The 2011 Biennial Assessment
National Water Commission
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8 January 2011

Dear Madam/Sir,

Submission on the 2011 Biennial Assessment of the National Water Initiative


Our submission draws on our research and case studies, and briefly focuses on five key issues, namely: integrated governance; more extensive water planning; integration of climate, energy and water policies; the need for more sophisticated climate change adaptation; and conservation of freshwater ecosystems. The issues we raise address a number of aspects of the objectives and questions asked in the Discussion Paper.

Our submission is predicated on our view that if the NWI was fully implemented there would be a substantial improvement in management of freshwater resources and ecosystems in Australia. However our research suggests that state and federal government implementation of NWI policies is proving inadequate as demonstrated by their failure to maintain the ecological character of Ramsar wetlands along the River Murray (Pittock et al., 2010). It is our view that further, major institutional reform is required if the NWI is to achieve its objectives.

1. Integrated governance

There is considerable Australian and international evidence that effective water policy reform requires leadership, a legal mandate, horizontal and vertical institutional integration, and independent and accountability mechanisms (Connell, 2007; Huitema and Meijerink, 2009; Hussey and Dovers, 2007; Pittock, 2009; Ross and Dovers, 2008). The NWI itself is an example of vertical
integration, and the Commission provides one largely independent accountability mechanism, however other key attributes of successful policy reform are missing.

As an intergovernmental agreement the NWI lacks a strong legal mandate required to hold the states more accountable. It is our view that the NWI’s legal mandate should be strengthened through federal legislation based on the foreign affairs power to implement Australia’s obligations under treaties to conserve wetlands and biodiversity, and respond to climate change, similarly to the Water Act (Commonwealth of Australia, 2008; Pittock et al., 2010). Stronger enforcement provisions are also required. Here Australia could learn from the European Union’s Water Framework Directive where in the worst instances of non-compliance can result in third parties or the European Commission taking member states to the European Court of Justice for enforcement (EC, 2001).

Incentives for compliance are another key element that the NWI has missed since tranche payments under the National Competition Policy ended (Connell, 2007; Pittock and Connell, 2010). Further, at the catchment scale, consistent and independent funding of a portion of the budget of management agencies is essential for leveraging adequate resources for implementation (Pittock, 2009). Consequently we recommend that the assessment consider the reintroduction of: a) national, performance-based incentive payments, and b) catchment management levies to sustain catchment management agencies.

This simple summary of a number of examples of more effective institutional reform indicates that while difficult, institutional change is possible and should be considered by Australia’s governments.

2. Water planning

In our view water planning has been a key NWI measure poorly implemented by the states, and we believe that the Federal Government should have an approval and a call in power (similar to that proposed for the Murray-Darling Basin in the Water Act) to ensure that each relevant water catchment has an adequate water management plan.

The excessive flexibility in the NWI’s section 38 is a major barrier to systematic and effective water planning and should be reviewed: “The relevant State or Territory will determine whether a plan is prepared, what area it should cover, the level of detail required, its duration or frequency of review, and the amount of resources devoted to its preparation based on an assessment of the level of development of water systems, projected future consumptive demand and the risks of not having a detailed plan.” The suspension of water plans by NSW in 2006 and Victoria in 2007, and also the lack of revision of Victorian plans before 2019 are all examples of an inadequate system (Pittock and Connell, 2010; Pittock et al., 2010).

As an example, it is most incongruous that the major river flowing through the nation’s capital – the Murrumbidgee River - is among those least well conserved by application of national policies for sustainable management of water. Problems of ad hoc management and gaps between the jurisdictions are evident in managing the river. Specifically, Snowy Hydro operates under entitlements outside mainstream water management. Environmental flows promised from Tantangara Dam under the 2002 Snowy Deed of Implementation for “Snowy Montane Rivers” have not eventuated. The recently approved Murrumbidgee to Googong water transfer will operate under ACT water legislation for environmental flows even though the ACT has no control over river flows entering the ACT from NSW tens of metres upstream of the pump station. Upstream of Burrunjuck
Dam there is no water sharing plan even though this is clearly necessary given the changing demand for water for hydropower, irrigation and urban development in this catchment. This situation does not reflect “clear and nationally-compatible characteristics for secure water access entitlements”, “transparent, statutory-based water planning”, or “statutory provision for environmental and other public benefit outcomes, and improved environmental management practices” as required under the NWI (s. 23). Section 36 of the Initiative requires that “statutory water plans will be prepared for surface water ... management units in which entitlements are issued.” This example of inadequate management should spur Australian governments to revise and enhance the NWI to eliminate loopholes and achieve more systematic water planning.

3. Integration of climate, energy and water policies

Since the establishment of the NWI in 2004 understanding of the direct impacts of climate change and of the impacts on water resources of climate change response measures has increased greatly. We consider that the NWI now needs to be revised to reflect these new understandings and ensure that the links between climate change, energy and water are actively managed (Pittock, in press; Proust, 2007; Smart and Aspinall, 2009).

