Submission to the Productivity Commission Draft Report on the Regulation of Australian Agriculture

Friends of the Earth Australia

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Thanks for the opportunity to comment on this draft report. Because of the length of the report and the limited time available for public submissions this submission is by necessity cursory. The document is too lengthy and too intrinsically flawed for us to comment on every erroneous assumption and unsubstantiated statement contained within it. We sincerely hope that this profoundly flawed document will not form the basis for any policy changes relating to the environment and health issues associated with agriculture.

The flaws are at all levels. The underlying anti-regulatory ideology and assumptions are accompanied by poor and cursory analysis, and the cherry picking of data. The Report shows little scientific or conceptual rigour. For example, in assessing the deregulatory opportunities for certain environmental legislation, the PC relies on a ridiculously simplistic view of how to measure benefit. The 'equation' used is that the net community benefits of regulation must outweigh the benefits of removing the regulatory burden. The equation is utterly defective in several respects. Firstly, nowhere is community benefit defined nor quantified - nor is a method of analysing such a benefit provided. Secondly, such an approach ignores some fundamental and basic environmental realities. One cannot hope to determine the community benefit of environmental regulation without a clear analysis of what problem the regulation is intended to solve, whether it is solving the problem - and if not - why such a failure is occurring. None of this analysis occurs anywhere in the document. The PC relies extensively on anecdotal information regarding problems with regulation. This information is primarily from the agricultural industry and regulators and is never examined to determine its veracity.

The Report fails to question current agricultural practices or to analyse the ways in which they have contributed to current environmental and climate crises. It also fails to examine the effect of policy settings – such as subsidies – and how these may have perverse impacts on agricultural practices and outcomes.

The report strongly supports voluntary measures, self-regulation and soft approaches to regulation without analysis of the impacts and efficacy of these measures.

In the Report externalities are not quantified, and must be if analysis is going to be useful. The Report notes that "with only limited quantitative evidence on the costs of regulations, materiality is based on judgments about the potential gains to the Australian community from removing or amending regulations." This kind of subjective analysis is not only a poor substitute for data it is accompanied by an almost complete lack of understanding of ecological conditions and principles.

The Report is so ideologically determined to reduce regulatory burden that the analysis that underpins calls for change or removal of regulation is extremely poor. In some cases conclusions of regulators are rejected without data, in others conclusions are embraced without evidence – and in both cases the conclusions favour the elimination of regulations.

The PC Report embodies the simplistic assumption that farmers are suffering under a regulatory burden that must be lightened - yet no data is put forward to justify this assumption. These flaws are well demonstrated by the Report's approach to climate change.

Climate change is hardly mentioned in this 500 + page report. The report notes how it may affect movement of pests (p. 266), the distribution of rainfall (p. 147) and the availability of agricultural land (p. 58). However, no estimate is made of the contribution of land use/agricultural practices to climate change and how the community is currently expected to bear those costs.

The Great Barrier Reef (GBR) is mentioned once in the report and there is no analysis, for example, of how the community is paying the costs for poor land use practices in the GBR catchments. The Queensland Government has estimated that the cost of fixing water quality in the GBR catchments exceeds $8 billion dollars. This figure demonstrates the high price we are paying both for poor land use practices, market failure and regulatory failure. This is just one example – and one cost figure – that is no doubt replicated in various ecosystems throughout the country.

Response to specific recommendations

We oppose **Draft Recommendation 2.1** that land management objectives should be implemented directly through land use regulation - rather than through pastoral lease conditions - and are concerned by the PC's support for the privatisation of Crown land.

We oppose **Draft Finding 2.2.** Regulation and policies aimed at preserving agricultural land are essential to cope with a growing population and the harsh realities of climate change. They should not be undermined.

We oppose **Draft Recommendation 3.1.** The recommendation to balance economic, social and environmental factors has been the standard approach for decades and inevitably the environment loses.

