



PROJECT
HALO

Nature-based solutions for resilient communities

November 2025
Impact Report



Behind the name

Mangroves are a type of halophyte — a salt-loving plant that grows where land meets the sea. The name Project Halo reflects both this origin and the idea of mangrove ecosystems as a living green halo encircling the Earth, protecting coastlines and sustaining life.

Cover image: Project Halo PhD candidate Giulia Fiantanese beside a mangrove tree in abandoned farmland behind tidal barriers in Rakiraki, Fiji. The isolated tree indicates the site's potential for mangrove restoration. It is now a target area for Project Halo.

Contents

- > 4 Message from the Vice-Chancellor & President, UNSW Sydney
- > 5 Message from the Acting Deputy Vice-Chancellor, Research & Innovation, The University of the South Pacific
- > 6 Message from the Permanent Secretary, Ministry of Environment and Climate Change, Fiji
- > 7 Building a resilient future for the Pacific and beyond
- > 8 Who we are
- > 8 Key achievements
- > 10 Advancing partnerships for lasting impact
- > 12 Empowering future leaders
- > 14 Research driving global change
- > 16 Project Halo on the world stage
- > 18 Community engagement in action
- > 19 Next steps



From the Vice-Chancellor & President, UNSW Sydney

The generous collaborative support of The University of the South Pacific, the Pacific Community (SPC), UNESCO, the Fijian Government and Swire Shipping has helped launch one of the most significant nature-based initiatives in the Pacific. Now in its second year, Project Halo has assembled an impressive team and drawn engagement across academia, government, NGOs and international agencies.

Thanks to your vision and commitment to long-term impact, Project Halo is positioned to restore degraded landscapes and revitalise lives and livelihoods in partnership with communities in Fiji. The project's holistic approach – combining engineering, science and community-led action – has attracted the trust and endorsement of local and international stakeholders, with momentum growing every day. As a pilot for the Pacific, it demonstrates the power of research and innovation, combined

with local insights, to deliver the kind of transformative shift needed to accelerate progress towards United Nations SDGs and global carbon targets.

What sets Project Halo apart is its ability to drive progress on every front: empowering individuals with new skills and opportunities, equipping communities to face the realities of climate change, and supporting an entire region to take charge of its environmental and economic future. The ripple effects – ecological, social and generational – will extend far beyond Fiji's shores.

This is precisely the kind of impact UNSW Sydney's new strategic vision, *Progress for All*, is built to advance. It is our University-wide commitment to ensuring the benefits of knowledge, innovation and global partnership are shared widely – and that progress uplifts everyone, especially where it is needed most.

This report is a testament to what can be achieved through collaboration, vision and trust. It offers a snapshot of early progress – and a powerful glimpse into the future we are building together.

Thank you for standing with us in this mission. We are deeply honoured to partner with you in shaping a more sustainable, equitable and resilient future for the Pacific and beyond.

Professor Attila Brungs
Vice-Chancellor & President, UNSW Sydney



From the Acting Deputy Vice-Chancellor, Research & Innovation, The University of the South Pacific

Education and research are among the most powerful tools for driving meaningful change. When we equip the next generation of scholars with the skills, experience and vision to tackle pressing environmental issues, we lay the foundation for stronger systems and better outcomes. This is precisely the spirit that guides Project Halo.

At The University of the South Pacific, we are deeply committed to advancing research that delivers direct benefits for our region. In early 2025, four exceptional USP PhD scholars joined the Project Halo team. Through a cotutelle degree, they gain the advantage of joint supervision and recognition by USP and UNSW, drawing on the combined expertise, networks and resources of both institutions. Through strategic investment in their training and development, USP is nurturing the next generation of leaders in ecosystem-based adaptation and climate resilience. These scholars are being equipped to collaborate across disciplines and with UNSW, and engage with the complex, interlinked challenges facing our region. Their work and integration with the UNSW PhD candidates and team is already beginning to highlight how restoration, when combined with innovation, can generate practical solutions while building long-term capacity and sustainability for our communities.

Research of this kind is not abstract – it directly improves systems, practices and outcomes. By linking scientific evidence with community engagement, Project

Halo demonstrates the power of research to move beyond theory and create meaningful, lasting change.

