

Agriculture Competitiveness Issues Paper

Comments by Dr Quentin Farmar-Bowers

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1) Farm gate prices:

Public policies that aim to bring better returns to the ‘farm gate’ are not necessarily those that will improve food security for Australian families. There are a number of reasons for this. One reason is that the majority of farm production is exported and purchased by the economic middle and upper classes in overseas countries. The prices they set become the bases for domestic Australian prices. The price points so determined by overseas middle / upper classes are higher (and likely to become increasingly higher as inequity increases) than the price points that would be determined if all products were sold domestically. So we have a dual circulation of monies; with one circulation between about 60% of farm commodities and foreign purchasers and the other circulation between about 40% of farm commodities and domestic purchasers. Unless all domestic purchasers can match the buying power of foreign middle and upper class purchasers, the discrepancy in prices will increase with the coming years. A wider policy (something like ‘increasing the well-being of Australians’) would temper agriculture policy to ensure it did not exacerbate social inequities and damage the overall social and economic performance of the Australian economy.

2) Definitions:

‘Food security’ requires a clear definition to ensure it captures the significance of ongoing dietary problems; remembering that dietary problems are implicated in 56% of all deaths in Australia.

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”. Commonly, the concept of food security is defined as including both physical and economic access to food that meets people’s dietary needs as well as their food preferences. In many countries, health problems related to dietary excess are an ever increasing threat, In fact, malnutrition and foodborne diarrhea are become double burden
[\(http://www.who.int/trade/glossary/story028/en/\)](http://www.who.int/trade/glossary/story028/en/).

If we take food security to relate to families and individual in families and if we take it to relate to a diet that delivers health, then clearly Australia has serious food security problems. These problems may be ‘personal’ but collectively they emerge through economic performance via reduced productivity and increase health costs. They are expressed on a personal level through illness and inability to make good on one’s potential. This may not be considered important if the unhealthy diet is ‘self-imposed’ but often

(possibly usually) it is imposed on children because of poverty (relative poverty not the kind of destitution we see in Africa and South Asia) making it a system failure.

Defining 'food security' as an issue within a host of related issues, may appear hard but it is doable if you take a systems approach.

"Food Security Definitions

The international community through the United Nations has been involved in developing definitions of food security since the inception of the term in the mid 1970s for the good reason that the definition governs the consequent policy and actions taken (FAO 2003). The FAO (2009 p 1) defines the concept of food security as: Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. The four pillars of food security are availability, access, utilization and stability. The definition stresses the individual's point of view: Food security is not simply a function of production or supply, but of availability, accessibility, stability of supply, affordability and the quality and safety of food (UNEP 2009 p 77). The Australian Government, in its issues paper for a national food plan, use this definition (DAFF 2011b).

Roetter and Van Keulen's (2008 p 27) widen the definition from the individual living a healthy life to suggest that food security is a spring board for economic development and world standing: The ultimate aim... [of] ...food security is to arrive at a healthy and well-nourished population that can take on, to the maximum of its capacities, the development of its own community, area or country. The two definitions imply that research into food security needs to elucidate the issues listed in the definition at the level of the individual as well as at community and national levels.

*If food was the only thing people required then these definitions would suffice. But people need other 'securities' to live a full life. Food security has to be achieved in the context of these other securities so that in obtaining a satisfactory diet we are not denying ourselves or future generations the ability to fulfil all of our needs. Perhaps this implies that we require a practical definition of food security using a systems approach that puts food security needs into the context of securing the full range of people's needs." (chapter 15; in Farmar-Bowers et al. see: <http://www.springer.com/food+science/book/978-1-4614-4483-1> and also *Journal of Agricultural and Environmental Ethics* • DOI: 10.1007/s10806-014-9491-1)*

3) Coping with food security:

There is a dearth of information on food insecurity in Australia (as there is in most countries). The estimates are around 5%. Without better information it will be impossible for governments in Australia to get satisfactory policy settings to deal with this issue. There seems to be an increasing demand for services for organisations such as 'Second bite' and 'Food Banks Australia' who supply hundreds of charities with food daily. Much of this food comes from the retail sector 'not good enough to sell' although this source is increasing, these organisations are making their own products (such as Weetabix look alike) and getting donations from farmers directly as charity. While they do tremendous good, in the end food insecurity cannot be left to charitythe nutrition of the population is clearly a responsibility of government and since agriculture is the main producer of the raw material for foods (and diets) agriculture policy must be supportive of policy at delivering good ongoing nutrition to all sectors of the community including poorer women and children (health, gender, intra-generational and social policies).

The British Government has been looking into the food charity industries. This is kind of research that should be undertaken in Australia in the very near future. You can access their work at:

https://www.gov.uk/government/publications/food-aid-research-report?utm_source=FCRN+Mailing&utm_campaign=5f899c94b4-RSS_*|RSSFEED%3ADATE%3Aj+F+Y|*&utm_medium=email&utm_term=0_a29d7fdc4d-5f899c94b4-297130189

4) **Climate change:**

The future of agriculture in terms of the rate of climate change looks rather shaky for Australia. While technology is important in increasing production, it is not something that comes without considerable research to identify problems and find feasible solutions and for these solutions to come into practice on the farm. If we are to rely on new technology to become into effect in the next 30 years then agriculture policy should be setting up new agriculture research intuitions with multidisciplinary teams and terms of references that relate to the combined issues of sustainable development immediately.