Under the NWI climate change is rightly envisaged as directly impacting on water variability and supply, and responses are proposed in terms of water demand management and allocations. Previous institutional failures are being addressed, such as conjunctive management of surface and ground waters. Action to address other inflow interception activities such as farm dams and forest plantations has been proposed through regulation, extending water entitlement regimes and markets but implementation is lacking (CSIRO, 2008; MDBA, 2010; Sinclair Knight Merz et al., 2010).

These limited measures, while necessary, have two conceptual failings. First, all current assessments of these risks are based on existing policies and trends rather than the accelerated change that is inevitable with new climate change policies, for instance, estimate of inflow losses due to plantations are based on current forestry policies (CSIRO, 2008; Sinclair Knight Merz et al., 2010) and not the much larger area likely to be afforested under carbon sequestration emissions (ALP, 2010; LPA, 2010). Second, current measures fail to appreciate the inevitable emergence of new technologies and rapid expansion of threats to water resources as climate change policies alter regulatory and market incentives. Coal seam gas extraction is a prominent example. Dramatic changes in water use associated with geothermal, solar, wind and hydropower are also likely (Evans et al., 2009; Glennon and Reeves, 2010; Inhaber, 2004; Pittock, 2010), and the NWI must be revised to enable such changes in water use to be identified early and progressively, and have management measures incorporated into national water institutions. A number of policy measures to do this are currently the focus of projects under the ANU Water Initiative and will soon be published as contributions to your deliberations. It is clear that sectoral policy making by Australia’s governments is resulting in energy and climate policies that do not consider the perverse impacts on water demand, and institutional reforms are required to optimize benefits for society across these sectors. An immediate step for the NWI would be more rigorous measures to include water use in mining and energy generation in the water entitlement and pricing regimes to restrict extractions, pay for sustainable management and enable water entitlement to move to the highest value uses (Smart and Aspinall, 2009).
4. Climate change adaptation

Measures to respond to climate change impacts were considered in the NWI, but in terms of conservation of freshwater biodiversity the focus has largely been on water allocations, in particular, environmental flows. Environmental flows are essential and have been inadequate in water volumes and implementation (Pittock et al., 2010). However there is more to conservation and adaptation of freshwater ecosystems than provision of environmental flows: relying on this measure alone is highly risky and ignores a suite of complementary measures that could spread risk and greatly aid adaptation. We advocate revision of the NWI to view freshwater ecosystems on a spectrum of free-flowing to highly regulated rivers, to identify and apply different adaptation measures for the conservation and adaptation of these systems (Pittock and Finlayson, in press). A focus on conserving and restoring connectivity of freshwater ecosystems is particularly important, and should involve measures like reservation of remaining free-flowing rivers and riparian restoration programs. Further, enhanced measures to conserve refugia within freshwater ecosystems, such as gaining river reaches, should be considered in addition to large, (semi-) terminal floodplain wetlands (Pittock and Finlayson, in press).

A vital measure that should be added to the NWI is provision for periodic relicensing of all water infrastructure, similar to the US Federal Energy Regulatory Commission’s process for hydropower dams (Pittock and Hartmann, in press). As climate and hydrology change, and as the technology and use of water infrastructure evolves it is essential that these structures are reviewed periodically to ensure that they are safe, that benefits to society are optimized, and that all current safety, social and environmental measures are applied to their operations.

5. Conservation of freshwater ecosystems

One of the major failings of NWI implementation to date is measures for the conservation of freshwater ecosystems. By comparison to the terrestrial and marine biomes, Australia has comprehensively failed to categorise freshwater ecosystems, identify high conservation value sites, and implement measures for comprehensive, adequate and representative conservation of this biota (as we are obliged to do under the Convention on Biological Diversity and Ramsar Convention on Wetlands; Nevill, 2007; Pittock, 2008). Such conservation measures should be a priority in a revised NWI.

6. Conclusion

In our comments above we call on Australia’s governments to revise the National Water Initiative to: increase incentive and enforcement measures; make water planning more systematic, better integrate sectoral policies, and enhance climate change adaptation and freshwater conservation measures. It is unlikely that consensus would be reached between the federal, state and territory jurisdictions on all these measures. It is our view that the Federal Government should move beyond a lowest common denominator position on reform of the National Water Initiative. Providing incentives will be an important strategy to gain greater state compliance. We also call on the Federal Government to override objections by recalcitrant state governments where necessary. We consider that under the foreign affairs power of the constitution the Federal Government should more fully exercise its sweeping mandates to regulate for more sustainable management of water under the
conventions on climate change, biodiversity and wetlands (Pittock et al., 2010). The NWI need a stronger legislative underpinning.

Yours sincerely,

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References:


