

Restrictions on water trading between irrigation districts

The capacity for trading in water entitlements, aimed at maximising the contribution of water to Australia, is an important element of the water reform program. This is recognised in the Council of Australian Government (CoAG) agreement on Australia's water resource policy that requires the following in relation to trading in water allocation or entitlements:

- a) that water be used to maximise its contribution to national income and welfare, within the social, physical and ecological constraints of catchments;*
- b) where it is not already the case, that trading arrangements in water allocations or entitlements be instituted once the entitlement arrangements have been settled. This should occur no later than 1998;*
- c) where cross-border trading is possible, that the trading arrangements be consistent and facilitate cross-border sales where this is socially, physically and ecologically sustainable; and*
- d) that individual jurisdictions would develop, where they do not already exist, the necessary institutional arrangements, from a natural resource management perspective, to facilitate trade in water, with the provision that in the Murray-Darling Basin, the Murray-Darling Basin Commission be satisfied as to the sustainability of transactions.*

The December 2002 CoAG meeting emphasised the importance of enhancing water markets, including overcoming barriers to trade out of irrigation districts. It requested the Natural Resource Management Ministerial Council to develop agreed principles for defining trading rules and better alternatives to barriers to trade including trading out of irrigation districts by June 2003.

The High Level Steering Group on Water (HLSGW) in a January 2001 discussion paper considering the development of a national approach to water trading identified widespread impediments to trading. It categorised these as:

- poorly defined and measured (and poorly understood) property rights, particularly in the case of groundwater;
- water trading zones and provinces which are frequently not defined adequately;

- water trading rules which are often restrictive, particularly on permanent trades away from a district;
- choices on the method of executing trade which are often restricted to private trading or trading via a broker;
- market information which is uneven leading to inequities and inefficiencies on a wide scale;
- uncertainty on the nature of risks, including the approval process and administrative inefficiencies; and
- restrictions to capital efficiency in the use of water assets due to the lack of separation of land and water title and ability of lenders to hold security over title to water (HLSGW 2001, p. 1.15).

The Council will consider governments' progress with removing barriers to water trade in the next two NCP assessments: it will consider progress with intrastate trade in 2003 and with interstate trade in 2004. In this context, this paper discusses restrictive water trading rules and the approach of the Council to assessing compliance with the CoAG obligations on water trading. The Council will assess water property rights arrangements across the States and Territories in 2004. Many of the other categories of impediments identified by the HLSGW have been considered in earlier NCP assessments.

Constraints on outward trade

Water is being traded in Australia both temporarily and permanently.¹ To date, volumes of temporary trading activity have well exceeded that of permanent trade. Data from 40 water providers obtained for 2000-01 showed that permanent trade represented 1.7 per cent of water entitlements on average across 14 systems. The greatest level of trade was in the Werribee Irrigation District, where 4 per cent of entitlement water was permanently transferred. Temporary transfers occurred in 29 systems with the average system transfer being 10 per cent of total water entitlements. The highest level of trade was 32 per cent of annual entitlement in the Goulburn-Murray Water Rochester-Campaspe Irrigation Area (ANCID 2002, pp. 39-40).

The HLSGW, while acknowledging governments and major irrigation companies are promoting water trading, noted that some irrigation companies, joint supply authorities and private irrigation districts have sought to limit or prevent outward permanent trade. These constraints

¹ Temporary trade involves transferring some or all of the water available under water entitlements for the current season or an agreed number of seasons. Permanent trade involves the transfer of the ongoing right to extract water for the term of the right.

appear to be arising because directors of water businesses have responsibility for the ongoing financial value of their organisations (and therefore want to ensure there are no adverse price or service impacts for their shareholders/customers) and because water businesses appear concerned that outward trading could reduce economies of scale by decreasing the ability to spread high fixed costs, so leading to stranded irrigation supply and drainage assets. Some shires also oppose water trading, because they see trade as potentially damaging the viability of their regions and eroding their rates base.

- In New South Wales some irrigation corporations have prohibited net trade out of their irrigation districts. The board of the irrigation corporation must approve all trades on behalf of its shareholders.
- Victorian water authorities may refuse trades that would result in more than 2 per cent of the total water entitlement being transferred from an irrigation district in any given financial year.
- In South Australia there are cumulative limits on the volume of water that can be traded out of some irrigation districts. The Central Irrigation Trust has placed a two per cent limit on the proportion of irrigation entitlement that can be sold out of its district.
- The Western Australian *Rights in Water and Irrigation Amendment Act 2000* provides scope for local by-laws that can prohibit transfers. Given trading rules have been developed for only one region it is unclear whether controls will be used to constrain trade.

The most significant of these restrictions are in New South Wales where irrigation corporations can prohibit permanent trading out of their areas. New South Wales claims that the Department of Land and Water Conservation has no power to require irrigation corporations to change their trading policies unless the Government amends the legislation covering these corporations. New South Wales has stated that the restrictions are designed to preserve the rate base for maintenance of internal water distribution networks (New South Wales Government 2001, s6.9.18). Further, South Australia's cumulative limit on trade out of irrigation districts has the potential to be a significant constraint as the market develops. To date, however, there has been low level interest in permanent trades out of South Australia such that the cumulative limit has not been breached.

