

The cultural politics of environmental water management in Australia

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Abstract

Australian water policy is a world leader in the area of environmental water management, having established a legal requirement to provide environmental flows in all jurisdictions. Indigenous advocates are closely examining the various policy options developed to acquire water for the environment for their social justice potential. In the pursuit of opportunities to secure water for Indigenous use, they argue that instruments that deliver water to the environment could serve as model institutions through which to redress the historical neglect of Indigenous water rights and the transparently inequitable distribution of water. Deploying a political strategy that is seen by some Indigenous groups as analogous to the struggle for recognition of the rights of aquatic ecosystems to water, considerable effort is going to the development of water entitlements to protect 'culture' (termed 'cultural flows') and tradeable entitlements under the control of Indigenous communities. In water scarce and over-allocated regions, market-based water buy-back programs are perhaps more politically feasible than claims to water based on human-rights norms. This paper will describe the Indigenous water rights strategies developing in Australia under neoliberal environmental governance regimes, showing how influential the discourse of environmental flows and marketization have been on attitudes to water, water distribution, definitions of water rights and notions of justice in water governance. Grounded in political ecology, the analysis will reveal cultural biases in the environmental water management sector and the consequences for minority groups seeking to have their water needs met and their distinct ontological perspectives on water recognised.

Keywords: Indigenous water rights, cultural values, water governance, environmental water management, environmental flows.



1 Introduction

Recent pressures from global population growth, the expanding urban footprint, demand for agricultural products, and climate change have strained institutional water resource arrangements worldwide [1]. Consequently, many countries are reforming their water sectors to address growing water scarcity, conflicts between categories of users and the need for water for the environment [2]. In countries such as Australia and South Africa, wide ranging water law reforms have resulted in a 'radical shift in the manner in which water is conceived in legal terms and the regulatory frameworks that control its allocation and distribution' [3].

In the growing number of studies of changes to water governance, too little attention is given to the critical role of culture and cultural processes in 'sustaining diverse forms of human life and shaping both conflict and consensus in understanding, valuing, using, and managing water' [4]. Close examination is necessary because in many places reforms have empowered statutory systems to dominate or marginalise parallel, extant customary systems of water governance [5]. For example, policies that establish tradeable rights have privileged private property over communal property rights characteristic of Indigenous societies in South America [6]. Unless social, cultural and environmental dimensions are integral to water governance, water resource developments will continue to significantly threaten local livelihoods and ways of life.

By virtue of their marginal political position and disadvantaged economic status, Indigenous peoples have relatively restricted access to productive water resources and are especially vulnerable to water injustices [7]. Indigenous peoples confront challenges that constrain the ability to bargain for secure and remunerative livelihoods and to participate in decisions that govern water allocation, use and management [6]. Water is central to defining complex indigenous attachments to place and so, for Indigenous peoples, the contamination, diversion and depletion of water bodies represents an attack on collective identities and survival as peoples.

Indigenous Australians use land and water resources in a variety of inter-related ways including for subsistence use of wild resources, recreation, and cultural practices. Water is also used for economic purposes for commercial activities and to support customary Responsibilities under customary law to undertake management activities form the basis of the contemporary assertion of rights to be engaged and involved at all levels of river management and governance [8, 9].

A pronounced injustice in water access is evident in Australia where, despite over two decades of radical change in governance, Indigenous people remain greatly constrained in their ability to shape the use and management of water. Water is a means of empowering and mobilising people [6] and Indigenous groups from many parts of Australia are now organizing at the regional scale to address the implications of water governance reform for their communities. Devastating environmental impacts of water regulation and excessive extraction, combined with the lack of legal recognition of Indigenous rights and interests, has instigated the establishment of Indigenous water advocacy groups. Numerous groups are pursuing strategies that will allow traditional owners to exercise custodial rights;

fulfil cultural responsibilities; pursue social and economic interests; and protect culturally sensitive sites and burial grounds from alterations to water levels.

