

How the Australian aquaculture sector can optimise the health and wellbeing of Aboriginal and Torres Strait Islander people

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Abstract: *Aboriginal and Torres Strait Islander people in Australia have enjoyed a long history in aquaculture since long before European arrival in 1788. There is great value in drawing upon this traditional aquaculture know-how of Aboriginal and Torres Strait Islander people in the House of Representatives' Standing Committee on Agriculture and Water Resources current inquiry into the Australian aquaculture sector. As part of this inquiry, the Committee is looking into the nature and current status of Australia's aquaculture sector, opportunities and barriers to the expansion of the aquaculture sector, including ability to access capital and investment. Invited to make a submission to this inquiry, I put forward numerous recommendations for how best to embed Aboriginal and Torres Strait Islander traditional knowledge into the aquaculture sector in order to achieve its expansion and optimise outcomes for Aboriginal and Torres Strait Islander people and communities. All recommended actions centre genuine partnership between the Federal, State and Territory Governments and Aboriginal and Torres Strait Islander people and organisations, as set out in the New National Agreement on Closing the Gap (Coalition of Peaks, 2020).*

About the author

Dr Adam Paul Heaton was awarded a PhD in education in 2014 at Charles Darwin University. The focus of his PhD was in Aboriginal Studies, with a focus on tackling racism. He has worked at numerous NGOs and Australian Government Departments in Aboriginal Affairs. Adam has published ten peer-reviewed research papers and over forty submissions into Australian Government inquiries, advocating for the rights of and better outcomes for Aboriginal people. He has authored books on his experiences building a home for orphans and empowering over 500 children and their families and communities in Africa.

The participation of and benefits to Aboriginal and Torres Strait Islander people in the aquaculture sector

For Aboriginal and Torres Strait Islander people, water is sacred and a fundamental element of spiritual, cultural, social, economic and ecological wellbeing. Aboriginal and Torres Strait Islander peoples have obligations, rights, and responsibilities to water that stem from their own traditional systems of governance. These rights are recognised under a range of Commonwealth, State and Territory laws, including Native Title Act 1993, Environment Protection and Biodiversity Conservation Act 1999, Aboriginal Heritage Act 2006 and various State Traditional Owner Settlement Acts. More so, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007) states that Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources, and to uphold their responsibilities to future generations in this regard.

The detrimental impact of climate change on river ecosystems and on Aboriginal and Torres Strait Islander people who are Traditional Custodians of Australia's waterways (Hartwig, Jackson & Osborne, 2018). Current water and aquaculture policies and plans are limited in scope in regards to protecting the rights and optimising

the aspirations of Aboriginal and Torres Strait Islander people when it comes to access, management and ownership of waterways. While there is a great deal of variability and some uncertainty in the modelling for precipitation patterns over Australia's waterways, several trends have emerged as a result of increasing temperatures, including a decline in rainfall and lower water levels, although it is expected there will be an increase in intensity of extreme rainfall and the frequency and duration of drought (MDBA, 2019). In regard to the Murray Darling Basin, changes to the hydrology of the Basin system will increase the pressures and risks for Aboriginal and Torres Strait Islander Traditional Owners rights to water, which will likely mean that the management, sharing and delivery of the Basin water resources will become significantly more complex and contested (2019, p.10). This will have a considerable impact on the water and aquaculture market and the participation of Aboriginal and Torres Strait Islander people in it.

The impacts of climate change, including extreme drought, extreme wet, flooding and bushfires, have the potential to reduce water quality and availability, and further exclude Traditional Owners and other Aboriginal and Torres Strait Islander local residents from accessing water and fully participating in the aquaculture sector. These risks need to be managed effectively as they have a significant impact on Aboriginal and Torres Strait Islander peoples' values and uses of water, and on their livelihoods. Aboriginal and Torres Strait Islander community groups have expressed concern that loss of access to water, and water that is not of an adequate quantity and quality. This contributes to a loss of culture and connection to Country (Victorian Government Department of Environment, Land, Water and Planning [DELWP], 2019). Strengthening connection to Country and ensuring the transmission of knowledge to younger generations requires Traditional Owners and other local Aboriginal and Torres Strait Islander people to manage waterways and its food sources in culturally appropriate ways.

Water quality and supply as well as aquatic food sources are put at risk as a result of the impacts of climate change. The United Nations' Sustainable Development Goal for water identifies that access to waterways is a major determinant of health and wellbeing for Indigenous people and communities (United Nations, 2021). Aboriginal and Torres Strait Islander traditional ecological knowledge must be integrated into water planning, management and decision making within the context of the impact of climate change. This can and must include empowering local Aboriginal and Torres Strait Islander people, particularly Traditional Owners, to spearhead climate change research and the development and implementation of climate change mitigation and adaptation policies in the water and aquaculture market. A significant component of this research and implementation of policies must comprise monitoring and evaluating risks to water quantity and quality with regard to how the mitigation and management of these risks will impact the interests, rights and wellbeing — economic and health wise — of local Aboriginal and Torres Strait Islander people. These actions must be adequately funded and take place in partnership between Federal, State, Territory and Local Governments and Aboriginal and Torres Strait Islander community representatives and organisations. Numerous examples from across the nation demonstrate the importance of the respectful integration of Aboriginal and Torres Strait Islander traditional ecological knowledge alongside Western (European) knowledge in natural resource management for achieving positive environmental and sustainability outcomes (Bohensky, E., Butler, J., and Davies, J., 2013). It is essential to embed this traditional ecological knowledge in the monitoring of aquatic ecosystems to achieve optimal aquaculture outcomes (Weir, 2011). Genuine and ongoing partnerships that respectfully integrate Aboriginal and Torres Strait Islander traditional ecological knowledge should be central to environmental water decision making and management.

