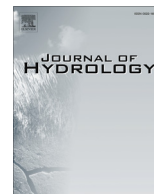




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Guidelines for inclusion: Ensuring Indigenous peoples' involvement in water planning processes across South Eastern Australia

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ABSTRACT

Indigenous peoples within the Murray–Darling Basin have traditionally struggled for the recognition of their cultural, social, environmental, spiritual, commercial and economic connection to the waters that they have traditionally used, as well as their right to engage in all stages of water planning processes. Despite Australian national and federal frameworks providing for the inclusion of Indigenous Australians' objectives in planning frameworks, water plans have rarely addressed these objectives in water, or the strategies to achieve them. Indeed, insufficient resources, a lack of institutional capacity in both Indigenous communities and agencies and an inadequate understanding of Indigenous people's objectives in water management have limited the extent to which Indigenous objectives are addressed in water plans within the Murray–Darling Basin. In this context, the adoption of specific guidelines to meet Indigenous requirements in relation to basin water resources is crucial to support Indigenous engagement in water planning processes. Using insights from participatory planning methods and human rights frameworks, this article outlines a set of alternative and collaborative guidelines to improve Indigenous involvement in water planning and to promote sustainable and just water allocations.

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1. Introduction

Since time immemorial, Indigenous peoples located in the Murray–Darling Basin have been landowners and have managed water resources according to their governance systems. As Morgan et al. (2004) observe, these systems are based on Indigenous Australians' "traditional affiliations between family groups which are connected and united through language and kinship lines". These affiliations are directly related to the notion of 'country', which encompasses "particular focal sites in the land and water" (Jackson and Morrison, 2007). On that basis, water resources that have been traditionally used by Indigenous peoples are crucial for these communities because they represent an integral part of their social and cultural identity.

Certainly, according to Mooney and Tan (2012), rivers constitute an important meeting place for the family, not only to fish and learn about traditional practices, but also to carry out recreational and restoration activities. In fact, activities aimed at maintaining and restoring the natural flows and cycles of rivers and wetlands are crucial for Indigenous communities in so far as the

health of these water resources is directly linked to the health of community members (Morgan et al., 2004).

Moreover, river channels, waterbeds, floodplains and wetlands sustain a broad range of plants and animals used by Indigenous peoples for food, medicine, arts and crafts (Morgan et al., 2004). Indeed, some of these products are used for commercial and cultural activities that provide income for these communities (e.g. weaving). Additionally, these water resources are directly linked to cultural sites, such as burial sites, middens, scar trees and vistas that are crucial for Indigenous spiritual practices (Morgan et al., 2004).

In light of the above, Indigenous peoples within the Murray–Darling Basin struggle for the recognition of their cultural, social, environmental, spiritual, commercial and economic connection to the lands and waters of the basin. They also seek recognition of their knowledge, customary rights and cultural values in water resources management (MDBA, 2012a). In this respect, Indigenous peoples assert their right to engage in all stages of the water planning process (formulation, implementation, monitoring and evaluation of water resource plans [WRPs]¹).

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E-mail addresses: saenzj@student.unimelb.edu.au (A. Saenz Quitian), gloria.rodriguez@urosario.edu.co (G.A. Rodríguez).¹ Water resource plans "provide for the management of the water resources of the water resource plan area" and must be consistent with the relevant Basin Plan (Water Act 2007 (Cth) Section 55(1)).

To improve their participation in water management, Indigenous peoples seek further resourcing to strengthen their representative organisations in the Murray–Darling Basin (the Murray Lower Darling Rivers Indigenous Nations – MLDRIN- and the Northern Basin Aboriginal Nations – NBAN-). Moreover, they look for capacity-building to provide their input in the formulation, implementation, evaluation and monitoring of water plans (Morgan et al., 2004).

2. Indigenous values in legal and policy water frameworks

Environmental issues experienced across Australia, as well as the increasing trend of federal governments to favour regulatory approaches based on economic instruments, have induced profound reforms to water law and policy (Godden and Gunther, 2010). The early regulatory shifts, driven by the Water Policy Agreement of 1994 and put in place by the Council of Australian Governments (COAG), sought to promote an efficient and sustainable use of water resources (Pigram, 2007). To achieve these goals, the COAG provided for the separation of land from water titles, the allocation of water to the environment and the establishment of a water market (Jackson and Langton, 2011).

