



CIS Lectures

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ENVIRONMENTAL FUNDAMENTALISM: NOW PART OF AUSTRALIAN PUBLIC POLICY

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Introduction

Ladies and Gentlemen,

Australians generally perceive themselves to be affable and rational, and part of a secular nation that determines its public policies—including environmental issues—mostly on the basis of evidence. Most of us feel comfortable in the belief that our fellow citizens, and especially our policy leaders, are unlikely to ever be swept along by quasi-religious ideas.

The reality, however, is somewhat different. There is ample evidence that environmental fundamentalism drives public policy decision making on a range of issues and that these decisions are having a significant social and economic impact while delivering little if any environmental benefit.

Michael Crichton—notable American writer and author of Jurassic Park—described environmentalism as the religion of choice for the urban ‘atheist’.

A problem with fundamentalist creeds is that they are driven by adherence to predetermined agendas and teachings. The fundamentalist’s position is rarely tolerant of new information and is generally dismissive of evidence.

I consider myself an environmentalist and I want to ensure a beautiful, healthy, biologically diverse planet for future generations. But this will be best achieved if we are honest to the data and proceed with our minds open to the evidence.

Environmental fundamentalism is subversive in that it draws on science to give legitimacy to its beliefs—the same beliefs that, in many instances, have no basis in observation or tested theory.

In this evening’s lecture I hope to illustrate how we are being swept along by environmental fundamentalism with reference to three issues: 1. Tree clearing in Queensland; 2. Water quality and fish in the Murray Darling Basin and 3. Banning of GM food crops in all states except Queensland.

1. Trees are sacred in Australia, like cows in India

The outlawing of broad-scale tree clearing was a key Queensland state government election commitment. The message from the government to farmers protesting the new legislation, proclaimed just last week, has been to stop whinging because the government has a clear mandate.

But what if the election mandate was based on misinformation? What if forest cover has actually been increasing in Queensland over the last decade?

I live in the marginal Brisbane seat of Indooroopilly and the propaganda on this issue in the lead up to the election was relentless. The junk mail gave the very clear impression that broad-scale tree clearing was turning Queensland into a treeless wasteland¾this was the slogan for the media campaign driven by the Wilderness Society.

Yet according to the state government report Land Cover Change in Queensland 1999-2001 there has been a 5 million hectares increase in the area classified as woody vegetation over the period 1992 to 2001 in Queensland.

You may also find it hard to believe that the official statistics from the Queensland Herbarium show 81 percent of Queensland is covered in remnant vegetation¾a figure that has remained constant over the last decade.

The dictionary definition of 'remnant' is 'little or few that remains, a fragment or scrap'. Yet in Queensland 'remnant' is the dominant vegetation classification. Use of the word 'remnant' is deceptive as it suggests only a small amount of natural vegetation remains when in reality over 80 per cent remains.

Trees re-grow and the legislative definition of 'remnant' is vegetation with 50 percent of its original cover and 70 per cent of its original height. So the relatively high level of remnant vegetation cover in Queensland is at least in part achieved by 'regrowth' turning into 'remnant' over a period of time.

There is also the issue of woodlands thickening and acacia thickets replacing once open grasslands over approximately 50 million hectares of rangeland. Interestingly, Queensland satellite data shows that 26 per cent of all clearing in 2000-2001 was of land that had no trees in 1991 (calculated from Table 6, Land Cover Change in Queensland 1999-2001).

Australian Aboriginals were not forest dwellers. They roamed over extensive grassland areas. The end of Aboriginal burning and the introduction of sheep and cattle has resulted in forest encroachment beginning in the late 1800s. The phenomenon is well documented in scientific literature. It has, however, been ignored by the political process driven by activist campaigning.

The introduction of the laws last Thursday was noted on the ABC's World Today with a story that began, 'Green groups are popping champagne corks, farmers are crying into their beers. But the first people affected by the new (Queensland) laws won't have either of those options. The small aboriginal community Napranum adopted a zero tolerance to alcohol last year, and for a town trying desperately to solve its serious social problems, these tree clearing laws may have just scuttled a \$200 million dream'.

The Aboriginal community had been working on a plan to clear 25,000 hectares and grow soya beans, sorghum and fat cattle for sale directly to Asia through the remote gulf port of Weipa.

