

Food Security

Potential impacts for the Australian agricultural sector

EXECUTIVE SUMMARY:

1. **The 2006-08 global food crisis resulted in food riots in 22 countries as the number of undernourished people in the world increased to over 1 billion.** Many of the underlying issues that lead to the crisis remain unchanged.
2. **Globally, food security is central to poverty reduction, public health, sustainable economic growth, world peace and geopolitical security.** Many Australians, however, believe that a food crisis will not directly affect them as we export 60 percent of all farm produce and supply 93 per cent domestically consumed food.
3. **The factors that lead to the food crisis will remain in the short to medium term.** These include adverse weather conditions, declining global stock levels, increasing fuel costs, increased demand for biofuels and the changing structure of diets in developing countries. Forecast population growth of 38 percent by 2050, from 6.8 billion to 9.4 billion, will place significant pressure on food production capability.
4. **Global agricultural production must grow 70 percent by 2050 to feed an additional 2.6 billion people as the world population becomes more urbanised and affluent.** Ninety percent of production growth will come from increased yields and cropping intensity and 10 percent from expanding arable land.
5. **International markets will need to efficiently deliver sufficient quantities of quality food at affordable prices to those locations facing increased food demand.** For developed countries, such as Australia, the OECD and FAO have identified two key policy reforms to underpin these initiatives, being; 1) open trade policies and 2) effective domestic agriculture policies that encourage competition and productivity.
6. **As a major exporter of agricultural commodities, Australia has an opportunity to supply this market.** However, our Federal and State governments must take a strategic long-term view of global food demand and supply trends. In particular, this will mean developing policies that support more efficient agricultural production, capacity expansion and market access.
7. **The NSW Farmers Association has identified that the following areas require immediate attention to underpin a robust and sustainable policy framework:**
 - increased investment in research ,development and extension services;
 - increased investment in water use efficiency;
 - transport and infrastructure upgrades;
 - sufficient funding for Australia’s exotic disease and Quarantine/Biosecurity programs;
 - land use planning reforms;
 - continued support for multi-lateral trade negotiations and more open markets;
 - domestic market reforms to promote increased competition;
 - a review of foreign investment in Australian farmland, and;
 - a review of the impact of Australia relinquishing its food sovereignty.
8. **Enhancing the State’s food producing capacity and logistical efficiency is paramount to NSW’s contribution to alleviating any future food crisis.** Given the forecast required production increase Australia as an open, developed and large supplier of agriculture exports is well positioned to be a major contributor to meeting these challenges.

BACKGROUND:

Images of food riots in Haiti, Indonesia, the Philippines and Cameroon were beamed into Australian living rooms in early 2008. Coincidentally the Prime Minister returned from his first world tour, including China and India, announcing that food security¹ would be central to Australia's global and therefore national agenda.

Since then food security, and more importantly food sovereignty, have all but disappeared from the political radar. With it has gone Land and Water Australia, followed by yet more funding cuts to agricultural Research and Development (R&D) and the absorption of the NSW Department of Primary Industries into the amorphous Industry & Investment NSW super-ministry. Accompanying this is a Federal Government that refuses to consider the community impacts of water buybacks in the Murray Darling Basin and is the only government, together with New Zealand, intent on eventually including agriculture in an Emissions Trading Scheme.

While our governments have been systematically diminishing agricultures' capacity to profitably and sustainably produce food and fibre, the structural problems that lead to the food riots, a demand/supply imbalance, remain unresolved. Australians should, therefore, remain extremely focussed on the issue as our food sovereignty is at risk. Policies that are lacking in foresight and poorly managed, have the potential to leave us increasingly reliant on other nations to provide our food. This could leave Australians with a similar lack of control over food supply and prices as we currently experience with oil.

Forecasts indicate that the world's population will increase fifty percent by 2050 from six to nine billion people, with food demand set to double in the next fifty years. These escalating demands will place additional, and unsustainable, pressure on existing farmland which is already competing with mining, forestry, urban development and the delivery of environmental goods and services.

Proposed solutions include; taking more land from the environment for agriculture, developing technological solutions to increase farm production including greater uptake of biotechnology, changing our dietary patterns, or more contentiously limiting population growth. All these options have the potential to polarise the public, will prove politically unpalatable and have significant environmental impacts.

