

# INVESTIGATING THE CHALLENGES OF WATER GOVERNANCE IN OCEANIA

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## Introduction

The Pacific Islands, Australia and New Zealand are surrounded by water, but not the kind that is required for drinking and sanitation, agriculture, industry and a range of other land-based economic, social and cultural purposes. Freshwater in Oceania is variably distributed and not always accessible in the places and volumes required for human and ecological needs and desires (White et al., 2012). Moreover, there are management issues in many areas, due to conflicting values and understandings about how water should be used and managed, and whose rights it should be to do so—for example, the Government, landholders (indigenous or non-indigenous), private businesses or even a river itself, as is the case for the Whanganui River in New Zealand. These issues have led to a range of water conflicts and present part of the reason why deciding on water policies and management plans, as well as implementing them, is such a challenge in some parts of Oceania (White and Falkland, 2015). This paper reports on the preliminary findings of an international cooperation 'Fonds Pacifique' funded project on water governance in Oceania that seeks to understand water and land management conflicts and develop some learning exchanges and participatory tools to start to transform them.

## Method

The project took a transdisciplinary and participatory approach to the research, drawing on skills and methods from project participants across disciplines including political science, hydrology, sociology, anthropology, law and the management sciences. Multiple methods of data collection were used including document analysis, interviews, workshops and ethnographies in the field. Project analyses and exchanges between members were based on a comparative case study approach, supported by common protocols and frameworks for analysis which themselves were collectively developed. Each major case study leader and their research teams then developed their own activities with these protocols in mind to allow ex-post evaluation and analysis of key target issues. As the project developed and grew, further minor case studies were added where more general water governance information was collected and presented, but specific on-ground participatory activities were not enacted as part of the project.

## Case study processes and results

The three major case studies of the water governance project focussed on the VKP region of New Caledonia, the Mardoowarra (Fitzroy River) in the Kimberly region of Western Australia and Tarawa in the Republic of Kiribati. All were carried out in collaboration with local water management authorities and/or traditional owners of the area. They each set out to support an investigation of the local water

governance, politics and conflicts, through a lens of practical interest to the local partners (Table 1).

**Table 1** Comparison of Main case study contexts, processes and outcomes

	Mardoowarra, Australia	VKP, New Caledonia	Tarawa, Kiribati,
Regional area (km <sup>2</sup> )	94,000 km <sup>2</sup>	1533 km <sup>2</sup>	500km <sup>2</sup>
Population	7000	12952 (RGP 2014)	56284 (Wikipedia, 2010)
Focal issue(s) for water governance related to land-water conflict/tensions	Energy development, environmental protection for eco- and cultural economies (e.g. tourism), agricultural development; Government proposed closure of Aboriginal communities	Mining (nickel production), agriculture and local indigenous subsistence economies	Access to groundwater, quality and quantity of available water (from all sources), equity of distribution, system losses, climate variability/change
Identified challenge for the project	Working towards a collective vision of regional futures, considering significant tensions (including between government/business and community values)	Understanding stakeholder views on water management and how these could inform more participatory forms of water planning	Understanding how, when what, and how much of different sources of water are used in Betio, Tarawa, due to a lack of knowledge available for management and improving health outcomes.
Key project processes/outcomes	Preliminary stakeholder consultation followed by a stakeholder workshop on water stewardship and Kimberley water futures. This work built on previous research projects and films on river management in the region.	Interviews and ethnography on local views on water; development of a participatory role-playing game and planning process using the CoOPLAaGE/Wat-A-Game toolkit with the Local Water Management Committee and other stakeholders	Preliminary knowledge sharing and relationship development with PUB; co-development of a role-playing game to enhance communication and knowledge sharing between water users and PUB; anthropological investigation of water-animal-human relationships.
Priority actions for moving towards a desirable future (future needs identified through the project)	Developing community resource mapping capabilities; integrating key cultural elements into the Water Stewardship Framework; community development of alternative economies	Development of a drought planning process and stakeholder engagement process around dam development	Roll-out of the game for supporting community engagement in Island water management; integration into island education programs and PUB practice.

The project also had an important component of knowledge exchange and comparison, which took place through a range of participatory workshops and meetings between project partners in Canberra, Auckland, Montpellier, Broome, Noumea and Fiji. At some of these meetings, further cases of water governance, such as from the Solomon Islands, Fiji, Tonga, Samoa and Vanuatu were discussed with the potential for larger collaborative projects and thematic gaps identified.

### Discussion and conclusions

The results have demonstrated that despite small gains in some regions of the Pacific into improving water governance systems and knowledge on their functioning, there remains an enormous task to meet the sustainable development goals for water (<https://sustainabledevelopment.un.org/sdg6>) across Oceania, which will require much greater coordinated action across water-related stakeholders, including between the Francophone and Anglophone parts of Oceania.

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