

## SUBMISSION IN RESPONSE TO THE AGRICULTURAL COMPETITIVENESS ISSUES PAPER

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An inquiry into the economics and sustainability of Australian Agriculture is welcomed and very much needed. Although the stated focus of the inquiry is on the competitiveness of agriculture, the issues paper addresses a wide range of issues which the authors feel impact on competitiveness or vice versa. I believe that the investigation and discussion of these other issues will prove to provide the greatest benefit from the process because competitiveness, particularly economic competitiveness, will not lead to the ultimate aims of food security, sustainability, viability and farm profitability, while also providing safe, healthy, nutritious and affordable food for the people of Australia.

### **Issue 1: Ensuring food security in Australia and globally**

- Contrary to the claim of the issues paper, global food security is not improved by greater food production and a global trading system, because Australian and other Western globally traded food is produced using industrial agricultural systems which are inherently unsustainable and cannot possibly provide long-run global food security. World food production is already significantly greater than that required to feed every person on earth adequately, yet there is widespread food insecurity and hunger throughout the world, particularly in developing countries. Significant levels of production go to feed farm animals, are wasted, stay in warehouses or are dumped at sea. The primary reasons for food insecurity are poverty, lack of access to food and land, politics and a very discriminatory global food distribution system that only supplies food to those that can afford to pay global prices. The poor in developed countries also suffer food insecurity because they cannot afford adequate healthy, nutritious food.
- The issues paper outlines plans to take advantage of forecasts of 75% increase in demand for food in the first half of this century using current unsustainable farming methods, increasing yields through productivity growth and intensifying production systems. However, productivity on most Australian farms is declining with the use of unsustainable farming methods and the resulting wide range of farm ecosystem maladies, including poor soil health, low soil carbon and organic matter, low and declining biodiversity, poor water quality and availability, toxicities and resistances to agricultural chemicals, widespread land degradation and salinity problems. Additionally, agriculture is facing potentially significant negative production effects from climate change, extreme weather events and seasonal unpredictability as well as rapidly increasing costs and decreasing potential availability of heavily subsidizing external inputs to the industrial production system such as petroleum fuels, agricultural chemicals and fertilisers. The economic viability of many farms is also in

decline being squeezed at both ends by globalizing economic forces of rising input prices and declining global commodity prices.

- Exporting industrial agricultural technology, particularly to developing countries will not improve global food security, but will further deteriorate food security wherever this technology migrates. However, promoting alternative sustainable agricultural technology, such as agroecology, combined with strategies for developing countries to be food self-sufficient, will improve food security. Industrial agriculture leads to food insecurity wherever it is practiced in the world.

## **Issue 2 : Farmer decisions for improving farm gate returns**

- Returning farms to productivity and profitability can only be achieved for the long term by implementing sustainable farming methods such as agroecology, organic farming and biodynamic farming. All industrial farming methods will lead to serious declines in farm ecosystem health and subsequently, farm productivity and profitability decline. Industrial farming is effectively an industrial mining operation with very short-term gains but serious long-term consequences resulting from mining the natural farm resource base and not maintaining farm ecological health. Sustainable farming is an ecological activity, not an industrial extractive activity.
- Drought conditions are a key risk for farm production and incomes along with a wide range of climate variability, including variable and unpredictable rainfall patterns, temperature extremes and extreme weather events. Rather than attempting to rely on adaptive strategies to manage these increasing risks, we should be considering strategies to mitigate climate change, including the widespread implementation of sustainable agriculture which produces very significantly less greenhouse gases, sequesters carbon in the soil and is more resilient to drought and climate change.