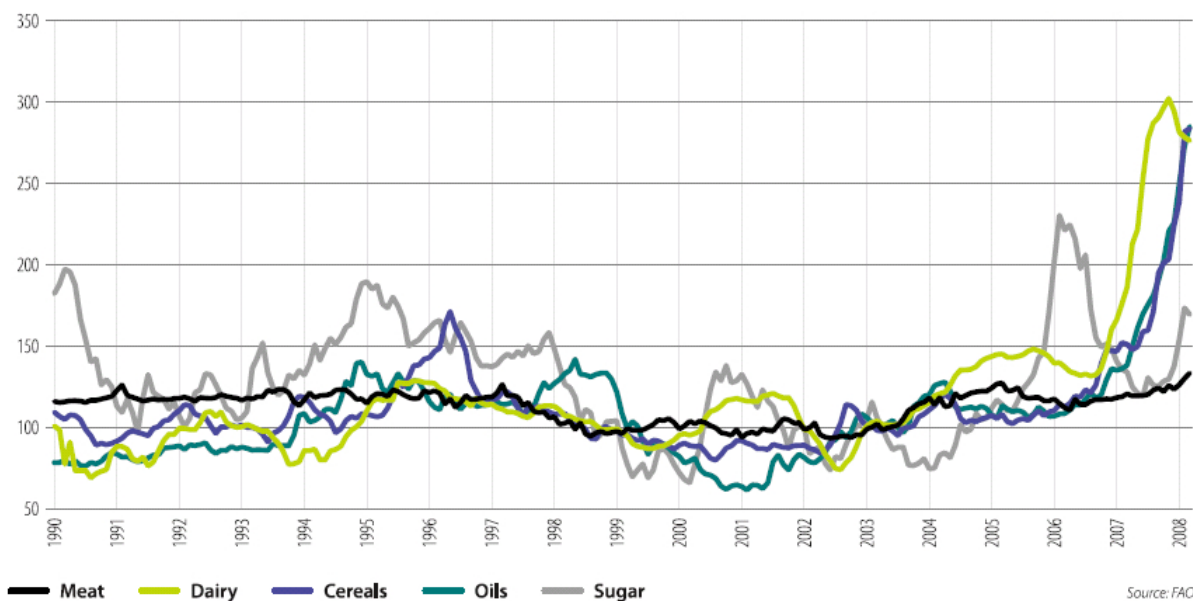
Globally, food security is central to poverty reduction, public health, sustainable economic growth, world peace and geopolitical security. Many Australians, however, believe that a food crisis will not directly affect them as we export 60 percent of all farm produce and supply 93 per cent domestically consumed food. Furthermore, unlike many European countries we have no experience of living through food shortages during the Second World War and consequently have not implemented policies to ensure agriculture's future. Despite this perception, food security has the potential to be an issue in Australia of the same magnitude as water and fuel security, particularly if the nation relinquishes its food sovereignty.

Due to a variety of events that adversely affected food production, agricultural commodity prices rose sharply throughout 2006 and 2007, with the FAO reporting a 24 percent increase in the FAO food price index during this period and a 53 percent increase in the first three months of 2008 (FAO;p.2;2008). In real terms, food prices rocketed to their highest levels in nearly 30 years. The number of undernourished people in the world increased by 75 million in 2007 and an additional 40 million in 2008, largely due to higher food prices, resulting in riots in 22 countries around the world, and seriously threatened government stability (FAO; December 2008).

Agricultural markets are regularly subject to fluctuating prices. However, a distinguishing feature of the food crisis was the simultaneous increase in prices for most food commodities (see Figure 1).

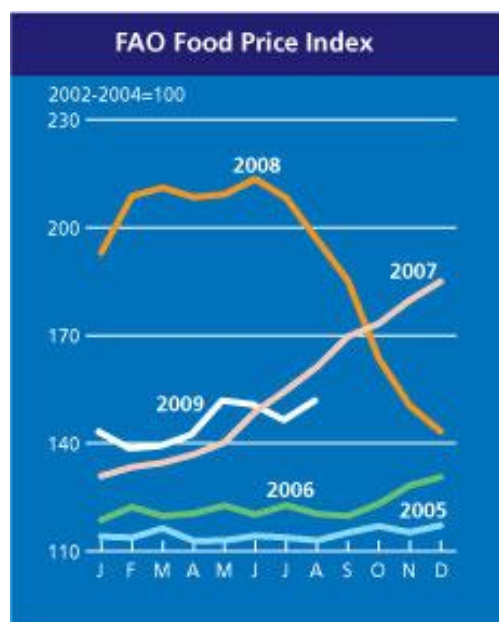
¹ Food security is commonly defined as including both physical and economic access to food that meets people's dietary needs and their food preferences¹. The World Food Summit of 1996 defined food security as existing "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life".