We oppose **Draft Recommendation 3.2** that the Australian, state and territory governments should continue to develop market-based approaches to native vegetation and biodiversity conservation. Market mechanisms may be useful when the market and policy setting align (e.g. when there is profit in protection), but this is clearly the exception and not the rule. We oppose the support for offsets. There is simply no evidence that the shell game of offsets is having any environmental benefit in Australia or internationally.

Draft Recommendation 5.2. Another glaring weakness of the Report is the animal welfare section. The PC argues there is a lack of clarity regarding community expectations of animal welfare. However, the problem here is not one of understanding community expectations but that that those expectations clearly contradict industry practices.

The notion that farmers benefit from increased animal welfare is not supported by evidence. There is little likelihood that animal welfare can be achieved through market mechanisms. Regulation has failed to achieve humane practices because of extreme resistance from the agricultural sector.

We dispute **Draft Finding 6.1** that there are no economic or health and safety justification for banning the cultivation of genetically modified (GM) organisms. We note the lack of scientific consensus regarding the safety of GM food. We also note the consistent premium for non-GM

canola in Australia. The PC fails to provide any evidence on which its assertion that co-existence is possible between GM and non-GM crops. Furthermore, this assertion is directly contradicted by the evidence both in Australia and overseas.

Draft Recommendation 6.1. We oppose the recommendation that state and territory governments remove their moratoria on genetically modified (GMO) crops and repeal the relevant legislation. State moratoria exist to protect valuable export markets because most shoppers globally don't want to eat GM food.

Ending state powers to establish GM-free zones for marketing reasons would mean any GM crop approved by the Federal Government regulator (OGTR) could be grown anywhere, without state or local approval. Australia's key trading partners have zero tolerance for unapproved GM crops, so these markets would be at risk if Australia allows new types of GM crops (such as GM wheat) before they are approved elsewhere.

We oppose **Draft Recommendation 6.2** that the Australian Pesticides and Veterinary Medicines Authority (APVMA) should approve products that have been approved overseas. This will inevitably result in the cherry picking of those 'well-respected' regulations that serve industry best. Additionally, risk assessment must have regard to Australian conditions and circumstances.

We oppose **Draft Recommendation 9.1**. which recommends the removal of GM labelling. The right of the public to make informed choices about what they eat – for whatever reason – should not be undermined. It is well established that the majority of Australians do not want to eat GM foods.

More detailed comments

Genetically modified organisms

We strongly reject that report's assertion that the state GMO moratoria and mandatory labelling of genetically modified foods lack a sound policy justification and should be removed.[1]

The basis for the state GMO moratoria

The state GMO moratoria were put in place in recognition of the fact that just because a GMO has been approved as safe by regulators doesn't mean that markets want it. We find it fairly incredible that the Productivity Commission is proposing that the South Australian and Tasmanian GMO moratoria be lifted whilst failing to have any public hearings in these states to hear about the potential impacts of this decision.

Lifting the state moratoria risks global market rejection

The lifting of the state GMO moratoria would allow any GM crop, animal or microbe to be introduced - irrespective of whether they have been approved by Australia's key export markets. The risks of market rejection are very real. For example, the European Union (EU) has a zero-tolerance policy on the marketing of food containing GMOs or ingredients produced from GMOs if they are not approved for food use in the EU.[2] As Markos Kyprianou, EU Commissioner for Health and Consumer Protection notes:

> *"There is no flexibility for unauthorised GMOs - these cannot enter the EU food and feed chain under any circumstances."*[3]

The Tasmanian Government also observes that:

> *"China has a zero tolerance for GMOs that have not been approved and tests for contamination. China's increasingly slow and unpredictable approval level and lack of a low level presence (LLP) policy has resulted in a large increase in rejected shipments and trade disruptions."*[4]

Were Australia to clear new types of GM crops for growing before they were approved offshore, that could be very costly for food exporters and take years to recover from, as the US experience demonstrates. There are numerous examples of costly market rejection and disruption due to the presence of unapproved GMOs. These include:

Triffid flax
Just on the suspicion that flax exports from Canada contained a very low level of an unlicensed GMO variety of flax, Canadian flax prices dropped by a third. When those rumours were confirmed with the findings of Triffid in a flax shipment to Japan, 35 countries closed their borders to Canadian flax exports, including 28 in the EU which accounts for 60 per cent of Canada's flax export market. A University of Saskatchewan study estimated that the cost to the Canadian flax industry in the first year alone was $29 million due to demurrage, testing, and segregation costs.[5]

Roundup Ready alfalfa
In 2015 three U.S. hay exporters were blacklisted from supplying hay to China after Roundup Ready alfalfa was found in hay shipments. Hundreds of containers of hay were turned away.[6]

Viptera corn
In 2015 nearly 3,000 Indiana corn farmers launched a lawsuit against the Swiss company Syngenta claiming it released a genetically modified seed to market before it had been approved in key export markets, costing them millions in losses from plummeting corn prices and a Chinese import ban. The National Grain and Feed Association said "nationwide the loss is estimated to be nearly $3 billion."[7] China's response is particularly worrying for the US corn industry because its stance on GM "has the potential to transform agricultural markets."[8] "It's pretty dramatic if the U.S. can't supply the Chinese market", said a grain exporters' representative.[9] The clampdown not only affected US corn exports, but other commodities such as soy, in which traces of the unauthorised GM corn were found. This caused soy prices to drop, as China sought substitute grains to import.

According to the US National Grain Feed Association:

> *"Given China's zero tolerance policy for unapproved biotech events, these disruptions effectively shut U.S. corn farmers out of China's feed grain import market, which previously almost exclusively had been supplied by the United States."* [10]

StarLink corn
This was a massive supply chain contamination incident involving a GM corn used for animal feed and not approved for human foods. It resulted in the largest food product recall in history and is estimated to have cost US companies US$1 billion.[11]

LibertyLink rice
In 2006, an unauthorised variety of GM rice was detected in US exports. It took eight years and a "thorough and painstaking industry campaign" to eliminate the GM rice from the supply chain before the US Department of Agriculture finally issued an "all clear".[12] The contamination was first discovered when traces of a GM herbicide resistant rice were found in a long grain rice export

shipment. The strain (Aventis' LibertyLink 601) was not approved for growing or consumption anywhere in the world, including the US: in fact, the GM rice had only ever been field trialled and the experiments had been wound up five years before traces were discovered in export consignments. According to the USA Rice Federation, "a robust long grain rice export market nearly vanished overnight".[13] Within two days, Japan had banned all US long grain rice imports; three days later, the EU followed suit, shutting its borders to US rice consignments unless testing demonstrated they were free of the GM rice.[14] Other countries, including Mexico, Taiwan, South Korea, Philippines and Russia also closed their borders to US rice or required certification, testing or labelling. By August, "the global market for US long grain rice collapsed."[15]

The total cost to the US rice industry of the LibertyLink 601 contamination is estimated at around US$1 billion.

Other countries that could guarantee GM free status stepped in to supply US markets. Thai and Vietnamese rice industries committed to maintain GM free supply chains, stating: ''We should not waste this opportunity because the EU is seeking new sources of rice to replace the US".[16] 95% of exports to the EU were lost in 2007.[17] In 2013 the USA Rice Federation stated that:

> *"U.S. access suffered a devastating blow in August 2006, from which it has yet to recover...U.S. rice exports to the EU plummeted. Despite the successful effort of the U.S. rice industry to effectively remove the LL traits from the commercial supply, trade has not returned."*[18]

Other contamination incidents

In 2006, a new type of GM corn was planted in just 1% of US fields but managed to show up in 55% of exports to Europe that year, a development that costs tens of millions of Euros as the corn was not then approved in the EU. [19] Another incident in 2009 saw three unauthorised GM corn varieties mixed with US soy exports to Europe, and led to hundreds of thousands of tonnes of soy being refused entry.[20]

The lifting of the state moratoria would allow the commercialsation of GM wheat

Australia is among the world's top wheat exporters. GM wheat has been rejected by all of the other major wheat growing nations. However, the lifting of the state GMO moratoria would mean that if GM wheat was approved by Federal regulators it could be grown here without restriction, threatening Australia's global wheat markets.

