

eWater Ltd Submission to the JCFADT Inquiry into

Australia activating greater trade and investment with Pacific island countries

Key messages

- Water is critical for industry, livelihoods and the health of Pacific Islanders.
- The Pacific regions is falling behind on the Sustainable Development Goals and especially SDG 6: Water and Sanitation for All.
- Inadequate water supply and sanitation will undermine the capacity of Pacific Islanders to sustain investments and achieve sustainable development and trade.
- Water security varies between islands in the region and is also under threat from climate change.
- High priority should be given to assessing water resources and improving water resource management.
- Australia is well placed to assist in collaboration with regional organisations such as the Pacific Water and Wastewater Association.
- Australia should grow its investments and trade in water-related goods and services in the Pacific and help lay the foundations for sustainable economic development.

eWater Ltd is a not-for-profit company jointly established and owned by Australian Federal and State governments to maintain and further develop Australia's world-class water modelling tools, and to provide support and training for nationwide and international application. eWater shares the commitment outlined in the Government's 2017 Foreign Policy White Paper to provide "support for a secure, stable, prosperous and resilient Indo-Pacific"

Water critical to improved investment and trade in the Pacific

2. Climate induced water scarcity threatens to undermine economic development in many regions of the world, including in the Pacific. Rising sea level and storm surges from the more intense and more frequent cyclones are causing increased saltwater intrusion into the freshwater lenses that provide drinking water to the remote low lying coral atoll islands.

3. In the volcanic island nations, especially in Melanesia, informal urban settlements and isolated communities often have inadequate water supply and sanitation, leaving people vulnerable to drought and to water borne diseases. In some islands, increased storm surges are causing people to move away from the coast where water and sanitation services are available. With the result that increased investment is needed to relocate services to areas higher on the island where people are relocating their homes.

4. Most industries depend on water either for growing produce or for processing and manufacturing. A reliable and sustainable water supply is critical to maintaining production.

5. A recent World Bank study showed that water scarcity is a drag on the global economy to the tune of 1 per cent or more of global GDP and predicted to rise as high as 6 per cent for some regions by 2050.

Climate Change: 'single greatest threat to livelihoods' in the Pacific

6. Climate change is one of the 21st century's most pervasive global threats to development, peace and security. Climate change impacts primarily through the water cycle and is a threat multiplier for water security. The rising demand for food, energy and water (the water-food-energy nexus) will be compounded by climate change, straining resources and potentially contributing to conflict and displacement.

7. The recent World Economic Forum Global Risks Report states "Failure of climate change mitigation and adaption" is the number one risk by impact and number two by likelihood over the next 10 years.

8. UN Secretary General, Antonio Guterras observed on World Water Day in 2018:

"By 2050, at least one in four people will live in a country where the lack of fresh water will be chronic or recurrent. He further noted that: 40% of the world's people are affected by water scarcity; 80% of wastewater is discharged untreated into the environment; and more than 90% of disasters are water-related. More than two billion people lack access to safe water and more than 4.5 billion people lack adequate sanitation services".

9. The Asia-Pacific region bears the brunt of weather-related disasters, with more frequent events and greater numbers of people killed and affected than any other continent. UNESCAP, in its 2019 Asia-Pacific Disaster Report, states that since 1970, 2 million people have been killed in disasters in the region, 59 percent of the global death toll and annual economic losses are estimated at \$675 billion.

10. Pacific island countries face the highest disaster risk, in per capita terms, globally, according to the Asian Development Bank (ADB). Most Pacific countries are located along the cyclone belt and are either on or near the tectonic boundary between the Australian and Pacific plates, which expose them to catastrophic events such as earthquakes and cyclones. They are also vulnerable to tsunamis and storm surges generated offshore (ADB 2018)

11. At the 2018 Pacific Islands Forum, leaders (and Australia's Foreign Minister) signed the Boe Declaration and affirmed that "climate change remains the single greatest threat to the livelihoods, security and wellbeing of the peoples of the Pacific". Pacific Island countries are disproportionately affected by climate change even though they only account for approximately 0.4 percent of global greenhouse gas emissions.

Improving water management necessary for sustainable development

12. **Water** is critical to life - integral to all social, economic and environmental activities. Water underpins food production, electricity generation, livelihoods, life in cities and human health. SDG 6 targets water and sanitation for all, but water is critical to achieve all the SDGs. More than half the world's population now live in cities increasing the demand for

urban water and sanitation. In the Pacific, urbanisation is leading to large informal settlements around the major cities. The people living in these informal settlements commonly have little or no access to safe water and sanitation, and the city utilities are often reluctant to supply water and sanitation services as the land may be customary land, meaning the squatters have no rights to live on the land.