A Queensland government spokesman was reported on the programme claiming that it was possible for the government to perhaps make an exemption for the Aboriginal community, but only if they can prove it's a project of State importance.

2. Water Dreaming

'Water Dreaming' was the title of a feature in Melbourne's Age newspaper on 19th April 2003 in which Tim Flannery, director of the South Australian Museum, was reported explaining how water is at the heart of our inability as Australians to reconcile ourselves with our land. He also said that the Murray-Darling system is 'the lifeblood of the continent' and a symbol of how we may be losing that war: 'The river is dying, trees that have been growing for 300 years are now pegging it because of the poor and declining water quality. The loss of biodiversity in that river, the salinisation; it is clearly unsustainable.'

I came to the issue a few months later when I started with the IPA in July last year. At that time the Wentworth Group, of which Tim Flannery is a member, were asking all irrigators to give up 10 per cent of their water allocation for the 'dying river'.

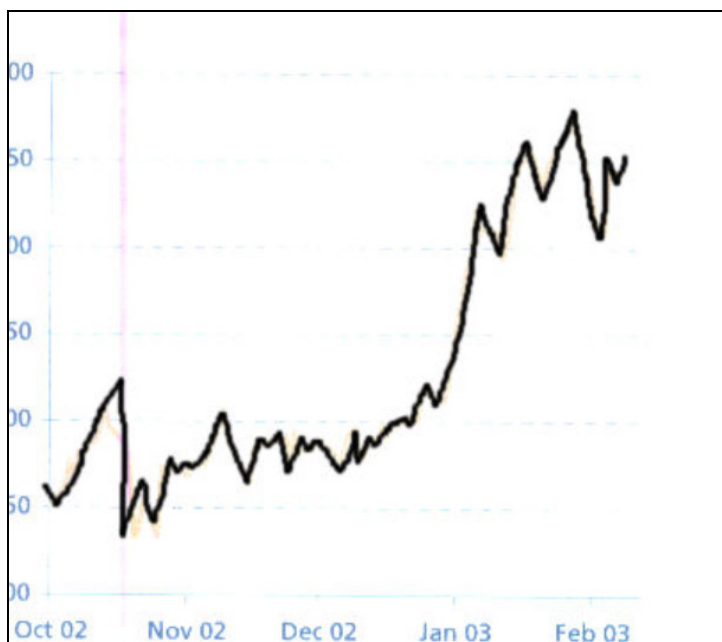
I was keen to understand the evidence so as to understand the nature and the magnitude of the problem.

In December the IPA published my monograph, 'Myth and the Murray: Measuring the Real State of the River Environment', in which I presented the received evidence for a range of indicators. Tonight I will touch on aspects of two just indicators: water quality and fish.

Key water quality indicators can give an indication of the health of a river.

This is a plot of what increasing salt levels in the Murray River might look like (Figure 1).

Figure 1



It has been said there are lies, damn lies and then there are statistics.

When you look at a graph, it is important to check a few things. Is the time frame appropriate? Is the site relevant, and of course the indicator is, what we are really interested in?

Actually this is not a water quality graph but rather a plot of the spot price for sugar on the New York stock exchange for a very short period two years ago (when the price was improving).

The point I really want to make and emphasise is: If you can read a commodity graph, you can read a water quality graph.

When our newspapers report on commodity prices they usually supply a graph, yet when they report on environmental issues, including water quality, they are always data-free.