Our partnership with UNSW strengthens this mission. As Australia is an integral part of Oceania, this alliance underscores the importance of working together across the region to shape a more sustainable future. By combining USP's deep regional knowledge with UNSW's research strengths, we are creating a model of collaboration that can inform solutions well beyond the Pacific.

I extend my sincere thanks to the Fijian Government and all our partners, especially Swire Shipping, for their steadfast belief in Project Halo. It is this union of vision, research and community that will help secure a prosperous future for our Blue Pacific continent.

Professor Gurmeet Singh
Acting Deputy Vice-Chancellor, Research & Innovation, The University of the South Pacific





From the Permanent Secretary, Ministry of Environment and Climate Change, Fiji

Project Halo is a bold and timely example of how nature-based solutions can address the pressing challenges of climate change and biodiversity loss. By aligning scientific expertise with local knowledge, Project Halo will demonstrate that ecosystem-based adaptation is not only effective, but also sustainable – delivering tangible outcomes such as strengthened coastlines, healthier ecosystems and communities more resilient to climate shocks.

For Fiji, these outcomes are not abstract. Climate change is an everyday reality: rising seas, stronger storms and eroding coasts continue to disrupt lives and economies. In this context, mangrove forests are among our most valuable natural assets. They shield our communities from climate impacts, sustain fisheries, sequester carbon and uphold traditional livelihoods. Their restoration is therefore central to protecting both our ecosystems and our people.

This project is also a testament to collaboration. Government, academia, international partners, industry and communities have come together in common cause. Crucially, it is community-driven solutions that ensure these efforts take root and endure – empowering local people as custodians of their environment. Just as the interwoven roots of the mangrove anchor the shoreline, our collective and grounded actions provide strength and stability for the future.

By piloting this initiative in Fiji, we affirm our role as a leader in advancing innovative climate action. The lessons forged here will extend across the Pacific and beyond, providing pathways for adaptation for vulnerable nations worldwide.

I express my deep appreciation to UNSW, The University of the South Pacific, Project Halo partners and Swire Shipping for their ongoing dedication to transforming research into real impact on-ground. Together, we are proving that science and community can work hand-in-hand to safeguard our future.

Dr Sivendra Michael
Permanent Secretary, Ministry of Environment
and Climate Change, Fiji



Building a resilient future for the Pacific and beyond

Mangrove forests are among the most vital ecosystems on Earth. They shield coastlines from storm surges, sequester carbon far more efficiently than terrestrial forests and sustain biodiversity that underpins food security for millions. Yet they are disappearing at alarming rates: cleared for development, degraded by pollution and increasingly threatened by rising seas. Nowhere are these pressures felt more acutely than in the Pacific. Fiji, at the frontline of climate change, relies on mangroves to safeguard shores, support livelihoods and preserve cultural and ecological heritage.

In response to these urgent challenges, Project Halo was born: a collaborative vision to protect coastlines, empower communities and inspire lasting change. The partnership between UNSW Sydney, The University of the South Pacific, SPC, UNESCO, the Fijian Government and Swire Shipping leverages global expertise and local knowledge.

Project Halo stands out for its:



Integration of tidal research to guide restoration strategies to secure long-term mangrove success and reverse the high failure rates of mangrove planting efforts.



Development of innovative MICI (Mangrove Integrated Coastal Infrastructure) pontoons that adapt to changing tidal conditions.



Collaborative approach, engaging multilateral organisations and local partners on-ground to deliver effective, sustainable restoration in line with the Fijian Government's priorities and ambitions.



Emphasis on positive societal impact through empowering local communities, strengthening livelihoods and embedding cultural knowledge in restoration practices.

As a pilot for the Pacific, Project Halo is poised to transform Fiji's coastlines and communities, while providing a blueprint for other island nations seeking sustainable, science-led pathways to climate security.



“The high ambition of the Pacific to address climate change is something we must listen to and support with research and nature-based innovation if we're to make meaningful change for the future.”

Associate Professor Andrew Dansie, UNSW Sydney

Who we are

Project Halo brings together a passionate and highly skilled team of researchers. United by a shared vision for ecological restoration and resilience, this diverse team combines world-class expertise with deep local knowledge.

