

Paying farmers for water or not: A new \$10 billion plan



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In November last year, the Prime Minister, John Howard, called a summit to discuss the 'water crisis' in the Murray–Darling Basin. The meeting was triggered by the New South Wales Government's decision to suspend water trading on the Murray and Murrumbidgee rivers. At the summit it was agreed that a contingency plan would be developed to secure urban and town supplies during 2007–2008.

Mr Howard has since announced a plan, but rather than focusing on immediate need, he has announced a ten-point, ten-year water plan that he has described as 'the biggest single infrastructure investment in water ever proposed by any level of government in Australia'.

The Executive Director of the Australian Conservation Foundation, Don Henry, has described it as 'A good plan with adequate funding to do the job'. But Mr Henry doesn't mean securing urban and town water supplies, he means purchasing water for the environment.

In the \$10 billion plan, a third of all current diversion for irrigated agriculture in the Murray–Darling Basin could be returned to the environment, and \$6 billion spent on new water infrastructure and irrigation equipment.

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But there has been little or no consideration of the opportunity cost of this expenditure.

A few years ago, when the Prime Minister declared that he would take 1,500 gigalitres of water from irrigators to save the Murray River, there was an outcry. Now there is a plan to take more than twice this amount of water, but there has been hardly a murmur from irrigators.

The Grand Plan

The new plan was announced on 25 January 2007, and in the accompanying 21-page document entitled 'A National Plan for Water Security' it was explained that 'in the face of protracted drought and the prospect of long-term climate change we need a radical and permanent change in our water management practices'.

It claimed that there is already significant over-allocation of water resources—that more water is diverted from rivers in the Murray–Darling Basin than is sustainable. Furthermore, the document claims that there will be an ongoing reduction in inflows because of bushfires, new farm dams, bores and plantations. The document states that these changes have eroded the security of water entitlements, making it hard for irrigators to manage their enterprises in times of drought.

But first things first. It's not actually a national plan.

There are currently water shortages in most State capital cities, and opportunities for infrastructure development in northern Australia, yet almost all of the \$10 billion will be spent in the Murray–Darling Basin, either buying water entitlements or subsidising investment in improved water infrastructure and irrigation equipment.

Around 70 per cent of all irrigated agriculture in Australia is in the Murray–Darling Basin, a region which covers about 14 per cent of the landmass of Australia, but which receives *less than 7 per cent* of Australia's total water runoff. This proportion is predicted to decrease. Rather than a national plan, the Government's initiative is a \$10 billion investment in a region where governments have historically invested heavily in water infrastructure, but where there has never been that much water.

An Investment in the Environment

Although the plan is ostensibly about improving the environment, it could be argued that there is not that much natural environment left in the Basin.

The Murray River has essentially been turned into an irrigation channel. Its headwaters are part of the Snowy hydro-electricity scheme, and it passes through four large dams and 13 locks until it ends in a series of barrages at the Murray's mouth.

The new plan claims that there has been a general deterioration in 'riverine health' without providing any evidence or referring to particular indicators.

That is not to say that the Murray isn't a healthy system, simply that it's bridled by dams. Yet this is where the Federal Government has decided it will make a major investment in the environment.

It is not the first time that the Federal Government has thrown money at the region, with much of the \$3 billion in the Natural Heritage Trust from the sale of Telstra having been spent saving the Murray–Darling Basin, including from salinity.

Mr Henry from the Australian Conservation Foundation has claimed that the new plan for water security will provide much-needed relief for a system 'suffering from decades of too much water being taken out, leaving rivers, wetlands and wildlife literally dying for a drink'.

But despite the drought—and because of various existing environmental flow allocations, Landcare initiatives, drainage management plans and salt interception schemes—water quality has improved dramatically along the Murray River, with salt levels halved over the last 20 years. The numbers of native fish have been on the increase. Furthermore, many red gum forests have benefited from artificial waterings possible even during the drought because of the Snowy scheme.