Such restrictions, particularly in Australia's largest irrigation districts, reduce the potential for water to maximise its contribution to national income and welfare. The Murray–Darling Basin Commission (MBDC) for example identified the 'reluctance of some irrigation companies to overcome administrative barriers to enable individuals to participate in permanent interstate water trading' as one of the issues that is hampering the achievement of CoAG's vision for water trading' (MDBC 2001, p. 2).

The financial value of water businesses

The HLSGW noted the responsibility of company directors to act prudently to safeguard their company in accordance with the Corporations Law. In this context, the HLSGW stated that:

Directors of water businesses have responsibility for the ongoing financial viability of their organisations, and may need the opportunity to ensure that trade out of their businesses does not have adverse price or service impacts for their shareholder/customers. (HLSGW 2001, p. 5.8)

Directors are legally obliged to prevent water trading in some cases. For example, in the case of Murray Irrigation Limited, article 29 of the Articles of Association states:

The Member may not permanently transfer externally where the effect of the transfer would be that either:

- (a) the water allocation (as that term is defined in Division 4C of Part 2 of the Water Act), or*
- (b) the basic entitlement (as that term is defined in the Irrigation Corporation Licence),*

of the Corporation, under the Irrigation Corporation Licence will be less than 1.4472 million Megalitres. (HLSGW 2001, p. 5.9)

Currently there is no scope for outward trade before the basic entitlement is reduced to the level that would trigger restrictions of trade. In the 2003 NCP assessment the Council will need to discuss this issue with New South Wales to gain a more comprehensive understanding of how these restrictions work in practice.

In the case of Murray Irrigation Limited the board sees its Bulk Water Licence as the corporation's largest asset. If water is traded out of the district it reduces the value of that licence (and the number of shares issued) and, hence, the value of the corporation. The board considers that individual shareholders should not have the right to take actions that would reduce the value of the company without the approval of the board.

Reductions in economies of scale

Many organisations such as the Australian Bureau of Agricultural and Resource Economics (ABARE), the MDBC and the HLSGW recognise the risk that water trading may reduce economies of scale in some regions and that this may in turn increase unit costs for remaining users. The HLSGW discussed the impact on two types of assets.

Water trading can leave remaining users in an area with higher unit costs due to a reduced ability to spread substantial fixed costs. This issue can arise both at the district level, relating to infrastructure capacity, and at a state level regarding responsibility for headworks charges following inter-state trade. (HLSGW 2001, p. 5.5)

District infrastructure

District level assets typically include channels, drainage and pumping facilities constructed to serve a group of landholders. (As a rule, headworks and dams are managed by the State.)

In irrigation districts the economies of scale are often recognised in an explicit contract or in articles of association. Although many of the costs of maintaining the network are independent of the number of irrigators using the network, the HLSGW believes that this is a legitimate issue that needs to be considered within trading arrangements.

In these cases, a strong argument can be sustained for an exit fee calculated on the same basis as a headworks or developer charge, ie a fee imposed on the seller to ensure that other water users in a mutual or common contract are no worse off due to loss of scale or revenue contribution. (HLSGW 2001, p.5.5)

Headworks assets

This issue potentially arises when water is sold out of a State and the remaining irrigators serviced by the dam are required to pay an increasing amount to ensure the upkeep of the dam and infrastructure. This is a problem of customer identification rather than abandoned infrastructure. Instream infrastructure still needs to serve downstream users, even if they are in another State. The HLSGW argues that such problems can be solved by negotiations between water businesses, such that the price of the water sold out of the system includes a component to reflect the infrastructure costs rather than restrictions on water trading. These types of arrangements are in place, for example in Victoria for interauthority water trading.

Socioeconomic impacts on regions

By enabling water to transfer from lower value to higher value uses, water trading will have a strongly positive effect on Australia's regional economies overall. There may however be potentially adverse impacts for districts that become net exporters of water if, for example, the reduction in irrigation activity causes an overall decline in agricultural activity. Another concern may be the impacts on further processing of agricultural products, for example, sugar mills. Reductions in land values and consequent falls in rate

revenue received by shires may follow. As a result, affected shires may need to increase the rate valuation per dollar of land value or reduce the level of services they provide.

While acknowledging that the impact on selling regions can be severe, the HLSGW argues that the effect of trading is really to accelerate inevitable trends in both buying and selling regions; that is to accelerate structural adjustment. The HLSGW sees the task as identifying any adverse impacts and looking at mitigating measures rather than jeopardising benefits by imposing undue restrictions on trade.

Resolving cost issues where water is traded out of districts

The HLSGW identified the broadening and deepening of water trading markets as a national priority in 1999. Its January 2001 discussion paper identified key impediments to effective water markets and suggested ways to improve the operation of water trading markets based on the principle that existing customers of a bulk water business should be no better or worse off as a result of trading. The HLSWG recommended the following approaches.

