



**National Farmers'**  
FEDERATION

**INQUIRY INTO CLIMATE CHANGE AND THE  
AUSTRALIAN AGRICULTURAL SECTOR**

**NFF SUBMISSION**

March 2008

# Table of Contents

---

<b>The National Farmers' Federation .....</b>	<b>3</b>
<b>Introduction .....</b>	<b>3</b>
<b>Implications of climate change for agriculture .....</b>	<b>4</b>
<b>Need for a national adaptation strategy .....</b>	<b>5</b>
<i>Nationally coordinated adaptation R&amp;D is vital .....</i>	<i>5</i>
<b>Drought policy.....</b>	<b>6</b>
<b>Conclusion.....</b>	<b>8</b>
<b>NFF Contact.....</b>	<b>8</b>

# The National Farmers' Federation

---

The National Farmers' Federation (NFF) was established in 1979 and is the peak national body representing farmers, and more broadly agriculture across Australia.

The NFF's membership comprises of all Australia's major agricultural commodities. Operating under a federated structure, individual farmers join their respective state farm organisation and/or national commodity council. These organisations collectively form the NFF.

Each of these state farm organisations and commodity councils deal with state-based 'grass roots' issues or commodity specific issues, respectively, while the NFF represents the agreed imperatives of all at the national and international level.

## Introduction

---

The NFF welcomes the opportunity to provide comments to the Senate Standing Committee on Rural and Regional Affairs Inquiry into Climate Change and the Australian Agricultural Sector. The issue of climate change, its effect on agricultural productivity and the policy responses to combat its effects are of enormous importance to the NFF and its members. Indeed, these issues are of significant importance to the Australian economy at large.

The agricultural sector, at farm-gate, contributes approximately 3% of Australia's total Gross Domestic Product (GDP)<sup>1</sup>. However, when factoring in the value-adding activities that occur to farm outputs post farm-gate, and the value of all the economic activities supporting farm production in the farm-input sector, agriculture has averaged a contribution of 12.1% of GDP (approximately \$103 billion in 2004-05 dollar terms) in the six years ending 2003-04.<sup>2</sup> Australian agricultural exports are valued at approximately \$30 billion annually, accounting for around one fifth of Australian merchandise exports.<sup>3</sup>

In addition, there are currently 308,000 people directly employed in Australian agriculture.<sup>4</sup> However, the complete agricultural supply chain, including affiliated industries, provides over 1.6 million jobs to the Australian economy (1-in-6 of all jobs).<sup>5</sup>

Despite declining terms of trade, Australian farmers have been able to remain internationally competitive and sustain their businesses largely through productivity

---

<sup>1</sup> ABARE, 2007 Australian Commodity Statistics, Canberra

<sup>2</sup> Australian Farm Institute, March 2005, *Australia's Farm Dependent Economy*

<sup>3</sup> ABARE, 2007 Australian Commodity Statistics, Canberra

<sup>4</sup> ABARE, 2007 Australian Commodity Statistics, Canberra

<sup>5</sup> Australian Farm Institute, March 2005, *Australia's Farm Dependent Economy*

growth. The productivity growth in Australian agriculture has average 3.8% over the past 20 years, consistently out-performing other sectors.<sup>6</sup>

The NFF believes that provided with the correct tools, Australian agriculture can continue this positive contribution and performance, even in the face of a changing climate.

## Implications of climate change for agriculture

---

- i. *The scientific evidence available on the likely future climate of Australia's key agricultural production zones, and its implications for current farm enterprises and possible future industries;*

The NFF recognises that changing climate is potentially the biggest issue facing Australian farmers in the future. As a sector so dependent on natural resources, climate change poses a significant challenge.

The NFF has placed an increasing focus on climate change, particularly the issues of emissions trading, adaptation, mitigation, research and development and education and awareness. We have become a member of the Greenhouse Challenge Plus Programme, have established an NFF Climate Change Working Group and continue to make meaningful contributions to Government policy development processes.

What is apparent, however, is that there is considerable scope to better position agriculture with regard to national and international markets and managing resources in the context of a changing climate. On these aspects we cannot wait. The bottom line is that a significantly increased research effort is urgently needed to enable primary industries to respond to greenhouse and climate change challenges.