Yet the new plan announced by the Prime Minister claims that there has been a general deterioration in 'riverine health' without providing any evidence or referring to particular indicators.

There may indeed be a rapid deterioration if there is no rain over the next two months as the river reduces to a series of billabongs, but this was certainly not the situation in January when the plan was announced.

The plan does not specify *which* environments are most in need of water, but rather refers to the general needs of iconic rivers and wetlands.

A well-kept secret is that much of

the 120,000 megalitres of water—worth about \$12 million—released by the New South Wales Government as environmental flow for the Macquarie Marshes in September 2005 was used to fatten cattle on private land. Indeed, 88 per cent of the Marshes are privately owned. Through the construction of levies, diversions and channels, marsh graziers have ensured that some environmental flow goes to private land.

The Extent of Over-Allocation

The new water plan states that there is over-allocation within the Murray–Darling Basin, where over-allocation is defined as a situation where more water entitlements have been issued in a system than can be sustained. However, it does not specify the *extent* of the problem.

According to the National Water Commission's 2005 baseline assessment, of the 340 surface water management areas, just 1 per cent is reported to be over-allocated. There are also 367 groundwater management units and, of these, just 5 per cent are reported in the National Water Commission's assessment as over-allocated.

In other words, 99 per cent and 95 per cent of our surface and groundwater management areas, respectively, are not currently classified by the Federal Government as over-allocated. These official statistics are difficult to reconcile with the Prime Minister's claims that we have a water crisis because of 'over-allocation'.

Rather, it would seem that we have a drought.

\$3 Billion to Buy Water Licences

Nevertheless, there is a whopping \$3 billion in the plan ostensibly to buy water entitlements to fix the 'problem' of over-allocation once and for all. Some water brokers have estimated that the \$3 billion will buy about 3,600 gigalitres of water.

Total annual inflows to the Basin have historically been in the order of 24,000 gigalitres, with just under half of this amount, about 12,000 gigalitres, available for irrigation in an average year. So, 3,600 gigalitres represent about a third of the water historically available for irrigation in an average year. This is potentially a huge amount of water.

But a water entitlement only comes with a water allocation when there is water in the dams. Indeed the Prime Minister could spend this large amount of money and end up with very little actual water—particularly if some of the climate change doomsayers are correct. For instance, the Australian Conservation Foundation has claimed that Basin inflows could be permanently reduced by up to 48 per cent.

\$6 Billion for Infrastructure

There is \$6 billion in the plan to modernise irrigation infrastructure, to line and pipe major delivery channels, and install more lateral sprays, centre pivots and drip irrigation systems. It is hoped that this will 'save' another 3,000 gigalitres of water, with half of this amount returned to farmers.

There is, however, no acknowledgement in the plan of the significant efficiency gains already made by irrigators. For example, Australian rice growers have improved their efficiency of water use by 60 per cent over the last decade. When there was water a couple of years ago, they were using 50 per cent less for every kilogram of rice produced compared to the world average.

Part of the \$6 billion will be spent digging a new channel to bypass what is known as the Barmah Choke in the Murray Valley and in this way get water down the river faster and more efficiently—including to new orchards in the Riverland in South Australia, and Sunraysia in western Victoria.

High Security versus General Security Water Entitlements

Orchards in South Australia tend to have 'high security' water entitlements—they are provided with water even during drought. So until very recently, South Australia was receiving fully 80 per cent of its water entitlement. The result has been that water levels in the Murray River are artificially high for much of the length of the river most of the time. In contrast, many New South Wales irrigators have had a very low or zero water allocation over recent years because they have what are referred to as 'general security' water entitlements—that is, a low reliability entitlement suitable for annual crops such as rice and cotton.

The planting of higher value perennial crops, including almonds and olives, has been encouraged by government and even by some environmental groups because they are deemed to be more efficient users of water than, for example, rice and cotton, as more money is received per megalitre of water used. But unlike crops such as rice and cotton, orchards need water every year. Indeed they demand a higher level of water security, which is what the Prime Minister says the new \$10 billion water plan is all about.

