

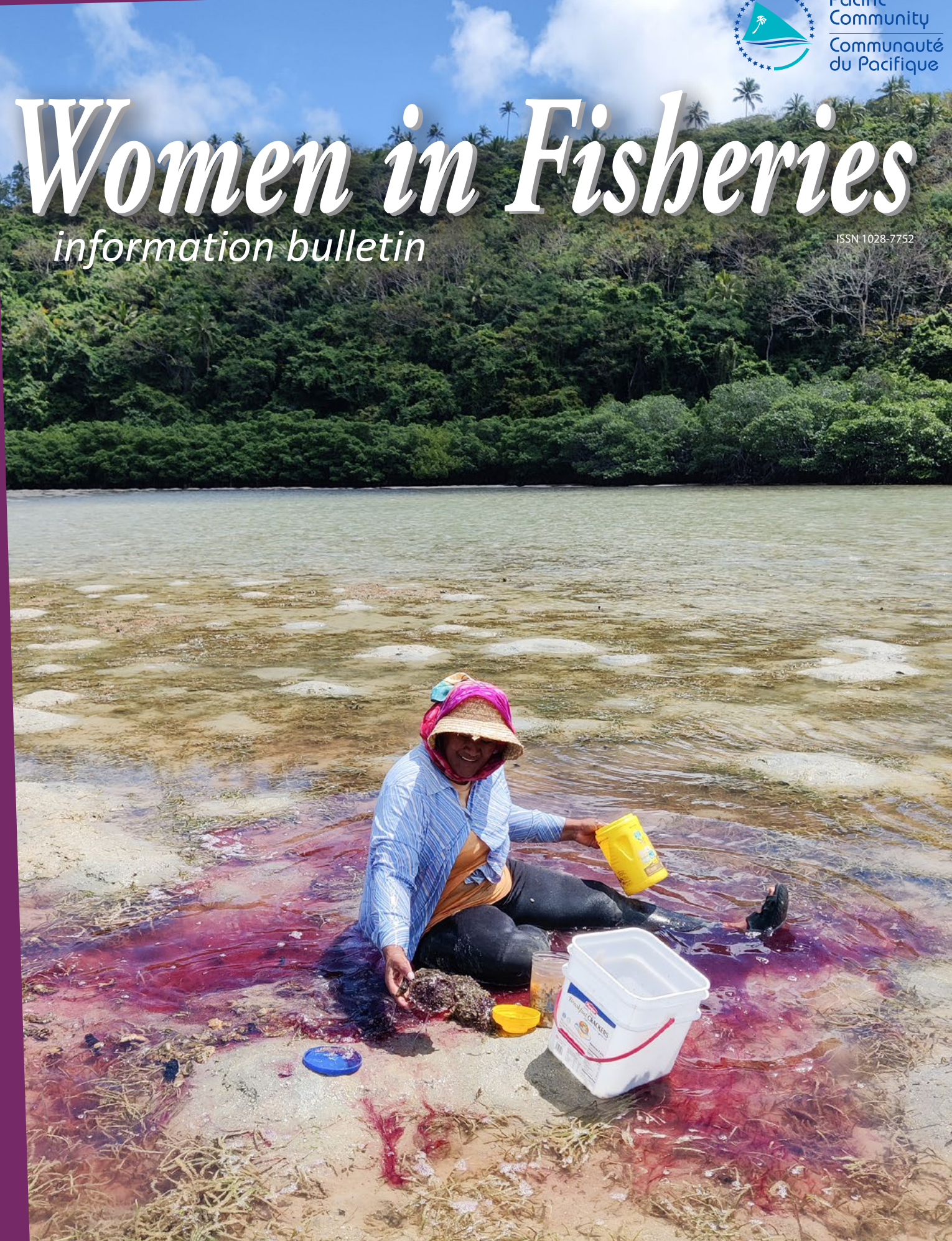


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Why mangroves and people benefit from feminist food research: Insights from Marovo Lagoon, Solomon Islands



Gender analysis of Kiribati's coastal fisheries and aquaculture sector

Seven inspiring profiles

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Cover picture

A woman cleans her catch after gleaning
in Vava'u, Tonga. © Rhea George

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Editor's note

This 41st edition of the Pacific Community's (SPC) *Women in Fisheries Information Bulletin* has 19 original articles from the Pacific region.