Figure 1 – Monthly FAO price indices for basic food commodity groups (1998-2000=100)



Agricultural prices have fallen substantially since their 2008 highs, but lower prices have not ended the food crisis in many countries (Figure 2). The underlying problem remains food affordability, in particular for those people, whose incomes have been reduced by the global financial crisis. Also affected are poor food importing countries with lower growth and fiscal revenues and more severe balance of payment constraints.

Figure 2: FAO Food Price Index



(Source: FAO World Food situation, Sept 2009)

The current drop in prices has largely been attributed to the global economic slowdown and the deflationary effects this has had on commodity demand and some input prices, for example, fuel and fertilisers.

FACTORS AFFECTING THE FOOD CRISIS

The 07-08 food crisis was exacerbated when drivers of both supply and demand coincided. These factors included:

Supply side factors

Adverse weather conditions

A critical trigger for increased prices was the decline in cereal production in major exporting countries following poor weather conditions. In NSW, apart from a brief respite in late 2005, over 50 percent of the State has either been drought declared or marginal since 2002.

Stock levels

Since the previous high-price event in 1995, global stock levels have declined, on average, by 3.4 percent per year as demand has outstripped supply. Production shortages have lead to tighter supply, resulting in greater price volatility on international markets. Tight global markets at the beginning of the season also put upward pressure on prices (see Figure 3). Consequently in the absence of buffer supplies, stocks reached very low levels, resulting in prices rising sharply when triggered by either a demand or supply shock.

Increasing fuel costs

Fuel price increases also raised the cost of production for agricultural commodities. For example, the US dollar price of some fertilisers, including triple superphosphate and muriate of potash, increased by more than 160 percent in the first two months of 2008, compared to the same period in 2007.

Demand side factors*Biofuels and agricultural commodities*

The emerging biofuels market proved a new and significant source of demand for some agricultural commodities such as sugar, maize, cassava, oilseeds and palm oil. The increase in demand for these commodities was a leading factor behind their price increase in world markets, which, in turn, led to higher food prices.

Changing structure of demand

Increased household income and urbanisation have gradually changed the structure of food demand. Dietary trends are moving toward greater protein intake, such as meat and dairy products, which in turn is intensifying demand for feed grains.

Other contributing factors include an increase in commodity speculation and restrictive trade policies in some countries, such as export bans and increased export taxes.

SHORT TO MEDIUM TERM FORECAST

As indicated in Figure 2, food prices have declined as the global financial crisis and ensuing economic slowdown dampened demand for commodities, particularly more expensive food groups. However most economists believe that world economic activity has stabilised after contracting sharply in late 2008 and early 2009. World economic growth of 3 per cent is forecast for 2010, having declined 1 per cent in 2009 (IMF, p.XIV, 2009)².

The OECD-FAO 2009-2018 agricultural outlook, projects that prices in real terms will be at, or above, the levels of the decade prior to the 2007-08 peaks, as shown in Figure 3 below.

This is supported by Australia's Department of Foreign Affairs and Trade (DFAT) forecast that the long-term factors, which drove prices to record levels, will remain. Furthermore, international organisations, including in the World Bank, the FAO and the OECD, project that food prices are likely, on average, to remain well above their pre-2006 levels over the next ten years.³