## **Issue 3 : Enhancing access to finance**

- Under a capitalist system dictating maximum profit and capital accumulation, a flawed economic system that externalizes highly subsidizing input costs to the environment and society, and an industrialised agricultural system that degrades its own resource base, food production has little chance of being sustainable, productive, profitable, secure or nutritionally healthy in the long term. As Albert Einstein wisely observed, the same methods cannot be used to fix a problem that was created by those very same methods in the first place. We need to change our economic approach to agriculture to facilitate the widespread adoption of sustainable farming methods.
- Under our currently flawed system, investment capital will naturally flow to the type of agriculture that provides the greatest short-term return, which is extractive industrial agriculture. By developing a sustainable investment fund (such as superannuation ethical investments) that directs capital to sustainable food production (under a sustainability audited scheme favouring small scale and local production), capital can be directed to flow to, and support, ethical, sustainable and high quality food

production at affordable prices. Similar very successful micro-finance schemes have been developed in India to finance many small scale local enterprise initiatives supporting sustainability, resilience and self sufficiency.

#### **Issue 4 : Increasing the competitiveness of the agricultural sector and its value chains**

- Because our capitalist system has inherently evolved very large and powerful global corporations with an enormous imbalance of capital and market power, real competition has all but disappeared from our business and trading systems, particularly at national and global levels. Agriculture and the agri-food business is no exception and the issues paper outlines supporting examples of this growing and completely unacceptable situation of market domination in Australia and internationally.
- Fair and open competition is not possible where the competing parties have such an enormous imbalance of capital, market power and political influence. Therefore true competition will never evolve in such a flawed and corrupted system that capitalism patronises. And true to form, the situation continues to evolve progressively, the rich and powerful corporations accumulating ever more capital and power as time moves forward, which they use to their advantage in a never ending war of unbalanced competition against weaker market forces, farmers and consumers.
- Political action needs to be taken to regulate these seriously anti-competitive behaviours which also lead to the increasing prevalence of unsustainable agriculture, increasing damage to farm ecosystems and the environment, food insecurity, low quality food and social dysfunction.

#### **Issue 5 : Enhancing agriculture's contribution to regional communities**

- The decline of agricultural employment across rural Australia and the decline of rural communities across Australia has coincided with the progressive siege by industrial agriculture over the past 60 or 70 years. With ever increasing levels of mechanization, economies of scale, use of off-farm inputs and proscriptive farming methods, few farmers or rural workers are now required and those that remain require fewer skills or experience. Workers follow the instructions and remotely proscribed directives of agribusiness agronomists, as to which proprietary seeds, fertilizers, chemicals and other inputs to use, how much and how often. Vertically integrated agribusiness suppliers also provide a package of vehicles, machinery, fuel, finance, transport, marketing and farm supplies. The farmer effectively becomes a manager of his farm for the global and national agribusiness corporations who make the decisions, take most of the profits away from the local area and facilitate the farmer to become indebted.
- If we are to enhance agriculture's contribution to rural and regional communities and to farmers themselves, we need to develop a new agricultural model where the farmer has control of his own agroecological farming system that produces high

quality, healthy and nutritious food, productively, profitably and sustainably into the long term future for the local community and other Australians.

- In this new model, average farm sizes can revert back to those of 30 to 60 years ago, and using regenerative, organic, biodynamic, keyline and other sustainable farming methods, farmers will be able to farm productively and profitably, year after year, surviving droughts and climate fluctuations using on-farm water retention and landscape hydration, and resilient farm agroecosystems.
- A growing number of farmers are already beginning this transformation, realizing that there is no viable economic or ethical future in current industrial farming systems. Some are marketing their own sustainable or organic branded produce locally through farmers markets, to retail outlets or directly to consumers. Farmers are receiving far higher prices than through conventional marketing to commodity traders, and consumers are happy to have access to healthy, nutritious food and meet the farmer with whom they can build a long-term relationship of trust.
- Not only is the farmer able to continue farming profitably and sustainably, but he is also able to employ some local workers to assist him in the more labour intensive but less capital and external input intensive system of food production. The local and regional community benefits economically, employment-wise and socially. The farmer spends his money locally on services, farm supplies and provisions, with a preference for using other like-minded local businesses. Money does not immediately leave the community, going to national or international agribusiness corporations, and community resilience begins to build. In this way, farm profitability can return to family and small farms in rural areas, and this is the key to rebuilding rural and regional communities as well as their prosperity, resilience and employment potential.