The paper is structured as follows. In the next section the major developments in Australian water governance reform are described to provide context for the analysis to follow. I will then turn to the institutions and negotiating arenas through which indigenous peoples seek to establish the legitimacy of their water related values, ethics and practices as well as to define, increase and control their access to water. The final section will provide concluding comments.

2 Trends in Australia water resource governance

Water extraction and regulation of hydrological flow regimes has generated socio-economic benefits for the Australian nation. Regulation of rivers was undertaken to 'normalise' the inherently variable water supplies [10]. Development however came at the expense of river ecosystems that had adapted to a variable eco-hydrological cycle, particularly in the country's south-east. Consistent with global trends, alteration of the quantity, timing, duration, frequency, rate of change, and quality of environmental flows now threatens the health of river ecosystems [11].

Of all of the river basins in Australia, the Murray-Darling Basin (MDB) is most affected. The MDB has diverse species and ecosystems, nearly 57 000 sq. km of wetlands, and 16 wetlands listed as internationally important under Ramsar [12]. The decline in health of its riverine ecosystems has occurred gradually over more than 50-100 years with dams which can store 103% of annual runoff and 87% of divertible water extracted (1983-84 data; [13]). Multiple threats have drastically changed the character and function of 90% of the Basin's wetlands [14].

Throughout the 1980s and 1990s, public awareness of aquatic environmental issues grew. Diversions were capped in 1993. However, the 'cap' and the environmental restoration programs established in response to scientific evidence of declines in basin health failed to stem the degradation [15]. It was not until later that decade that drought-induced water shortages focused political and public attention on the emerging water crisis. Support strengthened for a re-evaluation of the share of the water set aside for the environment, alongside adjustments to policy to better manage demand. These events coincided with a heightened consciousness of climate change and the risks it posed to water security.

Thus, over the past twenty years, water policy objectives have shifted from a preoccupation with developing inland water resources (constructing new dams, expanding the irrigation footprint) to conserving and reallocating water to the environment. Under a new 'environmental management paradigm' [16], the provision of 'environmental flows' is seen as a promising strategy for integrating freshwater management into the broader scope of ecological sustainability [11]. Environmental flows have been defined as: 'the quantity, timing and quality of water flows required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend upon these ecosystems' [17]. National water policy of 2004 mandated the restoration of environmental flows and all Australian states established a legal requirement to provide environmental flows.



This historic shift in emphasis was accompanied by neoliberal policy instruments that altered property regimes, established markets in water and economic incentives for efficient water use and decentralised water allocation decisions. National water policy now affirms efficiency as a dominant goal and property regimes were targeted early. Water was separated from land in the 1990s to facilitate trade.

No formal consideration was given to the effect of severing the nexus between land and water titles on Indigenous peoples and their rights and norms [18]. A major legal decision in Australia's High Court in 1992 (the Mabo case) had recognised native title and instigated national legislation designed to protect it. The *Native Title Act 1993* included water bodies within its definition of native title. However, this historic decision made little impression on the water sector during this first phase of reform and subsequent case law did little to advance recognition of water rights [18].

In a second phase undertaken during the 2000s, water rights were themselves further divided into a number of separate components, including use rights, access rights specified as shares, and allocations that vary with water availability [10]. At this point more attention was given to Indigenous rights and interests in water and, in 2004, more than a decade after the Mabo decision, national water policy included a number of clauses aimed at improving Indigenous participation in water planning and access to water [19]. However, these were narrowly prescribed, discretionary and no restitutionary measures were introduced. As a result, the consequent policy prescriptions have since failed to address the inequity in water distribution or to empower Indigenous people within the structures that influence water use decisions [20, 21]. As one Indigenous organisation recently observed:

... the principles that underpin Victoria's water legislation - to protect existing entitlements and require all stakeholders to compete for a fully allocated resource in the market place, now represent an insurmountable structural barrier to equitable access and use of water for Traditional Owners [22].

