



SAVING THE MURRAY- DARLING BASIN

POLICY BRIEF - CONNOR CLARKE

EXECUTIVE SUMMARY

In common parlance, Australia has oft been characterised as 'dry and barren' landscape with 'hot wind from the desert' and 'dusty red soil plains.'^[1] It is a nation in which periods of high-water scarcity and 'zero flow days' are not only a seasonally guaranteed, but are projected to become progressively prevalent through the 21st century.^[2] This being a result of weather events such as drought and anthropogenic climatic change which will increasingly affect people's access to reliable and sustainable water resources. According to the Australian Bureau of Meteorology, this effect is already being felt in the South-East and South-West regions of Australia as they have experienced an elongated trend in the drying out of the cool season, extreme rainfall deficiencies and the recording of above average temperatures yearly.^[3]

In 2012, to combat the effects of environmental degradation, the Murray-Darling Basin Authority (MDBA) was established to address the issue of the over-allocation of water resources and return more water to the Murray-Darling Basin (MDB) River system.^[4] To this end, the MDBA has been considered a failure. Founded in a 2019 MDB Royal Commission to be practising gross maladministration and operating in a negligent and unlawful manner.^[5]

Accordingly, the goal of this policy brief is to provide recommendations for recalibrating the MDBA towards adopting a future oriented and environmentally conscious approach in its management of critical water resources. A three-stage reform process is recommended:

- 1. Implement the most recent climate change projections from the Intergovernmental Panel on Climate Change (IPCC) and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in the MDBAs Environmentally Sustainable Levels of Take (ESLT).**
- 2. Develop stricter regulations of the MDB water market.**
- 3. Adopt the Environmental Protection Authority (EPA) as an independent monitoring body.**

BACKGROUND

The MDB is the largest and most complex river system in Australia, running through the Australian Capital Territory (ACT), Queensland, New South Wales, Victoria, and South Australia covering 14 per cent of the nation.[6] It provides drinking water to over three million peoples and plays a vital role in the traditional lifestyles of the Aboriginal communities indigenous to the region.[7] It has further been recognised as an essential facet of Australia's natural biodiversity, playing host to a unique natural environment with 15 different bioregions, 419 subregions, and thousands of fragile ecosystems which provide habitats for several rare and endangered species.[8] Moreover, the MDB has been colloquially known as the 'food bowl' of the nation.[9] The MDB encompasses more than one-third of Australia's total agricultural output supporting an industry worth 22 billion Australian Dollars (AUD) annually despite only containing 20 per cent of Australia's total agricultural land and representing 62 per cent of Australia's total agricultural water consumption. [10]

To protect this critical region, the Australian Government (Government) introduced the Water Act of 2007 to provide a legislative framework ensuring that Basin water resources were managed in an integrated and sustainable manner.[11]

This act established the MDBA, which was assigned to develop a strategy with the primary objective of limiting agricultural water usage and to ensure 'an environmentally sustainable level of extraction' of ground and surface water in the region.[12] In 2012, the MDBA presented the Murray-Darling Basin Plan which was developed in partnership with the Government, the four Basin states, and the ACT to restore a sustainable level of water to the river system and simultaneously maintain the support of the agricultural industry. Several measures were implemented in order to achieve this objective such as the introduction of water markets and trade, monitoring and evaluating the effectiveness of water management, and the development of water infrastructure including dams, barrages and weirs that regulate water flows.[13]

THE PROBLEM

Despite its mandate to ensure the environmental sustainability of the MDB, the MDBA failed to consider recent scientific findings in regard to climate change and as a result, failed to set an appropriate Act according to these recent findings. [14] Specifically, the MDBA was found to be using historical climatic records from 1895–2009 rather than future modelling from the IPCC and ignoring advice from CSIRO to conform to these recent findings. Specifically, the Murray-Darling Basin Royal Commission claimed that the 'incorporation of climate change projections into the Basin Plan in any meaningful way is that the science around it — and the consequent projections — are not certain.'[15]

The MDBA further encourages an active water market in which an entity may purchase water entitlements and 'take and use water free of any restriction arising from the fact that the person acquired the water access by right of trade.'^[16] Water entitlements have remained the same despite changing climatic conditions as seen in *Figure 1*.^[17] These water entitlements are further able to be purchased by a foreign state or capital entities for future profit, or storage. Allowing for the commodification of critical resources with no restriction on how they are to be used, is a practice banned in states such as California where only farmers may own agricultural water.^[18] There is an emphasis upon removing restrictions to the free trade of water, and whilst they may state that there is a constraint on sales when the environment may be damaged, the MDBA's understanding of what would be considered as environmentally harmful is predicated on historical data over 100 years old.^[19]