Since its inception 18 months ago, the team has grown rapidly. Alongside the eight PhD candidates supported by Swire Shipping's foundational gift (four from The University of the South Pacific; four from UNSW), new PhD candidates have joined the project, supported by additional research funding beyond Project Halo's initial scope. Together, these emerging and established researchers are creating solutions that will strengthen coastal stability for decades to come.

Partnership is integral to Project Halo. The PhD candidates at both universities undertake cotutelle degrees, earning doctorates from both institutions through integrated and collaborative research.



Associate Professor Andrew Dansie
Project Halo Co-Lead
UNSW Sydney



Professor William Glamore
Project Halo Co-Lead
UNSW Sydney



Dr Isoa Korovulavula
Project Halo Co-Lead
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Dr Laura Montano
Associate Lecturer,
Societal Impact Lead
UNSW Sydney



Dr Francis Mani
Researcher
The University of the South Pacific



Muzammil Ali
PhD Candidate
The University of the South Pacific



Sarah Wells
PhD Candidate
UNSW Sydney



Dr Brad Henderson
Research Associate,
Tidal Restoration Lead
UNSW Sydney



Dr Hilda Waqa-Sakiti
Researcher
The University of the South Pacific



Salote Nasalo
PhD Candidate
The University of the South Pacific



Josh Wilkinson
PhD Candidate
UNSW Sydney



Dr Dana Tothova
Research Associate,
MICI Lead
UNSW Sydney



Dr Rajesh Prasad
Researcher
The University of the South Pacific



Jimmy Kereseke
PhD Candidate
The University of the South Pacific



Emma Handley
PhD Candidate
UNSW Sydney



Professor M Rafiuddin Ahmed
Researcher
The University of the South Pacific



Professor Daniel Robinson
Researcher
UNSW Sydney



Jasma Devi
PhD Candidate
The University of the South Pacific



Janani Priyanka
PhD Candidate
UNSW Sydney



Associate Professor Antoine de Ramon N'Yeurt
Researcher
The University of the South Pacific



Dr Tom Dunlop
Researcher
UNSW Sydney



Giulia Fiantanese
PhD Candidate
UNSW Sydney



Dana Lanceman
PhD Candidate
UNSW Sydney

Key achievements

May 2024

Project Halo's inception meeting in Suva, Fiji, marked the official launch of the Pacific mangrove restoration initiative.

Feb-Nov 2024

Two UNSW undergraduate Engineering students completed honours theses on MICI design and mooring innovations.

Nov 2024

A comprehensive desktop assessment of satellite imagery and elevation data yielded 22 potential sites for tidal restoration in Fiji.

Dec 2024

UNSW and USP researchers met with Fijian NGOs and multilateral organisations in Suva to discuss tidal restoration and local priorities. Six potential sites were shortlisted.

Feb 2025

Four PhD scholars from USP and two from UNSW commenced their studies, strengthening research capacity across institutions.

April 2025

UNSW researchers conducted fieldwork in Fiji to record baseline mangrove elevation data and strengthen ties with local NGOs and communities.

The USP team visited UNSW to tour facilities and observe successful tidal restoration projects.

Jun 2025

The first floating MICI prototype was deployed at Manly Lagoon, NSW.

Aug 2025

Two tidal restoration sites in Viti Levu were prioritised based on land tenure and lease expiry dates.

Strong interest from the Ministry of iTaukei Affairs paved the way for permits allowing contact with local stakeholders, a key step towards community engagement.

Sep 2025

The Provincial Administrator and District Officer in Ba, Viti Levu, endorsed the project, facilitating permits and offering guidance to contact local stakeholders.

Oct 2025

The Ministry of Lands endorsed the tidal restoration approach and began formalising approval for community engagement.

'Talanoa' sessions held with the Provincial Administrator, District Officers and Roko Tui (chiefs) in Ba, Viti Levu, helped identify community champions.

Advancing partnerships for lasting impact

Project Halo's broad-scale approach to mangrove restoration is the first of its kind in Fiji, and substantial effort has gone into briefing and aligning all stakeholders on the concept – from local landholders and NGOs to national ministries, research institutions and multilateral organisations. This deliberate, inclusive approach is critical to the project's long-term success: laying the groundwork for mangrove restoration that delivers enduring environmental, social and economic benefits across Fiji and the wider Pacific. This has resulted in a collaborative approach across government, NGOs and local agencies.

