



## Women in fisheries profiles

### Mary Tahu Paia

*My roots trace back to Marovo Lagoon in the western Solomon Islands, with a part of my heritage linked to the Gilbertese community in Wagina, Choiseul Province. These communities rely heavily on marine resources, particularly mangroves and seaweed farming, for their livelihoods.*

#### Background

My name is Mary Tahu Paia, and I was born in the town of Gizo in the Western Province of Solomon Islands. I am the eldest of three siblings, including my late brother and sister. My deep concern for the protection of mangroves and my passion for preserving these vital ecosystems led me to become the first Doctor of Philosophy (PhD) Graduate in Environmental Science at the Solomon Islands National University (SINU). Graduating with this degree in August 2024 marked not only an historic achievement for me personally, but also a significant milestone for SINU. My dissertation research – titled “How mangroves support climate change adaptation in Solomon Islands: Applying perspectives from science and indigenous knowledge” – reflects my commitment to bridging natural science with indigenous knowledge while working closely with local communities.

Before joining SINU, I served as a consultant with the World Wide Fund for Nature in the Solomon Islands. During this time, I collaborated with communities to raise awareness about climate change, conduct educational campaigns, and lead mangrove replanting initiatives, many of which were spearheaded by women. My journey represents resilience, dedication, and a lifelong passion for sustainable environmental stewardship.

#### Mangroves and their important role in supporting women in fisheries

My fascination with mangroves was sparked during my childhood holidays spent in Marovo Lagoon. I would pass through mangrove forests on the way to fetch water or tend to the gardens. This early exposure sparked my curiosity, which deepened during my academic journey. While pursuing my MSc in climate change in Fiji, I discovered that mangroves are remarkably resilient to coastal erosion and sea-level rise, but also highly vulnerable to human activities. My second MSc, conducted in Trinidad, highlighted the critical role mangroves play in supplying nutrients to adjacent ecosystems and supporting fisheries.

My PhD research emphasised the critical role of mangroves, not only as significant carbon-sinks – storing four to five times more carbon than other forest types – but as essential providers for food and livelihoods for coastal communities. These ecosystems serve as natural buffers, protecting coastal areas from sea-level rise and erosion. In addition, my research explored the social dimensions of mangroves and revealed that women and youth are the primary custodians of traditional knowledge and play key roles in harvesting mangrove resources, such as shellfish and mangrove propagules (locally known as “mangrove beans”), which serve as vital protein sources when fish are scarce. Women

are also at the forefront of mangrove conservation and protection efforts, demonstrating their indispensable role in harvesting various species in mangroves but also sustaining these crucial ecosystems. One of the key challenges is the absence of a dedicated policy on mangroves and the need to establish protected areas for these vital ecosystems, which play a crucial role in the fight against climate change.

## Current and future work

As a Senior Lecturer in Climate Change and Biodiversity at SINU, my responsibilities extend beyond teaching subjects like climate change, biodiversity, ecology, and the interplay between culture and environment. I am also actively involved in research and community engagement initiatives. Currently, I am engaged in a research project titled “More-than-carbon mangroves: Co-producing social and ecological knowledge for sustainable food livelihoods in the Pacific,” which explores the multifaceted importance of mangroves and gendered dimensions in Solomons and Papua New Guinea. This three-year project, with partners from Europe and Papua New Guinea, is supported by Kooperation Entwicklungsforschung, financed by the Austrian Federal Ministry of Education, Science and Research.

Additionally, I am also involved in the development of an Integrated Coastal Zone Management mangrove policy framework with the Ministry of Environment, Climate Change, Disaster Management and Meteorology, and the Korean Environment Institute, a critical step toward ensuring the protection and sustainable management of these vital ecosystems.

In the future, I aspire to develop a community guide and manual for coastal communities that simplifies scientific concepts into accessible language, making them easier to understand. The guide would also highlight the critical role of women in preserving traditional knowledge and practices related to mangrove harvesting, protection and knowledge transfer. Additionally, it would explore the gendered ways mangrove harvesting is predominantly viewed as a women’s or men’s role, delving into how community perceptions and practices surrounding mangrove harvesting, species and conservation shift over time.

### What were some of the challenges you faced during your PhD and how did you overcome them?

Balancing the dual roles of staff and PhD student at SINU was challenging due to conflicting demands, such as managing academic responsibilities while progressing on my dissertation. This required long hours, especially on weekends, and strict adherence to deadlines. I overcame these challenges by setting clear priorities, maintaining open communication with my supervisors, and receiving strong moral support from my family. This experience enhanced my ability to manage complex challenges and reinforced the importance of having a solid support network.

### What are your current research interests?

My research interests focus on climate change, adaptation and conservation, particularly concerning coastal biodiversity, with an emphasis on mangrove ecosystems and their crucial role in supporting climate change adaptation through the integration of scientific and indigenous knowledge. Additionally, I am interested in research on food security, as well as social and gender issues.

### What suggestions do you have for other Solomon Islanders wishing to pursue a PhD?

My advice for aspiring PhD students is to choose a research topic that truly excites you and sparks your curiosity. Seek mentors locally or internationally through collaborative projects or academic networking platforms like ResearchGate to connect with experts in your field. Early planning is crucial—carefully consider your topic, plan your field work, and set a writing schedule. Finally, ensure you have a supportive circle of family and peer groups to help you both emotionally and professionally throughout your PhD journey.