A failure to act will have serious negative implications for Australian agriculture, clearly outlined within the Australian Bureau of Agriculture and Resource Economic's (ABARE's) recent report titled *Climate Change: Impacts on Australian Agriculture*. This analysis shows that without actions to adapt to a changing climate and to mitigate the effects of greenhouse gases, Australian production of wheat, beef, dairy and sugar could decline by up to 10% by 2030 and 19% by 2050.<sup>7</sup>

The implications for current farm enterprises and possible future industries vary, but in most instances address the need to deal with hotter, drier conditions. This emphasises that farmers require access to the right tools to effectively manage the risks and capitalise on any opportunities arising from this change.

---

<sup>6</sup> Australian Farm Institute, March 2005, *Australia's Farm Dependent Economy*

<sup>7</sup> ABARE 2007, *Climate Change: Impacts on Australian Agriculture*

## Need for a national adaptation strategy

---

- ii. *The need for a national strategy to assist Australian agricultural industries to adapt to climate change; and*

Australian farmers have historically demonstrated a high capacity for adaptation and the ability to achieve excellent outcomes from investment in research and development (R&D).

A demonstration of Australian farmers responding and adopting new technology has been seen by the drought-ravaged winter crop of 2006-07. While the 9.8 million tonnes of wheat produced was well down on the 26 million tonnes produced the previous season, had we been using 1980's farm techniques, it is estimated that less than 3 million tonnes would have been produced.<sup>8</sup>

Further examples of farmers adapting to changing circumstances include the adoption of crop rotation techniques to manage soil, introducing new crop varieties to suit regional profiles, improved water reticulation systems to use markedly less water and diversification of production systems to adjust to seasonal conditions.

Armed with the correct science and technologies, Australian farmers can and will adapt to meet new challenges including a changing climate.

### *Nationally coordinated adaptation R&D is vital*

R&D is vital in providing farmers with the appropriate signals to build capacity to respond to the challenge of climate change through adapting their farm systems. This same analysis can also inform infrastructure investment decisions and help inform international discussions on reducing greenhouse gas emissions. While industry can and will play a key role in developing this science, it is vital that Government also supports this process.

This view is supported by Dr Mark Howden of CSIRO (also a member of the Intergovernmental Panel on Climate Change) who stated "*Given that our climate has already changed and that further change seems inevitable, it is important to take a pro-active stance to assess adaptation options, their benefits and costs, and how to alter policy and investment environments to facilitate their uptake.*"

*"...the damages from climate change will increase unless a whole new array of adaptations are developed and used. These adaptations may need to include diversification of production systems and livelihoods and would need supporting policies and programs in addition to soundly based research and development....It will also need adaptation assessment*

---

<sup>8</sup> Grains Council of Australia, 2007 Farm Practices Database.

*frameworks that are relevant, robust and easily operated by farmers, policymakers and scientists.”<sup>9</sup>*

It is the NFF’s view that the primary focus of this adaptation R&D should be the following:

- Develop, implement and monitor a sector-wide strategic plan for investment in research for agricultural adaptation to climate change and variability;
- Research and develop more accurate climate models and decision tools to allow effective forward planning for agricultural businesses and governments;
- Research and develop farming system responses required by agriculture to deal with the effects of climate change and variability;
- Research and develop ways for agriculture to reduce greenhouse gas emissions and sequester more carbon through commercial farming systems; and
- Related ‘sustainable production’ initiatives.

The NFF recognises that the National Climate Change Research Strategy for Primary Industries (CCRSPI) - a joint initiative of the Rural Research and Development Corporations; the CSIRO; and the Federal, State and Territory Governments; managed by Land & Water Australia - is in the process of developing a coordinated national research strategy to address climate change and emissions management and trading. In summary, the Strategy will:

- Map and build on existing research, development and extension activities;
- Identify key information gaps;
- Identify strategies for national collaboration;
- Identify priority areas for collaborative R&D; and
- Identify successful strategies for communication and adoption of research.<sup>10</sup>

This is an important process that will provide greater clarity about the ongoing R&D needs for agriculture in meeting this climate change challenge. The CCRSPI research strategy and recommendations, which we understand have already been delivered to the Primary Industries Standing Committee, may have a need for fiscal support from the Australian Government.