Indigenous values associated with rivers and water are poorly understood by decision-makers, and Indigenous priorities are rarely reflected in allocation decisions. A review by Australia's National Water Commission found that:

... Indigenous participation in water management decision-making continues to vary regionally. Indigenous needs for water in over-allocated catchments are still not accounted for in water planning, and a gap remains in the actual provision of water to Indigenous people to be managed by them. Further work also needs to be undertaken to better incorporate Indigenous knowledge into water planning [23].

Notwithstanding the development of a trajectory towards re-allocation of water to the environment, ecosystem health has remained an elusive goal. In 2007, the Commonwealth Government took further action to address continual environmental decline with a \$10 billion National Plan for Water Security. The main components of the Plan include:

1. \$3 billion committed to address over-allocation in the MDB (split between buying back irrigation entitlements and assisting irrigators to exit the industry);



2. legislation to establish legally binding sustainable diversion limits under a Basin Plan (an annual average of 2,750 GL of water, or 20% of baseline average water diversions, to be returned to the environment by 2019 with an additional 450 GL by 2024; and
3. the management of Commonwealth environmental water holdings by a new Commonwealth Environmental Water Holder (CEWH) to protect and restore environmental features of the Basin.

The Basin Plan includes only modest provision for Indigenous water management [24]. It places requirements on state and regional water planners to identify and provide for Indigenous uses and values and to consult over environmental water management. The submissions from a number of Indigenous groups to a recent review of the *Water Act (2007)* argue that Indigenous rights and interests are treated in a tokenistic way by the legislation and its architecture [25].

3 Indigenous peoples and environmental water management

As we can see from this summary of Australian reforms, recovering and re-allocating water as environmental flows has emerged as the fundamental means of improving ecological conditions. This transformation in water governance has driven the development of techniques to assess and determine environmental flows and the emergence of an environmental water governance system with institutional arrangements to acquire and manage substantial volumes of water. When the purchasing program is complete, the CEWH will hold more than one-quarter of all extractive water rights in the MDB and, in some regions of the Basin, the figure could be 50% [26]. How effective these steps will be in restoring river health remains a crucial question. Critics have argued that 3000 GL will restore river health only from poor to moderate [12].

Notwithstanding criticism of the sustainable diversion limit, management of a water reserve of this magnitude could present Indigenous people with an opportunity to access water and restore some environments, as well as re-affirm and re-build socio-ecological relationships. Whether such an opportunity can be realised will depend on a number of factors, not least, the capacity of the environmental water sector, with its cultures, techniques, practices and regulatory regimes, to critically reflect on its ontological premises, epistemological foundations and normative constructs and make room for other ways of being in and knowing the world.

Studies suggest the existence of numerous significant impediments [18–21, 24, 27–29]. For the reasons outlined below, Indigenous groups encounter considerable difficulty in having their rights, values and interests recognised and acted on in the processes that determine priorities for environmental watering:

1. The dominant settler society has a poor understanding of indigenous cosmology, environmental philosophies and resource management institutions, especially those relating to water;
2. A very poor knowledge base upon which to implement Basin wide planning and allocation decisions; there being no systematic studies of water use within



- or across Indigenous groups; it is all too common for Indigenous knowledge to be overlooked in localised scientific assessments;
3. The narrow ecological criteria upon which environmental flows or instream values are determined do not articulate well with Indigenous ontologies. Many Indigenous groups report that environmental water has not been directed to the features of they consider to be of the greatest significance or value or at the appropriate time of year;
 4. Difficulties in communication and political representation facing Indigenous representatives in multi-stakeholder resource management groups;
 5. Onerous and slow native title claims processes; combined with narrow interpretations of indigenous water property in law and planning discourse.