The next step is engaging local communities through the proper processes, ensuring every stakeholder is fully engaged and supportive, then translating this alignment into action on the ground.



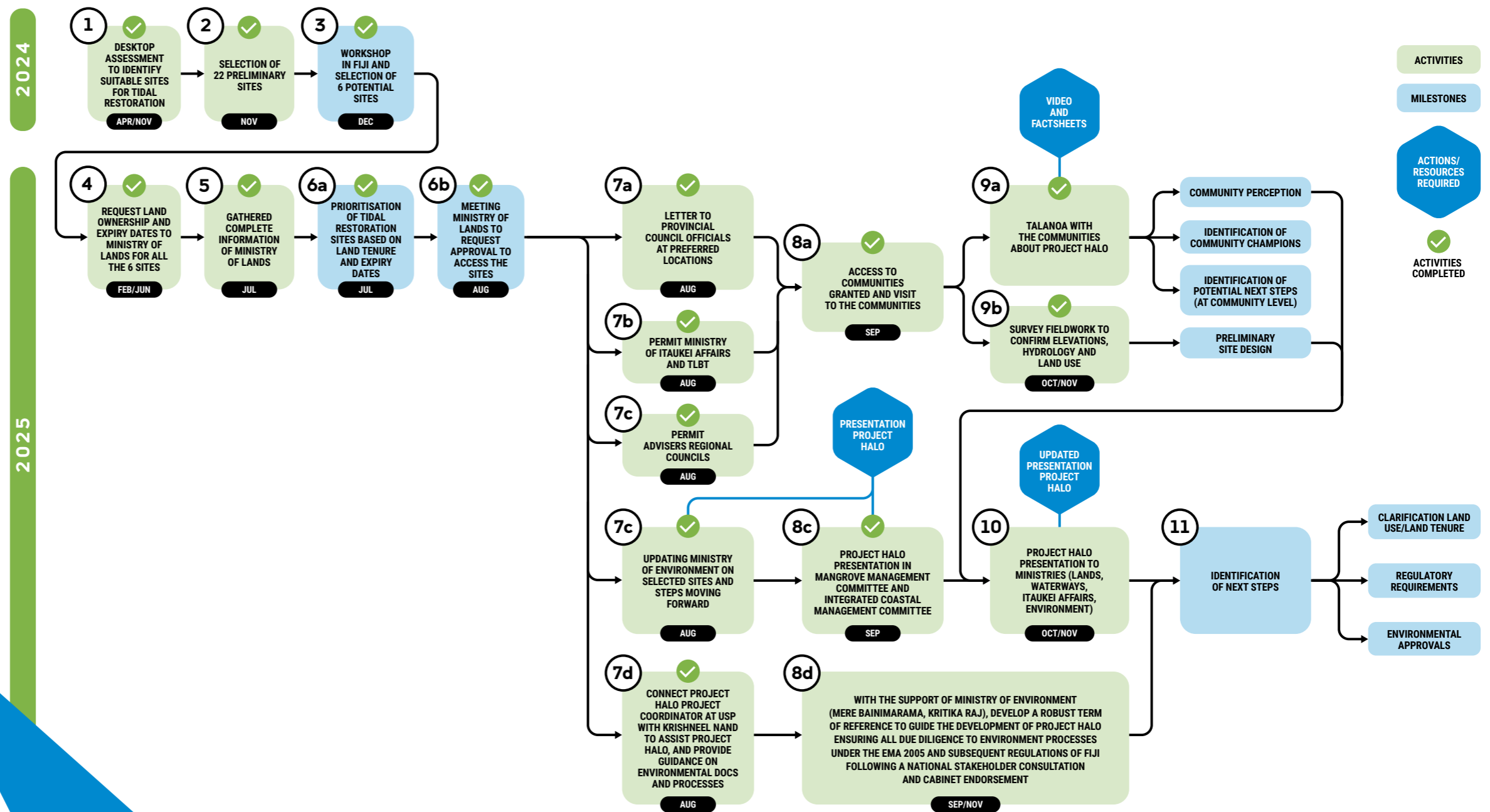
“Collaboration is a major part of our research. Creating solutions together ensures long-term project success.”

