

Water policy – outside looking in

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An extended drought has dominated agricultural policy for the last decade. Extended droughts are not new in Australia. One thing different this time is that the beginning of the drought coincided with recognition that extraction of water from rivers for irrigation was pressing against sustainable yield. A Cap was imposed on water use in the Murray-Darling Basin in the mid-1990s. Unfortunately, the Cap does not deal satisfactorily with groundwater and other hydrological issues. Monitoring and enforcement of the Cap is deficient. Together with introduction of water trading, the Cap represented a major change in the policy environment facing irrigators. Water trading has proved valuable in allocating water supplies during the drought.

The era of public investment in irrigation lasting around a century has ended, a stark conclusion that irrigators and irrigation communities find hard to accept. The history of irrigation makes that understandable. An implication is that contemporary problems that are a legacy of past government decisions should be handled with care and patience.

Given the intricate links between rainfall and runoff, the spectre of climate change compounds the difficulties confronting irrigators and governments. Arguably, the first steps that should be taken in water policy are the same with or without climate change.

Droughts of similar severity occurred when the agricultural economy was not as reliant on irrigation. And when the economy was more dependent on agriculture. Irrigation development in Australia was based on government investment in irrigation infrastructure that peaked in the 1960s and 70s. Episodic problems in broadacre industries and favourable prices for irrigated commodities in the 1990s encouraged growth of irrigated industries – wine grapes, dairy, rice and cotton. This trend was assisted by the availability of enhanced irrigation technology, much of which was sourced from other countries. The recent profitability of irrigation is at odds with most of its history when irrigated industries required assistance through home consumption price schemes, import controls and other devices.

Government investment in irrigation was prompted by earlier droughts, a strategy that analysts like Davidson and Campbell demonstrated was flawed. Not just from the perspective of Australia's resource endowments, market prospects and as a reaction to climatic variability, but because irrigation was a vehicle for closer settlement.

The Realpolitik of irrigation has always been an amalgam of enthusiasm for irrigation as an ideal of itself and concern with the distribution of income in the countryside. Irrigation development was based on public infrastructure and initially structured to maximise the number of settlers in closely controlled irrigation districts. Recent developments, including the slump in wine grape prices, have re-exposed the long-term fragility of closer settlement. Economic and social problems are now concentrated in former

government-sponsored irrigation districts where small farm size and low incomes are an impediment to adjustment to market developments, and the financing of new technology. Especially for horticulture, the sunk costs of on-farm and delivery infrastructure handicap redevelopment in situ vis-à-vis greenfields sites.

These remarks apply most to the southern-connected Murray-Darling Basin. The institutional, hydrological and economic situation of the Northern Valleys is different. Irrigation came later and, apart from government provision of water storages, is mainly private development including private investment in on-farm water storage in response to the extraordinary variability of summer rainfall in northern New South Wales and Queensland – as recent floods dramatically attest. Concepts like sustainable yield have limited meaning. Successful irrigated farming systems have been developed based on intermittent cropping of large areas. The associated business risks are best handled by the private sector.

The Northern Valleys present a different challenge to irrigation in southern Australia particularly for environmental management. Interstate conflicts are pervasive when water extraction in Queensland diminishes flows to extensive, ephemeral wetland ecosystems in New South Wales.

The fallibility of governments in the previous expansion phase of irrigation justifies close examination of contemporary water policy. Current approaches reveal similar weaknesses. Professional advice is ignored. Policy is based on unwarranted assumptions. What should be empirical questions are treated as pre-determined. Potential solutions are rejected on the basis of prejudice and populism. Resistance to market-based transfers of water between irrigation and the environment, and between irrigation and urban use, are cases in point.

Urban taboos on new dams are in the same league. Recycling, desalination and rainwater tanks are advanced as universal solutions to urban water shortages in Australian capital cities when their application is location specific. Claptrap like virtual water and food miles are fresh examples of the rank amateurism of much discourse on water policy. Slogans like ‘every drop counts’ were prefaced on the need for economy in the use of scarce water resources. Instead, failure to think of water along with other resources has resulted in profligate actions of limited public benefit. The worst examples occur because of muddles concerning the idea of water use efficiency and confusion over the implications of WUE for public and private expenditure.

Current policy should take the existing situation as given recognising constraints on what can be achieved at reasonable cost. That so much irrigation development was government-subsidised compromises an objective of government policy for irrigation to pay its own way. Price regulators are in a difficult position. The poorly-thought through mantra of full cost recovery central to the COAG water pricing agenda cannot be consistently applied to recover costs of investments that should not have been there in the first place.