Nonetheless, these early water reforms did not acknowledge Indigenous interests in access to water resources, nor their expectations to participate in water planning processes (Godden and Gunther, 2010; Jackson and Langton, 2011). It was not until the Living Murray Initiative, established at the federal level by the Murray–Darling Council in 2002 (MDBA, 2009), and the 2004 National Water Initiative (NWI), that Indigenous needs in relation to water access and management were recognised as desired outcomes of water access entitlements and water planning frameworks across Australia (COAG, 2004).

Certainly, parties to the NWI in principle agreed to provide access to water resources for Indigenous peoples via planning processes that:

- Include Aboriginal representation in water planning, whenever possible;
- Incorporate Indigenous social, spiritual and customary objectives and strategies for achieving these objectives, wherever they can be developed;
- Recognise native title rights to water in the catchment or aquifer area;
- Allocate water to native title holders under the Native Title Act 1993; and
- Account for water previously allocated to native title holders for traditional cultural purposes (COAG, 2004).

The NWI principles are articulated with federal water planning rules under the Water Act 2007 (Cth). This act sets forth the adoption of a new plan for the integrated management of the basin water resources, setting limits on the quantity of water that can be taken from that area. According to these rules, the new framework for managing water resources in the basin in a way “that optimises economic, social and environmental outcomes” (Water Act 2007 (Cth) Section 3(c)) should be developed considering Indigenous values in water. Additionally, it provides for the creation of an Indigenous water subcommittee “to guide the consideration of Indigenous matters relevant to the Basin’s water resources” (Water Act 2007 (Cth) Section 202(3)(c)).

Under the auspices of the new legal and institutional framework for water planning set by the 2007 Water Act, the Minister

for Sustainability, Environment, Water, Population and Communities adopted the Basin Plan 2012 (Cth). The plan, considered as “the central planning and allocation mechanism for water resources taken from the Basin” (Godden and Gunther, 2010), provides a new approach to water use across the basin states (the Australian Capital Territory, South Australia, Victoria, New South Wales and Queensland) by establishing long-term average sustainable diversion limits (MDBA, 2015b). Sustainable diversion limits seek to establish environmentally sustainable limits on the quantities of surface water and groundwater that can be taken from basin water resources to satisfy consumptive uses, “having regard to social and economic impacts” (Basin Plan 2012 (Cth) Section 5.05(1)).

The important drivers of the adoption of the Basin Plan (Cth) were the need to address overallocation, improve security for consumptive users and ensure a balance between environmental, economic and social outcomes arising from the use of basin water resources, including Indigenous values in water (Basin Plan 2012 (Cth) Section 5.02). To this end, the plan sets out a series of strategies to manage the primary risks to the condition or continued water availability of basin water resources (insufficient water for the environment, poor health of water-dependent ecosystems, quality of water unsuitable for consumptive and other economic uses) (Basin Plan 2012 (Cth) Section 4.02(1)).

The 2012 Basin Plan also provides for the consideration and protection of social, spiritual and cultural values and uses by Aboriginals that relate to the water resources of the Murray–Darling Basin by mandating all basin governments to enhance the inclusion of Indigenous peoples’ objectives and strategies in water planning (Basin Plan 2012 (Cth) Section 10.52). Thus, WRPs are to be prepared in consultation with relevant Indigenous organisations in a way that encourages the active and informed participation of Indigenous peoples.

Indeed, the Basin Plan (Cth) itself was adopted after substantial consultation with the MLDRIN and NBAN. The 20 week consultation process also included visits to “approximately 30 Aboriginal communities across the Basin to encourage and assist people to make formal submissions” to the proposed Basin Plan (MDBA, 2015a). In addition to the visits, the MDBA developed a document titled *A yarn on the river—getting Aboriginal voices into the Basin Plan* to facilitate Indigenous input on the draft of the plan (MDBA, 2015a). As a result, “the MDBA received 430 submissions from individual Indigenous people and a further 21 from Indigenous organisations” (National Water Commission, 2013). These submissions reflected a broad range of observations regarding Indigenous interests in water access and management, as well as a call for the protection of cultural flows, and the allocation of specific water entitlements (National Water Commission, 2013).