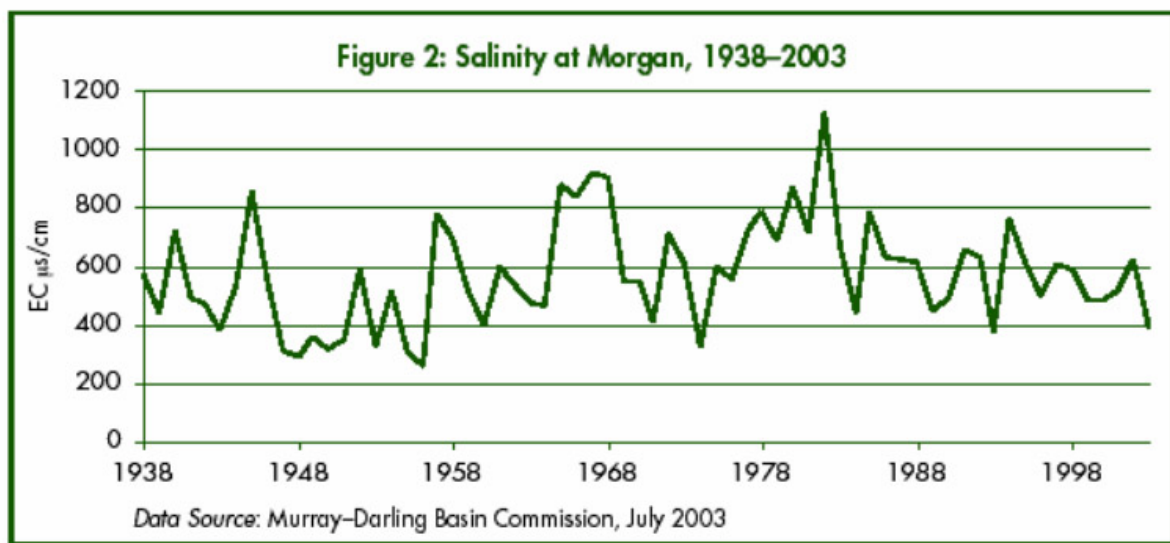
Key water quality indicators are nitrogen, phosphorus, turbidity and salinity levels.

The message with respect to water quality and river salinity in July last year was very clear: the Wentworth Group said that 'deteriorating water quality was seriously affecting the sustainability of agriculture' and the CSIRO Website was unambiguous 'salt levels are rising in almost all of the Basin's rivers'.

I asked the CSIRO for the data to support the statement on their website. After some time, they said they didn't have the data and referred me to the Murray Darling Basin Commission (MDBC). I discovered daily readings for salinity are available on request from the MDBC for many key sites including Morgan in South Australia.

Morgan is considered the key indicator site for water quality in the Murray–Darling Basin as it is below the inflow from the Darling and just upstream of the pipeline off-takes for Adelaide's water supply. According to the MDBC, 'its use as an indicator site emphasises the relative importance of river salinity impacts on all water users in the system'.