In 2004, North American farmers blocked GM wheat commercialisation. According to the Canadian Wheat Board, the biotech industry could not ensure that GM wheat would not contaminate Canada's conventional wheat supply and GM contamination would "virtually destroy the $3.5 billion industry in Western Canada." [21] Furthermore, key buyers in Europe warned that they would stop buying any wheat from North America if GM wheat was introduced.[22]

Like Canada's Wheat Board, the Australian Wheat Board rejected GM wheat because of the biotech industry's inability to guarantee segregation of GM wheat in the field and "clear market signals from international and domestic customers that strong reservations exist concerning GM wheat." [23]

However, the Australian Wheat Board has since been privatised and no analysis of the potential for GM contamination of our wheat supply chain, or the potential impact of this on Australia's wheat export markets, has been published since the Australian Wheat Board surveyed Australia's export markets in 2003.

Our key export markets don't want GM crops

In 2015, the Tasmanian Government's Department of Primary Industries, Parks, Water and Environment (DPIPWE) conducted a snap shot of Tasmania's ten major trading partners. This concluded that "for the majority of our significant trading partners, consumer attitude remains sensitive to GE food products." The review also concluded the primary reason that there are no GM crops grown by Australia's main agricultural competitor New Zealand is consumer resistance to GM foods.[24] The review also noted that:

> *"Interestingly, here in Australia, sentiment in the dairy processing sector is changing around the potential use of GM pastures with the Australian Dairy Products Federation stressing caution as their future use due to the potential to provide a non-tariff barrier for Australia's milk products."*[25]

If the GM bans are lifted in Australia and GM rye grass is commercialised this could obviously have major implications for sensitive export markets such as Europe.

Lucerne
The Australian lucerne seed industry has a moratorium on GM so that producers are unable to grow GM lucerne in Australia. One of the biggest concerns that the lucerne industry has is the potential impact on the industry's export markets, the biggest of which is Saudi Arabia, a country that does not accept GM seed. [26] The lifting of the state moratoria would mean that as long as GM lucerne was assessed as safe by Federal regulators it could be grown.

There is a marketing advantage to remaining GM free

The Productivity Commission appears to have based its calls to lift the state GM moratoria solely on anecdotal evidence provided by the GM industry lobby groups AusBiotech and CropLife and has failed to consider the wider issues affecting agricultural exporters.

The Tasmanian Minister for Primary Industries declared the whole of Tasmania a GMO- free area by the *Genetically Modified Organisms Control (GMO-free Area) Order (Tas)* on 31 October 2005. According AgriGrowth Tasmania "the aim was to position the State in the global marketplace as a producer of food that is genuinely GMO-free."[27]

In 2013 Tasmanian reviewed its moratorium on GM crops. moratoria, this review involved broad consultation with Tasmanian producers. The final review report found that:

> *"Many submissions focussed on the importance of being GMO-free to Tasmania's image, stating that the "clean and green" attribute is critical to the State's brand, without which both markets and individual businesses would be damaged and future opportunities lost. Point of difference was a recurring theme: that is, removing the moratorium and allowing GMOs would mean Tasmania loses a significant point of difference in current and potential future markets for our produce."*[28]

The report also found that:

> *"Tasmanian industries – like beef, fruit, honey, organics and food tourism – argue that they rely on Tasmania's GMO-free status as a key component of their marketing and branding and for market access generally."*[29]

When the Tasmanian Government extended the GMO moratorium in 2013 it instructed its Department of Primary Industries, Parks, Water and Environment (DPIPWE) to conduct an annual review to consider whether there were new grounds to lift the moratorium. The agency's 2015 review determined that "**there is no need to trigger a review of the commercial release of GM into Tasmania's environment at this time**."[30] [emphasis in original]