Furthermore, the participation of Aboriginal communities and Indigenous organisations in the drafting of the Basin Plan resulted in substantial changes to the proposed draft. Relevant sections relating to Indigenous input to WRP, environmental planning, cultural knowledge and registered Aboriginal heritage were strengthened due to the submissions made by these peoples (MDBA, 2012b). Additionally, the MLDRIN and NBAN agreed the definition of cultural flows was recognised in schedule 1 of the Basin Plan as an important tool to improve spiritual, cultural, environmental, social and economic conditions of Indigenous Peoples (National Water Commission, 2013).

The efficacy of the Basin Plan (Cth) to include Indigenous peoples’ interests in water, as well as their objectives in water management has not yet been assessed; however, this plan is expected to play a leading role in improving Indigenous peoples’ participation in water management.

3. Remaining barriers to the involvement of Indigenous peoples in water planning

As noted above, Australian national and federal frameworks have procured relatively little scope for Aboriginal participation in water planning, particularly for the inclusion of their interests and values in water plans (Rural Solutions, 2008). Despite the existence of guidelines mandating the inclusion of Indigenous peoples' objectives in planning frameworks, water plans have rarely addressed these objectives in water, or the strategies to achieve them (National Water Commission, 2012). Certainly, different reviews of Indigenous engagement in water management have indicated that plans in several jurisdictions have met Indigenous non-consumptive requirements—cultural, social and spiritual uses—by subsuming them into environmental flows, which do not seem to be enough to meet Indigenous water requirements (Jackson and Finn, 2011; Jackson et al., 2012; Godden and Gunther, 2010).

Although the Basin Plan (Cth) represents the culmination of a series of legislative and policy instruments designed to ensure a more sustainable and long-term governance framework for managing water resources, it has failed to recognise Indigenous economic and commercial interests in water (Godden and Gunther, 2010). The assumption that Indigenous objectives are limited to the mere inclusion of social, cultural, spiritual and customary values and uses in water plans implies a failure to recognise other interests including “hunting or gathering for food and other items for use that alleviate the need to purchase similar items and the use of water to support businesses in industries such as pastoralism and horticulture” (Basin Plan 2012 (Cth) Schedule 1 (30)). This view also seems to contradict the explicit acknowledgement of Indigenous peoples' views with respect to cultural flows provided in Section 10.54 of the Basin Plan (Cth).

Despite having a large stake in water resource management because of their ancestral and customary relationships with land and water, Indigenous peoples' engagement in water planning has been negatively affected by the power imbalance between competing interests between different stakeholders (Godden and Gunther, 2010). There is a trend across Australian jurisdictions to favour consumptive (mainly agricultural) and environmental outcomes through water planning processes (Godden and Gunther, 2010). Indeed, “Governments have often allocated water entitlements with little regard or knowledge of indigenous interests” (Jackson and Langton, 2011). Distribution of these entitlements has been considered as inequitable in so far as Indigenous water entitlements represent a minimum percentage of Australian water diversions, particularly in South Eastern Australia where water resources are overallocated (Altman and Arthur, 2009).

Although both the national and federal planning frameworks provide a foundation for Indigenous involvement in water management, the insufficiency of resources to allow mechanisms that enable meaningful ways for Indigenous peoples to participate effectively in water planning (Godden and Gunther, 2010), together with the lack of institutional capacity in both Indigenous communities and agencies to “guarantee outcomes of a high standard and positive effect” (Jackson et al., 2012), have limited the extent to which Indigenous objectives are addressed in water plans. Additionally, the bureaucratic and technical nature of planning processes has constrained Indigenous participation within these processes. As a result, agencies have been less likely to respond to Indigenous requirements, and are more predisposed to favour the demands of stakeholders with well-organised representation (Ayre and Mackenzie, 2013).

Water resource planning—as well as environmental planning processes—might provide opportunities for competing visions to

be balanced; however, there is little research on mechanisms and strategies to effectively include Indigenous interests within these plans (Ayre and Mackenzie, 2013). In fact, as Jackson and Robinson (2009) point out, planning frameworks have been marked by a “lack of consistent definitions, standards, effective mechanisms, skills and know-how, agency leadership, community networks, and rigorous performance evaluation and monitoring”. This, together with an inadequate understanding of Indigenous people's objectives in water management and their decision-making processes, has diminished the potential of water plans to address Indigenous peoples' requirements (Jackson and Robinson, 2009).