Recommendation 5.2

Governments need to:

Facilitate information flows, particularly on the many good news stories which contradict the fear of uncertainty in many rural communities;

Ensure that the impact on trade is explicitly considered in the decision processes associated with future legal structures and institutional arrangements for local management and control; and

Allow least cost measures (such as exit fees) to be adopted to protect member and third party interests, subject to the requirements that:

- they be set transparently and, desirably, independently; and
- differential restrictions (on local and external sales) be externally authorised.

The HLSGW discussion paper suggested that exit fees should be based on the net present value of the outstanding future annual charges that the individual would have faced, net of any cost savings that arise from the sale. The paper considered that the advantage of exit fees is that they reduce opposition to trading by removing concerns over the financial sustainability of district infrastructure. Because the charge is likely to be small compared to the market value of the water, the paper considered the impact on the incentive to trade would not be significant. There is, however, an exit fee operating within Western Murray Irrigation of \$350/ML, which stakeholders see as a dampener on trade (MDBC 2000, p. 9).

Another approach to dealing with district infrastructure cost issues is to impose a capacity share charge. Such a charge splits the cost of water between a variable charge that reflects the use of water and a fixed charge that reflects the share of capital costs attributable to that amount of water. Under a capacity share approach, the water's share of capital costs must be met even if the water is sold out of the region.

Further, when water is traded between irrigation districts it may be possible to develop arrangements so that the irrigation district containing the water purchaser makes a payment to the irrigation district of the water vendor to reflect the change in unit costs of both as a result of the trade. Such a system could be modified to accommodate a purchaser from outside an irrigation district.

In developing solutions a balance needs to be reached between flexibility for dealing with local circumstances and institutional structures and sufficient uniformity to allow for efficient interstate trade. In practice this means that the pricing of headworks assets when water is delivered across borders will need to be agreed between the relevant jurisdictions. There may be some variation in the mechanism for dealing with losses of economies of scale for district assets. However, again these arrangements need to be sufficiently uniform to avoid distorting interstate trade.

The MDBC is currently examining mechanisms for dealing with concerns about the effect of trading on district infrastructure costs as part of a suite of projects aimed at enhancing interstate trade. The MDBC expects to publish this work early in 2003 following consultation with jurisdictions. As noted above, CoAG has requested the Natural Resource Management Ministerial Council to develop agreed principles for defining trading rules and better alternatives to barriers to trade by June 2003.

The Council's 2003 and 2004 assessments

The CoAG water reform obligations require trading to maximise water's contribution to national income and welfare within the social, physical and ecological constraints of catchments. These obligations include overcoming barriers to trade out of irrigation districts. The Council will assess governments' compliance with water trading obligations in forthcoming assessments: intrastate trading in 2003 and interstate trading in 2004. The work to be undertaken by the Natural Resource Management Ministerial Council on principles for defining trading rules and better alternatives to barriers to trade will be relevant to the Council's assessments.

Governments are continuing to develop permanent and temporary arrangements for trading water. There are restrictions however on the amount of water that can be traded out of irrigation districts. The most

significant of these are in New South Wales where irrigation corporations prohibit permanent trading out of their areas. One question relating to privatised irrigation districts and cooperatives is whether their legal independence should allow them to prohibit water trading regardless of the obligations under the water reform agreements. For the assessment of NCP compliance, the issue is whether governments should ensure that irrigation districts permit their members to participate fully in the trading market.

The Council will consider whether trading restrictions are having a significant impact – particularly where restrictions are permanent, rather than a transition mechanism to more liberal arrangements. The Council will look for governments to demonstrate that they are pursuing mechanisms to facilitate trading across public and private irrigation districts. It is legitimate to consider any costs from trading out of irrigation districts although it is unlikely that such costs would warrant a ban on trade. The CoAG obligation therefore involves governments establishing mechanisms for dealing with costs that water trading may impose on third parties, while minimising barriers to trade.

References

- ABARE (Australian Bureau of Agricultural and Resource Economics) 2001, Stephen Beare and Anna Heaney, International Water and Resource Economic Consortium and Seminar on Environmental and Resource Economics of Girona 7th and 4th respectively Biannual Conference, Girona Spain, 3-5 June 2001, 'Irrigation, Water Quality and Water Rights in the Murray Darling Basin, Australia', ABARE Conference paper 2001.15, Canberra.
- ANCID (Australian National Committee on Irrigation and Drainage) 2002, Australian Irrigation Water Provider Benchmarking Report for 2000/2001, ANCID, Victoria.
- HLSGW (High Level Steering Group on Water) 2001, A National Approach to Water Trading: Discussion Paper, Canberra.
- MDBC (Murray Darling Basin Commission) 2000, Workshop Report: Impediments to, and Options for, Expansion of Permanent Interstate Water Trading in the Murray—Darling Basin, Rosebank.
- 2001, Discussion Paper on the Future of Interstate Water Trading, Canberra.
- National Competition Council 2001, Assessment of Governments' Progress in Implementing the National Competition Policy and Related Reforms, (Various States) Water Reform, AusInfo, Canberra.
- New South Wales Government 2001, Report to the National Competition Council on the application of National Competition Policy in New South Wales, Sydney.