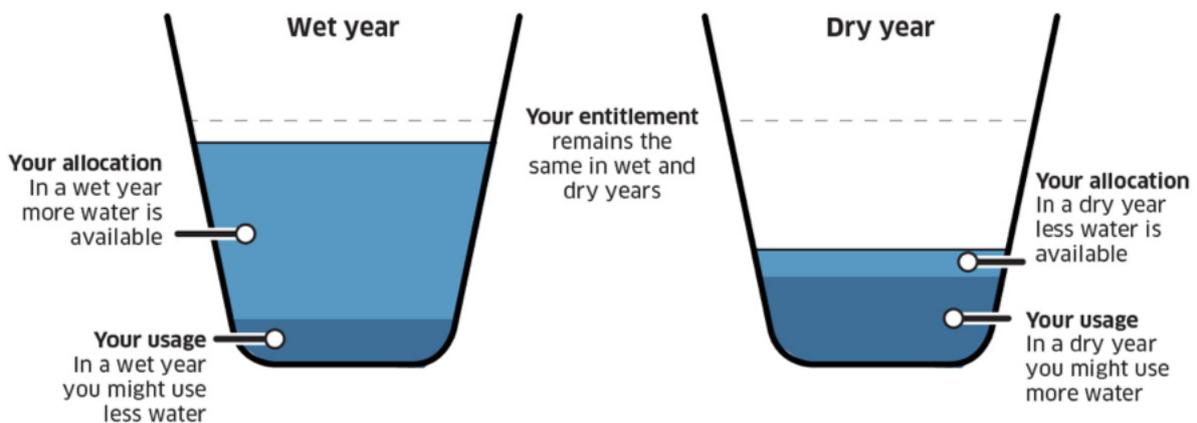


Figure 1: MBDA Water Entitlements

POLICY RECOMMENDATIONS

1

Implement the most recent climate change projections and modelling from the IPCC and CSIRO in the MDBAs ESLT and sustainable diversion limits (SDL). The SDL being the volume cap to which Basin water can be taken for consumptive use.

Without this adjustment, the MDBA is free to continue to deny the most recently available scientific climate change data which they are required to follow by law, and can continue to base ESLTs upon historical trends between 1895 and 2009.

Through re-adjusting the ESTL and SDL the MDBA will be better placed to fulfil its international obligations under the Ramsar Convention to the 16 protected sites in the MDB by way of the 'wise use of wetlands is their sustainable utilisation for the benefit of humankind in a way compatible with the maintenance of the natural properties of the ecosystem'.[20]

2

Develop stricter regulations of the water market to ensure that the usage and ownership of critical water resources are geographically and environmentally relevant.

Put in place a formal systematic procedure of control and registration on who has the right to purchase and trade water and the way in which it is used. Ensuring that environmental sustainability is not placed second to commercial wants.

Rule that for a person to have the right to buy a water allocation, they could only do so by complying with two conditions: owning basin land and putting the water to beneficial agricultural use. By beneficial use, we would refer to domestic, municipal, irrigation, power, recreation, wildlife, and fishing use.

This measure maintains the water markets but makes it illegal to purchase and trade water for investment purposes. Rule that water rights will be forfeited if they have not been utilised by the owner after a consecutive period of five years since the moment they were purchased. If this decision were to be applied, people owning water rights would be incited to put their water to use.

Place strict limitations on the square kilometre size of water intensive crops.

3

Adopt the basin state EPA's as an independent monitoring body to oversee the operation of the MDBA as a more environmentally conscious governmental body.

This recommendation is proposed as the EPA is a governmental body with transparent reporting methods, a specialty in environmental sustainability, acknowledges the risks of climate change, and has a background in the development of best practice procedures for substantial environmental projects.

The EPA is to provide an extensive review of all existing commercial and domestic water measurements, monitoring and large storage facilities ensuring that they are functional, in good working order and legal, including water pumps, water meters, large private dams and tanks, and irrigation systems.

CONCLUSION

As anthropogenic climatic change continues to cause global temperatures to rise resulting in droughts, heatwaves, storms, and unpredictable weather events, the time is now for Australia to take a serious look at how it manages its natural water resources. These resources are not only critical for the maintenance of an effective agricultural industry, but for ensuring the survival of our natural biodiversity and way of life. The recommendations that have been made are designed to reorient the current MDBA managerial architecture and improve a historically maladministered regional authority that has never been able to truly embody the environmentally-conscious ideals for which it was manifested. As the keepers and custodians of the land, it is our responsibility to ensure that the rivers continue to run and are not left dusty and barren for the sake of political and economic gain.

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