



Funded PhD Opportunity: Identifying tidal restoration opportunities in the Pacific to increase coastal ecosystem services and resilience



Coastal ecosystems and the communities that directly rely upon the ecosystem services they provide are in a state of urgent vulnerability due to anthropogenic and environmental pressures. The clearing of coastal ecosystems, including mangroves, for alternate land uses has significantly reduced their ecosystem services output. Furthermore, the alternate land use, commonly agriculture, is exacerbating the degradation of coastal ecosystems with excess nutrient runoff and erosion. Climate change is also intensifying the impact on remaining coastal environments through extreme storm events and rising sea levels, with the Pacific Island Nations and Territories among the most vulnerable. Immediate and significant conservation action is required to maintain the extent and function of coastal ecosystems to ensure the protection and sustainability of Pacific Island coastal communities.

Tidal restoration offers a solution to maintaining the health and function of coastal ecosystems. Tidal restoration, which removes tidal barriers and reintroduces tidal flows, promotes the establishment of intertidal habitats, including mangroves, mudflats, and tidal marshes. These restored habitats increase biodiversity, provide breeding zones for wildlife, reduce erosion, improve water quality, and offset the effects of climate change by storing carbon and attenuating waves. These benefits have flow-on effects, increasing the health of other coastal ecosystems, including coral reefs and seagrass meadows.

The University of New South Wales (UNSW) and the University of South Pacific (USP) are embarking on a significant collaborative project called [Project Halophyte](#). We are not just seeking PhD candidates, but potential team members who will play a pivotal role in this endeavour, undertaking research activities that guide restoration activities and outcomes within the South Pacific. This project is not just about research but about making a real difference in the lives of coastal communities and the environment, and your contribution could be instrumental in achieving this.

The successful candidate will have the opportunity to contribute to a groundbreaking research project and enhance their research and communication skills by engaging with a diverse, international research team. We are particularly interested in candidates with a background in environmental engineering, ecology, Earth science, or related fields who are passionate about using science-based approaches to enhance our understanding of coastal and estuarine systems and processes. This project also offers a unique chance to enhance or develop a range of skills, including geospatial analytics, fieldwork assessments, and laboratory tests, which could be a valuable addition to your academic and professional profile.

Opportunity to enrol in a [Cotutelle PhD](#) with both UNSW and USP is available as part of Project Halophyte and considered on a case-by-case basis with each applicant, with a PhD degree awarded by both UNSW and USP upon completion of the PhD. The successful domestic or international candidate will be eligible to receive a Research Scholarship for 3.5 years funded and a potential top-up scholarship is available for exceptional candidates. Domestic applicants will need to be competitive for an Australian Government Research Training Program (RTP) Fees Offset Scholarship to cover tuition fees. A successful international candidate will need to satisfy the requirements for a Research Training Program Fee offset or Tuition Fee Scholarship. Please see <https://research.unsw.edu.au/higher-degree-research-programs> for information on your eligibility, competitiveness and PhD entry requirements.

If you have further inquiries or want to express interest in the project, please contact Brad Henderson (b.henderson@unsw.edu.au) or Prof Will Glamore (w.glamore@wrl.unsw.edu.au).