

Establishing water markets in northern Australia: a study to assess feasibility and consequences of market-based mechanisms of water delivery

Water Reforms

The National Water Initiative (NWI) seeks to reform water allocation arrangements across Australia. A key element of the agenda is the creation of a new national market to trade water rights. This water market aims to achieve water use efficiency through the appropriate pricing of water.

Already the NWI has contributed to a significant expansion in water trade in south-eastern Australia. In the north however, governments have been focused on planning and have generally taken a precautionary approach to the development of water markets.

There is currently limited understanding about the social, cultural, environmental and economic implications of water reforms in northern Australia.

What's needed for water markets to work?

This project will examine the establishment and durability of water markets in tropical Australia. It will assess the ways in which current institutional arrangements may affect the introduction of water markets. Consideration will be given to transitions to water markets in presently under-allocated systems and



Mango farm (photo Ian Dixon)

the likely character and behaviour of markets in these circumstances.

The research will also examine the barriers to establishing efficient trade in water. For example, the potential of water markets is determined in part by a range of hydrological and biophysical factors. The physical characteristics of a river channel for example may limit the potential for trade to a localized area. Ways of overcoming these constraints will be proposed through an exploration of how markets may be designed to achieve the economic, ecological and socio-cultural aspirations in the tropical north of Australia.



Ord River irrigation scheme (photo: Michael Douglas)

To be effective, water reforms should also align with community attitudes and values. The project is carrying out extensive surveys to find out what people in the north know and think about the water reforms.

The stakeholder surveys will provide an unparalleled body of information on the attitudes, values and perspectives of a broad range of northern stakeholders to water management and the NWI reforms. The data will allow for comparisons to be made across jurisdictions, regions and stakeholder groups.

Indigenous entitlements to water

Indigenous people in northern Australian are among the most disadvantaged in the nation, and improvements to their socio-economic status will depend on access to, and the sustainable use of, natural resources, including water.

In seeking to understand the viability of, and potential impacts arising from, the introduction of an open trading market, attention will be given to the significant Indigenous entitlements in water which may not be permanently tradeable.

The project will assess the costs and benefits of introducing water trading to northern Australian jurisdictions according to the triple bottom line costs of equity, efficiency and effectiveness. For example, what kind of water trading framework would support equity initiatives such as improving Indigenous access and economic development aspirations? Would such a framework also further economic objectives such as water use efficiency and highest and best use of water resources?



Photo: Michael Douglas

Who is on the team?

The project supervisor is Quentin Grafton, Professor of Economics and Research Director at the Crawford School of Economics and Government at the Australian National University. Dr William Nikolakis from ANU is the project researcher.

The project is being managed through NAILSMA and an advisory committee will oversee the work. The project advisory committee has representatives from Western Australia, Northern Territory and Queensland governments as well as the Department of the Environment, Water, Heritage and the Arts and the National Water Commission

Where is the research happening?



The project is working across tropical Western Australia, the Northern Territory and Queensland.

How will this research help?

The surveys provide new insights into people's attitudes to and values about how water is managed.

The research will provide a range of information and materials for policy-makers, regulators and water users about the role of markets in managing water entitlements, including the constraints on markets and how these might be resolved.

Through the development of biophysical, social and economic conceptual models for establishing water markets or non-market alternatives matched to north Australian circumstances, the analysis will contribute to our understanding of the economic and social value of water that influence management of water allocations and entitlements through markets.

Team contacts

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