## **Issue 6 : Improving the competitiveness of inputs to the supply chain**

- I very strongly support the issues paper suggestion that productive agricultural land should be protected from competing land uses, particularly mining. The very short term and limited benefits of mining flow primarily to a very small number of powerful and wealthy individuals and corporations while the long term costs are far greater to the ecology, land value, farm productivity, artesian aquifers, biodiversity, food security, climate change, sustainability and community resilience. This protective regulation should be extended to all productive agricultural land and all land of high biodiversity value in Australia (including rainforest and National Parks) in both rural and urban areas. Protection should be afforded from all competing permanent and destructive land uses including urban development and lifestyle use as well as from mining.
- The issues paper states that “Farmers around the globe are continually improving their efficiency”. However, conventional industrial agriculture has very low and declining efficiency in all of the critical efficiency criteria except in terms of the number of people employed and the costs of labour and management. Industrial agriculture is not more efficient in terms of production per dollar invested, per calorie of fossil energy, or in terms of resource degradation and pollution per calorie of food

produced. It is not even more efficient in terms of production per hectare of land, efficiency of water use per kilo of food produced, efficiency of utilization of solar energy, efficiency of utilization of land, efficiency of storing soil carbon, efficiency of utilization of farm biodiversity or efficiency of using natural resources. Sustainable agricultural systems are more efficient than industrial agricultural systems on all of the great majority of efficiency criteria that will decide the sustainability and long term viability of food production systems.

- Industrial agriculture is very energy inefficient and requires very significant external subsidies of non-renewable fossil fuel energy to maintain production. Conventional agriculture uses more energy to produce food than the food itself contains, with approximately 10 calories of fossil energy required for each calorie of food produced in the USA. Sustainable traditional agriculture can return up to 40 calories of food energy for each calorie of cultural energy invested.
- It is a myth that industrial agriculture is efficient or that this efficiency is continually improving. Efficiency is declining as farm productivity declines along with the failing health of farm agroecosystems.
- The high energy costs of conventional agriculture can be very significantly reduced through a transitional shift to low energy sustainable agricultural systems. A wide range of sustainable farming practices including reduced and zero tillage, conservation and keyline farming, organic and biodynamic farming, natural sequence farming and pasture cropping can significantly reduce the external non-renewable energy subsidies and costs to agriculture and at the same time provide a wide range of additional benefits in terms of farm ecosystem health and productivity.
- High energy costs of current food systems in terms of very high food miles and the high energy costs of transport and distribution from farms remote from distant markets, can be very significantly reduced by a transition to local food production systems. Existing rural farms can commence this transition by marketing as much production as possible locally through farmer's markets and other outlets in small towns and regional centres. By increasing quality through sustainable production methods and marketing directly, they will be able to obtain similar incomes with lower production levels and lower transport costs.
- The use of toxic agricultural chemicals in the farming system leads to serious declines in long term farm productivity. Agricultural chemicals, including insecticides, fungicides, herbicides and biocides, are usually toxic to both target and non target species and applied chemicals do not discriminate in killing both beneficial and pest organisms with equal efficiency. By removing beneficial organisms, pest populations explode requiring further pesticide applications, leading to ongoing vicious cycles of pest attacks and pesticide applications. Repeated chemical application leads to the development of chemical resistance in pests and weeds, the buildup of toxic residues in soils, water and plant materials, and serious long term declines in ecosystem health and productivity. Agricultural chemical residues in food present long term risks to human health, while toxic chemicals present application risks to farmers and are lethal to bees, birds, fish and other wildlife, particularly when they enter waterways. On the other hand, sustainable organic farming systems utilize high levels of farm biodiversity and ecological health to naturally control pests and

diseases, and are self regulating in maintaining ecological balances. They do so at low economic costs and high efficiency while producing high value food without chemical residues or the associated risks to human health.