In this edition, we have two articles on women fish wardens highlighting how gender norms are shifting in fisheries in Fiji. The Kiribati government completed and published a detailed gender analysis of its fisheries and aquaculture sector, focusing initially on four atolls. There are multiple articles highlighting how the Pacific Community through the Pacific European Union Marine Partnership programme has been investing in gender and fisheries in the Pacific region, including evaluating and documenting their progress. There is an interesting 'food for thought' article on why mangroves and people benefit from feminist food research. And to top it off the Pacific hosts its first regional Gender and Social Inclusion in Fisheries Symposium. Finally, our section on profiles is growing, reflecting some truly exceptional people working on fisheries (including gender and fisheries) in the Pacific. What a great end to 2024!

We welcome several new lead authors to the bulletin – Shereen Begg, Tracey Boslogo, Heide Bruckner, Merelesita Fong, Rhea George, Mary Tahu Paia, Josephine Rambay and Tupeope Samani.

Sangeeta Mangubhai

Why mangroves and people benefit from feminist food research: Insights from Marovo Lagoon, Solomon Islands

Heide K. Bruckner¹ and Mary Tahu Paia²

We discuss how a feminist food system approach can help us learn about the gendered values, practices and knowledges of mangrove gleaning in Marovo Lagoon, Solomon Islands. Importantly, we highlight the contributions of feminist analysis to understand not just what women do, but how gendered ideas shape what is even considered important within the food system. Ultimately, we point out the values of intersectional feminist research on mangroves and offer ideas as to how researchers, development practitioners and policy-makers can put feminist approaches into practice.

Introduction

Mangrove forests are biodiverse ecosystems that serve many roles, from habitats for fish and other aquatic species, to forests that sequester carbon and mitigate climate change impacts (Friess et al. 2021). Mangrove health and sustainable use are particularly relevant for local food livelihoods in the Pacific Islands, even as mangrove forests are rapidly being degraded. Furthermore, mangrove health intersects directly with gender, as women in Solomon Islands are often the primary community members collecting a variety of mangrove shells (*Polymesoda* spp.), crab (*Scylla serrata*), oyster (*Saccostrea cucullata*) or mangrove bean (propagule of *Bruguiera gymnorhiza*) for consumption or local sale. Therefore, providing researchers, practitioners and policy-makers with a better understanding of how gender, environmental conservation and food livelihoods overlap in mangroves, is timely and urgent. Drawing from our qualitative research in Marovo Lagoon, Solomon Islands, we discuss the benefits of a feminist food system approach to help us understand how communities value, use and experience mangrove forests for food livelihoods. We focus on a food system lens as opposed to a fisheries lens because some of the foods that are collected are both marine animals and vegetation (e.g. mangrove bean). Furthermore, a food system lens can move beyond technical approaches used in fisheries management to better assess the cultural and social dimensions of how livelihood pressure on mangroves relates to broader changes in Pacific food environments.

We find that a specific “feminist” food system approach (Hovorka 2013) pushes past a narrow focus on women’s empowerment, or women and resource management, to more holistically address the prevalence of uneven gender relations in food systems. This more holistic feminist approach to mangroves leads to a better understanding of the roles that women have in mangrove gleaning, inshore fisheries and mangrove-adjacent food livelihoods as these women’s roles are often neglected in current fisheries and food policy research (Grantham et al. 2020; Kleiber et al. 2015). As opposed to adding to women’s responsibilities, or assuming that women should take on further mangrove management tasks, a feminist approach understands that changing

inequitable gender–environment relations is the work of men and women (Hovorka 2013). Furthermore, a feminist approach to research can also help us understand how bias and ingrained stereotypes about “women’s work” shape what is taken seriously as relevant mangrove knowledge, on the level of community, development practitioners, and for national policy. That is, feminist research can address not only understanding and documenting gender disparities, but help us to learn how and why they persist, and what might be done to address these disparities in the future. Instead of token gains, such as increasing the number of women attending community management meetings, we push researchers and practitioners to consider the intrinsic value of gender equality, and direct their efforts to transforming uneven gendered relations towards food systems that benefit all (Lawless et al. 2022). We briefly present an overview of mangrove forests and gendered food dimensions in Solomon Islands, before drawing from our data in Marovo Lagoon to show the added value of a Pacific feminist research lens.