13. Expanding access to clean water and basic sanitation services is fundamental to reducing poverty. Under-investment in water infrastructure can have very serious health and social implications and impede economic development. The impact of poor water and sanitation services falls disproportionately on women who bear responsibility for all household water and sanitation related tasks such as cleaning, cooking, washing, caring for children and the sick. As a result, women are also commonly locked out of contributing to economic development in the village and in the broader society. Water supply and sanitation services, including wastewater treatment, are fundamentally linked to quality of life and development prospects in developing countries.

14. The 2017 Joint Monitoring Program data indicates that only half of the population (52% in 2017) in the Pacific used improved drinking water sources, whereas one third (31%) used improved sanitation, with very little progress over the past 25 years. At this rate, achieving the SDG 2030 Agenda for water and sanitation will require a substantial boost in resources from both government and development partners alike as well as new sector policies and service delivery practices.

15. In 2017, the Asian Development Bank (ADB) assessed that Pacific countries require infrastructure investments of USD3.1 billion per year to 2030 to meet their needs. The World Bank has estimated USD130 million is needed every year to 2030 for PNG's water and sanitation infrastructure alone.

Water technology offers Australia an opportunity to expand trading relations

16. Australia's drought and flooding rains provide intense water security challenges. In overcoming them, Australia has built significant capability and expertise. From efficient irrigation, a transparent water allocation system, drought mitigation measures, capping water diversions, allocating environmental water flows, to urban water and sanitation reforms, Australia has become an internationally recognised leader in water policy and management.

17. Australia's water problems are not solved; clearly challenges remain in managing the water in the Murray Darling Basin. But many countries facing serious water shortages are interested to learn from Australia's experience and to use the tools and technologies developed over the past 30 years. Australia developed a new approach built on leading science, innovative technology and proven water management tools to achieve sustainable and efficient water use.

18. Australia is well placed to assist improved water management in the region and could significantly diversify its trading relationships through a focus on water related goods and services. eWater can assist with higher level water assessments, determining water supply and demand in rivers and regions that can enable national water planning and management

of the available resources. Such assessments are critical to ensure supply for agriculture, industry, communities and for sanitation. The Pacific is keen to learn from Australia's water management skills and experience and the example of the Pacific Water and Wastewater Association is discussed below.

Capacity building is a prior and urgent necessity for sustainable investments in water

19. UN Water 2020 has noted climate finance for water resource management and sanitation supports community climate resilience, job creation at the local level and helps to improve sustainable development outcomes. Barriers to increased access to climate finance, such as lack of capacity and lack of institutional coordination, must be urgently addressed

20. The **PACER Plus** agreement includes water supply as one of the five areas of agreement and 'draws on provisions in international investment agreements to encourage the creation of a stable and predictable environment for investment subject to national policy objectives.' Australia and New Zealand have committed to provide capacity building and training to assist the Pacific island countries to adapt and improve regulations to support, and potentially deepen, investment linkages.

21. The **Australia Infrastructure Finance Facility for the Pacific** (AIFFP) will offer a focus on: development impact; maintenance and whole-of-life asset management including pre-project preparation; use and upskilling of local labour and project management capability; high technical quality of capital works; consideration of environmental and social safeguards; climate resilience; operational transparency; and, complementary long-term assistance for policy reform and capacity building. (DFAT website)

22. eWater welcomes these statements in support of capacity building and whole of life maintenance for water related investments but questions whether resources are being made available to ensure their implementation. As manager of the Australian Water Partnership on behalf of DFAT, eWater is aware of the efforts of the **Pacific Water and Wastewater Association (PWWA)** to prepare their 30 member utilities from 21 Pacific countries for increased investment in water and sanitation in the region and to build the planning and management capacity of staff in their member utilities.

Barriers to trade and investment in water in the Pacific

23. In 2016, Australian Water Partnership began supporting PWWA to transform PWWA from a volunteer-based organisation to full-time, professional management with a new governance structure and a five-year Strategic Plan. Over the past 3 years, PWWA in collaboration with Hunter H2O (NSW) has conducted training programs for Board members of utilities in the region, organised Young Water Professional (YWP) training programs to build the capacity of young professionals in water and wastewater utilities across the region during its annual conferences. In 2019, The Minister for International Development and the Pacific (MIDP), The Hon Alex Hawke MP attended the Pacific Water Minister's Forum in Port Vila hosted by PWWA.