Although significant progress in consultation processes with relevant Indigenous organisations has been achieved (National Water Commission, 2012), planning frameworks have failed to provide specific guidelines to explicitly involve Indigenous peoples during these processes (National Water Commission, 2012). A lack of sufficient and adequate information has also reduced opportunities for Indigenous peoples to actively engage in consultation proceedings—particularly in meetings and workshops (National Water Commission, 2012). Furthermore, although the door is somewhat open for the implementation of consultative mechanisms to ensure Indigenous participation in the preparation phase of WRPs, there is no explicit provision nor guidance for planning authorities on how to drive Indigenous engagement during the implementation, monitoring and evaluation stages of water planning processes.

Finally, the absence of the formal assessment of water planning processes across Australia, “including an absence of empirical evidence of the impact of various water reforms on rates of Indigenous participation in either economic or environmental water-based activity” (Jackson and Robinson, 2009) has prevented agencies taking appropriate measures to include Indigenous peoples' interests in water plans and water planning frameworks.

4. Guidelines for inclusion

As Jackson et al. (2012) argue, “there is much that that planners and indigenous representative groups can do to improve indigenous outcomes from water use decisions, even within statutory and policy frameworks”. Indeed, the Basin Plan (Cth) entitles the MDBA to adopt guidelines to meet Indigenous requirements in relation to basin water resources. These guidelines might help agencies across the basin jurisdiction to engage Indigenous peoples during water planning processes and to adopt specific measures to include their social, cultural, spiritual, environmental, commercial and economic interests in water planning.

On that basis, and taking into consideration the barriers that Indigenous peoples face when getting involved in water planning, as well as the importance of addressing their requirements and objectives in water planning to preserve their cultures, we propose a set of guidelines that, if adopted by basin states, will improve Indigenous engagement in water planning.

4.1. Water planning processes should be based on a participatory approach

Participation in water planning is not only a commitment to ‘environmental management responsibility’, but also an effective mechanism to acknowledge the different interests existing over water resources. The International Conference on Water and the Environment notes that

[a] participatory approach to water planning involving water planners and users involves raising awareness of the

importance of water among policy-makers and the general public. It means that decisions are taken at the lowest appropriate level, with full public consultation and involvement of users in the planning and implementation of water projects (International Conference on Water and the Environment, 1992).

Certainly, the inclusion of diverse social knowledge is an important dimension of the Australian water policy agenda (Ayre and Mackenzie, 2013). Indeed, taking into consideration the diverse interests involved in water planning might inform policy makers and governmental authorities of the main barriers to achieve an equal distribution of water resources, and the strategies to overcome inequalities and overallocation issues.

Water governance frameworks based on a participatory approach might be an effective way not only for “framing disparate social knowledges—such as Western science and Indigenous knowledge(s)” (Ayre and Mackenzie, 2013), but also to protect their natural, cultural, social and economic values and uses. In fact, participatory processes provide an opportunity for policy makers, water planners and governmental authorities to understand Indigenous interests and objectives in water. Additionally, Indigenous peoples’ participation allows them to gain a seat at the table in water allocation discussions and therefore begin to address the power imbalance existing between these communities and other stakeholders (Tan et al., 2012).

In addition, as Ayre and Mackenzie note (2013), knowledge in water planning is understood as a “reciprocal process—one that could augment Western scientific knowledge to improve environmental outcomes, whilst assisting Indigenous communities to improve their capacity to participate in and benefit from environmental management”. Therefore, a participatory approach might be helpful not only to rebalance the distribution of water across the basin, but also to improve the effectiveness of water management. Finally, Indigenous peoples’ participation might prevent potential conflicts between these communities and other stakeholders with respect to the use of water resources, because their requirements in water planning processes are more likely to be addressed in these processes.

4.2. Place participation processes in a human rights context

Participation in water planning processes must be developed under a human rights-based approach, which, according to the Office of the United Nations High Commissioner for Human Rights:

is a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights. It seeks to analyse inequalities which lie at the heart of development problems and redress discriminatory practices and unjust distributions of power that impede development progress (Office of the United Nations High Commissioner for Human Rights, 2006).