Solomon Islands has the second largest area of mangrove forest in the Pacific Islands, covering 2% of the region’s total land area (Bhattari and Chandra 2011). Yet mangroves are becoming rapidly deforested, both from local causes such as village expansion, land clearance and firewood, as well as linked to export-oriented logging and sea level rise (Warren-Rhodes et al. 2011). At the same time, changes in food systems in Solomon Islands – resulting from globalisation, environmental degradation and climate change – have increased food insecurity for rural communities, placing additional pressure on mangroves, with gendered implications (Bruckner and Paia 2024). Food practices related to farming and fishing in Solomon Islands follow strong gender norms, with rural women conducting most of the household food provisioning, harvesting and cooking, while men are predominately involved in offshore fishing (Rabbitt et al. 2023). Like other areas in the Pacific, mangrove gleaning is often seen as women’s work for its role in feeding the family, and because it can be combined with other gendered female domestic tasks (Teioli et al. 2018). Nonetheless, women’s access to mangrove fishing areas is not taken

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Mangrove forest in Marovo Lagoon, Solomon Islands. © M.T. Paia 2023

seriously in resource decision-making (Aswani 2004) or rarely considered when community leaders concede to logging activities that degrade mangrove forests (Minter and van der Ploeg 2021). In times of food insecurity and mangrove degradation, family stress can lead to higher rates of domestic violence against rural women in Solomon Islands (McCarter et al. 2023). Thus, while women are often seen as the one responsible for mangrove harvesting and conservation, they are excluded from decisions that affect them, and suffer gender-based violence in times of food insecurity.

From “women and fisheries” to “mangroves from a feminist approach”: what’s the benefit?

Gender-equity is increasingly addressed in policy, research and development work on women in fisheries in the Pacific, yet the narrow emphasis on “women” has limitations.³ A focus on women and empowerment places women at the centre of change, whereas a feminist approach to fisheries and food systems is broader. Beyond understanding gender as just a “women’s issue”, feminist food systems research tries

³ The focus on “women” is limiting because it assumes a binary of gender identities as men and women. While we join the Pacific Feminist Forum to advocate for rights and recognition of LGBT people and nonbinary gender identities. In this brief, we focus on gender as “men” and “women” as relevant for the target audience of practitioners and policy-makers.



Mangrove crab, *Scylla serrata*. © M.T. Paia 2023

to identify how roles, responsibilities, and gendered expectations around food impact everyday conditions, and shape ideologies about what is important or worth paying attention to. While there is a diversity of feminisms in the Pacific, the Pacific Feminist Forum emphasises that feminism should address intersecting and unequal power relations, and the multiple political, economic and ecological challenges that relate to gender (Pacific Feminist Forum 2016). Furthermore, Pacific feminisms are specific and dynamic, and any feminist approach requires an understanding of what gender means in a particular place, as well as how gender roles are changing (Underhill-Sem 2019). How does a feminist lens on mangroves in Marovo Lagoon help us learn about the relationship between gendered food practices and gendered ideologies about the value of mangroves?

Mangroves in Solomon Islands are often associated with women and sometimes called “womangroves” (Teioli et al. 2018). In our interviews with 51 women and men in Marovo Lagoon, the vast majority said that mangroves were “women’s spaces”. At the same time, the idea of mangroves as just for women is deceptive, as we discovered through our ethnographic research. In addition to interviews, we conducted participant observation to accompany women and men in mangrove harvesting activities, during cooking and sharing mangrove foods with their families, and while selling mangrove foods at local markets. Through these combined research methods, we learned that both men and women in Marovo Lagoon actively harvest and sell mangrove foods, and that these food roles are gendered and changing due to economic, social and environmental factors.

Women tended to harvest mangrove whelks and mangrove beans for household consumption, and mangrove shells and oysters for home and sale. Women discussed the values of

mangroves for food security, but also how harvesting is key for social connection and storytelling. This reflects other research on the social values of gleaning for well-being and sense of ecological connection (Grantham et al. 2020). Male participants said that the availability of fish from the reef was declining, both due to overfishing and climate change. For this reason, men in Marovo had begun to frequent mangroves to harvest and sell mud crabs and mangrove shells in recent years. Adult men discussed how they utilise mangroves to teach younger generations about fishing and fish life cycles of bonito, groupers and mackerel. A few elder men reported that mangroves are important sites for passing along indigenous ecological knowledge, not only about fish species, but also with regard to medicinal plants and *kastom* stories about sacred mangrove species such as eel.

Feminist research emphasises that a lens not only on gender, but on other intersectional identity factors such as religion, age, marital status, educational or economic status can help to understand how social positions shape environmental interactions. We focused on age as well as gender in our research, and found that male and female youth between 18 and 30 had similar responses in terms of the type of species harvested from mangroves, and these youth went harvesting in mangroves quite often. Youth saw mangrove foods as an important source of food for the household, and as a source of income to pay for their education. Interestingly, though, the youth interviewed said that they were worried about the loss of indigenous ecological knowledge and stories about mangroves, and wanted to learn more from the elders.

By moving the focus of research beyond women, we learned that men were also active in mangrove food systems, and were increasingly harvesting in mangroves because of economic and ecological challenges. This demonstrates how and

why gendered food roles may change in response to financial strain, environmental degradation, and climate change. By expanding the focus from just gender to age, we gained a glimpse as to the concerns of future generations, as well as the desire for young people to (re)connect with *kastom* stories and their elders' ecological knowledge of mangroves.