- The re-direction of agriculture in a sustainable direction will create opportunity for a significantly greater number of people to be employed in food production because it will very much be a knowledge and people based system. It will also be a more intensive system where more people will be required on many more smaller local farms and food production operations close to the centres of population. There will be significant availability of labour in towns and cities close to production systems and in turn, there will be proximity to the local food distribution systems of farmers markets, home delivery centres and local food retail co-operatives. Sustainable local food systems will offer a wide range of attractive and exciting career pathways in agroecology, permaculture, organic and biodynamic agriculture, horticulture, sustainable agriculture, ecology, soil biology, urban agriculture, community gardening, community supported agriculture, organic gardening, waste recycling systems, self-sufficient water systems and sustainable energy systems. There is a significant amount of knowledge and experience of these issues in the alternative agriculture, permaculture and community gardening networks to provide an excellent base for education and training. However, formal education institutions such as universities and TAFE colleges, have until recently, been somewhat neglectful of these new areas of education and training. Changes in government policy and support for sustainable food production initiatives will be essential to accelerate their important development.
- Research and development and extension services for Australian agriculture and food production are potentially very important and necessary, however current direction of R&D and Government policy for the funding of research and extension services are of serious concern. Policy for increasing private and corporate funding of research in public universities and research institutions, and the parallel withdrawal of funding of extension services offered by Government Agriculture Departments has led to very serious loss of the independence and value of the research and extension services. These policies have often been resulting in research focus on technologies and studies that are aligned with the vested corporate and private interests of those providing funding, rather than on technologies and research that is independent and will provide the best outcomes and returns for farmers and taxpayers. Many areas of research in sustainable agriculture and food production that are likely to provide farmers greater returns at lower costs are being overlooked in favour of research on proprietary technology that will deliver greater returns to investors. Similarly, the policy of handing extension services over to private enterprise has resulted in a focus on products and technologies that will provide the greatest returns for the service operator rather than the farmer. Unfortunately, many of the technologies and products resulting from corporate funded research and extension are driving agricultural unsustainability and unprofitability for farmers. Policy in these areas needs to be urgently reviewed.
- Agricultural biotechnologies, particularly genetically modified varieties, neither deliver increased yields nor lower the input costs of agriculture. They in fact lower agricultural productivity and also carry a range of very serious risks for agriculture, the environment and human health. They are simply cleverly marketed technologies

designed to deliver unprecedented profits and control of the world's food system to the corporate proponents. Genetically modified varieties are always lower yielding and more poorly performing on agriculturally important varietal traits than the best equivalent naturally selected varieties. They also carry almost certain risks of transgenic contamination of conventional agricultural crop varieties and may also genetically contaminate non-food plants in the wider environment. There are also a wide range of serious concerns including the loss of organic certification from GM contamination of neighbouring organic non-GM crops, GM biotoxin contamination of farm ecosystems resulting in toxicity to bees and beneficial insects, and the adverse long term effects on human and animal health. No adequate independent long term research has been carried out on these long term issues before release of these organisms into the food chain and the environment. These technologies have been regulated in the EEC for very good reason with the best available research showing very high levels of risk for agriculture, the environment and human health with no proven benefits over existing varieties and technologies. As GM technology is ultimately a fundamental issue of food rights, public choice and human health, a moratorium on release of GM varieties and regulation for the labeling of GM content of any food or food product needs to be enacted while comprehensive independent research is undertaken on the long term effects of GM technologies on human and animal health and within agricultural ecosystems is undertaken.