Under this approach, the international law of human rights provides a set of principles and standards—accepted by the international community—that might be useful for the formulation, implementation, monitoring and evaluation of water plans and policies. These standards might also be beneficial in enhancing the participation of historically disadvantaged groups such as Indigenous peoples by:

- Strengthening social and cultural cohesion via consensus within participatory processes;
- Including social consensus on accountability for results in planning frameworks; and
- Anchoring human rights entitlements within a framework of laws and institutions (Office of the United Nations High Commissioner for Human Rights, 2006).

According to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), Aborigines have the right to “maintain their distinct political, legal, economic, social and cultural institutions, while retaining their right to participate fully, if they so choose, in the political, economic, social and cultural life of the State” (UNDRIP, 2007, art 5). In the case of decision-making matters that would affect their rights, Aborigines also have the right to participate “through representatives chosen by themselves in accordance with their procedures” (UNDRIP, 2007, art 18). For this purpose, states shall conduct consultative processes and “co-operate in good faith” (UNDRIP, 2007, art 19) with Indigenous peoples to genuinely engage them in any processes that may affect them.

Although UNDRIP is a non-binding instrument, it aims to create a framework by which states can be guided when developing domestic laws and policies that may affect Indigenous peoples’ rights. Furthermore, as noted by the Committee on the Elimination of all Forms of Racial Discrimination (2008), UNDRIP may also be used as a guide to interpreting States’ obligations relating to Indigenous peoples. In this context, Australian states might apply certain principles of UNDRIP as a framework for determining Indigenous rights, particularly rights regarding lands and natural resources.

Furthermore, certain behaviour as a result of UNDRIP may become a binding norm of customary international law (Davis, 2008). In general, jurists agree that establishing customary obligations on states involves demonstrating two elements: “general state practice (widespread norm-conforming behaviour) and *opinio juris* (the belief by states that the practice is undertaken as an obligation of international law)” (Price, 2004). Given that UNDRIP adopts human rights standards on Indigenous peoples that have already been recognised by multiple states, some of its provisions are likely to constitute emerging customary international law on Indigenous peoples’ rights, particularly those relating to land and natural resources (Nykolaishen, 2012). Moreover, as argued by Anaya and Wiessner (2007), current state practice on Indigenous land rights may lead to the conclusion that there is already a distinct body of customary international law relating to the Indigenous right to ownership, development, control and use of the lands and natural resources they have traditionally owned or otherwise occupied.

Human rights principles not only constitute the central basis of governance, but they also work towards strengthening the capacities of right holders—specifically Aboriginal—to have genuine control over the various stages of the water planning process; that is, giving them a “seat at the table” (Jackson and Langton, 2011) in water planning processes (Office of the United Nations High Commissioner for Human Rights, 2006). This form of engagement of Indigenous people in water governance may also require that the Australian states:

- Provide resources and support for Indigenous peoples to improve their capacity to engage in participation processes, particularly consultative procedures;
- Increase transparency in water planning by providing relevant sufficient and precise information about the different features and impacts of the process;

- Create different channels for participation such as consultations, representation in water committees, etc. (Office of the United Nations High Commissioner for Human Rights, 2006).

Given the enormous challenges facing Aboriginals with respect to water access and planning, the engagement of Indigenous peoples in water allocation systems and planning processes via consultation processes is an essential instrument “in ensuring equity and guaranteeing social peace through inclusion and dialogue” (Committee of Experts on the Application of Conventions and Recommendations, 2008). Consultation processes offer spaces for discussion and knowledge exchange. These might be useful for identifying the different challenges facing Indigenous communities with respect to water access, as well as for recognising their interests in water planning frameworks. These processes might also be crucial to set out different strategies to address Indigenous requirements and to minimise the various cultural, social and environmental impacts that water allocation systems have on Aboriginals.

General principles have also been provided by the International Labour Organization Convention No. 169, as well as the Committee of Experts on the Application of Conventions and Recommendations to effectively conduct consultation processes. These standards have been considered as minimum essential criteria to carry out these processes, limit the discretion of states in their implementation and to ensure an active participation of Indigenous peoples.

