

WISE – Watershed Interventions for Society and Environment

Centre for People, Place & Planet Research Impact Case Study

Creating a healthier, sustainable future for communities and the environment through innovative watershed research and collaboration

The Centre for People, Place and Planet (CPPP) is addressing contemporary challenges in watershed systems, which are vital for safe drinking water, flood and drought mitigation, biodiversity conservation, and food production. The *Watershed Interventions for Society and Environment* (WISE) program showcases the centre's commitment to improving public and ecosystem health through participatory knowledge coproduction and action-oriented research.

PROGRAM HIGHLIGHTS

- 1. Watershed Interventions for Systems Health Fiji: A collaborative effort between Australian and Fijian universities, international and Fijian governmental organisations, and funded by multiple high-profile organizations. The project continues to identify risks to public and ecosystem health in five watersheds in Fiji and has led to national policy impact and capacity building for systems health.
- Gnangara Groundwater Watershed Research: Funded by the Western Australian Department of Water and Environmental Regulation, researchers developed and applied procedures to monitor Perth's wetland systems. The project has informed water resource management decisions and influenced both local and international policy processes.

RESEARCH IMPACT AND PATHWAY

CPPP's WISE program has made significant strides in creating tangible change as the following:

- 1. *National policy impact in Fiji and Australia*: Establishment of a cross-sectoral National Drinking Water Quality Committee in Fiji, piloting new approaches to community-scale consent, and implementing Water and Sanitation Safety Plans in 29 vulnerable communities.
- 2. Capacity building for systems health: Training of village water committees, community members, and various government and university staff, leading to increased female representation, village health worker involvement, and community-led interventions.
- 3. *Improved wetlands monitoring*: Influencing the monitoring methods used for wetlands in Western Australia, establishing a baseline for future measurements, and informing water resource management decisions.
- 4. Facilitating cross-sectoral engagement: Bringing agencies together and fostering a cooperative approach, enabling communities to take ownership of the processes that involve them and building stronger networks.
- 5. *Global synthesis*: Leading the Watersheds agenda internationally, publishing research in prominent journals, and convening a special collection on Watersheds and Health in the PLOS Water journal.

FUTURE RESEARCH DIRECTIONS

The Centre's watershed research continues to expand, with new projects underway:

- 1. *Intergenerational cultural transfer of Indigenous knowledges*: An Australian Research Council project combining Indigenous and Western science to inform Australian policy on environmental change.
- 2. The PEAT project: A five-year collaboration focused on studying and conserving vital peatland ecosystems in catchments of the Walpole Wilderness Area, emphasizing community engagement and global attention to the value of these threatened ecosystems.
- 3. WISH+: Implementing integrated watershed management in Fiji, Solomon Islands, and Papua New Guinea to improve biodiversity, climate resilience, and human health, while developing financial vehicles and effective public policy for sustainable development.
- 4. The Centre's expertise in fire and water has attracted Government partners to help manage Western Australia's water resources. In collaboration with the Water Corporation, CPPP researchers have embarked on a 4-year program to measure the impacts of fire on water quality for Perth's watershed reservoirs in the northern jarrah forests.

By addressing the complex challenges in watershed systems, the Centre is paving the way for a better world, focusing on innovative research and collaboration to create healthier, more sustainable futures for communities and the environment.

ACKNOWLEDGEMENTS

WISH Fiji is funded by the Australian Government's Department of Foreign Affairs and Trade through its Indo-Pacific Centre for Health Security, and a grant from Bloomberg Philanthropies' Vibrant Oceans Initiative to the Wildlife Conservation Society. It has additionally been supported with complementary funding from two Grand Challenges Exploration grants from the Bill & Melinda Gates Foundation. The wetlands monitoring program has been funded by the Department of Water and Environmental Regulation (and its predecessors continuously for the period 1996-2023). The Intergenerational cultural transfer of Indigenous knowledges project is funded the Australian Research Council and led by Professors Anne Poelina and Sandra Wooltorton from Nulungu Institute, Notre Dame University, Broome. The Impacts of Fire on Water Quality project is substantially funded by the Water Corporation. The PEAT project is funded with a significant grant from The Ian Potter Foundation (\$1.4m).