

National water management: New reform challenges

The Academy calls on the governments of Australia to develop and commit to a new decadal strategy for national water management.

National water reform

Australia has a strong recent history of successful water reform, through policy development, implementation and institutional governance. The 1994 Council of Australian Governments Water Reform Framework, and the subsequent 2004 National Water Initiative (NWI), have driven valuable reforms from a national perspective for the past two decades.

The NWI has delivered on a shared commitment to improve Australia's water management through better security of supply, efficiency, and productivity as well as substantial environmental benefits. It has been recognised around the world as a leading-edge reform program.

Water challenges – the next decade

Now, more than ever, a strategic national approach is imperative to improving the management of our most precious resource. Water will always be scarce in Australia, and the challenges of managing it efficiently will only increase in the future. There remains significant unfinished business in water reform – much of it complex. Successfully addressing these challenges will be central to unlocking our water resources as an enabler of improved productivity, liveability, and wellbeing – particularly in our urban environments – while protecting and enhancing ecosystems and the environment.

Leadership and commitment will be essential to improve the quality and extent of water planning in Australia, independently of natural cycles of drought and flood. Development of innovative policy and identifying and addressing emerging challenges will result in greater community confidence that our water is being managed efficiently, effectively, and wisely, and that our supplies are secure.

A new, forward-looking strategic reform agenda, building on the lessons learnt through past national water reform, and with a strong appreciation of the critical role of science, technology, and engineering, will enrich all Australians through access to high-quality, secure, and affordable water resources.

The vision

The Academy envisages a future of continuing water reform and improvement in the way we manage our water resources. This vision will require leadership, cooperation, and commitment from all levels of Australian government in pursuit of a consensus on the core principles of sustainable and cost-effective water management.

Through commitment to technology, developing our knowledge base and our experience in delivering sustainable water management strategies Australia will continue to be a world leader in water reform activities and contribute significantly to global wellbeing.

Value

Water management decisions should be driven as much as possible by market forces, while being guided by good science within a framework that secures environmental sustainability and equitable access to water that is fit for purpose.

The past two decades have delivered significant economic, social, and environmental benefits. For example, securing entitlements for water holders has resulted in a marketplace where the value of these assets can be realised. The next decade will be just as crucial.

Significant returns can be expected from continued investment in the reform of Australia's water management systems. The required investments will in many cases be large and complex. Leadership in water reform accompanied by independent oversight and accountability mechanisms will ensure that maximum benefits are delivered from these investments.

Priority reform areas

A range of important areas require attention in Australia's future national water reform agenda. These include:

National reform process:

- » Re-establish national pathways to build consensus across governments for continuing water reform.
- » Continue consolidation of recent reforms.
- » Plan for the impact of a changing climate on water availability across Australia.
- » Develop a greater understanding and appreciation of water-related cultural and economic interests of Indigenous Australians.

Water science:

- » Develop a set of strategic, national priorities in water science and research to inform water reform processes.
- » Areas that would benefit from focussed research to guide water management reform include:
 - » Groundwater systems and their physical processes, particularly for the ongoing development of northern Australia.
 - » The interaction of groundwater systems with resource extraction activities.
 - » Ecological and hydrological science, specifically relating to ecological responses to changes in water regimes, to guide decision making processes for the Commonwealth Environmental Water Holder.
 - » Carrying capacity and the effects of cumulative impacts on the natural resource base for both surface water and ground water.
 - » Urban water issues, particularly improving our understanding of social aspects of water reform.

Economic issues:

- » Focus on the economic drivers of water as an enabling resource to improve national wealth and productivity, including pricing and highest-value use.
- » Develop a transparent, national framework for unencumbered trade of water resources within and between states and territories to enable free trade of water between environmental managers, irrigators, urban and rural users, subject to externality impact assessments.
- » Leverage national water reform as a competitive advantage for Australian firms competing in world markets, including the export of Australian water management skills, experience and technologies.

Planning and regulatory issues:

- » Emphasise urban water reform issues. Priority areas for urban water reform include:
 - » The role of decentralised systems and more effective third-party access regimes, capital recycling and private capital in infrastructure development and renewal.
 - » Increasing competition in the delivery of water-related services.
 - » The importance of water to liveability and relationships between urban planning and water policy, including community and stakeholder involvement in the development of local water plans.
- » Pursue improved independence in pricing determination for water utilities.
- » Develop a national approach to streamlining water management-related regulatory systems.
- » Integrate sectoral planning processes across the Water-Energy-Environment-Food nexus in urban and regional contexts, including for the development of new major infrastructure such as dams.

The way forward

A plan for the next decade of water reform must be prepared now.

The Academy calls on the governments of Australia to develop and commit to a new decadal strategy for national water management.

All levels of government need to work together to:

- » Implement new arrangements for collaboration among all governments to develop and set the agendas for national water reform, which should include:
 - » urban water
 - » national principles for water management in the mining and gas sectors
 - » national principles for water management in northern Australia
 - » national principles and guidelines for the development of new irrigation infrastructure, including dams
 - » a national strategy and priorities for water science and research
 - » national principles for the best use of environmental water
- » Implement new arrangements for the ongoing leadership, assessment and evaluation of reform progress.

Continued pursuit of the next generation of national water reform should be a whole-of-government issue for states, territories and the Commonwealth. Above all, effective auditing and feedback into the reform process is critical to its ongoing success.