t)	CPRS treatment
Electricity	1-3%	+20%	Counted if industry qualifies for TEEI. No relief for uncovered industries.
Fuel	8-10%	+4%	3 year rebate proposed onfarm use
Planting & harvesting	20-30%	+1-2%	3 year rebate proposed onfarm use
Freight	10-25%	+2%	1 year rebate proposed
Fertiliser	13-25%	+2% (5.5)%*	No relief for uncovered industries. Farm emissions counted if qualify for TEEI but not cost of fertiliser production.
Chemicals	6-10%	+2.5%	No relief
Water	3-10%	+3.5%	No relief

(\*5.5% if farm emissions counted with agriculture included in CPRS) QFF estimates

QFF would strongly urge the Government to reconsider the compensation arrangements for agriculture as an uncovered sector to maintain export competitiveness. The definition of TEEI also needs to be reconsidered to ensure that all indirect emissions are included, particularly fuel (if proposed rebates expire), chemicals and fertiliser and the energy content of freight and water pricing.

The result of a loss of competitiveness will be either a loss of market share in overseas markets, or a reduction in returns which in turn will inevitably lead to questions about whether producers would continue to invest in the industry.

### **What needs to happen if a CPRS is introduced in 2010 without Agriculture being covered?**

1. There is an urgent need for modelling on the impact of the introduction of the CPRS on agriculture, particularly intensive agriculture. Even as an uncovered sector, 75% of the carbon footprint of an intensive agricultural cropping enterprise will be covered by the CPRS in 2010. There needs to be a more robust compensation mechanism for industries outside the CPRS that are heavily trade exposed with no opportunity to pass on costs.
2. The onfarm fuel offset is welcome, but fuel is only a small part of energy intensive costs (around 8-10%). Farmers should also receive an offset for increases in electricity, chemicals, fertiliser, water and freight. The number of suppliers is small and a cost effective rebate system could be arranged with minimal administrative costs. Farmers have already absorbed a very large increase in fuel, electricity, fertiliser & chemical prices in recent years.
3. Water to rural industry should also be included in the rebate system. Electricity (pumping) is 10-20% of the price of water in Sunwater (Qld bulk supplier) schemes.
4. The Government's climate change policy also needs to take into account the Prime Minister's concerns about food security. This should be done through the development of a National Food Strategy to promote investment in agriculture as a means of increasing food production and global food security.
5. For cropping, increased efficiency in nutrient management is possibly the single biggest contribution farming can make to reducing greenhouse gas emissions. This requires improvement in farming practices, backed up by R&D on improving nutrient application rates and processes. Given the high price of fertiliser, farmers would be very open to efforts to promote improved nutrient management. Governments should work with industry and fund the support of industry-led BMP/FMS programs to accelerate uptake of good farming practice, and seek to improve onfarm knowledge of application rates. This investment should be underpinned by an increase in the R & D investment in agriculture to correct the significant degradation to these services over the past decade..
6. There is also very strong interest in industry in energy efficiency as a means of cutting costs. QFF has been working with relevant research agencies to develop and action plan for implementing energy efficiency programs across the sector.

### **What needs to happen in order to make the decision on the coverage of agriculture?**

1. There needs to be a clear roadmap of the criteria that will govern the decision in 2013 about the inclusion of agriculture in the CPRS. The Federal Government's "work plan" does not address the detail with respect to the decisions that need to be made, and presents a situation where it is highly unlikely that all tasks will be completed yet a decision is predetermined. A roadmap should take account of a comprehensive and inclusive R/D work plan but also consider and engage agriculture in the broader design and policy decision for the scheme.
2. The criteria in 2013 need to be wider than just a narrow question of measurement. The social and economic impacts also need to be considered and industry needs to be an integral part of the decision making process.

3. Mitigation pathways need to be part of the decision. Moving towards a less carbon intensive economy requires technological innovations to be available. These are currently not available for most of agriculture. If that is the case, the impact of the CPRS will be simply to increase the cost of food – particularly fresh food – with social consequences for low income earners, and economic consequences in terms of trade competitiveness. If rural industries are particularly adversely affected, then this will have a disproportionate impact on rural communities, already among some of the poorest in Australia. There is a significant policy and investment bias towards the CPRS being the stand alone response to climate change mitigation.
4. There needs to be careful consideration of international responses on agriculture. The European ETS excludes agriculture, as do proposals in the US and Canada. Only NZ is proposing to cover the sector. However, the NZ system provides for far more generous allocations of free permits (90% in 2013, phasing out over 12 years). Australian industries would be placed at a severe disadvantage, particularly as the EITE formula excludes many key export industries (e.g. cotton, grains & sugar) selling into commodity markets.
5. The decision about the CPRS should not be taken in isolation of broader policy on food, and the need for Australia to contribute to the looming global food shortage.
6. The decision about the CPRS should take into account whether there are more cost effective means of reducing emissions across agriculture. This also needs to take into account the fact that a large part of the carbon cycle on farm, and a large part of the major mitigation opportunities open to farmers (e.g. soil carbon, thickening of vegetation) are not recognised under Kyoto accounting rules. Developing a best practice system to encourage these practices might do more to reduce the sector's emissions than inclusion in the CPRS.
7. While the rest of the world refuses to budge on reform of the carbon accounting rules on farming that so clearly disadvantage Australian farming, Australia needs to ask why it should be the first country to impose full coverage of its agricultural sectors in an emissions trading regime.

### **What needs to happen in the lead up to 2015 if the decision is made to cover agriculture?**

If the decision is that agriculture should be covered by the CPRS, then a wide range of issues will need to be resolved. Many of these issues have been dealt with in previous inquiries by submission from the National Farmers Federation and the comments here should be taken as supplementary to that submission:

1. **Thresholds:** It would be inequitable to have a much lower threshold for farming emissions than applies to industrial emissions. The transaction costs as a percentage of revenue would be disproportionately high for our sector.
2. **Point of obligation:** QFF would urge a flexible approach, with each industry sector invited to consider whether upstream, downstream, hybrid or on-farm options work best. This will depend on existing industry arrangements and relationships, appropriate linkages between emissions and penalties, considerations of cost effectiveness and availability of measurement. Government might also consider flexibility in what is measured. If, for example, the bulk of emissions from a cropping operation are already caught in inputs, and an upstream point of obligation is agreed on fertiliser use, then over 95% of farm emissions might be captured and that might be 'near enough'.

3. Measurement: Considerable R&D will be needed to capture this.
4. Recognition of industry best practice could form an important proxy value for mitigation. Developing 'values' for the mitigation impact for various practices needed to be developed sector by sector alongside an appropriate recognition tool.
5. Adaptation: Rural industry will also face the largest adaptation cost of almost any other sector, with significant impacts on farm productivity growth as the climate gets hotter, drier and less predictable. Government must take adaptation costs into account before imposing mitigation costs. **Where possible, Government should seek to encourage investment in practices which serve both a mitigation and an adaptation objective.** But there needs to also be recognition that this is not always possible. For example, almost all major water efficiency initiatives are more energy intensive than current practices.