At the same time, we were left with more questions about how and why men that we interviewed at first pointed to mangroves as “spaces for women”, and why it matters that mangroves are seen as women's realm within the community and beyond. In Marovo Lagoon, while matrilineal landholding means land is passed through women, much environmental decision-making about community land and sea areas, such as mangroves, is made by male leaders. Mangroves are often seen as marginal places where mostly women gather, and are thus not prioritised for community closures or environmental protections. Furthermore, even women we interviewed were reluctant to admit they had environmental knowledge of mangrove species and mangrove harvesting practices. Because they did not know official scientific names, because they did not use fishing tools, and because they continue to be absent from decision-making processes, women undervalued their own knowledge. We heard comments from women such as the shells were just lying there, waiting to be collected. During our observation, however, we saw how women skilfully navigated shifting environmental conditions, read the sand and sea for clues about where mangrove shells were hiding, and used their hands and feet to harvest with speed and dexterity. Nonetheless, women seemed to discount their own knowledge in the same way that much fisheries research fails to recognise women's inshore gleaning as skilled work. Mangroves are also absent from most food policy research and currently falls through the cracks in environmental policy, with no mangrove-specific environmental protection in Solomon Islands. These insights helped us to better understand how bias and stereotypes about mangroves as spaces just for women seep into people's own narratives. The findings demonstrate that what is perceived as skilful practice or valuable mangrove knowledge relates to gendered ideas about skill, knowledge and value on community, development and policy levels.

Conclusions

Practically, researchers and practitioners can use tools from feminist research to identify gendered roles, practices and community values for their inshore fisheries and mangrove forests. This means not only better understanding what women and men do, but why, and the place-specific gendered meanings related to these practices. It is a constant learning and re-learning about how gendered roles related to fisheries and mangrove food systems in a particular Pacific context may be changing, and with consequences for goals of gender equity, food security and environmental health.

Feminist food research aims not only to document how gender operates in practical and symbolic ways, but to work towards a more gender-equitable future. In this research, we learned that mangroves in Marovo Lagoon provide men, women and youth with dietary diversity, social connection, and opportunities for intergenerational ecological knowledge sharing. Yet, not all of these positive benefits of mangroves are widely discussed, promoted or safeguarded through mangrove conservation on either a community or national level. Thus, in a next phase of the project, we will work with community members to re-valorise and socialise these different positive contributions of mangroves for people through *tok stori* sessions, *kastom* storytelling, and community management planning workshops. Through this process, we want to emphasise the collective benefits for the community and for mangroves that come from seeing mangrove health as everyone's responsibility. Simultaneously, we are working with government ministries to create a mangrove management framework on a national level.

In summary, the benefit of a feminist approach to mangrove food systems is that it is not just about counting or including women, but understanding how and which insights are seen as valuable or not related to gender bias. Working towards gender-equitable food systems is more than a technical intervention – it requires individual and institutional shifts in perspectives and values over the long term. Feminist research is about gendered relations between men and women, as well as other aspects of uneven power dynamics that shape



Mangrove shells for sale at the local market in Seghe. © H.K. Bruckner, 2023

intersectional experiences of environment and environmental change in fisheries and mangroves. Future research could address the role that education level, household income, marital status and religion play, alongside gender, in different mangrove food practices and values. Understanding the different roles that mangroves play in the community, not just for women but also for men and youth, can help communities, governments and conservationists come together to jointly envision what an environmentally and gender-just future can look like, and what steps can be taken to get there. Such a coordinated and holistic approach would aim to shift gendered attitudes and practices in which women and women's work in mangroves is seen as less important or less relevant than men's work. Feminist research from a holistic food system approach can be a helpful tool to examine with communities what their place-specific, culturally-relevant visions for a sustainable and gender-equitable future are, in mangroves and beyond.

These research findings have been recently published in an article titled "From mangroves to womangroves to feminist foodscapes: (en)gendering research on indigenous food livelihoods in the Solomon Islands" (Bruckner and Tahu 2024). Greater detail of the research context, methods, and analysis are discussed in the full-length article, available open access at: <https://link.springer.com/article/10.1007/s10460-024-10634-8>

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Fisherwomen's traditional knowledge, skills and experiences contribute towards strengthening resilience in rural communities in Fiji

Shereen Shabina Begg

Introduction

Fisherwomen have extensive knowledge about their ecosystems and resources and are skilled in traditional fishing practices that have been passed down to them for generations, and through their own field experiences (Kitolelei et al. 2022). At the same time, women play a vital role in harvesting fish and other aquatic resources to sustain the needs of their families and to supplement household incomes (Thomas et al. 2021).

