CEDA policy statement
Committee for Economic Development of Australia

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Managing Australia's Water Resources: A New Approach

1. Overview

There is unprecedented agreement in Australia that better management of our water resources is critical for Australia's future. However, many important decisions are yet to be made. A **new** approach to the management of water is now required to ensure sustainable development. CEDA recognizes there are no simple solutions, however it believes governments should now adopt a national water policy including the following priorities:

- The COAG water reform agenda must be accelerated with specific action plans and timelines established.
- A national water trading market must be established that enables water to be traded between geographic regions and between states.
- Water entitlements should be effectively separated from land entitlements.
- Governments should stand in the market place to purchase water for the environment.
- 'User-pays' pricing should progressively be extended to all sectors of the economy as a means of promoting water conservation and ensuring that the price of water reflects its scarcity.
- Over time, open earth channels should be replaced with piped distribution systems.
- Where water reforms result in structural adjustments, compensation mechanisms need to be explicitly addressed.

This Policy Statement draws on material contained in the CEDA report entitled *'Water and the Australian Economy*'. The contributors are some of Australia's experts and leading thinkers in this field from the private sector, government, academia and research organisations, who offer insights, solutions, views and new approaches needed for the sustainable management of water. The report highlights the economic, financial, environmental, technological, institutional and social policy issues that need to be addressed in advancing towards sustainable management of Australia's water resources.

2. Introduction

Water is fundamental to life and is an essential component of Australia's economic prosperity. However, Australia is now entering a period of water scarcity and there are compelling pressures to use water more efficiently in both urban and rural Australia. Previously we have responded to the variability of rainfall by building dams, and this has contributed to the creation of significant wealth, especially in rural Australia. However, this wealth creation has also resulted in great environmental damage, specially to our river systems. The issue of water resource management has now come to a head and this has stimulated debate, informed and uninformed, and reignited governmental action.

The adjustments that are needed to manage the demand and supply of water in a more economically efficient and sustainable way are difficult and complex. They require innovative, but also painful measures, and positive and cooperative federal and state governmental intervention and vision. CEDA believes there are no alternative policy choices. The costs will be even higher in the future unless actions are taken now and with more urgency.

3. Water Resource Management Challenges

3.1 Irrigation and River Systems

Irrigation is the dominant user of water in Australia, and debate has focused on the Murray Darling Basin which incorporates irrigators from New South Wales, Victoria, Queensland and South Australia.

Irrigation water has been critical in driving rural wealth, not only in Australia, but also across the globe. Twenty-six per cent of the gross value of agricultural production in Australia derives from irrigated farming, with multiplier effects of five times this value in flow-on economic benefits.

Water scarcity, and in some cases over allocation of access entitlements, have increased focus on the efficient use of water. For example, in 1999–2000 the value of irrigated production per unit of water was ten times greater in South Australia's Riverland than in New South Wales.

Regional and state differences in water resource management frameworks vary considerably across Australia due to local conditions and political priorities, thus reducing the effectiveness of strategies to optimize resource allocation.

Over allocation has also had serious impacts on the environment, particularly the health of our rivers, and on the quality of water through increased salinity. Drought, lack of scientific knowledge, poor land use practices, and inferior water resource management have historically all contributed negatively to the environment.

3.2 Urban Water Use

Shortage of water supply, and the high variability of rainfall have also become critical issues for urban water management. Only 1–2 per cent of the rain that falls actually finds its way into a stream on the east or south-east coast of Australia, where the majority of Australians live. The source of the raw water critically impacts the complexity of treatment and disinfection processes required to achieve quality standards, and water quality remains a critical issue for water authorities.

Increasingly the public has become more aware of the environmental impacts of uncontrolled growth in water usage, and therefore there has been more support for water conservation. The high economic cost of building further infrastructure, particularly dams, to cater for ever increasing demand, has led governments to seek alternative solutions for water resource management.