Based on these principles, participatory mechanisms conducted during water planning processes should be developed in an atmosphere of trust and mutual cooperation, considering Indigenous peoples’ representatives as well as their decision-making procedures. Thus, before starting any consultative proceeding, agencies must identify and verify that Indigenous representatives are genuine and capable of speaking on behalf of their community (International Labour Organisation, 1989). Additionally, when developing the different stages and instruments of the consultative processes, authorities must be consistent with Aboriginal governance and procedural protocols—including their own understanding of time and procedures.

It is worth noting that Indigenous peoples are often governed by customary law; that is, a range of distinctive customs, spirituality, traditions, procedures and practices that guide the everyday lives of Aboriginals as well as the bulk of decisions made by the respective Indigenous authorities (United Nations General Assembly, 2010). Indigenous decision-making processes may require observance of specific timeframes and ceremonies as well as the acknowledgement of traditional authorities and historical sites. In view of this, participation processes should be conducted in accordance with the customs, traditions, timeframes and hierarchy structures of Indigenous peoples.

Consultation and participation mechanisms should also seek input for the selection of representatives and from traditional owners that truly represent their communities’ interests along the different stages of the water planning process, including implementation, monitoring and evaluation phases (Jackson et al., 2012). Additionally, agencies should seek to include Indigenous representatives within institutional structures such as catchment management organisations and committees, not only to obtain input on water resources plans, but also to assess the effectiveness of the different participation processes (Godden and Gunther, 2010).

To obtain adequate community input on water planning, Indigenous representatives should receive support and advice from agencies on the different technical and legal matters of the planning process so that they can overcome any technical and language barriers (Jackson et al., 2012). To this end, agencies must provide clear, transparent and sufficient information on water

management procedures and water allocation impacts in their own language. If required, all the relevant documentation regarding the water planning process should be translated into the Indigenous language to provide them with the necessary knowledge to engage in the planning processes (Committee of Experts on the Application of Conventions and Recommendations, 2008).

Elaboration of cultural protocols might also be an important tool to facilitate communication between agencies and Indigenous communities and to better understand their views, interests and objectives in water planning. As the Committee of Experts on the Application of Conventions and Recommendations (2008) observes:

[t]he form and content of consultation procedures and mechanisms need to allow the full expression of the viewpoints of the peoples concerned, in a timely manner and based on their full understanding of the issues involved, so that they may be able to affect the outcome and a consensus could be achieved, and be undertaken in a manner that is acceptable to all parties.

It is clear that consultation and participation are not merely formal requirements but are intended to involve Aboriginals in water planning processes that may affect their interests and values in water. Thus, the dialogue between Indigenous peoples, agencies and other participants should be conducted in a genuine way (International Labour Organization Council, 2001). Furthermore, consultation should seek a better understanding of Indigenous social, cultural, spiritual, commercial and economic interests in water, as well as their objectives and strategies relating to water management.

Although consultations do not necessarily involve the reaching of agreement or consent, decisions taken by agencies within the different stages of the process should not be arbitrary or unreasonable. Conversely, these decisions should be objective, reasonable and proportionate to the NWI requirements to include Indigenous peoples’ needs and values in planning frameworks. Additionally, when consent is not possible, agencies should adopt appropriate instruments to mitigate the impacts of water allocations and planning frameworks on Aboriginal values in regards to water, for example, by implementing buy-back programs for the Murray-Indigenous Nations.

Finally, consultations must take place before the adoption of water plans (Committee of Experts on the Application of Conventions and Recommendations, 2008). Otherwise, the participation of Indigenous peoples in planning frameworks would not be an effective mechanism to address their requirements with respect to water access or to tackle the impacts of these processes on Indigenous rights and interests.

If all of the abovementioned conditions are met, consultation processes may be an instrument of genuine dialogue as well as an essential mechanism to prevent and resolve potential conflicts. Therefore, “governments, with the participation of indigenous peoples, as a matter of priority, must establish appropriate consultation mechanisms with the representative institutions of those peoples” (Committee of Experts on the Application of Conventions and Recommendations, 2008). Furthermore, periodic assessments should be undertaken to continuously improve these mechanisms and to determine its effectiveness to:

- Engage Indigenous peoples in the different stages of the water planning process;
- Recognise Indigenous cultural, social, spiritual, commercial and economic interests, uses and values in water;
- Address Indigenous peoples’ requirements with respect to water allocations; and
- Provide strategies to achieve Indigenous objectives in water management.