Women, as custodians of traditional knowledge on fishing, disseminate their knowledge, skills and field experiences to the younger generations, instilling within them the knowledge and skills required to make them self-sufficient and resilient to the changing environment (Kitolelei et al. 2022; Begg et al. 2023). This helps to decrease people's consumption of processed foods and protect them from the risks of non-communicable diseases (Begg et al. 2023). However, the roles and contributions of women at the household, community and economic level are often undervalued.

This article provides valuable insights from two elderly women (aged between 70 and 75 years) who have been engaged in fishing for more than five decades. The lived experiences of these women and challenges they have faced shed light on the strategies that can be used to strengthen the resilience of communities to the impacts of climate change. The ideas from these women can also contribute to the holistic management of terrestrial and freshwater resources in the Fiji's Labasa River catchment, as well as the marine resources in Cakaulevu Reef, which hold significant value in the lives of rural communities (Ramsar 2018).

The two women come from the midstream section of the Labasa River catchment in the Naduna area, located in Macuata Province on Vanua Levu, Fiji's second largest island.



Catch of the day, including crabs and fish from Naduna River. © Shereen Shabina Begg

This article explores the views of two rural fisherwomen on how they have used their traditional knowledge, skills and experiences to strengthen their climate resilience

The quotes in this article are part of the storytelling technique used by the author to expand her post-doctoral research on

assimilating the traditional knowledge of fisherwomen in nature-based solutions to promote sustainable livelihoods and resilience to the adverse impacts of climate change. To enable a mixed representation of ethnic views, an Indo-Fijian woman belonging to the Hindu religion and an *iTaukei* (Indigenous Fijian) belonging to the Christian faith, were selected. While the *iTaukei* woman is still involved in fishing, the Indo-Fijian woman stopped fishing six years ago due to physical health issues.

Roles and contributions of women

Both women shared a little about how the roles and contributions of women in the Naduna area have helped them to be resilient in the face of climate change. They revealed that women have been engaged in small-scale fishing over the years to provide a source of protein in the diets of their families. The two women further explained that women mostly engage in freshwater fisheries closer to their village or community due to their domestic responsibilities; this is in opposition to men who are often involved in inshore and offshore fisheries, particularly in deepwater coral reefs. Besides caring for family members, nurturing their children, and preparing food, women across diverse cultures have also assisted in generating income and satisfying the basic necessities of their family members, including access to health, nutrition, water, electricity and education.

Use of a barter system as a resilience strategy

The women described how the barter system was used in the olden days by *iTaukei* and Indo-Fijian women in the Naduna area. They explained that when women caught plenty of fish, they traded these with other women within their village or community in exchange for other food items. The *iTaukei* woman stated that “sometimes we caught more fish than we needed for our food. So we exchanged the fish for other food items we did not have in our house like dalo [taro], cassava [tapioca], breadfruit, vegetables, fruits like mandarin, banana and pawpaw, and for sugar. We did not need money to go to the shop and buy these food items. In this way, our family members had a variety of things to eat in one meal rather than only eating fish in lolo”.

The Indo-Fijian fisherwoman also shared her story on using the barter system to cope with the difficulties that she faced in the past.



Fish caught and cleaned by iTaukei women for a village gathering. © Shereen Shabina Begg

I remember about fifty years ago, my husband was jailed for a term of two years. I had to take up the entire responsibility of my family and had seven mouths to feed. I had an old mother-in-law and six small children to look after. My husband was the sole breadwinner in the family but when he went to jail, I had to take his place. It was hard to catch fish and sell. So I used to trade the fish with my neighbours in exchange for food items such as sugar, oil, rice, flour, dalo, cassava, vegetables, fruits, breadfruit, etc. This technique helped me to feed my children and mother-in-law as I could not go out and do farming or earn money. Three of my children were attending school and I paid their fees by borrowing money from my family members. The other three children were only one, three and five years old at that time. So, I had to stay home and look after my children and sick mother-in-law. Although we did not have money, I was able to feed my children and keep them alive until my husband returned home. Thus, my fishing skills helped me to lessen the hardships we were facing.

Both women said that this barter system had faded over the years in their village and community. The iTaukei fisherwoman stated that “people started to find jobs or other sources of income and forms of trade to earn a living in order to meet their everyday needs of food, water, electricity, children’s education and health”. The Indo-Fijian woman further explained how the barter system re-emerged as a resilience strategy to help the iTaukei and Indo-Fijian women in the village and community in the Naduna area to meet the basic human needs of their families during the pandemic:

During COVID-19, many people had lost their jobs or worked fewer hours. They could not earn enough to meet the needs of their family members especially if there was only one person earning money for the whole family. To meet the needs of family members, both iTaukei and

Indo-Fijian women relied on fishing. But it was hard to sell fish due to the lack of customers and there was a need to buy other groceries for household needs so we decided to exchange fish in return for other food items within our community and village. Since there were restrictions on movement during the pandemic, the exchange system helped us to obtain the basic food items we needed to survive.