There is a significant need for greater numbers of Aboriginal and Torres Strait Islander Environmental Health Workers (EHWs), as well as workers and business enterprises in the aquaculture sector, who would assist with identifying problems and solutions in terms of the water quantity and quality and its impact of fauna and flora. The employment of Aboriginal and Torres Strait Islander EHWs and workers and enterprises in the aquaculture sector would also bolster employment for people in these communities, and can be achieved through a greater fiscal investment from Federal, State, Territory and Local Governments in education, training, employment and business opportunities of Aboriginal and Torres Strait Islander people in the water and aquaculture market,

including on Country. The creation of these in education, training, employment and business opportunities must be co-produced with Aboriginal and Torres Strait Islander community representatives and organisations.

The legacy and ongoing impact of colonisation, including the persistence of racism, discrepancies in life outcomes and the lack of participation of Aboriginal and Torres Strait Islander people in the development of policies that affect them (Heaton 2019), further compound the impacts of climate change on the aquaculture sector. Many Aboriginal and Torres Strait Islander people who ordinarily rely on water provided by waterways and the flora and fauna they sustain face particularly difficult challenges pertaining to environmental health and income opportunities. Consideration of Traditional Owner rights and the principle of self-determination, requires a clear acknowledgement of the history of dispossession of Aboriginal and Torres Strait Islander from land and water through the violence of colonisation (Marshall, 2017; Heaton, 2019). Marshall (2017) identifies that the affects of dispossession have been further compounded recently when water was separated from land ownership through entitlement rights under Australia's water reforms outlined in the 2004 National Water Initiative. Providing opportunities for Traditional Owners to participate in the water and aquaculture market is just one way to begin to address continued dispossession and exclusion of Aboriginal and Torres Strait Islander people from the water and aquaculture market. As the Senate Select Committee on the Multi-Jurisdictional Management and Execution of the Murray Darling Basin Plan has identified, there are significant barriers to entry including inconsistencies in compliance with trading rules, and accurate pricing information (Commonwealth of Australia, 2020). Opportunities for Traditional Owner participation in the water market and development of strategies to enable this must be identified in partnership between Federal and relevant State Governments Aboriginal and Torres Strait Islander community representatives and organisations.

Aboriginal and Torres Strait Islander peoples' rights and responsibilities to water and aquaculture, and particularly that of Traditional Owners, encompasses broad and varied spiritual, social, economic, and environmental values, thus a holistic approach to water and aquaculture management and use is required (Weir, 2011). When Traditional Owners are enabled to exercise genuine management and decision-making rights over environmental water, there is significant potential for more holistic cultural, social and economic outcomes through the restoration of healthy waterway ecosystems. Aboriginal and Torres Strait Islander ecological knowledge must be embedded in water planning, management and decision making, including in Water Resource Plans, for the health and wellbeing of their communities and the entire nation.

Conclusion and recommendations

While there are numerous ad hoc examples of successful partnerships with Aboriginal and Torres Strait Islander community representatives and organisations and the Federal and State Governments in the delivery of environmental water, there is no clear aquaculture sector-wide strategy to ensure that participation and decision-making of Aboriginal and Torres Strait Islander community representatives and organisations is consistent. Through genuine and ongoing partnership between Australian, State and Territory Governments and Aboriginal and Torres Strait Islander community representatives and organisations that aligns with the new National Partnership Agreement in Closing the Gap, the health and wellbeing of Aboriginal and Torres Strait Islander people will be optimised through the aquaculture sector. To see real, lasting and needed change, it is imperative that through such genuine and ongoing partnership we see:

1. issues pertaining to access, management, and ownership of water for Aboriginal and Torres Strait Islander people be improved;
2. Aboriginal and Torres Strait Islander traditional ecological knowledge be integrated into water planning, management and decision making in the aquaculture sector;
3. local Aboriginal and Torres Strait Islander people, particularly Traditional Owners, lead research and policy development of the aquaculture sector, including in regards to the impact and mitigation of climate change;

4. allocate additional and ongoing funding to build capacity and resourcing to enable local Aboriginal and Torres Strait Islander people and organisations, including Traditional Owner groups, to fully participate in the aquaculture sector, to fulfil their spiritual, cultural, environmental and economic needs;
5. water quantity and quality be monitored with specific regard to mitigating risks to the interests and rights of local Aboriginal and Torres Strait Islander people and Traditional Owners;
6. embed Aboriginal and Torres Strait Islander ecological knowledge in aquaculture management and decision-making; and
7. greater education, training, employment and business opportunities in the aquaculture sector be extended to Aboriginal and Torres Strait Islander people, including on Country.

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