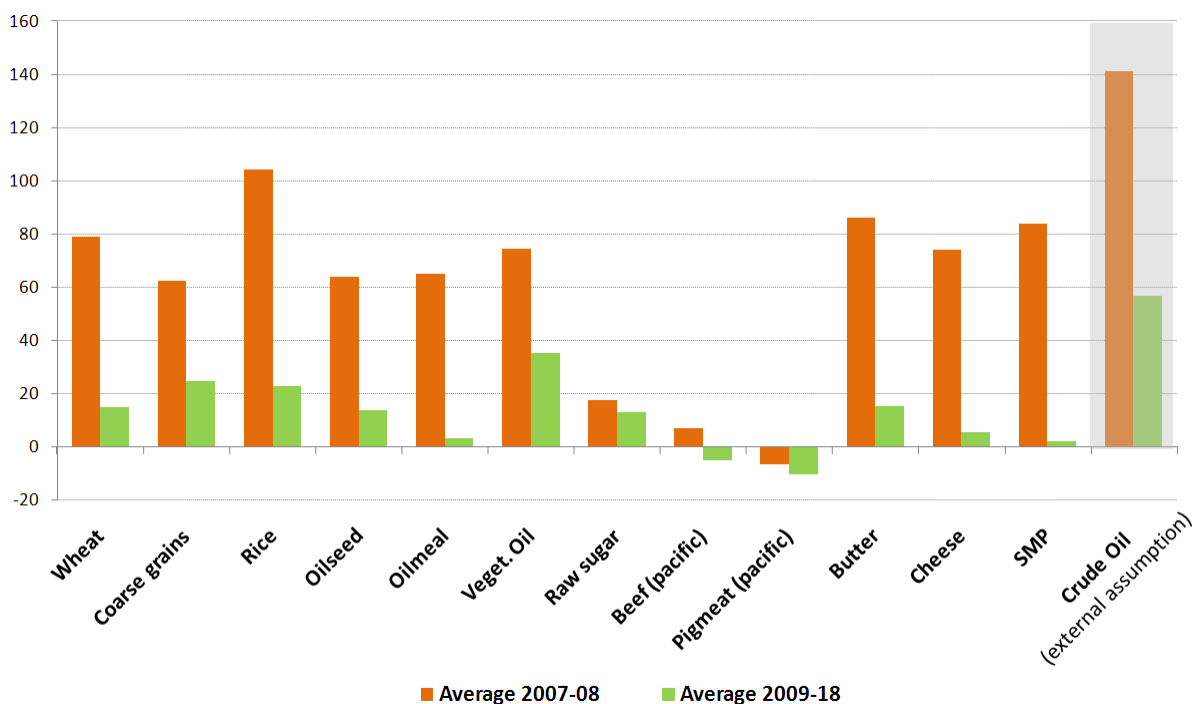
As population and economic growth continue, upward pressure will be placed on commodity demand and in turn food prices. The world's population is forecast to grow 38 per cent by 2050, from 6.8 billion to 9.4 billion and over the next forty years, Australia is potentially poised to have the fastest population growth of the industrialised world, at 65 per cent, should it grow to 35 million by 2049.

Global agricultural production must increase 70 percent by 2050 to feed an additional 2.3 billion as the population become more urbanised and wealthier (FAO, September 2009). Ninety percent of this required production growth is projected to come from increased yields and cropping intensity, and only 10 percent from the expansion of arable land. Specifically, the FAO have stated that annual cereal production will need to increase 30 percent to 3 billion tonnes from 2.1 billion tonnes and annual meat production will need to increase 74 percent to 470 million tonnes from 270 million tonnes. Consequently, national food production and efficiency gains in the supply chain will need to dramatically increase if we are to feed a burgeoning population with clean and affordable food.

² Growth in the emerging economies is expected to strengthen in the next few quarters, and is forecasted to reach almost 5 percent in 2010, up from 1 percent in 2009, driven mainly by China, India, and a number of other emerging Asian economies. However, economic growth in the advanced economies projected to expand sluggishly through much of 2010 to be about 1 percent, following a contraction of 3 percent in 2009

³ Brown, Nicholas (DFAT) 2008, *High food prices, food security and the international trading system*. Paper presented to the Informa National Food Pricing Summit, Sydney, 29-30 September 2008.

Figure 3: Percentage change relative to the 1997-2006 average



Agricultural-policy reform

The FAO advocates that the recurring food crisis will persist until the world tackles the underlying structural problems of hunger and agricultural development policies⁴. Focus will need to shift to the policy response of individual nations. However, crucial questions remain regarding the ability of international markets to efficiently deliver sufficient quantities of quality food at affordable prices to those locations facing increased food demand. Solving these problems must be at the forefront of any national policy agenda if we are to meet the forecast food demands by 2050.

The world will need a multilateral response to these issues with leadership coming from all countries, in particular those such as Australia who, comparatively, have stronger financial and technological capabilities to contribute to this food production revolution.