Challenges faced by the women

The two women described the challenges that they have faced over the past decades in sustaining the basic needs of their family members, affecting their ability to be resilient to the impacts of climate change. According to the iTaukei fisherwoman, “all women in the Naduna area, whether iTaukei or Indo-Fijians, have faced similar problems over the years related to changes in the size and amount of fish being caught”. She further explained changes in fish size and catch over the years:

I have been fishing in the Labasa River with my mother-in-law since the age of 16 when I got married and moved to the Naduna Village. We mostly catch fish to feed our family and to get some income out of it. However, we also fish for cultural and social reasons. It is one of our ways of socialising. Over the last sixty years, I have observed that the size of fish has reduced. Before, we used to catch big-sized fish which would be enough for our entire family’s meals. The amount of catch in the past was also enough for our village functions. Nowadays, we hardly find good sized fish. Even for village gatherings, men have to go and buy fish or other food items from the shops to collect enough food for the gatherings. In my village, no one is allowed to catch under-sized fish because we think of our future generations. When we use fishing nets to catch fish, all sizes of fish are caught. We try to let go of the small fish but if they die, we just eat them but we don’t sell them.

The population of fish, prawns, kai, crabs and crustaceans in the river have decreased over the years. We have to fish for longer hours or even days and nights to catch enough fish for our own consumption and to sell the remainder to obtain some income to meet our small family expenses. Before we could catch fish easily but it is becoming harder nowadays. Our children who are involved in fishing also complain that it is a tiring and difficult task.

Both women revealed that they have been facing severe impacts of climate change over the years, which has made their lives harder. The iTaukei woman mentioned that their root crops are destroyed by heavy rain and flooding events. As a result, they have to buy processed foods such as tin fish, noodles, and other goods, or rely on disaster relief from the government and non-governmental organisations. The Indo-Fijian woman also discussed the adverse impacts of climate change on her family:

Bad weather has increased over the years making it harder to go fishing. We have to rely on alternative livelihoods or food sources. During the occurrence of tropical cyclones or floods in the cyclone season (November–April), we are unable to go fishing. Flooding has been a major issue in our area for years. We face damages to our houses and properties and there is an increased risk of diseases such as diarrhoea, typhoid, dengue fever. We cannot go fishing when the weather is bad. As a result, we do not have enough food to feed our family members. We also lose our means of living. This affects our health and interrupts our children's schooling. These impacts have increased over the years. I am advising my grandchildren to study hard and find jobs. They can fish for their own interest and to eat fish but not rely on fishing for income.

Both women highlighted that unsustainable anthropogenic activities are occurring in the Naduna area and upstream,

including illegal logging activities, gravel extraction, unsustainable agricultural practices (particularly the use of fertilisers), unsustainable fishing practices, and improper disposal of solid and liquid wastes into the waterways. The women also mentioned that riverbank erosion is a major issue in the Naduna area. The iTaukei fisherwoman explained:

There are no conservation efforts in Naduna to protect our freshwater environment. People continue to farm on riverbanks. As a result of riverbank erosion, the river has become very shallow and the population of fish has decreased. In the olden days, kai, eels, prawns, crabs, crustaceans, shellfish and freshwater fish were found and caught in abundance in the river. But nowadays people use chemicals and poison (duva) to catch fish and prawns from streams. In this way, they are polluting and depleting our food sources, and also poisoning our food and us. The catch is less and the sizes of fish are very small. Since we have more mouths to feed, we resort to buying processed foods such as tin fish to meet our dietary requirements.

Conservation efforts to promote ecosystem and resource management

The two women emphasised the importance of conserving and restoring the habitats and resources in the Naduna area. This would ensure that the ecosystems and resources continue to provide food and income to satisfy the needs of their families in a changing climate. They suggested that they could use the traditional knowledge of women, men and elders in the village and community to derive nature-based solutions to strengthen climate resilience. The iTaukei woman stated:

We can use our traditional knowledge and practices to protect our freshwater resources in the Naduna area. Many people are doing vegetable farming on riverbanks.