At the same time, however, the Federal Government claims that it wants more natural river-systems whose water-flows mimic the seasons. But if this were the case, it would not devise plans that seek a high level of water security which favour perennial crops. Indeed, in many ways, rice and cotton suit a land of drought and flooding rains.

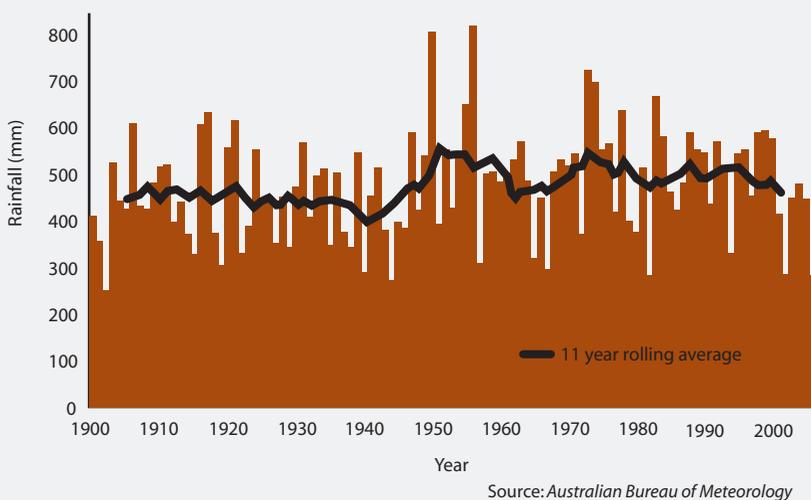
Ignoring the Issue of Reduced Inflows

Rainfall over the last few years has been low, but there is no general downward trend (see Figure 1). Inflows have been exceptionally low.

The new water plan acknowledges the reduced inflows resulting from bushfires, unregulated growth in farm dams, bores and also new plantations. But it does nothing to address any of these issues.

The Cooperative Research Centre for Catchment Hydrology has calculated that regrowth from the 2003 bushfires will absorb some 430 gigalitres of water per

Figure 1: Murray Darling Basin Annual Rainfall 1900 - 2006



year over the next 50 years. This is water that would otherwise have flowed into the headwaters of the Murray River. Potential solutions include better management of national parks to reduce the incidence of wildfires—but such a solution is not canvassed in the new water plan.

Improved on-farm water use efficiencies are also likely to have contributed to reduced inflows downstream and inflows to rivers are likely to be further reduced with improvements in water infrastructure and irrigation technologies as proposed in the new plan.

Conclusion

Despite government rhetoric, there is no national plan for water security. There is no money in the plan announced on 25 January for Brisbane, Sydney or Melbourne where most of Australia's population now lives, and there is no money in the new plan for regional centres or new industries. Instead, during one of the worst droughts on record, the Prime Minister announces a new \$10 billion investment in the Murray–Darling Basin—a region where many would argue that successive governments have already over-invested in water infrastructure.

The plan also assumes over-allocation when the available data indicate that only 1 per cent of surface water and 5 per cent

of groundwater areas are over-allocated.

Without calculating the opportunity cost, the plan includes a whopping \$3 billion to buy back water ostensibly for 'the environment' in a region where very little natural environment still exists. There is another almost \$6 billion of taxpayers' funds for new water infrastructure and irrigation equipment.

New corporate farms in the Riverland and Sunraysia regions with high-value perennial crops may be in the best position to benefit from the infrastructure subsidy. Smaller holdings with 'general security' water in places such as the Murray Valley may sell, potentially delivering a large volume of low reliability water entitlement. These irrigators have been worn down by years of drought and the vicissitudes of water politics. They know that with \$10 billion, governments can make it rain dollars, but not water.

Indeed, if it doesn't rain, these irrigators will have been handsomely compensated. But if it does the new \$10 billion plan may be remembered as an expensive intervention, delivering very little for the environment, but resulting in the redistribution of water in an increasingly modified agricultural environment—and all at the taxpayers' expense.

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