

Notes on a potential 'Northern Australian Food Bowl' prepared for a discussion at the Savage Club organised by Ray Evans, Melbourne, 14 March 2012

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Contemporary policy debates over water have all the ingredients of classic Australian public policy problems – and then some. The debate over irrigation and the environment is an extension of longstanding arguments over the role of the state in Australian farming. This is more than just deciding the separation of responsibilities between the public and private sectors, as important as that is. There are complex relationships between various agencies at the Commonwealth and State levels.

Barely a day goes by that water isn't in the news. Previously, this was mostly in connection with urban water shortages associated with the recent drought and conflicts over environmental effects of irrigation in the Murray-Darling Basin. Network infrastructure and natural monopoly for urban water and irrigation schemes plus unpriced environmental costs and benefits guarantee a role for government in water policy. This is not to say that the investment plans and regulatory role of government were sensibly applied in the past, or are likely to be in the future.

At least for Melbourne with the end of the drought, most current controversy is about the sloppy investment decisions taken in mid-2007 in response to the drought. That is a topic in itself. This evening, most of my remarks will be about renewed interest in government support for expanded irrigation in northern Australia, which just goes to show that is nigh on impossible to kill off a silly idea in Australia.

The potential economic and technical problems of irrigation in northern Australia are greater than have already proved the case in southern Australia. Despite the posturing of the irrigation lobby, the economic importance of irrigation in Australia is not what it is cracked up to be. A favourite trick is to count the dryland output of the MDB as if it is has something to do with irrigation. Instead of the frequently repeated claim that 40 per cent of Australian food production is from the MDB, the actual number for irrigated output is closer to 10 per cent. Not that that would worry pedlars of 'food bowl' hype.

It is not hard to establish that prospects of irrigation in northern Australia are being exaggerated. Unlike the distant past when gravity and pumped irrigation was encouraged by governments in designated irrigation districts in southern Australia, modern engineering possibilities for earth moving and pumping mean that private irrigation is feasible on the large properties of northern Australia. Private landholders in northern Australia are capable of making their own calculations about water availability, production opportunities, development costs, production costs, transport costs and market prospects for irrigated commodities. Issues about restrictions associated with leasehold tenure notwithstanding, it is notable that the pressure for irrigation development in the north is from irrigation enthusiasts in the ranks of politicians, aided and abetted by local interests on the look out for government subsidies, not landholders per se. Unlike the boosters, landholders are more likely to think through the on-farm costs of irrigation development.

Analogous to many responses to middle class welfare, the prevailing attitude is to take what you can from government and not worry too much about the sense, or even efficacy, of government largesse. To a large extent, the recent push for irrigation in northern Australia is a product of the waste and extravagance of Commonwealth policy for the MDB. The rest of Australia notices that it has been missing out and wants a share of the action. 'Be in it, mate' is an abiding maxim of Australian life.

Furthermore, the sordid tale of the Ord Scheme in Western Australia in the 1960s that was built for purely opportunistic reasons teaches a valuable lesson. It makes sense to use investments that never should have been made in the first place – that is, apply the logic of sunk costs. There is capacity in the Ord that should be exhausted before anyone goes looking for fresh irrigation adventures in northern Australia. Not just a question of physical capacity, there is evidence that markets for irrigated products from northern Australia are limited or could be produced cheaper elsewhere in Australia.

Sadly, irrigation and northern agricultural development have a devoted following in Australia, irrespective of its economic and technical merits. Latterly, this enthusiasm is backed up by flimsy claims about food security, hardly an important consideration for a major agricultural exporter like Australia. To the anti-empiricism of the irrigation lobby is now added a correspondingly unhappy ingredient – blanket opposition to all irrigation from unsophisticated environmentalists.

Many people are making an elementary mistake; that is, deciding what should be an empirical question according to the likes and dislikes of their political opponents. It is now as foolish to oppose all dams, as it was to support all irrigation in southern Australia uncritically in the first place. Some support for irrigation in northern Australia is based on no more than the observation that 'the Greens don't like it.'

Debate over irrigation is not unusual in an international setting. In fact, some theories of economic and social organisation are based on the importance of the way water is managed within society. The ideas of Karl Wittfogel on 'hydraulic societies' and 'oriental despotism' come to mind. Wittfogel recognised that irrigation systems imply a regime of control to manage network infrastructure. In short, Wittfogel argued that the implied bureaucratic control in societies dominated by irrigation reduced initiative vis-à-vis countries with rain fed agriculture, where individual decision-making and risk management were paramount. Control freaks and monument builders were not entirely absent in the establishment of irrigation in southern Australia, and are now trying to influence the future of irrigation in northern Australia. The same applies in southern Australia for that matter with bizarre musings and ravings about the need for 'precision irrigation', as if it should be the responsibility of taxpayers to pay for off-farm and on-farm irrigation infrastructure.

Australia is lucky that it does not have to cope with river systems that cross international boundaries – which is true in almost every other part of the world. Nevertheless, the political dimension is important with many distinct aspects of the political economy of water, irrigation and the environment.