Professor William Glamore, UNSW Sydney

Key stakeholders engaged so far

- UNSW Sydney
- The University of the South Pacific
- Ministry of Environment and Climate Change, Fiji
- Ministry of Lands and Mineral Resources, Fiji
- iTaukei Land Trust Board (TLTB)
- Office of the Prime Minister, Fiji
- Swire Shipping
- The Pacific Community (SPC)
- UNESCO
- International Union for Conservation of Nature (IUCN)
- Conservation International
- Locally Managed Marine Area Network International (LMMA)
- Secretariat of the Pacific Regional Environment Programme (SPREP)
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
- MACBLUE
- NatureFiji-MareqetiViti
- BirdLife International

Roadmap to restoration



Empowering future leaders

The six PhD candidates who joined the Project Halo team in February 2025 are tackling mangrove restoration from every angle: ecology, engineering, policy and community. Together, they are turning research into real-world solutions that protect coasts, empower communities and build climate security across the Pacific.



Salote Nasalo

The University of the South Pacific

Salote holds a Master of Science in Climate Change from The University of the South Pacific. Her PhD research focuses on Fiji's two dominant mangrove species, helping to identify the best conditions for restoration and long-term coastal resilience.

"Mangroves are deeply personal to me: they represent both my roots and my future. My grand-aunt PuSera used to spend long days in the mangrove swamps catching crabs to feed our family. I joined her once as a child and saw how hard she worked, knee-deep in mud for hours. That experience stayed with me. Studying mangroves is my way of honouring her sacrifices and giving back to the communities that depend on them. I want to inspire the next generation of scientists, especially women, to see that conservation is not just about protecting the environment, but our heritage and way of life."



Jimmy Kereseka

The University of the South Pacific

Originally from the Solomon Islands, Jimmy holds a Master of Science in Conservation and International Wildlife Trade from the University of Kent, and a Postgraduate Diploma in Climate Change from USP. His PhD research examines mangrove composition and attributes and the associated ecosystem services they provide, to develop baseline indicators that guide restoration, strengthen climate adaptation planning and improve long-term ecosystem monitoring.

"I grew up surrounded by mangroves – our natural supermarket – where families gathered food, medicine and building materials. Through Project Halo, I aim to bridge science and community practice by combining field data with local knowledge to guide restoration. We need to protect our mangroves as we would our supermarket: care for them, and they will continue to provide for generations to come."



Jasma Devi

The University of the South Pacific

Raised in a sugarcane farming family deeply connected to land and sea, Jasma brings a unique perspective to mangrove conservation and community wellbeing. With a background in resource economics and teaching, she also holds a Master of Science in Climate Change from USP. Her PhD research focuses on assessing the socio-economic impacts of mangrove restoration, and developing valuation and indicator frameworks to guide sustainable livelihoods, policy and climate resilience in Fiji.

"Mangroves are more than trees – they're the living link between people, land and sea. Through Project Halo, I hope to show how blending traditional knowledge with scientific research can empower communities to restore mangroves, protect our coasts, and honour the *vanua* – the deep connection between nature and culture in Fiji."



Muzammil Ali

The University of the South Pacific

Muzammil has a background in mechanical engineering and holds a Master of Engineering from USP. His PhD research focuses on developing innovative floating mangrove pontoons to expand mangrove coverage and protect Fiji's coasts.

"I'm developing floating mangrove pontoons to restore coastlines where conventional planting isn't possible. These pontoons can expand mangrove coverage, protect communities from erosion and flooding, and strengthen biodiversity. Being part of Project Halo allows me to combine engineering and ecology, turning ideas into solutions that help people and nature thrive together. Mangroves shield our coasts, store carbon, support biodiversity and sustain livelihoods. Protecting and restoring them means safeguarding our future."



Sarah Wells

UNSW Sydney

Sarah's PhD research investigates how hydrodynamics shape mangrove habitats on the open coast. With a background in physics and offshore renewable energy, she aims to guide restoration and predict future mangrove distributions under climate change.