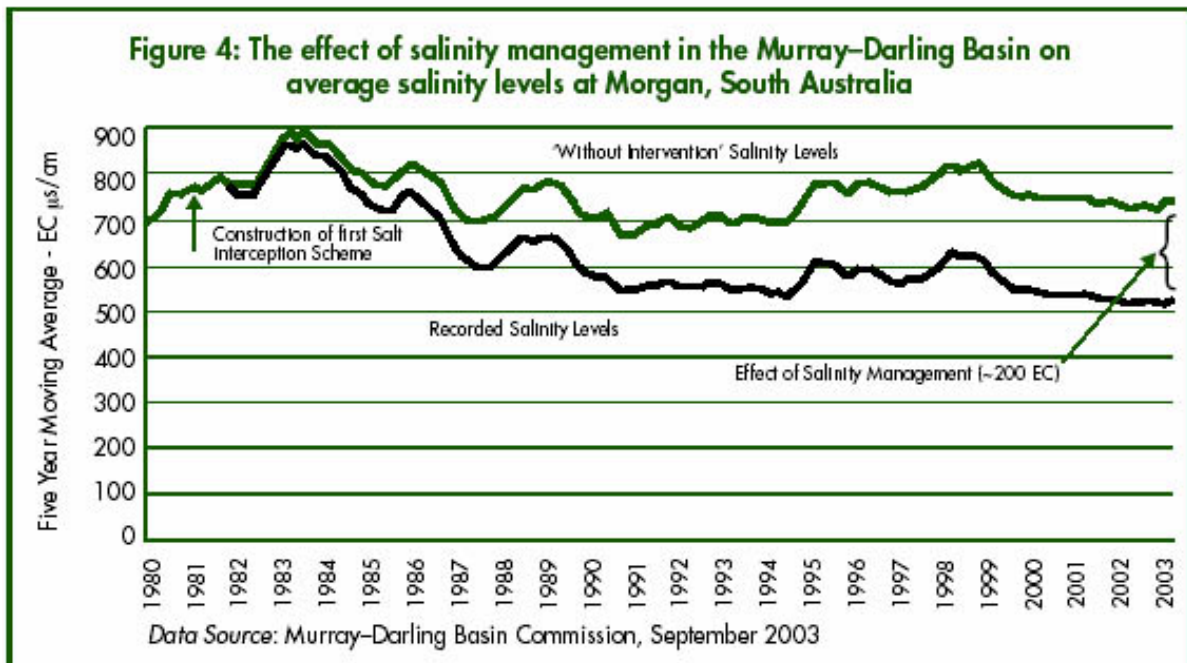
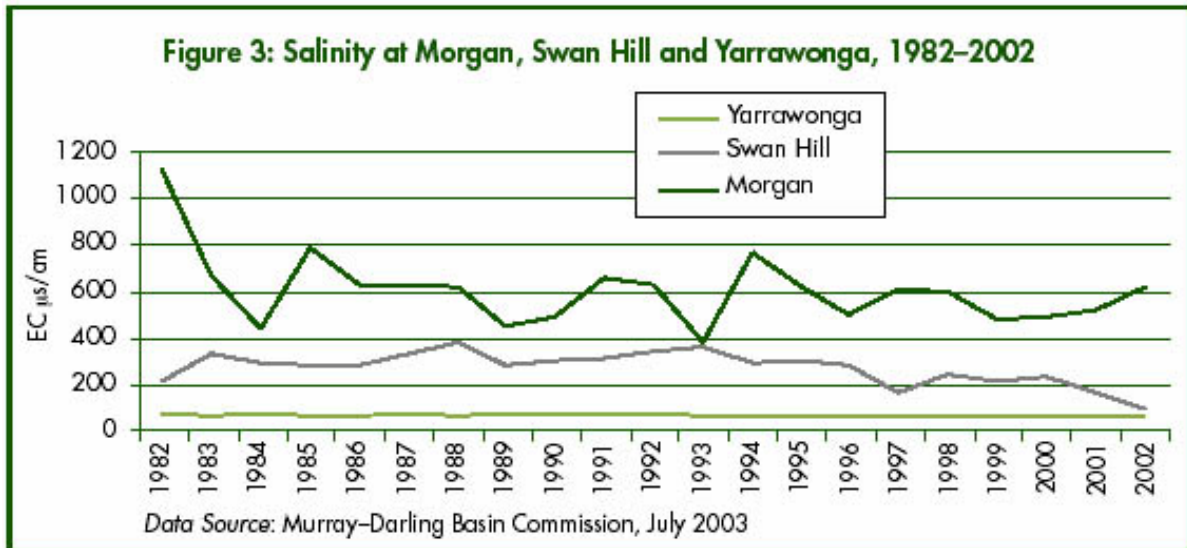
A plot of the yearly averages for salinity since recordings were first made back in 1938 show current salinity levels at Morgan are equivalent to pre- World War II levels (Figure 2). I was surprised because I was expecting an increasing trend, a graph that looked more like the sugar graph.



The peak in 1982 is attributed to the drought at this time, with low flow conditions normally associated with higher salt levels.

A plot of yearly average salinity levels for the last 20 years indicates that salinity levels have dropped since the drought of 1982 (Figure 3). Concentrations did not return to the 1982 levels despite the recent drought. Water quality has, in effect, improved.

Upstream at Swan Hill and Yarrawonga salinity levels are stable (Figure 3).



Contrary to information that was posted on the CSIRO Website, salinity levels are not increasing at key sites.

The MDBC suggested a plot of five year rolling averages rather than yearly averages (Figure 4). But concurred with my findings and indicated that average salinity in the river Murray has improved over the last decade.

The improvements are attributed to the salt interception schemes and improvements in on-farm practices. The salt interception works are purported to give a benefit of 200 EC units (Figure 4).

Once challenged, the CSIRO eventually changed the text on their website. Interestingly they changed reference to rising salt levels with, 'land and water resource managers in Australia are under increasing pressure to meet stringent environmental guidelines, and the health of river and estuaries is a key factor in the sustainable management of Australia's natural resources.'