The policies and practices of environmental water management are biocentric and exclusionary, divorcing aquatic ecological components from social relationships, cultural practices, belief systems, and social context. The intangible values that Indigenous people regard as critical to their sense of identity, cultural practices, spiritual beliefs, customary management practices and livelihoods, are consistently raised as a challenge to the quantitative and competitive methods of resource allocation currently favoured by market-based reform programs. Moreover, a technical preoccupation with a scientifically determined ideal hydrograph, or flow regime, comes at the risk of neglecting critical relational water values. In environmental water management policies and programs, utilitarian values are prioritised over relational ones and consideration of Indigenous interests have been accorded an even lower priority, if it they are recognised at all. In my discussions with traditional owners, the volume and timing of river flows are of great concern, however they aspire for more: to maintain and reaffirm relationships with country, connect to intergenerational responsibilities and apply and teach traditional knowledge and skills, as well as pursue livelihoods that may rely on water use.

The following comments from Indigenous participants in water governance illustrate these concerns:

Sending an environmental flow down the river doesn't fulfil our cultural requirements. We need to look outside the square – this is our economy and social structure. They're trying to bundle us in with 'rural groups', 'school groups' etc. What I would like to say is that there is another community out there [30].

Maybe the paradigm needs to be changed a little, so that religious and spiritual aspects are included within cultural values. We have to talk more about our spiritual and religious values. We as Aboriginal people don't have policies on land and water - we are following those of the governments. So we said 'we are going to develop our own charter, policies and programs and see where the government can then fit in with us' It's all Western world values. They talk about ethnocentrism, but they don't take our world view as the basis. We need to develop structures and processes to get people to see culture as a living thing [31].



The Basin Plan contains an obligation to consult, however, the degree to which consultation will make a material difference is conditional upon any identified Indigenous values aligning with or enhancing ‘environmental outcomes’ [32].

Such environmental outcomes are generated by biocentric assessments that prioritise environmental features according to universal conservation principles, such as rarity or international significance. For example, the approach adopted by the MDB Authority to determining environmental water requirements applies five criteria: the presence of listed migratory species; natural, rare or unique ecosystems; ‘vital’ habitat; habitat of listed threatened species or ecosystems; and supporting ‘significant’ biodiversity [12].

The new Commonwealth Environmental Water Holder who has the role of buying, holding and managing water is similarly tightly prescribed in purpose and activities, reflecting the prioritisation of environmental objectives.

Currently, Indigenous objectives are one of many Plan objectives alongside requirements to implement international agreements (e.g. Ramsar Treaty) and meet the water needs of ecological assets. Indigenous epistemologies do not subscribe to these universalising approaches and instead prioritise local attachment and localised measures of significance (e.g. sacred sites, conception sites). Given the intensity of competition for environmental water this ordering of priorities has left Indigenous groups with little confidence that the sites, places, ecological functions, social and environmental relationships they regard as important will receive water or other management attention.

In response to the weighting given to international environmental treaty obligations, some Indigenous organisations have drawn attention to the relevance of international human rights instruments for water management [7]. For instance, a number of proposals have been made for the *Water Act 2007* to be amended to refer to the United Nations Declaration on the Rights of Indigenous Peoples, which Australia recently ratified. This would expand the constitutional mandate of the *Water Act* by obliging governments to implement the principles contained within this key human rights instrument. So far there has been no indication that the Australian Government will do as recommended but other strategies appear to be gaining more traction in water policy circles, and it is to those that we now turn.

4 Indigenous strategies

The efforts of Indigenous organisations and advocates to advance their water rights agendas fall into a number of categories: representation and participation; research, knowledge and awareness, control of Indigenous-specific entitlements, Indigenous engagement in the water market.

4.1 Representation and participation

Indigenous systems of customary law dictate that traditional land-owners have a substantive role in land and water management, and hence are particularly interested in environmental governance structures. In numerous water-related contexts, traditional owner groups express a consistently strong desire to exercise authority,



responsibility and control in the determination of allocations to meet their requirements. The means by which they propose to do this are discussed below, but the point worthy of attention here is the need for direct Indigenous representation and participation in the governance of water at multiple scales.