Only in this way can the principle of transparency in water planning formulation processes be adequately addressed, and potential conflicts between the different stakeholders managed. In addition, when based on human rights standards, governance frameworks can explicitly help to realise human rights under the International Covenant on Civil and Political Rights and the Convention on the Elimination of Racial Discrimination, which are binding upon countries that have ratified these documents, including Australia. They include the right of minorities to enjoy their culture, religion and language and the right of all peoples to self-determination.

4.3. Recognise the various interests of Indigenous peoples in regards to water

While one of the main Aboriginal objectives for water management is to protect and restore the natural river environment (Morgan et al., 2004), the various interests in water of all Indigenous peoples cannot be entirely subsumed in environmental flows or environmental management frameworks (Godden and Gunther, 2010). Indigenous values encompass a broad range of values derived from cultural and traditional connections with land and water resources (Morgan et al., 2004). Yet, Aboriginal communities have an interest in river systems not only as a means of accessing water for social, cultural, spiritual and customary purposes but also as a way of pursuing economic self-sufficiency and social development (Behrendt and Thompson, 2004).

In North America, especially in Canada, the Supreme Court has long recognised that “Indigenous rights are not frozen in their pre-contact form and that ancestral rights may find a modern expression, such as having a commercial component” (Durette, 2010). This liberal approach is based on the premise that economic survival of Aboriginal groups often demands that these communities have enough water for irrigation, fishing and hunting (Behrendt and Thompson, 2004; Getches and Van de Wetering, 2005). In this context, participation in water markets becomes crucial to further the overall economic conditions of Aboriginal communities as it allows them to buy and sell water rights according to their specific needs (Durette, 2010).

In the Murray-Darling Basin, as Godden and Gunther (2010) observe, “there is a need for more expansive consideration of the nature of indigenous interests in water beyond the ‘traditional uses’ approach, as well as more robust articulation of the functional basis of allocation of water”. Indigenous Nations of the Murray have long asserted that one of the means of articulating their cultural, economic and environmental interests in water allocation schemes is through the identification of cultural flows (Morgan et al., 2004). That is, water entitlements of adequate quantity and good quality “to improve the spiritual, cultural, environmental, social and economic conditions of [each] Indigenous Nation” (Basin Plan (Cth) Schedule 1(31)).

Certainly, as observed by the MDBA, cultural flows might “benefit indigenous peoples in improving health, wellbeing and provides empowerment to be able to care for their country and undertake cultural activities” (Basin Plan, 2012). Moreover, recognising particular Indigenous entitlements within water planning frameworks might increase Aboriginal’s engagement in water management as it favours the inclusion of Indigenous values associated with water “within a broadening of ‘stakeholder’ interests in natural resource and environmental management” (Godden and Gunther, 2010).

Furthermore, identification and recognition of cultural flows provide certainty for those participating in water markets. In the United States, for example, the reserved rights doctrine adopted by the US Supreme Court has provided certainty regarding the

scope of indigenous water rights and therefore the amount of water to which non-indigenous are entitled (Getches and Van de Wetering, 2005). According to the reserved rights doctrine, Indigenous Americans have the right to take a sufficient amount of water to fulfil the purpose for which Indigenous reservations were established in the early history of the United States; that is, facilitating economic self-sufficiency of these tribes (Winters v United States 373 US 546 (1908)). Judicial determinations have been expanded to “confer priority of Indigenous water rights against other users” on the basis that water resources were retained by these groups in the treaties and agreements that set aside land for reservations (Durette, 2010) as well as to provide formulas for calculating Indigenous water entitlements.

Canada and New Zealand have also made progress in resolving conflicts between Indigenous peoples and other stakeholders with respect to the use of water resources. In recent years, First Nation communities and Maori have been able to negotiate specific water entitlements in settlements “without jeopardizing existing water uses” (Getches and Van de Wetering, 2005). These collaborative processes have also proven effective to recognise the role that Indigenous peoples play in water management and resource regulation.