I subsequently plotted other key water quality indicators. Nitrogen, phosphorus and turbidity levels are not increasing and water quality is not deteriorating in the Murray River.

If we walk around in a dream with our eyes wide closed to the real world we risk walking into things, bumping our heads, falling down flights of stairs. Farmers tell me if they drive there tractors with their eyes closed they will surely bog them. Yet they are expected to give up water on the basis of public policy formed by professors with their eyes wide closed to the evidence. In the case of the 'Living Murray Initiative' a quantity of 1,500 gigalitres of water worth about \$1.8 billion dollars is constantly proposed.

I wrote up my water quality work as a small paper titled 'Received Evidence for Deteriorating Water Quality in the Murray River'. The paper was widely circulated on the internet after the seminar I gave in Canberra on 25th July.

The Deputy Prime Minister's response was typical of many people when presented with 'good news'. In an address he gave in Moree some few weeks later he said, 'though we are achieving environmental improvements in some areas, such as reducing the salinity of the Murray ... one indicator of a much broader problem is the decline in native fish numbers throughout the basin'.

Murray Cod had just been listed by the Federal Environment Minister, David Kemp, as a vulnerable species under the EPBC Act on the basis that there had been a 30 per cent decline in Murray Cod numbers over the last 50 years.

Would you be surprised, however, if I told you there are no data to support this claim made in the media release associated with the listing and reported extensively in the media.

The Australian newspaper had been running a 'Saving the Murray' campaign since February 2001 so it immediately ran all and any bad news stories on the river. It picked up on the Minister's media release and ran stories with the headlines 'Murray Cod On National List' and 'For Cod's Sake, Murray Needs Stronger Flow'.

So what does the data look like for the Murray Cod?

The most widely quoted source of information on native fish status in the Murray-Darling Basin is a survey undertaken in 1995-96 by NSW Fisheries. The survey does not provide any trend data.

The report's principal conclusions include the statement that: 'A telling indication of the condition of rivers in the Murray region was the fact that, despite intensive fishing with the most efficient types of sampling gear for a total of 220 person-days over a two-year period in 20 randomly chosen Murray-region sites, not a single Murray cod or freshwater catfish was caught.'

A local Murray River fisherman's retort to the scientist's declaration that they didn't catch any fish goes something along the lines, 'the scientists, although having letters behind their name, spending some \$2 million on gear, and two years trying, evidently still can't fish.'

It is evident from fishing magazines and the results of local fishing competitions that Murray cod are present.

But perhaps most remarkable, during the same time, in the same regions that the scientists were undertaking their now much-quoted survey that found not a single Murray cod, commercial fishermen harvested 26 tonnes of the very same fish

3. Respect my right to choose GM food

GM producing countries dominate world grain trade and account for 80 per cent of world maize exports, 70 per cent of soybeans, 50 per cent of cotton seed and 40 per cent of canola. The percentage of the market held by GM producing countries is predicted to increase as the world area harvested to GM broad acre crops increases. There was a 15 percent increase between 2002 and 2003.

Uptake of the technology has been rapid in North and South America, but anti-GM campaigning has slowed or blocked plantings in most of Europe, Africa and parts of Asia.

In New Zealand, anti-GM sentiment was very strong and so a confused government held a royal commission into the issue. The commission found that GM is not inherently dangerous; that New Zealand could not afford to ignore the potential benefits of the technology; and recommended the lifting of the moratorium. Field trials of the first New Zealand GM crop, GM herbicide tolerant onions, were recently approved.

Australia is interesting. In 1988 we were the first country to release a GM organism, a successful crown gall bacterium to prevent the disease of roses, apples, pears and peaches. Since then, we have made only one other release, GM cotton, first planted in 1996. This has been impressively successful, grown on 90 per cent of cotton farms in NSW and Queensland, with the latest varieties reducing insecticide use by 75 per cent.

Cotton is grown primarily for its fibre, but the cotton seed is used to produce vegetable oil.

Few people realize that about 35 per cent of Australian's vegetable oil is from cotton seed. Cotton seed oil is in fact favoured by many fast food outlets because it cooks hot and retains heat. GM fish and chips are already an Australian staple.

Most of the rest of our vegetable oil is from canola.

