

Submission to the Inquiry into Water Licences and Rights

by the

**Senate Standing Committee on Environment,
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from

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I. INTRODUCTION

The sustainable issuing of state water licences while the Commonwealth is also buying back of water should be addressed in the full context of Australia's food security.

The Murray Darling Basin produces 40% of Australia's agricultural product.

Yet neither the National Water Initiative (NWI), nor the Living Murray, nor the \$10 bn Howard national water plan, nor the Rudd government plan (which was based on the Howard plan) for the Basin have addressed critical questions. These questions should be asked of the Water Minister.

1. How much water does the government plan to buy back from agriculture and what level(s) of security is the government targeting?
2. What impact will the taking of water from agriculture for the environment have on the nation's food security?
3. How will Australia's food bowl, the Murray Darling Basin, be saved from collapsing when on top of the government plan to buyback a large amount of irrigation water, net farm incomes of Australian farmers are falling to a level that threatens widespread collapse of farming?
4. Why is the buyback underway when there is yet to be an audit of the Basin's water resources, a full environmental audit of the Basin's rivers or a full socio-economic study of the effects of water trading and water buy back?

2. HOW MUCH BUYBACK OF WATER AND WHAT WILL BE THE COST FOR AGRICULTURE?

Question 1. From an annual allocation of 11,432 GL to irrigation, what is the total amount of water the Federal government intends to eventually to purchase from farmers, and what levels of security is the government targeting?

The question is important in the narrow sense that farmers, irrigation districts and banks cannot assess future investments and plan for future production when it is not clear how much water the government will purchase, from what areas and at what rate.

More importantly, how much the government buys will affect food production and the nation's food security.

Recently, the Federal government announced that:

- To date it had purchased 560 GL of water from NSW irrigators over the past 2 years;
- That the total buybacks must not exceed 890 GL between 2008 and 2013;
- The buybacks would be limited to 60 GL this year and 80 GL in subsequent years.

To date, the total amount purchased is not clear to anyone.

An estimate of how much water the government could purchase

MDB agriculture is based on farmers receiving 11,431 gigalitres (GL) in a normal season from an annual basin flow of 24,300 GL a year. (*The Living Murray*, 2002, pg 1.)

Shortly after the Howard government set in motion a \$10 billion plan for the Basin, environmental scientist, Jennifer Marohasy, estimated that the plan could see “a third of all current diversion for irrigation agriculture” removed for environmental flows. (*IPA Review*, March 2007). As the Rudd government plan is based broadly on the Howard plan, Marohasy’s comments are relevant.

As Marohasy said, theoretically, the federal plan involves:

- Buying back water entitlements because of over allocations. At current drought prices, the \$3 billion allocation could purchase 1,500 GL, while at normal season prices, it could purchase around 3,600 GL.
- Investing \$6 billion to modernise the Basin’s irrigation system to deliver 2,250 GL in water savings to governments for environmental flows and, notionally, deliver another 1,350 GL in savings to farmers. Supposedly, the savings are to come from efficiency gains in water delivery, on farms, in metering and measuring, and in river and other water storages. While in all likelihood, the government would get its full quota for the environment and wetlands, it is reasonable to assume that farmers would be lucky to receive 20 per cent of the promised savings, because the target savings are gross overestimates of what the system is capable of delivering.
- It is unclear if the purchases of the 500 GL for *The Living Murray* scheme is separate from, or to be included in, the new federal plan.

The targeted savings in the federal plan are unrealistic. However, in theory, if the plan did take at least 1,500 GL plus 2,250 GL of targeted savings that are highly doubtful, minus a small savings return to farmers, it would result in about 3,500 GL net being removed from irrigation. (Further, if *The Living Murray* purchases are not included in the federal plan, then another 500 GL would be added to volume being removed from agriculture.)

What cost to Australian agriculture?

The definitive study of value of Australian agriculture was the Australian Farm Institute’s, *Australia’s Farm Dependent Economy: Analysis of the Role of Agriculture in the Australian Economy*, (March 2005).

It showed that agriculture – inclining input, output and first stage downstream industries – made up around 12% of GDP, approx \$130 bn today. (Note: while farm gate value of agriculture is 3% of GDP, when its input and downstream industries are included, it has a multiplier of 4 into the economy.)

If Australian agriculture is worth \$130 bn, and if the Murray Darling Basin (MDB) produces 40% of Australia’s agriculture, then MDB agriculture is worth about \$52 bn. This mostly comes from irrigated agriculture.

MDB agriculture is based on farmers receiving 11,431 gigalitres (GL) in a normal season. (*The Living Murray*, 2002, pg 1.)

Question 2. What impact will the taking of up to 3,500 GL from agriculture for the environment have on the nation's food security?

Answer:

- The current Basin plan could eventually take 3,500 GL, or 30% of the 11,432 GL allocated to agriculture, out of production.
- **In economic terms, taking 30% net of the MDB water out of production would cost Australian agriculture \$15.6 bn in production.**
- **Given gross exports of food and beverages (not including timber and fibre) is only \$14-16 bn annually (see Figure 2 below), this loss of production from the MDB risks turning Australia into a net food importer.**
- Indeed, the loss of production in the MDB could be higher. When large amounts of water are taken from an irrigation region, the infrastructure and the economy of the remaining farms collapse.

3. AGRICULTURAL IMPORTS AND EXPORTS

The figures below were produced recently by Dr Mark McGovern, Lecturer in the School of Management in Business, QUT. He has had a research focus on Australian agricultural exports, imports and food security issue.

Figure 2 shows that gross exports of food and beverages are around \$14-16 bn annually, and static.

Figure 1 shows imports are around \$8 bn annually, and of concern, imports are rising exponentially.

As stated above, based on these import-export figures, if 30% of the MDB irrigation water is taken out of production, reducing the value of the farm production by around \$15.6 bn, then Australia faces the risk of becoming a net importer of food.

Figure 1: Food and beverage IMPORTS (\$m, monthly)