Consumer attitudes to GM

Polls consistently show that the vast majority of consumers – both here and overseas don't want to eat GM food. The Tasmanian Government's 2013 review of its GMO moratorium revealed that maintaining the moratorium "may serve as a hedge against potential future shifts in consumer sentiment and buying behavior."[31]

Coexistence is impossible

We strongly disagree with the Productivity Commission statement that:

> *"there is evidence that industry (both in states without regulatory restrictions and internationally) can successfully manage the co-existence of GM and non-GM products."*[32]

The experience in North America has shown that the coexistence of GM and non-GM crops is impossible. Contamination happens wherever GM crops are grown.[33]

According to the Canadian National Farmers Union:

> *"GM crop agriculture is incompatible with other forms of farming—non-GM and organic, for instance—because GM crops contaminate and because segregation is impossible."*[34]

GM canola has been found to cross-pollinate with non-GE canola more than 26 km away.[35] Itis therefore not surprising that the use of GM canola varieties in Canada has also led to the widespread genetic contamination of non-GM seed production. In 2003, Canadian researchers tested 33 samples of certified non-GE canola seed and found that 32 samples were contaminated with GM varieties. Three of the samples had contamination levels above 2%. Furthermore, a significant number of seedlings were found to be resistant to both Liberty and Roundup herbicides. The authors concluded that cross contamination with various herbicide resistant traits was at a very high level and that purchasing pedigreed seed would not guarantee that the crop would be uncontaminated with genetically engineered traits.[36] Another study in the US found that similar problems have occurred in other GM crops, with virtually all samples of non-GE corn, soybeans, and canola seed being contaminated by GM varieties.[37]

Widespread GM contamination is driving seed production out of the prairies to other parts of North America. In some cases it is being driven out of Canada altogether, relocating to GM free producer nations such as New Zealand.

Similar problems are also already occurring in Australia, with non-GM seed imports from other Australian states unable to meet Tasmanians zero tolerance requirements for GM contamination.[38]

New GM techniques

There is currently a global push by the biotechnology industry to deregulate a variety of new genetic

modification (GM) techniques – often referred to by industry as 'gene editing' or 'new plant breeding techniques'. However, if these techniques were to be deregulated in Australia before being approved in key export markets the market impacts could be catastrophic.

Scientists have raised concerns that there are no identifying tests for some of these new techniques. Australian producers therefore run the risk of wholesale market rejection if these crops are approved in Australia prior to their approval in key export markets.

Austrian government agencies are among the few globally to consider the biosafety risks posed by these new GM techniques. Their conclusion, over three separate, high-level reviews of the biosafety risks, is that there is insufficient knowledge regarding the risks posed by these techniques. On this basis, they argue that products derived from new GM techniques should be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment. [39]

The Norwegian Environment and Development Agencies also recently commissioned a review of these techniques. This concluded that further biosafety research needs to be performed before these techniques are commercialised.[40]

The New Zealand Government will be regulating these new techniques as GMOs

It was in recognition of these potential market impacts that the New Zealand Government announced earlier this year that it would be regulating these new techniques as genetically modified organisms (GMOs). On making the announcement New Zealand's Environment Minister Dr Nick Smith stated:

> *"The rationale for our cautious approach is that New Zealand is an exporter of billions of dollars of food products and we need to be mindful of market perceptions as well as the science. We will continue to monitor global rules around the regulation of GMOs and adapt our system over time in line with international developments."*[41]

CropLife don't reflect community views

Draft Box 6.10 is entitled: "Community views on whether NBTs should be regulated as GM technologies". This is mislabelled since CropLife and AusBiotech are GM crop industry lobby groups and do not reflect Australian community views or interests.