When the first national water policy was negotiated in the 1990s, Indigenous organisations were not consulted and recent studies confirm that Indigenous expectations in this regard are not being met [9, 19, 33]. In direct response to the changes in governance described above, a number of organisations and alliances have formed to represent and advocate specifically for Indigenous interests. These groups function as intermediaries between state water agencies and traditional owners and are developing policy positions on water resource management and Indigenous water rights. Some have developed research programs.

The first such group formed was the Murray Lower Darling Rivers Indigenous Nations (MLDRIN) which grew out of a relationship between Indigenous communities in southern Australia and the Murray Darling Basin Commission [27]. MLDRIN delegates developed an Indigenous Partnerships Project in response to an early environmental water management initiative to involve Indigenous people in watering plans at major wetland sites through employment of local Indigenous facilitators, documentation of Indigenous values and mapping of sites. To reflect the interests of Indigenous land owners from the northern Basin, another coalition (Northern Basins Aboriginal Nations) was later established to liaise and negotiate with the MDB Authority.

A national representative organisation was not formed until 2009 with the First Peoples' Water Engagement Council (FPWEC) serving as an advisory group to the National Water Commission. The Council saw its role as one of speaking on behalf of Aboriginal peoples on inland water issues. It convened the First Peoples' National Water Summit in 2012, bringing together over 70 Indigenous delegates to provide advice to government. This group was disbanded by the incoming conservative Federal government in 2013.

4.2 Recognition for indigenous specific allocations – ‘cultural flows’

Some Indigenous advocates are closely examining the various policy options developed to acquire water to improve environmental flow regimes for their social justice potential. In the pursuit of opportunities to secure water for Indigenous use, they argue that instruments that deliver water to the environment could serve as model institutions through which to redress the historical neglect of Indigenous water rights and interests and the transparently inequitable distribution of water. Deploying a political strategy that is seen by some Indigenous groups as analogous to the struggle for recognition of the rights of aquatic ecosystems to water, considerable effort is going to the development of water entitlements to protect ‘culture’. Representative organisations are calling for ‘cultural flows’ which would entitle them to water under a separate traditional or customary category of use. In this manoeuvre they are presenting a symbol of ‘traditional, place-specific, and often culturally distinctive resource use practices’, in a manner somewhat similar to the water rights strategies of the indigenous and campesino peoples in Bolivia [34].



During consultations for the Basin Plan in 2012-13, 430 individual Indigenous people and a further 21 Indigenous organisations made submissions. A frequent suggestion was for specific cultural-flows entitlements and allocations to be managed by Indigenous people; another was for the establishment of an Indigenous water holder to manage that water. Submissions called for cultural flows to be protected by legislation. Cultural flows are defined in the following terms: ‘Cultural Flows are water entitlements that [would be] legally and beneficially owned by the Indigenous Nations of a sufficient and adequate quantity and quality to improve the spiritual, cultural, environmental, social and economic conditions of those Indigenous Nations’ [21].

In this campaign, advocates of ‘cultural flows’ seek to leverage water allocations off the success of the ‘environmental flow’ concept; one that has as we have seen resulted in substantial statutory allocations for the environment and has developed a body of science to understand ecological water requirements.

Jackson and Langton [20] have recognised the symbolic potency of the cultural flows concept but cautioned against use of the term, arguing that it may be counterproductive to water rights struggles. They argue that concept has not been adequately and precisely defined: the water rights underpinning the notion are unclear and the vague terms pertaining to cultural value concepts from heritage management discourse do not readily translate into present water policy frameworks. Moreover, it is likely that only very small amounts of water will be considered necessary to maintain cultural practices like rituals and ceremonies at the expense of wider environmental health. By foregrounding traditional ‘cultural’ uses or values in water allocation decisions, indigenous requirements and needs are relegated to a reified essentialist category of use that counter-intuitively tends to require negligible amounts of water.

In recent statements from Indigenous groups, stress is put on the multiple purposes to which water would be put if it were under some form of Indigenous management:

Some people have discussed the need to change this term to Aboriginal Flows or Indigenous Flows, NBAN prefers the term Cultural Flows, as it picks up economic as well as environmental, social and spiritual values and importantly, it says why the flow is needed, to maintain Aboriginal People’s cultural connection to water and water dependent ecosystems [35].