The OECD and FAO have recommended a number of policy prescriptions to ensure more people have access to food immediately. These are;

1. Trade policy: Food security will only be realised if agricultural markets are more open, enabling competitive suppliers around the world to respond to global demand more efficiently and cost effectively. Agricultural trade barriers and other trade-distorting practices will require significant reform as they currently limit the incentive for farm households to increase supply in response to growing market demand, and thereby hinder development.
2. Domestic agriculture policies that drive competition and productivity will favour agricultural sectors able to respond to these conditions.
 - (i) Competition: the Australian agricultural sector is well placed having changed significantly after the removal of market support arrangements and the liberalisation of trade policies in the late 1970s and early 1980s. Australia ranks second only behind New Zealand in receiving the lowest proportion of their gross farm receipts from Government support (OECD: 2009).

⁴ http://www.fao.org/fileadmin/user_upload/newsroom/docs/Secretariat_Contribution_for_Summit%20.pdf

- (ii) Productivity: Australian agricultural productivity growth has averaged 2.8 percent a year over the past two decades, compared with 1.4 percent a year for the market sector overall. Australia will, however, need to lift agricultural productivity growth above its current long-term average to “...continue to play its role as a competitive supplier of food and fibre...[and] to maintain international competitiveness and farm viability under changing market and environmental conditions”⁵.

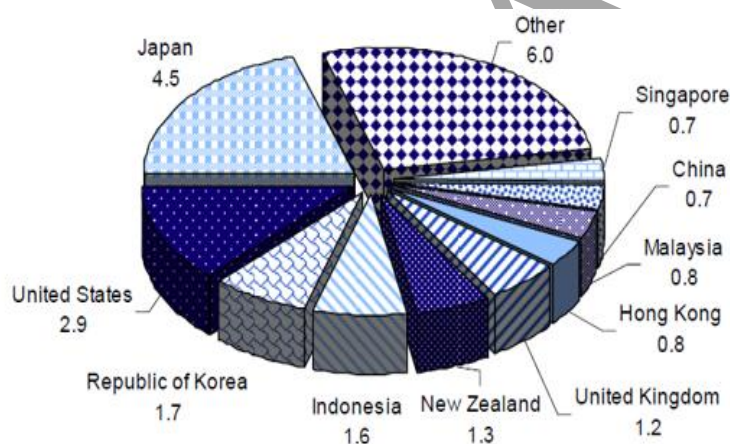
ROLE OF AUSTRALIA

Australia has a key role to play in increasing food production and supporting the global food security effort, based on its:

- position as a substantial supplier of agricultural commodities and food products to world markets, especially in the Asia-Pacific region (see Figure 4);
- competitive advantage in modern, scientifically driven farming practices, and;
- financial resources to provide development assistance for agriculture and rural development in developing countries.

While the Association commends the Australian Government’s recent initiatives in development assistance⁶ and believes that Australia’s foreign aid policies will continue to play a key role in the nation’s contribution to food security, these international policy issues are outside the scope of this paper and will not be discussed further.

Figure 4: Australia’s top 10 agrifood export markets 2007 (A\$ billion)



In 2007, despite lower output due to drought, Australia was the world’s seventh largest supplier of agriculture and food exports. It ranked among the top exporting countries for beef (first), barley (first), wheat (third) and dairy (third).

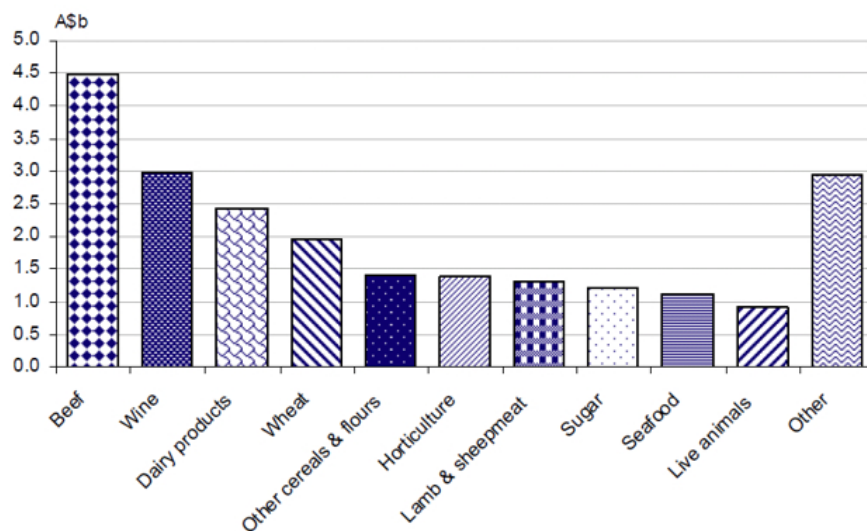
Source: DFAT

Australia is a significant supplier of lamb, rice, wine, sugar, seafood, horticulture products and live animals (see Figure 5). Australian agrifood exports have averaged between A\$20-26 billion in recent (drought affected) years, totalling A\$22 billion in 2007.