### **Issue 7 : Reducing ineffective regulations**

- Regulation is very important in the systems of society because it provides protection and controls against unacceptable behaviours, abuses and exploitation of natural resources, the environment and others in society.
- In agriculture, regulations protecting the natural resource base of farming systems, including the environment, biodiversity and the commons, are critically important to the long term productivity and sustainability of food production, and in general, these protections need to be strengthened rather than weakened.
- It is concerning and important to know what the real reasons for the desire to diminish or remove environmental and biodiversity regulations may be, because these natural resources are two of the key support structures for the long term health and productivity of sustainable agroecosystems. It is contradictory to think that farmers would want to jeopardise the long term productive potential of their farm systems unless there was another agenda behind this move.
- There may be some financial savings in reducing duplicated regulations in non critical areas for farm productivity. However these savings will not make completely unsustainable industrial farming systems either sustainable or profitable in the long term. Other solutions will need to be investigated to achieve this.

### **Issue 8 : Enhancing agricultural exports**

- The issues paper is very contradictory in claiming that “Global food security is improved.....with a global trading system that allows food to move to where it is needed” on the one hand and on the other, stating that Australian agricultural exports will be going to the “rising populations in middle and high income brackets” of Asia and to “increasingly wealthy consumers”. The contradiction is that food is needed most by the poorest people in the developing world, yet Australia is planning to target exports to the wealthiest people in the developing world who are not food insecure. Australian agricultural exports are simply going to where the most profit can be made, which is the high income bracket sector of Asia. The food insecure of the world are among the one billion people who survive on less than one dollar a day and cannot afford to pay for high priced Australian agricultural exports on a global market.
- Many Australians are opposed to the increasing flood of imported food in Australian supermarkets, particularly over the last 10 years or so. It is unacceptable that equivalent food of higher quality, grown by Australian farmers and processed by Australian processors was previously on the same supermarket shelves at similar or slightly higher prices. Corporate supermarket power, unregulated global trading and corrupted competition are denying the rights of Australians to choose Australian food, support Australian Farmers and support Australian food processing jobs.

### **Issue 9 : Assessing the effectiveness of incentives for investment and job creation**

- Australian Government assistance to the agriculture sector is not being directed to the most appropriate areas to provide the best value for money and develop sustainable agriculture and food production systems.
- Government policy is supporting industrial and globalizing agricultural models instead of sustainable and local food production systems.
- As a result, family farms which have been the backbone of Australian Agriculture for many generations are being driven to unsustainability, declining productivity and unprofitability.
- Farms and key agribusinesses are being sold to corporate agribusiness and overseas investors at ever increasing rates, raising issues of food sovereignty and national agricultural security.

### **Additional issue : Food, nutrition and health**

- The fundamental purpose of food is to provide nutrition for humans to have a healthy, happy and productive life.
- To fulfill this purpose, food must be of the highest nutritional density, balance and value, and be safe to eat, free of toxins, contaminants, disease causing organisms or harmful additives.

- Over the 10,000 year history of agriculture until recently, food was grown naturally using natural resources of healthy soils, clean water organic composts and sunshine.
- However, since the industrial revolution and particularly since the second world war, food production has been progressively turned into an industrial process, primarily in the developed countries of the world. With a focus on maximizing production and profits, mechanisation, scale and efficiencies became priorities while food quality and its nutritional value became secondary.
- Australian studies have found that the nutritional density of fruit and vegetables has decreased by about 40% over the past 40 years.
- There are now a wide range of serious concerns about the nutritional quality, health and safety of our food produced using industrial agricultural systems. These include low nutritional density, poor nutritional balance, contamination of food with pollutants, industrial waste, agricultural chemical residues, food additives and preservatives and processed food with high fat, sugar and salt levels, and genetically modified organisms.
- A wide range of serious health concerns link many of them to food and diet. These include obesity, diabetes, heart disease and cancers.
- Evidence is growing that the best quality, nutritional and healthy food can only be produced using sustainable, organic food production systems.