GM labelling

Contrary to the assertions of the GM crop lobby and the Productivity Commission there is no consensus on GMO safety.[42] However, the issue of the safety of GM foods has no bearing on Australian GM food labelling laws since these were put in place to facilitate consumer choice. The Food Standards Australia New Zealand Act 1991 states that one of FSANZ's four key objectives is "the provision of adequate information relating to food to enable consumers to make informed choices"[43]

In its public consultation documents for the current GM labelling laws FSANZ's predecessor ANZFA stated that:

> *"In addition to the fundamental requirement that food be safe to eat, is the issue of the right of the public to be well informed about what they are eating. Some people, for example*

> *those who prefer to eat originally produced food, have a distinct preference about what they eat that comes over and above food safety considerations. There are undoubtedly people who do not want to eat food containing ingredients which are produced using gene technology for a variety of reasons."*[44]

A 2011 independent review of food labelling commissioned by the Federal Government concluded that "as a general principle all foods or ingredients that have been processed by new technologies (i.e., all technologies that trigger pre-market food safety assessments) be required to be labelled for 30 years from the time of their introduction into the human food chain."[45]

GM is running out of steam

There is evidence that the growth of GM crop acreage has stalled.[46] In Australia, five years after being commercialised GM canola made up just 9 per cent of the crop.[47] This is hardly surprising since GM seed is more expensive than non-GM seed to buy and there is a price penalty of up to $70 per tonne for GM canola, because the market is dominated by the EU which won't import GM canola.[48]

Australia's future is in sustainable agricultural products

A 2015 article in *Farm Policy Journal* points out that:

> *"Australia currently produces 5% of the world's food. By 2030 Asia is forecast to represent half of the world's population. Therefore, Australia cannot become the food bowl for Asia, rather many contest that Australia should concentrate on becoming the premium provider – the delicatessen."*[49]

A 2015 report by the Centre for International Economics found that globally, within the growing middle class category "consumer's preferences are changing towards environmentally friendly, sustainable and ethical production."[50]

In Australia organic agriculture is currently the fastest growing agricultural sector. A 2015 report to the Australian Council of Learned Academies notes that:

> *"market opportunities have grown for products that demonstrably meet consumer demands for healthy, sustainable and/or socially responsible produce. The international market for certified organic produce, for example, was estimated at US$59 billion in 2010 and the size of the Australian market at close to $1.3 billion in 2012 with expected growth in coming years of 10 to 15 per cent per annum."*[51]

As the Marsh/Baxter case illustrates, the growing of GMOs is incompatible with organic agriculture.[52]

The Tasmanian Government has acknowledged the production of clean, green products as an important factor in growing Tasmania's economy. In 2015 the Parliament of Tasmania Legislative Council Select Committee on Growing Tasmania's Economy noted a combined submission from the NW Chambers of Commerce and Industry that:

> "*maximising our GMO status and a push for organic farming ventures is the right direction the world is taking and Tasmania should be on the leading edge. Look at Cape Grim Beef – taking full advantage of the world's cleanest air and rain to raise premium, grass fed, non-GMO, hormone free beef.*"[53]

Agroecological approaches are needed to feed the world

In 2008 the United Nations completed its International Assessment of Agricultural Science and Technology for Development (IAASTD). This five-year-long project, involving over 400 of the world's leading scientists, concluded that genetically engineered crops are not the solution to providing plentiful cheap food.

When the issue was broached, the project's director, Professor Robert Watson, said: "Are transgenics [GM crops] the simple answer to hunger and poverty? I would argue, no."[54]

The core message of the final IAASTD report is that we urgently need to move away from destructive and chemical-dependent industrial agriculture. It argues that techniques such as genetic engineering are no solution for soaring food prices, hunger and poverty.

Instead we need to adopt modern farming methods that champion biodiversity and benefit local communities. More and better food can be produced without destroying rural livelihoods or our natural resources.[55]

Conclusion

It is time for the Government to abandon this particular deregulatory crusade and recognise instead that existing laws are failing. What is needed is not deregulation but regulation that actually accomplishes well identified environmental objectives.

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