Fish caught by an Indo-Fijian woman, which will be sold. © Shereen Shabina Begg

They should perhaps do their vegetable farming a bit inland and trees should be planted on the riverbanks. Some villages upstream are also doing this. Elders in the village and community have traditional knowledge on which trees should be planted on the riverbanks to reduce erosion. In this way, people will still have their food source, and we won't face riverbank erosion.

The *iTaukei* fisherwoman also shared an example of the traditional practice of imposing *tabus* (no-fishing areas) in the *iTaukei* culture. She stated that “*in the past, tabus were imposed to temporarily close a section of a community's fishing ground for 100 days after a chief died, before a memorial feast was held. Tabus must be imposed again to protect our resources so that we can catch bigger-sized fish to meet our subsistence and income needs. It will also ensure that our grandchildren and great grandchildren are able to catch fish in future to eat and earn money by selling fish*”. The Indo-Fijian fisherwoman stated that since no one was allowed to fish when *tabus* were imposed, people bought fish or tin fish whenever they wanted to consume fish. Moreover, they relied on sugarcane and vegetable farming to earn a living. Overall, both women revealed that women in the village and community use their knowledge, skills and experiences to be resilient when conservation efforts are in place.

Conclusion

Understanding the knowledge, skills and experiences of fisherwomen helped to identify the challenges they face and the use of nature-based solutions to promote community resilience to the adverse impacts of climate change, and to build an equitable and sustainable future. Besides providing family care, affection and nutrition, women play significant roles in contributing to the sustainable management of ecosystems and resources. Women, together with men, contribute towards building sustainable livelihood options that meet the basic human requirements of income, food, water, electricity, education, health and well-being in a changing environment. The proper documentation and recognition of traditional knowledge and skills – along with the experiences of *iTaukei* and local men and women – would help to foster sustainable resource management and community resilience in other rural riverine communities that face similar challenges.

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Encouraging women's participation in fisheries conservation through fish warden training

Pretika Kumar¹

Fiji's Ministry of Fisheries and Forestry is trying to enhance the management of coastal fisheries by promoting gender equality and the empowerment of women and youth through its capacity building training programme. The initiative includes fish warden training, fish aggregation device training, post-harvest methods and food safety, value adding, and aquaculture training. These efforts aim to empower women as stewards of fisheries, and promote inclusive decision-making.

Background

Yacata is a small maritime island in the northern part of Fiji's Lau group, under the jurisdiction of Cakaudrove Province. The island has one village comprising 60 households, and a population of approximately 270. The island has limited fertile land for agriculture, and villagers mostly rely on fisheries and tourism for their livelihoods.

The fish warden training, fish aggregation device training (FAD) and deployment, and community awareness programme for Yacata Village was a collaborative effort between Fiji's Ministry of Fisheries and Forestry, and the Vatuvara Foundation. The Vatuvara Foundation has been working with Yacata villagers to protect and sustain the marine resources in their fishing ground. The foundation has undertaken several scientific studies, and these show that the reef system surrounding the island is deteriorating, and that implementing fisheries management measures is crucial for protecting and managing Yacata's fishing ground.

Fish warden training

The Ministry of Fisheries and Forestry in partnership with the Vatuvara Foundation conducted the fish warden training for 16 participants (3 women, 13 men) to strengthen community-based fisheries management. Participants from Yacata and Kaibu islands attended the three-day training from 18 to 20 November 2024. The main objectives of the training were to: 1) train community members to become fish wardens; 2) enhance participants' knowledge of fisheries policies and regulations; 3) build practical skills for monitoring and surveillance of their fishing ground; and 4)

raise community members' awareness of fisheries regulations and the importance of conserving fisheries resources.

Day 1 of the training started with an overview of the Fisheries Act Cap (158), which is the primary law regulating coastal fisheries in Fiji, and the roles of authorising officers, which include fish wardens.

The honorary fish wardens are appointed by the Minister under the Fisheries Act Cap 158, whose role are the prevention and detection of the offences under this act and the enforcement of the provision.

Why do we need fish wardens?

Fish wardens are needed to:

- help reduce incidences of illegal, unregulated and unreported (IUU) fishing, which is on the rise and a serious concern throughout Fiji.
- help fill the gap of limited resources that are needed to monitor all 410 fishing grounds in Fiji;
- help with monitoring, control and surveillance, in the Fiji's vast and geographically isolated fishing grounds;
- involve and empower community members to manage their fisheries resources for future generations;
- ensure compliance with Fiji's fisheries laws; and
- deter offenders from reoffending.

The duties of a fish warden are shown in Table 1.