"The more we learn about mangroves, the more we understand their deep interconnectedness with surrounding ecosystems. In Fiji, coral reefs protect mangrove forests from waves and create conditions for them to thrive. In return, mangroves enhance the resilience and productivity of reef systems. In this way, Project Halo is creating cascading, mutual benefits that strengthen entire coastal ecosystems. Through my research, I hope to understand how hydrodynamic processes shape mangrove distribution and highlight the role of connectivity in sustaining these environments."



Josh Wilkinson

UNSW Sydney

Josh's PhD research explores the social and policy dimensions of coastal restoration, focusing on how Fiji's climate policies can support cultural, social and economic benefits that advance progress towards sustainable development goals. Through Project Halo, he's examining how restoration projects can empower communities and enhance wellbeing while also aligning with national policy – demonstrating that sustainable development and climate action can go hand-in-hand.

"Mangrove ecosystems offer much more than environmental benefits – they also provide communities with important cultural, social and economic value. The Pacific region is a high-ambition coalition when it comes to acting on climate change, so there is a lot to learn from the policies and frameworks driving that action."

Research driving global change

World-first floating mangrove pontoons

Project Halo's vision for large-scale floating mangrove ecosystems has taken major steps forward in the past year. For the first time worldwide, innovative MICI pontoon systems were developed, constructed and deployed in both Australia and Fiji. Prototypes were tested in the wave flumes at the Water Research Laboratory, UNSW, to trial key design parameters such as pontoon depth, planting media and pontoon form. Three pontoon systems are now being monitored to track growth outcomes and better understand mangrove lifecycle needs.

Insights from these Australian trials informed the refinement of pontoons deployed in Walu Bay, Suva, where more than 200 mangrove seedlings are now growing in each system. A further six sites have been shortlisted for full-scale deployment in Fiji. Field assessments and consultations with landowners will assist in refining the designs and supporting community partnerships for local implementation.

This research and implementation is supported by Associate Professor Andrew Dansie, Professor William Glamore, Dr Isoa Korovulavula, Professor M Rafiuddin Ahmed, Dr Benno Boer (UNESCO) and Associate Professor Antoine de Ramon N'Yeurt. Pontoon research is led by Dr Dana Tothova, with contributions from PhD candidates Muzammil Ali and Emma Handley. Experiments by Dr Brad Henderson and Salote Nasalo are expanding ecological knowledge to refine this nature-based solution.

PhD candidates Sarah Wells and Giulia Fiantanese, and researcher Dr Dana Tothova, deploying a mangrove pontoon trial near UNSW's Water Research Laboratory.



Envisioning a mangrove walkway in Sydney

The test deployments of the MICI pontoons have sparked wider interest in Australia. A proposed memorandum of understanding between Project Halo and the Royal Botanic Garden Sydney could see a large floating mangrove walkway linking the Sydney Opera House and the museum district via the Botanic Garden – a landmark example of nature-based adaptation that tackles sea-level rise and seawall failure in Sydney's world-famous harbour. The concept has already received strong support from the Sydney Harbour Roundtable, which includes government representatives responsible for approvals and funding. This exciting proposal has the potential to continue Project Halo's vision beyond its current timeline.

Artist's impression of the proposed floating mangrove pontoon walkway alongside the Royal Botanic Garden Sydney.



Restoring tidal flow for natural regeneration

Major progress has also been made on Project Halo's mangrove restoration strategy – the first broad-scale tidal restoration initiative of its kind in Fiji. Rather than manually planting mangroves, the project focuses on reinstating natural hydrological processes so that mangroves can regenerate organically.

Following extensive engagement with government and NGO partners, Project Halo's approach has gained strong national support, with the Fijian Government requesting to be formally recognised on all communications. This is an exciting time, with substantial on-ground and research advancements underway.

Six potential restoration sites have now been prioritised for onsite planning and design. These include Raviravi, Rakiraki,

Wailevu River (West), Wailevu River (East), Labasa Central and Wainikoro River. Raviravi has been identified as a high-potential site for successful tidal restoration, and the formal support of the Ministry of Lands and Mineral Resources is currently being finalised. Once approved, onsite field investigations, design and the community engagement program will commence. Land approvals are also being progressed for Rakiraki, with field programs to commence thereafter.

