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Water Study
Productivity Commission
LB2 Collins Street East
MELBOURNE VIC 8003

Issues Paper: Rural Water Use and the Environment: The Role of Market Mechanisms

Introduction

In September 2001, the then Minister for Industry, Science and Resources, Senator Nick Minchin, released the Spatial Industry Action Agenda Report, *Positioning for Growth*.

One of the first things that Action Agenda process created was the Australian Spatial Information Business Association (ASIBA), which now, less than four years later, represents the business interests of some 400 companies throughout Australia.

Since then, ASIBA has been an important contributor to key government policy imperatives. In 2003 the then Deputy Prime Minister, John Anderson, commissioned ASIBA, together with the NSW Division of the Australian Property Institute (API), to develop a definition for a property right in water. In March 2004, ASIBA presented to the Deputy Prime Minister the final report, entitled *An Effective System of Defining Water Property Titles*, which was the foundation for the National Water Initiative. Recently, the OECD has referred to this work as 'world leading'.

Throughout its short life, ASIBA has contributed to policy debates on water, salinity science, bushfires and security. As a result, governments now consider spatial information and technology to be essential infrastructure and management tools. ASIBA has also been among the leaders bridging the web services gap, with its recently completed and much lauded Spatial Interoperability Demonstration Project (SIDP). This Project produced technical documentation to support spatial interoperability solutions for emergency management and the insurance and utilities sectors.

Much of ASIBA's work in delivering the SIDP has already been acclaimed around the world. The international standards body for spatial information, the Open Geospatial Consortium (OGC), has asked permission to use one of our documents as an international White Paper on interoperability. The Project is a tribute to true cooperation across the public and private sectors, the states, territories and commonwealth and ASIBA's work on key policy issues will have significant effects on the community and the economy for many years to come.

Market failure and rural water use

ASIBA believes that water property rights constitute the root and core of effective water resource management. To date, the conclusions of the previously mentioned Report, *An Effective System of Defining Water Property Titles*, have not been adopted by the states and territories, namely:

...that a Torrens-based system be adopted in relation to water rights, as it provides a much higher level of certainty of title to those dealing with the water entitlement and will ultimately be the most appropriate way of facilitating trading and investment ... (page 56)

This proposal provides a basis for a reductive stereotype for water property titling across all jurisdictions. In the absence of adopting this proposal, the states and territories have continued to develop *ad hoc* rights and regimes that are far removed from the cohesive national model that the National Water Initiative sought.

Hence, contrary to the objective of the COAG Agreement, the states have not adopted a unitary water property rights model such as that proposed in the abovementioned report. As a result, trading regimes across the Australian continent are disjointed, cumbersome and even incoherent, and the worth to the economy of a unitary system is yet to be realized. This failure has occurred despite the lessons we should have learned from the 'national railway gauge' debacle and the success of the continent-wide Torrens Title land regime.

As a result, the ACT is already enmeshed in challenges about landholders' rights to ground water, whilst NSW argues that the ACT is using water access as a tax defence rather than as an equitable system for distributing resources. In addition, the NSW water access model does not produce a water property right, notwithstanding assertions in the *Water Management Amendment Act, 2003* (NSW) that these entitlements can now be perpetual, according to the (then) Deputy Director General Peter Sutherland of the (then) Department of Infrastructure Planning and Natural Resources:

...[t]his concept of perpetual access entitlement gives an irrigator, for the first time, an ongoing share of a consumptive pool of water, once the environment is looked after ... (The Australian, 1 July 2004 'New era begins for water users, page 46)

ASIBA views such assertions as grossly misleading, given that the overarching structure of water access in NSW is based on fifteen-year water planning; so the use of the word 'perpetual' is effectively a nonsense. In Queensland, conflicting legislation has a detrimental impact on property rights and water accounting which the National Water Commission cannot address, whilst in Victoria a base-line measurement of water resources remains absent.

Nevertheless, it is heartening to note that the Victorian Government has expressed concern about the disjointed nature of the rights and interests in water in the various states and, according to John Thwaites, the (then) Victorian acting Premier in that state:

...urged an overhaul of water trading rights amid concerns [that] the system was unfair and hindering the creation of a national market ... (Australian Financial Review, 16 January 2006 'Water talk on boil', page 7)

Importantly, Mr Thwaites stated that he intended to urge COAG to consider creating a “single trading unit” that would “act as a common trading currency”. ASIBA wholeheartedly supports the Victorian initiative; however it notes, sadly, that there is no common base for measuring water resources across jurisdictions. As yet there are no standards upon which the state or Commonwealth governments can rely and the lack of interoperability in spatial data reveals that cross-jurisdictional trading is now seriously hampered.

Unfortunately, the Australian Government has not demanded that the states and territories apply or adhere to a single set of established standards. This is due, in part, to the failure to develop such measurement standards in the first place, or to recognize the applied research for spatial data interoperability that ASIBA has already carried out, most notably in the SIDP. Although the SIDP used emergency management scenarios to demonstrate interoperability, the principles and indicative results are just as essential to water management and trading issues.

The Australian Constitution allocates responsibility to the states for natural resources such as water and, hence, the current approach to water management and trading is that each state is responsible for determining its preferred registration, measurement and allocation model.

Given there is no single methodology for water availability measurement, governments can grant licenses that exceed the available water supply. This then means that trading is hampered by 'availability' decisions based on false and misleading information and the limited tenure of water access licenses affects 'property' values.

There is currently no coordinated education and training mechanism in place to address the needs of the many and varied stakeholders. The implications of the various administration and trading systems to the finance sector have the potential to adversely affect property values in the medium to longer term.

Poor recording and the differences in water availability modeling between jurisdictions has the potential to create allocation inconsistencies that may adversely affect the market. Allocation determinations based on a variety of models and data qualities may deliver variable policy decisions in the states and territories and this may alter economic and/or environmental outcomes. Poor data in one jurisdiction may result in an over-allocation of water and a consequential impact on another jurisdiction using the same water source but with different modeling and data accuracy.

Recommendations

1. Establish an Australia Spatial Data Infrastructure (ASDI) to:
 - provide a comprehensive and consistent national catalogue of water data;
 - reduce data duplication and associated costs by identifying the relevant data custodian (ie. point of truth);
2. Develop nationally consistent data standards to:
 - ensure consistent policy application across jurisdictions;
 - enable interoperability that will reduce errors and costs and ensure compliance

3. Develop an independent mechanism for certifying 'fit for purpose' data to:
 - enhance confidence in water policy
4. Establish a nationally consistent water property rights regime to:
 - protect the rights of all users;
 - ensure open and transparent access and entitlement policy;
 - provide confidence to the financial sector;
 - ensure consistent national financial reporting and valuation data

A single comprehensive ASDI will provide a wider economic value because the registers would contain the full gamut of data, held in both the public and private sectors. This data is important for a range of purposes: public administration, national security and defence, environmental management, property and development, infrastructure and communication technology, transport logistics and navigation, amongst many others. Europe and Canada, for example, have already established the value of an ASDI.

ASIBA's world-leading work in spatial interoperability, accomplished in conjunction with the Open Geospatial Consortium (Australasia), identified the urgent need for an ASDI. The challenges of dealing with a national security incident, natural disasters such as bushfires, cyclones, tsunami or droughts - and the potential for a major global pandemic - add further weight to the demand for investing in quality spatial data and an ASDI.

No-one has yet determined the true economic cost that poor spatial information will and does have on water and other resources. But there is ample anecdotal evidence that poor decisions on water allocation can be traced to poor fundamental data on water resources. The impact of applying often conflicting and ill-considered policy across jurisdictions will be felt in the years to come as financial institutions come to better understand the consequences of an ever-decreasing security in water collateral based valuations.

ASIBA would appreciate an opportunity to expand its case to the Commission for a nationally consistent water property rights regime and to propose possible solutions that will help to better manage this important natural resource. I look forward to your reply and can be contacted by return e-mail or by telephone on (02) 6282 5793.

Yours sincerely



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