3.3 Water-Efficient Technologies and Practices

Consumer sentiment, and increased user pays strategies, have also led industry to seek new and more efficient ways of minimizing their water use. A range of water-efficient technologies and practices are now available for use by irrigators, industrial and domestic users.

3.4 Structural Adjustment Mechanisms

Changes in the way water is allocated and priced will inevitably impact on current users of water. Historically, governments have under-priced water in an effort to encourage regional development. However, regions where irrigated agriculture in concentrated tend to have less diverse economic structures, and therefore they are vulnerable to policies which may impact negatively on irrigation.

4. The Responses

4.1 Irrigation and River Systems

The Council of Australian Governments (COAG) first took up the challenge of water reform in 1994, with an agreement to develop a strategic framework to achieve an efficient and sustainable water industry. The framework identified economic and environmental objectives, recognizing the need to establish water property rights, separate from land title, as well as allocating water to the environment and implementing a water quality management strategy. Importantly a water market was envisaged whereby water would be allocated to the most efficient use.

However, despite some progress a number of impediments exist to the achievement of the 1994 objectives. The effectiveness of the water market has been limited with only 1 per cent of water permanently traded in Victoria, and similar proportions in other states. This has primarily been due to lack of compatibility between state trading rules and systems, and no clear definition of

water entitlements. In particular, the system of water entitlements has for many users reduced security and decreased investment certainty, thereby negatively impacting access to finance.

Recognising these difficulties, COAG launched a new National Water Initiative in August 2003, with the key objectives of expanding efficient water markets, improving the security of water entitlements and protecting environmental assets.

The Murray Darling Basin Ministerial Council also announced that member jurisdictions had agreed to provide funding of $500 million over five years to address water over-allocation in the Basin.

For some, including the Wentworth Group, the current strategies to restore river health do not go far enough. In 2003 they released their National Water Plan outlining principles of rights and responsibilities of users to ensure sustainability of our water resources.

4.2 Urban Use

States have responded to the need for more effective water resource management through the establishment of expert committees to provide long term strategies to deal with the needs of their respective capital cities. These strategies encompass a range of initiatives including education, incentives to reduce demand, regulation, recycling, pricing and quality management.

COAG has also influenced urban water resources policy with reform principles aimed to establish more commercial water service provision, separated from the regulatory role. This has been articulated in the National Competition Council's Water Resource Policy.

Importantly these policies have led reform towards a greater element of user-pays, and full cost recovery. However, currently externalities are not included in the cost recovery.

The increased commercial focus of water service providers and the adoption of the user-pays principle have seen overall efficiency improvement in the urban water industry, and lower prices for customers. Together with conservation practices and awareness programs, these measures have also reduced average household consumption, which has dropped by one third in Melbourne since the early 1980s.

4.3 Other Responses

BlueScope Steel provides an example of a range of responses to the need to improve water resource management. It is typical of many industrial consumers that have used technology and recycling to become more water efficient. In BlueScope Steel's case it also assists the authorities in Wollongong to manage its waste water by utilizing some of the city's waste water as an input to its own cooling processes.

BlueScope Steel also provides technology and product to other users for the collection of storm water. New irrigation technology and techniques are continually emerging, but widespread adoption has been limited. This is predominantly due to inertia, lack of education, traditional attitudes and lack of financial resources.

5. The Way Forward: A CEDA Policy Perspective

5.1 COAG Water Reform Agenda

CEDA commends COAG in advancing a strategy to achieve sustainable management of Australia's water resources, as announced in its National Water Initiative of August 2003. However, the COAG water reform agenda must now be accelerated with specific action plans and timelines established. Governments should commit to action through an inter-governmental agreement on water resource management, and announce a national water plan, embracing Wentworth group principles.

There are enormous challenges in implementing the COAG initiatives, with strong vested interests based on significant investments. Issues of restructuring, compensation, capital investment and financing are among those already raised by significant stakeholders, and the 'devil' is certainly in the detail.

However, stakeholders now require certainty and there is an obligation on governments and COAG to promptly announce implementation plans and timelines, and for COAG to subsequently maintain the reform momentum.