This research and implementation is supported by Dr Isoa Korovulavula, Professor William Glamore, Associate Professor Andrew Dansie, Dr Hilda Waqa-Sakiti, Dr Francis Mani, Dr Rajesh Prasad and Dr Tom Dunlop, with contributions from the Pacific Community (SPC) staff, including Dr Amit Singh. Mangrove restoration research is led by Dr Brad Henderson, with contributions from Salote Nasalo, Jimmy Kereseke, Sarah Wells, Giulia Fiantanese, Janani Priyanka and Emma Handley.



For us in the Pacific, mangroves are one of most critical socio-ecological bulwarks and a key source of our sustainability.”

Dr Isoa Korovulavula,
The University of the South Pacific



Mangroves growing on abandoned farmland in Raviravi, identified as a potential site for restoration.



Project Halo on the world stage



Far left: Professor William Glamore, Dr Isoa Korovulavula and Associate Professor Andrew Dansie at World Water Week, Stockholm.
Middle: Associate Professor Andrew Dansie, Senivasa Waqairamasi (Director of Climate Change, Ministry of Environment and Climate Change, Fiji) and other panellists at the UN Summit of the Future, NYC.
Right: Michael Gebauer (Swire Shipping, Apia), Alex Patterson (Swire Shipping, Pacific Islands Regional Manager), Jimmy Hilly (UNSW) and Jeremy Sutton (Swire Shipping CEO) at CHOGM in Apia, Samoa.

The Project Halo team has leveraged international conferences and forums to elevate its research, foster collaborations and highlight the transformative potential of mangrove restoration in the Pacific.

Here are the highlights from more than a year of international collaboration and outreach.



June 2024

Times Higher Education Congress Roundtable, Bangkok, Thailand

UNSW Associate Professor Andrew Dansie attended the roundtable, which explored environmental economics and the valuation of ecosystem services. This positioned Project Halo within broader discussions on sustainable development goals and climate resilience.



September 2024

International Union for Conservation of Nature (IUCN) Oceania Regional Forum, Suva, Fiji

Associate Professor Andrew Dansie engaged with Conservation International, SPREP, IUCN's Commission on Ecosystem Management and other stakeholders to identify key knowledge gaps, sources of information and actionable strategies for mangrove restoration.



September 2024

UN Summit of the Future, New York City, USA

UNSW co-hosted a side event on sea-level rise, providing a platform to showcase Project Halo's alignment with sustainable development goal #17 – "Strengthen the means of implementation and revitalise the global partnership for sustainable development" – and its potential for scalable impact across the Pacific. Associate Professor Andrew Dansie presented alongside Fiji's Director of Climate Change, Ministry of Environment and Climate Change, Senivasa Waqairamasi, highlighting the project's nature-based approach that integrates research with community knowledge, while also addressing the growing urgency for climate action.



October 2024

Commonwealth Heads of Government Meeting, Apia, Samoa

Swire Shipping invited Project Halo to co-host a booth that presented the project's methodologies and mangrove restoration plans. At the very first CHOGM held in a Pacific small-island developing state, the display drew the attention of global leaders.



June 2025

41st International Association for Hydro-Environment Engineering and Research (IAHR) World Congress, Singapore

Project Halo researchers presented the conceptual MICI design and its deployment at Manly Lagoon, generating engagement and questions from the international hydraulic and coastal engineering community on mangrove restoration and ecosystem services.



August 2025

World Water Week, Stockholm, Sweden

At the world's leading conference on water challenges, Associate Professor Andrew Dansie and Dr Isoa Korovulavula, Director of USP's Institute of Applied Sciences, shared insights into Project Halo's innovative nature-based solutions. They highlighted how a large-scale mangrove rejuvenation methodology developed in Australia is being applied in Fiji and collaboratively tailored to a Pacific context.



September 2025

STEMtastic Adventures! with Young Pacific Leaders, Fiji

USP PhD candidates Jasma Devi and Salote Nasalo represented Project Halo at this symposium that attracted policymakers, youth, educators and innovators from across the Pacific. They demonstrated how the project is blending traditional knowledge and science to create impactful and locally relevant solutions for Pacific communities.