In light of the above, moving towards greater certainty and improved protection of Indigenous water rights requires WRP to provide a water allocation for each Indigenous Nation, as a means of ensuring not only that their lifestyle and cultural values can be sustained, but also that they have access to sufficient water to develop their lands, pursue agricultural livelihoods and uphold their interests in fishing (Behrendt and Thompson, 2004; Morgan et al., 2004).² This would require not only significant progress on quantification and accounting techniques but also the implementation of cultural assessment methods facilitating the incorporation of cultural flows in allocation decisions (Jackson, 2007). Likewise, an effective and equitable allocation of water entitlements to Aboriginals might require the implementation of a water buy-back program for the Murray Indigenous Nations (Jackson and Langton, 2011) as well as the creation of an Indigenous trust fund by which Aboriginal communities can buy into water markets and improve their water infrastructure (Behrendt and Thompson, 2004).

Finally, as observed by Jackson et al. (2009), “priority attention should be given to determining Indigenous requirements in all new water plans” to meet the provisions of the NWI, the Water Act 2007 (Cth) and the Basin Plan (Cth), which aim for the inclusion of Aboriginals of the Murray–Darling Basin in water management frameworks.

4.4. Conduct cultural impact assessments within water resource assessments

Given the need to understand the different Indigenous values in water as well as the impacts that water plans may have on their social, cultural, spiritual, commercial and cultural rights, it is crucial that water authorities, together with Indigenous representatives, carry out comprehensive cultural impact assessments during the formulation stage of water resource plans (Rodríguez, 2014). These assessment techniques may be of value in providing alternative means of ensuring the inclusion of Indigenous interests in water management. Cultural assessments might also help:

- Identify Indigenous peoples’ knowledge, values, visions, objectives, and associations with specific water resources;

² The amount of water available for each Indigenous Nation in a year may vary according to “rainfall, inflows into storages and how water in storage is managed by the Basin states” (MDBA, 2016).

- Determine the effects that a water plan may have on Aboriginal culture, lands, traditions, water and sites;
- Create spaces for the discussion of water allocation decisions;
- Facilitate Indigenous participation in impact assessment and resource management;
- Formulate mechanisms to prevent, mitigate or remedy adverse impacts;
- Provide Aboriginals with comprehensive information about water plans;
- Assist agencies in the decision-making process to distribute water entitlements; and
- Obtain better cultural outcomes ([The Quality Planning Website, 2014](#)).

In order to achieve the above, cultural assessments should be grounded in the cultural beliefs, values, and practices of Indigenous communities involved in the planning process and be conducted prior to the formulation of WRPs. These assessments should also comprise information about the different methodological aspects of the planning process as to “enable explicitly the examination of flow-related issues and the identification of flows perceived by [Aboriginal communities] as satisfactory for protecting their range of cultural interests” ([Tipa and Nelson, 2012](#)). At this stage of the process, Indigenous input is essential to define Aboriginal association with rivers and determine how river flows may affect their interests. Cultural mapping is also a helpful tool for data collection regarding different water management issues. Finally, the data collected from cultural assessments should be regarded as “technical advice” on Indigenous peoples’ values in regards to water ([The Quality Planning Website, 2014](#)).

5. Conclusion

According to the national and federal provisions governing the Murray–Darling Basin water resources, Indigenous interests and objectives with regard to water access must be addressed in water planning frameworks and water allocation decisions. However, as demonstrated by the National Water Commission, these requirements have not been met, nor have the obstacles to Indigenous involvement in water plans been addressed.

Thus, there remain a number of major barriers to Indigenous involvement in water allocation decisions. Most of these barriers emerge from a lack of representation of Indigenous communities in water planning processes and the lack of adequate tools to engage in planning processes. However, there is much that policy makers, water planners and governmental authorities can do to improve Indigenous peoples’ engagement in water planning to better reflect their interests. For instance, such bodies should carefully consider the guidelines proposed in this article.

Indeed, the adoption of a participatory approach to water planning might be helpful in the effectiveness of water management, but also to rebalance the distribution of water entitlements across the basin. Additionally, consultation procedures may be an instrument of genuine dialogue and an essential mechanism to prevent and resolve potential conflicts between these communities and other stakeholders with respect to the use of water resources.

Legislation

Basin Plan 2012 (Commonwealth).
Water Act 2007 (Commonwealth).

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