5.2 Irrigation and River Systems

Much of the National Water Initiative focuses on the critical and linked issues of managing water allocation for irrigation, and the health of our river systems.

In accelerating COAG's reform agenda, priority action plans are needed to:

- Establish a national water trading market that enables water to be traded between geographic regions and states.
- Effectively separate water entitlements from land entitlements.
- Achieve environmental priorities by government standing in the market place to purchase water for the environment.

The establishment of an efficient national water trading market is the best means of facilitating the allocation of water to its highest value and most productive use. Current narrow water markets need to be expanded to their widest practical geographic extent. This will require removal of the widespread barriers to trade that currently prevent water being traded or moved between geographical districts. Where these barriers have been constructed to avert externalities, alternative processes may be required for managing these risks.

Central to the development of flexible and efficient markets is the creation of secure and clearly defined water access entitlements, with such entitlements separated from land titles. Other essential components include compatibility of water entitlements and trading rules and arrangements between states, and transparency of market intelligence and registries of water entitlements.

Water access entitlements must incorporate a secure and efficient title systems so that irrigators and farmers can access finance on reasonable terms. Water entitlements should provide similar security to a mortgage over land if farmers are to be encouraged to invest in best practice water use. While entitlement holders expect to bear risks associated with natural events, governments should assume risks associated with policy change.

An effective water market will provide better price signals, however, focus also needs to continue on the principles of user pays and full cost recovery. States need to adopt best practice in this regard, and where appropriate environmental impact may need to be a component of cost recovery.

In developing a water allocation framework, the legitimate needs of the environment also need to be explicitly considered and balanced with the needs of users. There need to be clear provisions for the environment in order to address the over-allocation problem and restore flows to stressed rivers. This can be achieved by governments standing in the market place as a purchaser for the environment. Some water will be able to be re-allocated to the environment without great economic penalty if efficiency gains can be achieved through improved infrastructure and management practices, and where reductions occur in low value-adding water allocations.

5.3 Urban Water Use

COAG's National Water Initiative also incorporates the issue of managing urban water sustainably. In this regard, it is important that user-pays pricing should progressively be extended to all sectors of the economy as a means of promoting water conservation and ensuring that the price of water reflects its scarcity. This may require other measures by governments to address consequent socio-economic hardship.

The previously announced COAG principle of full cost recovery also needs to be re-examined with respect to externalities not included in current cost recovery.

Urban water sustainability strategies should also include other demand management strategies to achieve water-use efficiency, and the consideration of incentives and regulation to progressively improve storm water management and water reuse systems.

Most, but not all, states have now separated water policy and regulatory roles from water service provision. It is important that those responsible for regulation and principles of water allocation should explicitly recognize the legitimate needs of both water users and the environment, with neither dominating the other.

5.4 Water-efficient Tecnologies and Practices

Upgrading irrigation system infrastructure can significantly improve water supply efficiency. Over time, open earth channels should be replaced with piped distribution to prevent current major water losses. When the value of water is reflected in its market price, investment in upgraded infrastructure will become more economically viable. Therefore the adoption of water-efficient technologies and practices are dependent on pricing reform.

The enhancement of water use efficiency entails investment by irrigators to upgrade distribution systems, educating farmers to adopt more efficient technologies, encouraging the urban use of recycled water and storm water, as well as promotion of ‘user-pays’ pricing and effective use of financial incentives.

5.5 Structural Adjustment Mechanisms

Any structural adjustments resulting from water reforms, and impacting on specific groups or sectors, need to be explicitly addressed and, where appropriate, there needs to be a compensation mechanism. This will ensure that no one sector unfairly carries the ‘financial cost’ of imposed adjustment where there is a reduction entitlement.

In particular where changed water allocation results in stranded irrigation assets, the costs of adjustment should be spread broadly over communities.

Where decisions are made for environmental reasons, the costs and impacts of adjustments on irrigators and local economies may be high. Clearly such changes should not occur without transparent assessment and clear evidence that adjustment is necessary.