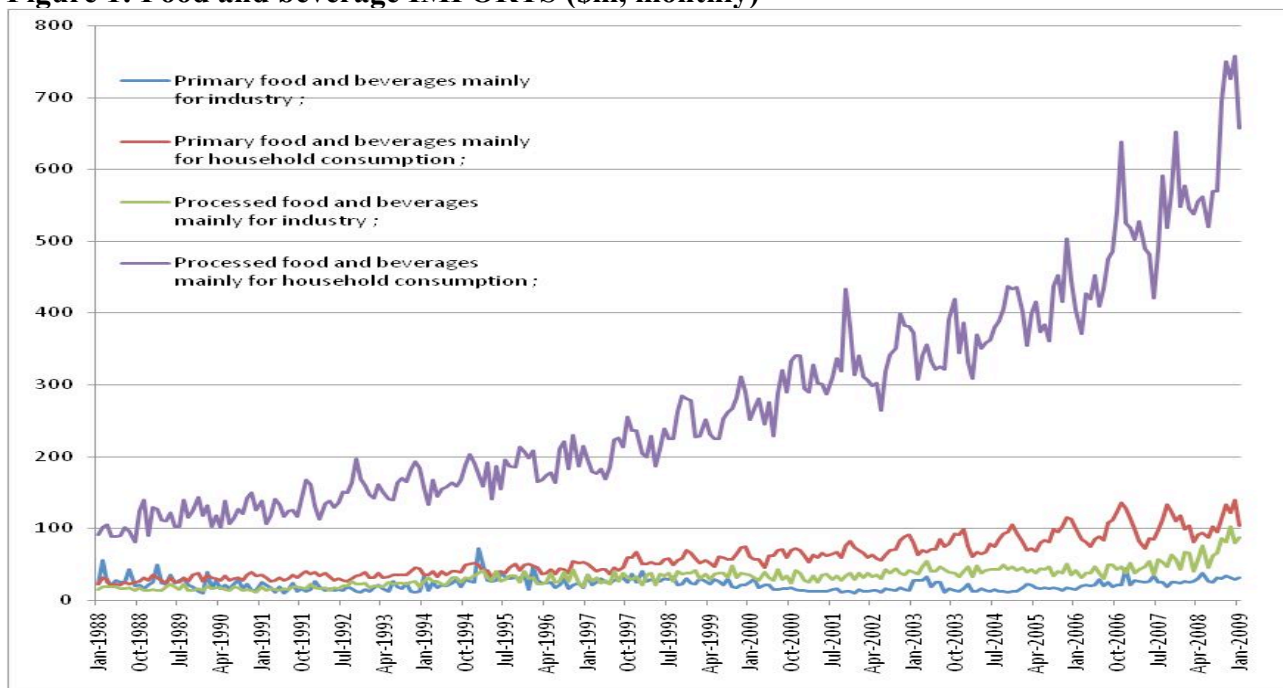
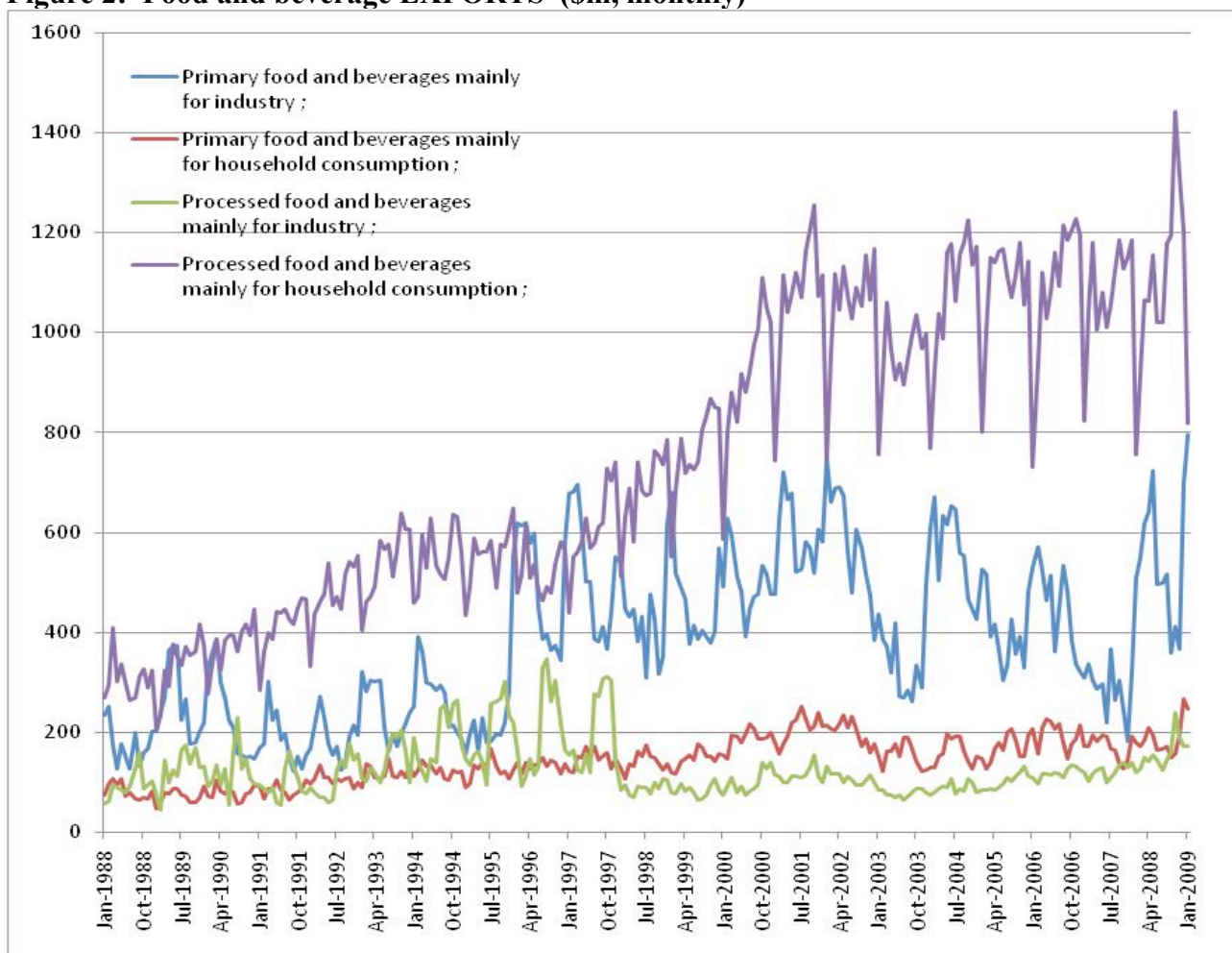


Figure 2: Food and beverage EXPORTS (\$m, monthly)



Source: Australian Bureau of Statistics (2009). 5368.0 International Trade in Goods and Services, Australia.