24. As the regional association for 30 water and sanitation utilities in 21 countries across the Pacific, PWWA is committed to helping its members achieve SDG 6. PWWA has partnered with the Asian Development Bank and the World Bank to produce a regular Benchmarking Report assessing and analysing the performance to understand the issues that each of the member utilities face and strengthen their ability to maintain their life supporting services.

25. The following constraints have been identified by the PWWA through various studies and the benchmarking studies:

- Insufficient or weak political will and government support.
- Insufficient institutional capacity.
- Environmental constraints, including high vulnerability to natural disasters, climate variability and sea level rise issues.

26. A key challenge that faces all Pacific water utilities is the challenge of working in isolated situations. This is where the PWWA provides such a valuable network of professional support and encouragement.

27. In 2019, on the invitation to AWP by the then MIDP, Senator Rushton, PWWA submitted a Regional Capacity Development for the Pacific Water Sector. The proposal was again submitted to The Hon Alex Hawke MP prior to his attendance at the Pacific Water Ministers Forum and he acknowledged the valuable role of the PWWA and its Young Water Professionals program. But to date, DFAT has not been able to find funds to enable the capacity building program to commence.

28. PWWA leaders met with the AIFFP team and were told that capacity building would only be in conjunction with specific loan projects. The barrier that all Pacific utilities face is the lack of capacity to prepare the detailed project documents for a loan request and then to implement the project if a loan is forthcoming. A budget is often not available for operation and maintenance yet is crucial to the sustainability of the project. Strengthened capacity is needed early, not just as a possible add on to a larger loan. The sustainability of urgent investments in the water sector depends on the capacity of the isolated utilities in the Pacific Islands.

29. PWWA provides a well-established pathway, recognized by all Water Ministers in the Pacific, for capacity building for water and sanitation utilities across the region. It is committed to achieving SDG 6 and has the support of its member utilities to strengthen the capacity of the utilities to enable greater investments in water and sanitation/wastewater. It needs financial support to expand its capacity building program for its members to achieve to goal of SDG6.

Conclusion

30. The water sector in the Pacific requires large scale investment to improve the health and wellbeing of Pacific Islanders and to provide the foundation for economic growth. Australia is well placed to increase its investment and trade in the water sector. Australia has well established links into the water sector. To activate these opportunities, eWater recommends early priority be given to providing grant assistance to strengthen the PWWA

capacity building program for Pacific utilities to enable the utilities to prepare large scale investment projects for AIFFP and other donors. Priority assistance is also needed to strengthen maintenance programs for both existing infrastructure and new infrastructure to ensure sustainability for new investments.

Who is eWater?

eWater Ltd is a not-for-profit company jointly established and owned by Australian Federal and State governments to maintain and further develop Australia's world-class water modelling tools, and to provide support and training for nationwide and international application.

Managing water to find the balance in allocations between agriculture, industry and growing urban centres while protecting our unique environment is an ongoing activity for governments, and hydrological models remain a vital tool, particularly when it comes to predictions of the future. Following two decades of scientific research to develop a next generation set of tools for water management, Federal and State governments agreed to apply, maintain and further develop these unique tools through eWater Ltd.

eWater provides modelling tools, technical support, capacity building and a community of practice in:

- Integrated catchment management
- Water resource planning
- River system management and operations
- Stormwater quality modelling
- Urban water management
- Planning environmental water use
- Water management governance

eWater has developed close working relations with DFAT, the World Bank, Asian Development Bank, the Mekong River Commission and established partnerships with a range of government water authorities in India, Laos, Cambodia, Pakistan, Afghanistan, China and Egypt.

In 2015, eWater Ltd was selected by DFAT to establish and manage the Australian Water Partnership (AWP). The 2017 Foreign Policy White Paper names AWP as the vehicle to share Australia's water sector expertise internationally through requests for assistance from the Indo-Pacific region. The unique partnership approach of the AWP results in a collaborative initiative that can quickly respond to critical needs, delivering positive development outcomes and diplomatic successes. The AWP has over 200 Australian partners, many from the private sector, that work with many governments and multilateral partners to enhance sustainable water management in the Indo-Pacific region.

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