In like fashion, engineering approaches to water saving are promoted in irrigation areas despite evidence that low cost savings have already been exploited. Why would it be otherwise in an era of water trading when the traded price of water, rather than the supply price, influences on-farm investments by irrigators, and off-farm investments by water authorities? The information needs of central selection of least-cost investments in water saving are insuperable. Nor can grants-based funding of investments be administered cheaply or applied equitably.

From another direction, the political economy of irrigation is transformed. The Australian public is increasingly interested in the environmental services and amenity provided by land and water resources. That irrigation on the current scale has had significant effects on the in-stream and riparian environment is hardly questionable, although some try to do so. The role of government in investing in environmental projects is less questionable than in the mainly private consequences of water used for irrigation.

An implication of public interest in the environmental consequences of water use is that contraction of irrigation, not just adjustment, is the order of the day. How this should be achieved is fraught? The challenge of environmental policy is to combine technical and economic information. Subtly, the spatial dimension of environmental problems should influence institutional arrangements.

The issue is not just delineation of public and private responsibilities for irrigation and the in-stream and riparian environment. Deciding how public responsibilities should be allocated between different tiers of government and government agencies is also relevant. Local knowledge of environmental conditions, and trade-offs between irrigation and the environment, is important for technical information to be successfully incorporated in the design and sequencing of environmental projects.

After flirtation with partial environmental indicators based on flow per se, approaches to environmental policy have gradually converged on the idea of 'a healthy working river', whereby multiple environmental objectives are assessed against measurable ecological criteria. The concept of a healthy, working river is akin to the economists' desideratum that the starting point or base line for decision-making should be the situation as it exists, not some idealised pre-existing state of nature or fixed point to which policy should be directed. Many of the changes that have taken place in the riverine environment are irreversible and no longer worth bothering about.

The latest initiative of water policy has been the Howard-Turnbull *National Plan for Water Security* of January 2007, a *Plan* that received bipartisan support from the (then) Opposition and all states, except Victoria. The \$10 billion, ten-point, ten-year *Plan* was intended to deal with over allocation of water and other problems of irrigation in Australia. The bulk of expenditure was to be split between government expenditure on off-farm and on-farm infrastructure. In a break from the past and against opposition from irrigators, a significant amount was allocated to buyback of irrigation entitlements. The Commonwealth also proposed takeover of administrative functions previously undertaken by state governments.

The *Plan* can be criticised on several criteria. The rationale for Commonwealth Government provision of infrastructure to private irrigators is dubious. The same goes for similar activities by the states, including Victoria. Infrastructure enhancements are an expensive instrument for achieving legitimate objectives of water policy. The costs of water savings achieved by investment in infrastructure are far greater than the value of water, now revealed in active trading of irrigation water. As mentioned, economic criteria for selecting projects are not obvious. Grants-based funding is vulnerable to favouritism and abuse, especially in the long-term. In any case, the potential for savings has been exaggerated. Some savings are illusory when savings result in reductions in groundwater recharge and return flows.

In contrast, provision of environmental services depends on actions by governments although, at least in principle, individuals could combine and raise funds to deliver on environmental objectives. The latter is difficult in Australia because long-term government involvement has reduced the scope for private initiatives. Moreover, the technical specialists required for successful environmental projects are employed in the public sector, and concentrated in the states. These specialists have longstanding associations with irrigators, superior local knowledge and negotiating experience than their Commonwealth counterparts. At times, State Planning Acts and involvement of local government will be required to reconfigure irrigation in the old irrigation districts. Officials in Canberra would struggle to manage the irrigation system.

The Commonwealth has a role because some rivers are shared between states. Overall Commonwealth control of Caps on water extractions from the Murray-Darling system is defensible. That role can be achieved through cooperation within the existing Murray-Darling Basin Commission, without the need for complete Commonwealth control. Setting up new institutions is risky, and expensive. Limited professional skills in the water industry should not be spread too thinly.

It would be desirable to enhance the effectiveness of the MDBC in working with the states by dispensing with the unanimity principle that has bedevilled water policy for many years.

The emphasis of the current *Plan* is too much on costly engineering solutions to water shortages rather than on environmental problems. That part of the *Plan* would be best abandoned. Similarly, Commonwealth adventures in urban water where the prospect of Commonwealth funding is worsening existing problems.

Continuing emphasis should be given to buyback provisions of the *Plan* with greater discipline in the buyback process emphasising how environmental improvements will be achieved, how much society values them and how the various schemes (local to interstate) are to be coordinated.