TABLE 33. MERCHANDISE IMPORTS, Broad Economic Category, Customs Value

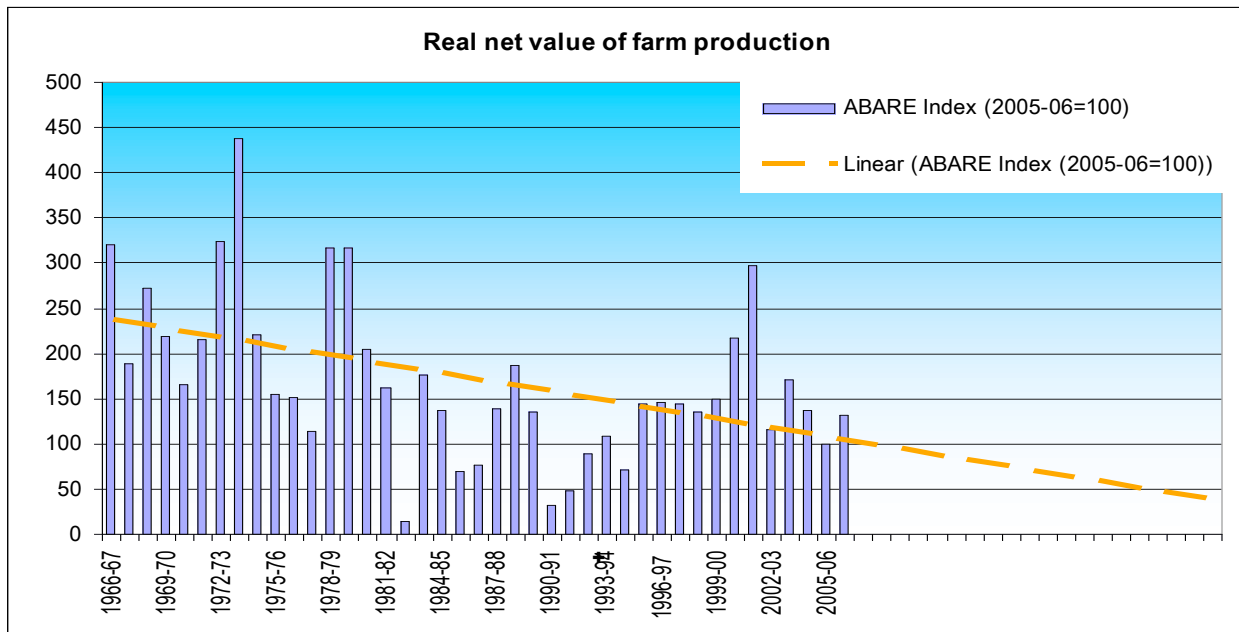
TABLE 31. MERCHANDISE EXPORTS, Broad Economic Category, FOB

Graphs courtesy of Dr Mark McGovern, QUT.

4. FARM INCOME TRENDS WARN OF AGRICULTURAL COLLAPSE

The issue of dramatically falling farm incomes adds to the concern over the buyback of water in the MDB threatening the nation's food security.

Figure 3. Australian real net value of farm production, RNVFP: ABARE, Index 1966-67 to 2006-07



Source: Australian Commodity Statistics, ABARE 2007a, Table 17.
Graph courtesy of Dr Mark McGovern, QUT.

Figure 3 shows the linear decline of the net real value of the aggregated farm incomes of all Australian farmers since 1966-67.

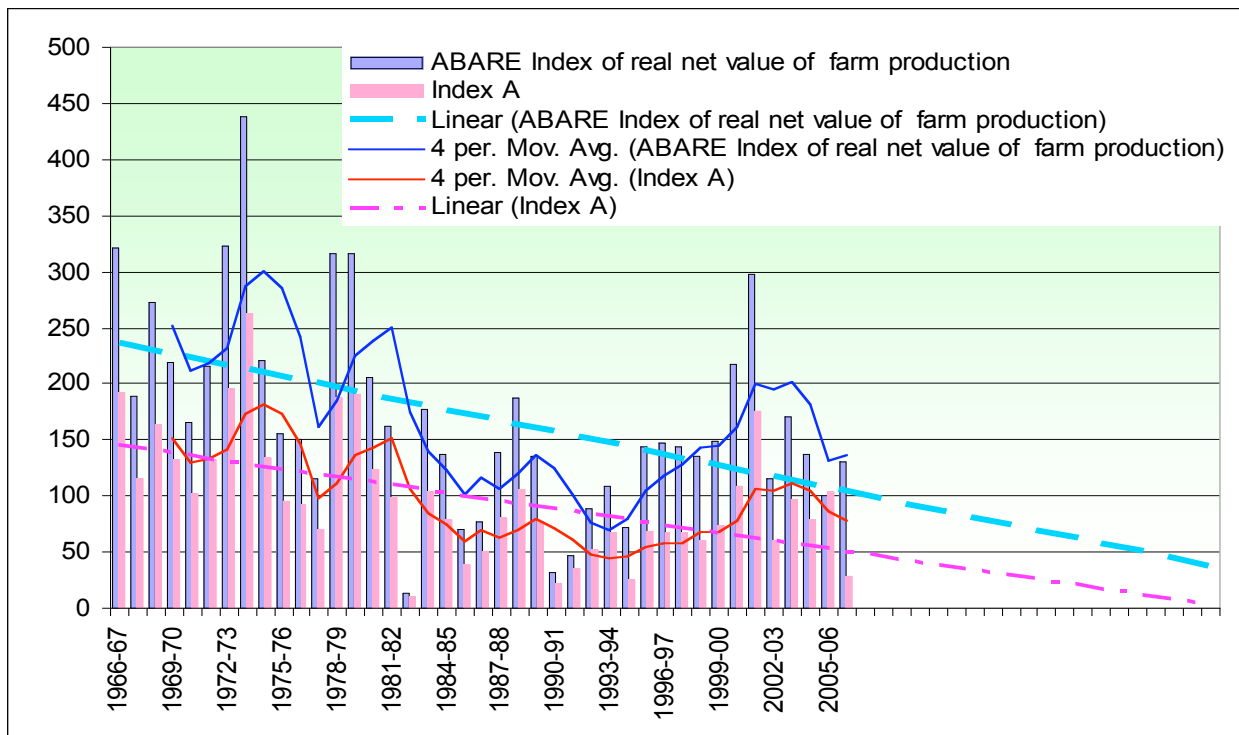
Dr McGovern states that errors in ABARE's sampling required correction. Issues regarding ABARE sampling for these figures are being sought.