Anti-GM campaigners have deceptively targeted GM canola as the first GM food crop and completely ignored cotton as a source of vegetable oil.

Greenpeace has led a formidable campaign.

We now have a situation where all state government (except Queensland) have, over the last few months, introduced or extended bans in one form or another on the commercial production of GM food crops. Bans or significant restrictions have also been placed on field trials. Cotton is given legislative exemptions on the basis it is grown primarily for fibre. It is tricky!

Every state government has accepted that there are no health or environmental issues with GM canola, but claim concern for Australia's clean green image and/or our international markets. In the case of the Victorian Bracks government the decision directly contradicted recommendations in the two reports it had commissioned on the issue.

Fresh from the success of brow-beating the state governments into submission, Greenpeace is now going for 'rollback' by, in the first instance, targeting GM soy from the US.

A few weeks ago Greenpeace activists painted 'Stop GE Imports' on the side of a ship carrying 13,000 tonnes of GM soy meal feed for Ingham chickens and perhaps also some dairy cows.

This stunt gained loads of media coverage.

Once upon a time the protest might have been against the importation of stock fed from an overseas competitor. I guess we are now benefiting in a round about sort of way, from the US farm subsidies.

Some thoughts in conclusion

I was recently asked to give a lecture at the University of Queensland to 4th year science students on the 'Burden of Proof in the Environment Sphere'. My key message was that proof and evidence are increasingly unnecessary as more and more environmental scientists are operating on the basis of belief.

An earnest young fellow, studying environmental science not because he is fascinated by nature but because he wants to save something, interrupted,

‘But belief is important,’ he said. ‘It is what makes the world go around.’

‘Point taken,’ I replied. ‘But can we agree there is a huge difference between the two³/₄evidence and belief.’

He didn’t seem too convinced. Then again, many beliefs are not troubled by facts, because they have nothing to do with facts.

Unless our scientists, journalists and policy leaders inject some discipline into their work, we have entered an era of fabricated crisis and shifting prejudices.

Untangling science from environmental fundamentalism is never an easy task, but if we have stopped trying we are lost. Forest is replacing once open native grassland across approximately 50 million hectares of rangeland in Queensland, but tree clearing is being banned. Why? Because trees have become sacred in Australia, like cows in India. The act of pulling or cutting down trees offends environmental fundamentalists. Their beliefs now take precedence with the management of our rangelands complicated and development opportunities forgone.

Environmental advocates masquerading as scientists have been misleading us on the health of the Murray River system for years. They have been screaming imminent catastrophe based on the hypothetical. The successful environmental initiatives of the 1970s and 1980s that reversed the then trends of increasing river salinity and rising water tables have gone largely unreported.

I have noted that while environmental campaigners express great concern over a problem, they often also seem deeply committed to the continued existence of the same problem.

The banning of GM food crops by state governments was my third example of environmental fundamentalism dictating public policy. A newspaper headline in the Herald Sun the week after the Bracks government placed the four year ban on the commercial production of GM crops summed up the situation: ‘Good, safe, banned.’

I respect the rights of those who do not want to eat GM food in the same way I respect the rights of Moslems to not eat pork. But the anti-GM campaigners do not appear to accept my right to choose GM. I might choose GM because of the real environmental benefits in terms of reduced pesticide use and because this new and innovative technology offers us the potential to feed a world population growing richer and with an increasing appetite for meat and dairy products that will require more land under cultivation for animal feed unless we can produce more from the same area.

In material standards of living terms, Australia has progressed and benefited enormously from the secularisation of society and the power and independence of science.

It is time we returned to this solid foundation and started demanding a rational evidence-based approach to public policy on environmental issues.

Thank you.

Dr Jennifer Marohasy is Director of the Environment Unit at the Institute of Public Affairs. After completing a science degree at the University of Queensland, Marohasy worked for many years as a field biologist in remote parts of Africa and Madagascar. In 1997 Jennifer became the Environment Manager for Queensland’s sugar industry and during this period developed an interest in environmental campaigns. Marohasy joined the Institute of Public Affairs (IPA) in 2003 where her work initially focused on the ‘Save the Murray’ campaign and, later, the Great Barrier Reef.