⁵ ABARE Issues Insight 09.7, *Raising productivity growth in Australian agriculture*. Katarina Nossal and Peter Goodday. November 2009

⁶ In July 2008, the Prime Minister, the Hon. Kevin Rudd MP, announced Australia would commit A\$50 million to a new World Bank trust fund to support its Global Food Response Program. This initiative helps to provide immediate support for agricultural production in developing countries with inputs such as seeds and fertilisers. (<https://www.imf.org/external/am/2008/speeches/pr29e.pdf>)

Figure 5: Australia’s top 10 agrifood exports 2007 (A\$ billion)



Source: DFAT

Australian primary production policy development

Australia’s farmers are critical to the national economy and a sustainable future. They manage 61 per cent of the Australian landmass, produce 93 per cent of Australia’s domestic food supply, underpin 12 per cent of GDP, and employ 17 per cent of the national workforce.

As a major exporter of agricultural commodities, Australia stands to benefit in the short-term from high international prices. However, governments need to take a strategic long-term view of global food demand and supply trends. In practical terms, this means developing policies that support more efficient agricultural production, capacity expansion and market access.

These three issues should be central to the Government’s policy agenda and ensure that primary producer’s ability to supply these markets is enhanced.

The following areas require immediate attention by the Australian government to develop a robust policy framework:

1. increased investment in research ,development and extension services to boost productivity and adoption levels;
2. increased investment in water use efficiency to cost effectively manage fluctuating seasonal conditions;
3. transport and infrastructure upgrades to support the efficient, timely and cost effective movement of primary produce;
4. sufficient funding for Australia’s exotic disease and Quarantine/Biosecurity programs to detect any potential threat to Australia’s domestic production capacity;
5. land use planning reforms to ensure urban sprawl, mining, Managed Investment Schemes (including Carbon Forestry offset projects) and unreasonable environmental regulation do not adversely impact Australia’s farm production capacity. This may include developing financial incentives for farmers not to subdivide their land and/or creating dedicated agricultural ‘hubs’ in those areas of high farming productivity;
6. continued support for multi-lateral trade negotiations and more open markets for trade in agricultural goods. Liberalising world food markets will expedite rational supply responses and the allocation of resources towards more efficient producers, including those in developing countries, thus lifting productivity and global output;
7. market reforms to promote increased competition at the supermarket (and decreased barriers to other primary production supply channels), fertiliser and fuel retail levels;
8. a review of foreign investment in Australian farmland and the potential economic and social impact of food and fibre grown in Australia being entirely repatriated back to these countries, and;
9. a review of the economic, social (including health) and environmental impact of Australia relinquishing its food sovereignty in key commodities to other countries, while allowing its own domestic production base to collapse.

BENEFITS:

The benefit of developing industry policy to secure global food supplies is twofold. It will;

1. reduce the risk of the world returning to the global food crisis as seen in 2007-08, and;
2. underpin the productivity and profitability of the Australian agricultural sector.

Enhancing the State’s food producing capacity and logistical efficiency is paramount to NSW’s contribution to alleviating any future food crisis. Given the forecast production increase, Australia, as an open, developed and large supplier of agriculture exports, is well positioned to be a major contributor to meeting these challenges.

The global economy is growing again after contracting sharply late last year and in the early part of 2009. There has been some recovery in world trade and most of the major economies now look to be expanding. The risk aversion that was evident earlier in the year, particularly in financial markets, has abated and confidence is gradually returning.

Looking forward, if global growth is expected to continue on the current trajectory, the NSW Government will need to introduce a variety of policy initiatives, including those outlined in this paper, to mitigate against any potential return to the food price volatility seen between 2006-08. However, if such initiatives are successfully implemented, export focused primary producer nations will be offered major opportunities to capitalise from both high prices as well as meeting their obligations to feed the world.