Community engagement in action

Community connection remains central to Project Halo's mission. Over the past year, the social science and education team has expanded outreach and training, bridging scientific knowledge with local practice and laying the groundwork for community-led restoration.

With permissions secured from relevant Fijian Government departments and local agencies, the team is now focused on partnering with communities to drive mangrove restoration projects. Led by Dr Laura Montano, with support from Associate Professor Andrew Dansie, Dr Isoa Korovolavula, Professor William Glamore, Associate Professor Antoine de Ramon N'Yeurt and Professor Daniel Robinson, alongside PhD candidates in Fiji and Australia, the team's interdisciplinary research spans community science, national adaptation planning and blue carbon policy – ensuring Project Halo's innovations deliver both ecological and societal impact.

Other community-focused initiatives are also underway:

Mangrove planting with church group: In August 2025, USP PhD candidate Salote Nasalo partnered with the Rotuma Methodist Church Choir of Flagstaff, Suva, for an environmental awareness initiative. Twenty-eight participants between the ages of 2 and 84 helped pot 560 mangrove propagules collected from natural stands. The seedlings were placed in the plant nursery behind USP's School of Marine Studies laboratory, providing participants with hands-on restoration experience while building environmental knowledge and stewardship across generations.

Workshop and community outreach in Suva: In October 2025, in partnership with Swire Shipping Fiji, Dr Laura Montano and Dr Brad Henderson ran a workshop, along with the USP PhD candidates, for tourism corporations and NGOs, and a STEM booth for school students, with the support of a Climate Literacy Impact Grant and Swire Shipping. The demonstrations used two interactive models: a tidal restoration table that showed how floodplain drainage, tidal gates and sea-level rise interact; and a mangrove ecosystem services mini-wave flume. More than 20 tourist agencies and NGO representatives took part in the workshop, and 82 schools and 10,500 students visited the booth over three days.



PhD candidate Salote Nasalo leading a mangrove restoration workshop with tourism representatives in Suva.

Next steps

The third year of Project Halo (March 2026–March 2027) is on track as the planned year of onsite methodology implementation. Stakeholder mapping and local engagement have built a cohesive and supportive network of government, NGO and academic partners collaborating with land leaseholders and local communities.

The Project Halo team will progress landholder agreements and government approvals for detailed design and implementation at tidal restoration and MICI sites. Importantly, Project Halo involves no change in lease ownership: current leaseholders retain their land and instead use it for mangrove rejuvenation, reversing the current state of salinised, unfarmed land that emits greenhouse gases. Preliminary field data collected in October 2025 confirms the suitability of the proposed sites for tidal restoration behind failing seawalls.



The project's next steps include:

Measuring impact: Begin intensive site field investigations to capture before and after data on greenhouse gas emissions, biodiversity, geomorphological processes, ecological assembly and societal factors.

Supporting future leaders: Equip Project Halo scholars to integrate best practice from both Fijian knowledge and Australian methodologies during the data-collection phase of their PhD research, while fostering career growth through conference presentations and technical training.

Securing approvals: Develop detailed infrastructure and earthworks design plans at selected sites to obtain approval for tidal restoration, then commence field testing of full-size MICI pontoons in Fiji.

Blue carbon accreditation planning: Engage with the Fijian Government to align potential blue carbon credits and markets with the national priorities outlined in the National Development Plan.

Strengthening partnerships: Continue engagement with Fijian Ministries, government departments and local offices to ensure national priority alignment. Maintain open communication with communities and local partners who are granting Project Halo access to their lands.



Every restored mangrove tells a story of resilience – of people and nature working together to heal and protect what we value most.”

Salote Nasalo

PhD candidate, The University of the South Pacific

Acknowledgement of Country

UNSW respectfully acknowledges the Bidjigal, Biripai, Dharug, Gadigal, Gumbaynggirr, Ngunnawal and Wiradjuri peoples, on whose unceded lands we are privileged to learn, teach and work. We honour the Elders of these Nations, as well as broader Nations that we walk together with, past and present, and acknowledge their ongoing connection to culture, community and Country.

For more information, please contact:

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