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Melbourne's research partnerships underpin our water security

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In 2007, the millennium drought was biting hard, irrigation communities were experiencing tough times and river ecosystems were in a dire state.

In response to this crisis, then prime minister John Howard announced the \$10 billion National Plan for Water Security. Addressing the National Press Club, Howard said: “The current trajectory of water use and management in Australia is not sustainable. In a protracted drought, and with the prospect of long-term climate change, we need radical and permanent change.”

This policy direction was reaffirmed a year later by a Labor government, which relabelled the plan Water for the Future and increased the budget to \$13 billion.

After 12 years, good progress has been made in delivering these water reforms. This progress includes a Basin Plan which prescribes reduced limits on water use in the Murray-Darling Basin receiving bipartisan support in the federal parliament. These new limits are being implemented by state governments in their water resource plans. A large environmental water reserve has been established and delivered using active management to target environmental water at locations and times when it is needed by the environment. Environmental responses to these changes are generally of the type and magnitude expected at this stage of the plan. Investment in modern water supply technology has resulted in large improvements in efficiency and timeliness of irrigation supply to farmers and there have been significant gains in on-farm productivity.

However, public confidence in the commitment of governments to deliver the Basin Plan successfully has been undermined by several factors. There have been compliance issues where lax monitoring and enforcement have allowed some irrigators to extract water illegally. State governments have been slow in delivering elements of the agreed plan. Superficial and at times sensationalist media stories have invoked the name

of science to justify claims of the plan’s failures.

These factors undermine water management arrangements and weaken the authority of the agencies involved. Action is being taken to restore the trust and integrity of basin water management arrangements, but this will take time.

Looking beyond these immediate implementation issues, three key challenges loom large in the Murray-Darling Basin. First, basin governments, cities, agricultural industries and regional communities need to plan for increasing climate extremes and diminished water availability including likely changes in land use, skills and technologies. Second, the grand project of restoring healthy rivers has commenced with the plan, but there is much more to be done to realise the full benefits from increased volumes of water reserved for the environment and investment in a range of complementary restoration measures. Finally, there is a long-standing need to allocate water rights to traditional owners for both cultural and economic use.

There is an urgent need to rebuild trust in our water management agencies so they can work effectively with each other and their stakeholders to address these emerging water security challenges. Partnerships between water researchers, government water agencies and water users can and should play a part in breaching the trust deficit. Water research collaborations have been a fundamental ingredient of Australia’s water reform journey over the last 30 years. They provide a test bed for new thinking and an early warning system to prepare for crises before they occur.

Australia has a history of strong national research starting in the 1980s which informed successful water reforms including those mentioned above. However, while Australia’s water research capability has been strong in the past, it has become severely fragmented with funding levels diminished to the lowest levels in 30 years. Collaborative partnerships take time and resources and they decline when funding is diminished. A new national

platform and vision for funding and co-ordinating water R&D is sorely needed.

With these challenges in mind, the University of Melbourne, La Trobe University and Sunraysia TAFE have partnered to establish the Mallee Regional Innovation Centre. Access to water research capabilities is vital in arid regions like the Mallee in Victoria’s northeast, with a high level of exposure to variations in water availability. Funded by Regional Development Victoria, the new centre provides cross-sectoral R&D capability in the region. Projects are focusing on the need for technology innovation in horticulture but with an eye to the broader challenge of planning a water-secure future for the region. A leader in place-based research linked to state and national policy institutions, the centre is a model for building basin-wide collaborations to tackle Australia’s big water policy challenges.

In 2007, when Howard announced the National Plan for Water Security, he referred to himself as a “climate-change realist”. He described this as “looking at the evidence as it emerges and responding with policies that preserve Australia’s competitiveness and play to our strengths”.

A strong culture of research-industry partnership which provides evidence for policy formation should be an important pillar of our water security. However, this will require a national effort to rebuild water R&D partnerships and the research capability to support this.

Professor Michael Stewardson
LEADER, WATER, ENVIRONMENT AND AGRICULTURE PROGRAM
DIRECTOR, MALLEE REGIONAL INNOVATION CENTRE
MEMBER OF THE ADVISORY COMMITTEE ON SOCIAL ECONOMIC AND ENVIRONMENTAL SCIENCE FOR THE MDBA
THE UNIVERSITY OF MELBOURNE