It is the economic use within their definition that is particularly hard for the environmental water management framework in Australia to accommodate because of the history of over-allocation for industrial uses.

Beyond laying out a discursive claim for water for ‘culture’, a figure has been put on the share of the Basin’s water that Indigenous groups are claiming. NBAN for instance has called for an allocation of 5% of the entitlements of each water resource plan to Indigenous people as a ‘cultural flow’. This proposal also calls on the CEWH to provide technical advice and liaise with relevant traditional owner corporations within each plan area.



4.3 Research, knowledge and awareness raising

A specific aim of the projects undertaken by the organisations above and by others is to build the institutional capacity of the Indigenous community to contribute to water policy-making and implementation and to raise awareness of Indigenous positions. These groups are engaged in problem-solving through collaborative dialogue with government agency staff and researchers. Research on institutional barriers has been considered valuable as has multidisciplinary research on methods to quantify Indigenous water requirements.

4.4 Engagement in the water market – an Indigenous water bank

In addition to the strategies described above, suggestions have been made for the government to amend the role of the CEWH to include traditional owner perspectives and to consider the establishment of an independent Indigenous Water Fund or Trust to allow Indigenous peoples to participate in the water market. Those funds could be used to purchase licences and would be managed to provide for necessary infrastructure and other costs associated with accessing water entitlements. Purchases and use costs could be funded on an ongoing basis from a small levy on water trades [28].

5 Conclusion

The struggle for water rights for Indigenous people in Australia over the past twenty years has involved disputes over access to water and, consistent with water rights struggles elsewhere, it has also included contest over the ‘contents of water rules and rights, the recognition of legitimate authority, and the discourses that are mobilised to sustain water governance structures and rights orders’ [6]. Mobilization against state reform of the water sector is yet to fundamentally alter the institutional basis of rural water management and water rights, yet progress can be discerned in the formulation and articulation of Indigenous critiques of water policy and institutions. In their focus on acquisition mechanisms, significant effort is being directed by Indigenous people towards ‘the right to culturally define, politically organise and discursively shape’ water use systems [6]. Such efforts to negotiate the relationships of inclusion and exclusion are integral to water rights struggles worldwide.

Throughout the period of rapid water sector reform described above, Australia’s water crisis has been framed as an allocation problem: the unsustainable distribution of scarce water amongst three categories of use: agriculture, cities and the environment. This specification of the water governance problem contains a critical blind spot: it overlooks the interests, perspectives, knowledge and rights of Indigenous Australians who have unmet water needs, unresolved claims for political, economic and cultural recognition and a body of knowledge to contribute to the resolution of water conflicts.

In the 1990s the environment was introduced as a new ‘water user’ with legal instruments to meet environmental imperatives. Protection and formal legal status



for environmental water accords it an equivalence to consumptive rights in the system [36]. It appears that it is this equivalence that Indigenous people are seeking from a regime in which competition for water is intense and re-allocation to the environment is an ascendant objective. However, doubtful that environmental gains will be shared equitably across society, Indigenous groups are mobilizing an explicitly *cultural* politics of water to gain access to public sympathy and state resources, one that nonetheless carries some risks. For these reasons, they are also seeking to use the market mechanisms at hand [28].

Having found little satisfaction in the native title adjudications and determinations that should have confirmed their status as prior water users, Indigenous people instead come to water debates and allocation processes as late-comers with little negotiating power. Assuming state provision of funds, they may find a strategy of buying water from willing sellers and engaging in trade more promising than recovering water through political processes, especially in regions experiencing water scarcity. It is too early to tell whether the multiple strategies described above will result in a fairer distribution of water and more effective Indigenous representation in water governance and, moreover, whether they will do justice to indigenous ontologies of reciprocal, ethical relations with land and water. The counter strategies currently being promoted and enacted nonetheless represent key sites for experimentation in alternate forms of water resource governance.

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