CONCLUSION:

1. Food Security is both a threat and an opportunity facing NSW primary producers;
2. The factors that lead to the 2006-08 food crisis will remain in the short to medium term;
3. It is up to NSW and Australian policy makers to establish a regulatory environment that will alleviate any possible return to the 2008 food crisis;
4. Australian Governments should recognise agriculture's strategic significance in a globalised economy and guarantee policy that supports the industry;
5. Enhancing the State's food producing capacity and logistical efficiency is paramount to NSW's contribution to alleviating any future food crisis;
6. Research and development must be adequately funded, appropriately targeted and capable of commercial application.
7. Australia, as a developed export focused primary producing nation will benefit from increased demand as well as meeting its obligation to feed the world.
8. Australia cannot afford to relinquish its food security in pursuit of poorly considered government policies - they must be backed by good science and good economics.

RECOMMENDATIONS:

The BEAT Committee recommends that the Association:

1. become the major proponent in raising public awareness of the food security issue;
2. focus its lobbying efforts on policy areas which will ensure efficient agricultural production, capacity expansion and market access, including:
 - increased investment in research ,development and extension services;
 - increased investment in water use efficiency;
 - transport and infrastructure upgrades;
 - sufficient funding for Australia's exotic disease and Quarantine/Biosecurity programs;
 - land use planning reforms;
 - continued support for multi-lateral trade negotiations and more open markets;
 - domestic market reforms to promote increased competition;
 - a review of foreign investment in Australian farmland, and;
 - a review of the impact of Australia relinquishing its food sovereignty.
3. establish strategic alliances with organisations that have a complimentary food security policy focus, and;
4. develop campaign strategies for the upcoming Federal and State elections that highlight these issues and deliver the policy reforms needed to ensure the future productivity and prosperity of Australia's agricultural sector.

RELEVANT ASSOCIATION POLICY:

- **Remove adverse policy** - That the Association advocate for the removal of adverse government policy.
- **Oppose legislation affecting NSW farmers' cost-competiveness** - That the Association lobby against on-going legislation which adds cost to the farming bottom line and which effectively makes New South Wales farmers less competitive with overseas farmers.
- **Highlight dangers of food imports** - That the Association promote the dangers in Australia moving into a position where it is necessary to import food.
- **Lobby for policy to improve position in global markets** - That the Association continue to seek that the Federal Government manage the economy in such a way as to promote improved and sustained international competitiveness, in particular by preventing increases in the cost of production of Australia's major rural exports from exceeding those of our trading partners and competitors.
- **Lobby for industry support incentives** - That the Association seek that the Government adopt a policy of incentives and other appropriate measures to assist rural communities and industries to adjust, remain in and become more competitive in world markets.
- **Policy to support the primary producers** - That the Association urgently reflect in practical policy, means to address the poor economic position of the average farmer and the declining rural big picture.
- **Develop a strategic plan for primary production** - That the Association, seek direct involvement and assist in developing that strategic plan for the future to enable Australia to:
 - (a) facilitate the necessary structural change that will open access to markets on a world competitive basis; and
 - (b) establish world's best practice principles in the quality and marketing of our products.
- **Actions for more profitable and sustainable agriculture** - That on behalf of members, the highest priority of NSW Farmers' Association is to actively achieve more profitable and sustainable agriculture through:
 - (a) significant incentives to upgrade plant and technology for conservation and production;
 - (b) the identification and removal of adverse government and banking policy;
 - (c) improved farm business management skills;
 - (d) increasing farm returns by improving the efficiency of the marketing chain; and
 - (e) encouraging youth in agriculture.
- **Support for multi-lateral and regional trade agreements** - That the Association continue to support the pursuit of multi-lateral trade agreements and encourage that additional Government resources be allocated to the pursuit of potential regional trading agreements, as long as resources are not diverted from multi-lateral efforts.
- **Lobby for reduced trade barriers through the WTO** - That the Association seek that Australia's negotiating position for the next round of World Trade Organisation negotiations be governed by the following principles:
 - (a) at all times seek enhanced access for Australian farm produce to international food and fibre markets;
 - (b) agricultural export subsidies and production related domestic market subsidies should be eliminated;
 - (c) effective countervailing action for those industries threatened by subsidised imports where those industries would otherwise be efficient users of Australian resources and to establish effective country of origin labelling laws;
 - (d) support appropriate measures that assist rural communities and industries that must adjust to become competitive in world markets; and
 - (e) no treaty should be ratified until agreement is reached on agriculture.
- **Improve road infrastructure funding** - That the Association forge an alliance with the NRMA to lobby for improved road and infrastructure funding in rural NSW.

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