There is a fear that the pressure to create more export commodities will lead to agricultural infrastructures and business arrangements that may be able to be maintained for decades but will not meet the ideals of sustainable development especially in regard to the conservation of native biodiversity, the protection of natural capital on which agriculture depends (including soils) and will not deliver the social issues of food security within Australia (especially the wider definition that includes topics such as mal-nutrition; obesity, diabetes etc.) and increasing equity within society.

Agriculture is a major emitter of greenhouse gases. This needs to be changed dramatically as the cost of mitigation if not born by the polluters will have to be borne by other parts of the Australian economy. Great care will be needed in reducing the carbon pollution from agriculture so as not to set back other policy objectives such as social inclusion, increasing social equity and reducing poverty. It will be pointless just moving costs within society to allow agriculture to continue to pollute. Again this looks like another reason to consider improving technological research and do it in conjunction with social research.

I think the Federal Government should be cautious about predictions that market led technology will solve public problems. Some reports on technology seem overly optimistic, for instance there is one on global agriculture from the IFPRI... http://www.ifpri.org/publication/food-security-world-natural-resource-scarcity?utm_source=FCRN+Mailing&utm_campaign=5f899c94b4-RSS_*|RSSFEED%3ADATE%3Aj+F+Y|*&utm_medium=email&utm_term=0_a29d7fdc4d-5f899c94b4-297130189

5) **Land use:**

Agriculture is by far the biggest use of land and of course of water resources. There is an issue of allowing land to be allocated in the market solely on the basis of the willingness (or ability) to pay. There may be good reason to think ahead and protect agriculture land and water resources from destructive but highly profitable alternative uses which include industrial, urban and mining developments.

Agriculture through its use of natural resources is also the most important factor in habitat and biodiversity loss. Protecting the Australian environment should be given a higher political priority than increasing the export of agriculture (and forestry / sea-foods) commodities.

The costs of land use increase in financial terms (through investment in infrastructure) and in social and environmental terms is often substantial as the example of northern Australia exemplifies. It would seem wise to avoid land (and irrigation) expansion wherever possible.

6) Energy:

Agriculture is totally dependent on fossil fuels especially oil and gas. Peak oil will ensure the upward movement of oil prices as 'harder to extract oil' has to be used to meet increasing global demands. Perhaps the new sources of oil will increase output to well over 100 M barrels a day but with a price tag to match. To meet the idea of being 'globally competitive' and ideas of improving the Australian diet (to encourage people to live longer, have a healthier existence, meet their potential and be more productive in the economy) will be increasingly difficult with energy resource inflation.

One pathway would be to reduce the use of fossil fuels by encouraging alternative energy sources where this is possible. For example, the hydrogen in the Haber-Bosch process could be obtained through hydrolysis of water rather than from natural gas. The electricity could come from a solar process...of which there are many to choose from and Australian as a sunny and windy place with lots of granite rocks has a distinct advantage over other countries. Investing in this kind of technology would only make sense if the proponents appreciate the need to reduce the carbon intensity of agriculture as a mitigation project and believed that it represented an adaptation against the possibility of increasing price of natural gas.

Electrification of farming activities more generally offers an efficient way of reducing carbon pollution and increasing the cost competitiveness of agriculture when combined with local electricity generation on the farm. (Solar electricity of whatever kind is fuel free and so reduces marginal energy costs). Many farmer (being practical people) already are embracing the use of solar water pumps and all sorts of remote equipment. This technology is already here but policies to encourage it would overcome some of the information gaps.

7) Disease and pests:

Current agricultural practices provide the opportunities for pests and diseases to flourish. Changing climate is not going to help and warmer nights and winters may increase the problems substantially. Overcoming these issues will require improved research and programs to get on-ground changes.

8) Value adding:

The difference in price between agriculture commodities and finished foods / products is quite substantial. 'Adding value' to commodities would require market and industry investment with its added risks but it would keep more of the money in the Australian economy. But I understand that farmers are not industrialists and that this current consultation program of the Government is about developing an agricultural policy (plan) and not a more comprehensive industry policy or plan. Nevertheless, focusing on 'value adding' rather than increasing land use and the use of more natural resources such as irrigation water to increase production (mainly for export) would avoid many of the intractable environmental issues and allow the deployment of current technologies. Value adding would open the door to a wider range of capital than agricultural expansion.

The experience in Australia of foreign investment in value adding industries (such as chocolate or tinned fruit etc.) has not been good perhaps partly because of the lack of an incentive to innovate and so a new approach is needed. I am sure business and management experts will be able to assist in developing new models.

I will be making a further submission.
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