Hence, **Figure 4** shows McGovern's adjusted ABARE figures. The bottom straight trend line provides a closer estimation of the trend in farm incomes.

Despite the limitations of ABARE's figures, the trend lines make it clear that net farm incomes for Australian farmers is tracking towards a level that will cause a widespread collapse in farm production.

Question 3: How will Australia's food bowl, the Murray Darling Basin, be saved from collapsing when on top of the government plan to buyback a large amount of irrigation water, net farm incomes of Australian farmers is falling to a level that threatens widespread collapse of farming?

Figure 4. Comparison of ABARE Index and Index A estimates



Index A is McGovern's corrected ABARE index

5. WATER LICENCES AND BUYBACKS IN PERSPECTIVE

Over the time of the National Water Initiative and its evolution into the current government's national water plan, promises have variously been made for key basic steps to be taken in putting a new plan for water and the environment in the MDB. These included:

- A full audit of the Basin's water resources.
- A comprehensive study of the environmental health of the Basin.
- A comprehensive socio-economic study of the effects of water trading and of water buyback on agriculture and regional communities.

These basic planning steps to determine water policy, especially water buybacks, have either not been done or are far from completion. Indeed, under the latest draft for the next planning stage in the Basin, the socio-economic study does not seem to be integral to the plan, but appears as an "add on" to the next phase.

Indeed, The interim report of the 2004 House of Representatives Standing Committee on Agriculture Fishing and Forestry has been the only review of the science behind the Living Murray, National Water Initiative. process, upon which all subsequent policy has been based.

The Committee members (from both sides of politics) were so shocked by the lack of science about the state of this desert river system and by the lack of any justifications for buying water for environmental flows, that its interim report urgently called on the Federal government to act on just two recommendations. Only one member of the Committee dissented from the following recommendations:

“Recommendation 1

In light of the Committee’s severe reservations about the science, the Committee recommends that the Australian Government urge the Murray–Darling Basin Ministerial Council to postpone plans to commit an additional 500 gigalitres in increased river flows to the River Murray until:

- a comprehensive program of data collection and monitoring by independent scientists is completed;
- non-flow alternatives for environmental management are considered and reported upon more thoroughly; and
- a full and comprehensive audit focused specifically on the Murray–Darling Basin’s water resources, including all new data, is conducted.

“Recommendation 2

The Committee recommends that the Australian Government ask the Murray–Darling Basin Ministerial Council to allocate sufficient funds out of the \$500 million allocated to the River Murray by COAG to the abovementioned tasks, prior to proceeding with the proposal to obtain increased river flows.”

This committee’s interim report should be the starting point for considerations on new state water licences and federal water buybacks, and for the drafting of the future plan for the MBD.

Question 4: Why is the buyback underway when there is yet to be an audit of the Basin’s water resources, a full environmental audit of the Basin’s rivers or a full socio-economic study of the effects of water trading and water buy back?

6. Recommendations

1. That the Committee have the above key questions put to the Water Minister Penny Wong.

2. That the Committee recommend that there should be a moratorium on water buybacks, of permanent water being traded out of irrigation districts and of the issuing of new state water licences until:

- **the full audit of the basin’s water resources is complete;**
- **comprehensive environmental studies of the health of the MDB is complete;**
- **a full study of the socio-economic impacts of permanent water trading and water buybacks are completed; and**
- **alternative means of providing water for environmental flows have been examined.**