As is inevitable and well known, there is a long running contest between the states over the management of the MDB. Dissent is most strident at both ends of the MDB. Disagreement has always been around but is becoming worse as the Commonwealth muscles in on what should be local management issues – on-farm, as well as off-farm.

For Queensland, the dissent is mainly because they were last cab off the irrigation rank and farmers missed out on government support available to irrigators in other parts of the MDB. In recent years, cotton has proved a profitable annual irrigated crop, ideal for the variable rainfall of the northern valleys of the MDB, using privately provided and operated irrigation infrastructure.

For South Australia, much of the angst is because the state depends on the MDB for urban water. The environmental benefits and amenity of the Lower Lakes and Coorong is another concern. Although South Australian politicians have turned parochial grievances over the MDB into an art form, it is uncontroversial that South Australia is vulnerable to decisions taken by other states.

Some Commonwealth input is sensible to resolve these tensions although grandiose plans for the MDB have gone too far. The concept of ‘sustainable yield’ is tenuous given the extraordinary variability of Australian rainfall, runoff and stream flows. The idea that an annual average flow should be specified to satisfy environmental needs is unhelpful. The environmental debate is further confused by the ambiguity of the base case or starting point for analysis. Restoring the original state of the MDB is neither possible nor desirable. Many environmental changes are irreversible. Various environmental objectives have to be evaluated technically, and economically. Unless the valuation aspect of environmental objectives and actions is acknowledged, we are left with the possibility that the argument will descend into decision-making by fiat.

Resolution of interstate political issues in the MDB has not been helped by mindless opposition by environmentalists to crops like rice and cotton that can be grown successfully in wetter years, and, likewise, ratbag proposals from upstream irrigators and their advocates that barrages be removed from the mouth of the Murray, flooding the Lower Lakes. Stripped to its essentials, the latter suggestion is no more than the unsubtle claim that a criterion for environmental policy should be the original state of the MDB, whatever that was.

The era of untrammelled expansion of subsidised irrigation in southern Australia lasted until the 1980s, only challenged by a few enlightened officials and carping economists like Bruce Davidson and Keith Campbell. Not that their commentary was particularly influential; in effect, the water ran out. As far back as 1882, Alfred Deakin, the father of irrigationism and protectionism in Australia, thumbed his nose at unwelcome advice from Gordon and Black in their report to the Victorian Parliament on prospects for irrigation in northern Victoria. Many of Deakin’s successors in Victorian politics and elsewhere have been similarly inoculated against accepting professional advice. John Brumby was just the latest in a long line of Victorian hydraulic amateurs in water policy.

In two important books published in the 1960s, Davidson mounted a powerful critique of public investment in irrigation in Australia, south and north. Australia has abundant land, labour and capital shortages, and wildly fluctuating rainfall. Prima facie, it makes little sense to concentrate the available water on a small amount of land. Dryland farming is better suited to Australian conditions. Irrigation enthusiasts also ignore the fact that variable rainfall has drastic effects on off-farm and on-farm capital costs. Much larger storages are required. Irrigation works best when water is transferred within years rather than between years.

Although something that should be analysed area-by-area, irrigation in Australia is limited by shortage of suitable soils. Choice of unsuitable areas for irrigation in southern Australia in the past might be excused by the generous as being based on ignorance, but the same excuse is not available for the planned expansion of irrigation in northern Australia in the modern era. The same goes for slackness in thinking about market prospects and loose talk about prospects for value adding. Some economic forces favour processing close to the point of production and others close to the point of consumption. Adding value is also adding costs.

The upshot for irrigation in southern Australia was that irrigated industries had to receive ongoing assistance in water pricing and marketing arrangements for irrigated products. Davidson pointed out that the inherent difficulties of irrigation were exacerbated by closer (and soldier) settlement. The principle of closer settlement was to put as many farmers on the land as possible; the egalitarian concept of the 'home maintenance area' that condemned early settlers to a frugal existence and contributed to adjustment problems that persist to the present day. The history of irrigation in Australia is closer to the 'command and control' model of collectivist farming under central planning than is generally recognised. Including in recent times, labour-intensive horticultural industries – much favoured by irrigation enthusiasts – have experienced difficulties on export markets because other countries have lower labour costs and/or are closer to markets. The wine industry is the latest example of this misplaced confidence.

The question naturally arises whether the forensic analysis of Davidson of irrigation in general, and northern Australia in particular, stands the test of time or has been overtaken by events? The argument cuts both ways, but not symmetrically. Costs of construction of engineering works and costs of pumping have fallen because of technical advances, and tariff changes. An interesting and researchable question is whether productivity improvement has been faster in irrigated industries than dryland agricultural industries. Irrigation has the advantage that much of its technology is available off the shelf because it is developed overseas. The opposite is true for labour costs because of the mining boom. Market prospects for irrigated output from northern Australia are worse because of agricultural development in several countries. The overall conclusions of Davidson are robust. Local requirements for the output of irrigation in northern Australia can be produced much cheaper elsewhere, in Australia and other countries. Australia's comparative advantage remains in agricultural industries with low labour and transport costs, large export markets, and cheap land.