## Drought policy

---

- iii. *The adequacy of existing drought assistance and exceptional circumstances programs to cope with long-term climactic changes.*

The NFF has called for a visionary new strategy in the way Australia deals with, and manages, drought – especially in light of a changing climate.

<sup>9</sup> CSIRO Press Release 4 Dec 2007, Adapting agriculture to climate change (Reference: 07/240)

<sup>10</sup> Land and Water Australia Website (<http://sites.lwa.gov.au/ccrspi/>), Accessed on 15/01/08

Despite the worst drought on record, Australian farmers are getting on with the job of smart, efficient and environmentally-sustainable farming. In fact, they are world-leaders in implementing drought-resistant technologies and practices.

Government relief has helped, and is helping, farmers to get through the current prolonged dry and to protect the productive capacity of our agricultural areas and regional Australia. This, of course, must be our first priority. But a changing climate means we – as a nation – must rethink how we plan for, and deal with, drought, today and into the future. Australia needs to better prepare for droughts to lessen their impact. Even when the current drought breaks, others will come again.

Over 1.6 million Australian jobs, 20% of our national exports and the vast majority of the food we consume depend on the ability of our farmers to meet climatic challenges. The NFF asserts it is smarter to invest in more drought-resistant practices today and, over time, reduce the need for drought relief. The NFF has proposed a new cooperative partnership between the Government and farmers, investing and working together to better drought-proof Australia today to secure all our futures tomorrow. This is a generational shift in thinking – ultimately moving the policy focus from drought relief to drought management and preparedness, while also ensuring that Australian agriculture emerges the other side of this current severe and debilitating drought with its productive capacity intact.

To support this policy direction, in 2007, the NFF proposed Climate Management Grants – based on mutual obligation – to help farmers prepare for, manage and recover from drought, with the intention of alleviating the impact of future severe droughts.

To be effective, these mutual obligation grants must be available to all farmers who pass eligibility criteria, including:

- Having a drought management or a business plan that incorporates drought,
- Management strategies, and
- Demonstrate implementation of drought mitigation activities over the past five years.

NFF said it is essential that these grants not be restricted to those farmers already in drought (or Exceptional Circumstances [EC]) declared areas. If the full benefits of effective drought preparedness and management measures are to be realised, they must be available to all farmers so they can prepare for, and mitigate against, droughts ‘before’ they are in the midst of one.

It is envisaged the grants could cover a variety of approved activities, including – but not limited to:

- Building stock containment (in accordance with relevant environmental and local laws);
- Trialing new/different drought-resistant farm systems;
- Increasing or improving fodder storage capacity;
- Soil mapping, including water-holding capacity and plant requirements; and
- Implementing innovative practices and infrastructure to improve drought resilience.

Eligible farmers would have to match the Australian Government's funding with either cash or in-kind support – effectively a partnership to better drought-proof the sector. This mirrors the desire – both within the broader community and within the farming sector – to, over time; shift the policy paradigm from drought relief towards drought preparedness and management.

NFF is keen to engage with Government about this and other mechanisms that can deliver on this policy direction.

Long-term climatic changes require:

- Ensuring those farmers currently in the grip of this devastating drought are not 'left behind' and that drought relief – including the EC assistance program – will continue to meet the needs of their, and the broader farm sector's, current circumstances.
- Working with farmers in moving towards better drought-proofing Australian agriculture, via mutual obligation Climate Management Grants.
- Phasing-in additional, structural drought preparedness measures as those farmers currently in drought emerge from debilitating drought conditions.
- A new plan for how Australia deals with drought.

## Conclusion

---

The NFF is acutely aware of the challenges that climate change poses for the Australian farm sector. However, armed with the correct science and technologies, Australian farmers have demonstrated in the past that they can and will adapt to meet new challenges including a changing climate. National coordination of an R&D process designed to provide these tools is vital and the NFF looks to Land and Water Australia's 'CCRSPI' process as a first stage in this process. Enhancing drought policy to help Australian farmers to better prepare for droughts to lessen their impact, will also play a vital role in meeting the challenges of a changing climate.

## NFF Contact

---



Charles McElhone or Natalie Collard

Ph: 02 6273 3855

Fax: 02 6273 2331

Email 1: [cmcelhone@nff.org.au](mailto:cmcelhone@nff.org.au)

Email 2: [ncollard@nff.org.au](mailto:ncollard@nff.org.au)