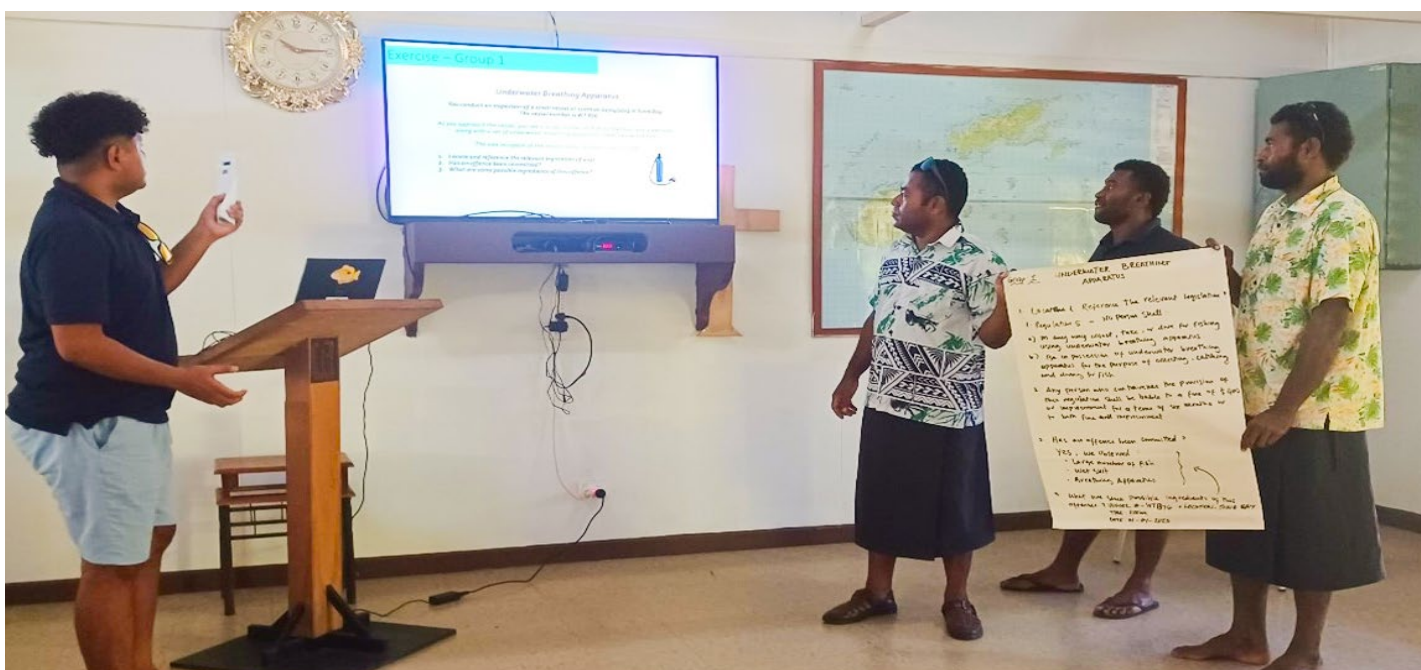
Table 1. Fish warden duties fall within three major categories.

Fish warden duties	
Prevention	<ul style="list-style-type: none">• Advise offender• Provide advice to the village and district councils• Raise awareness of communities about fisheries legislation• Raise awareness among children and youth (schools and Sunday schools)
Detection	<ul style="list-style-type: none">• Be physically present at the place of offences• Identify witnesses• Take photographs• Note down sequence of events• Decide on the next step
Enforcement	Powers of examination and detention

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Participants having an interactive session with the facilitators learning about the fisheries legislations, offences and penalties. ©Pretika Kumar



Group presentations by fish wardens during training. ©Pretika Kumar



Pilot sea patrols. ©Pretika Kumar



Participants with their certificates. ©Sereana Tuigaloa

Other topics presented during the training were:

- offshore fisheries management regulation (2012);
- monitoring, control and surveillance;
- licensing processes;
- note taking;
- documentation and evidence handling; and
- bill of rights caution.

There were also interactive sessions on: protecting species such as sea turtles; seasonal bans on the taking of grouper and coral trout; bans on harvesting sea cucumbers; a ban on the use of underwater breathing apparatus; and fish size limits and fishing gear restrictions.

Day 2 included a group discussion and short quizzes to test participants' knowledge. Participants were divided into four groups and given scenarios whereby the teams were asked to identify and present offences as an investigative officer. Participants were reminded that their approach and communication style are an important part of compliance inspections.

When conducting an inspection there are some general principles to remember, such as:

- introducing oneself before conducting any inspection;
- using common courtesy and respect;
- remaining calm and professional; and
- being safe (every inspection should be treated with caution).

Collaboration between various enforcing agencies and channels of communication were also explained during this session.

Day 3 was a practical class whereby participants learned why it is important to gather evidence when they have detected an offence. This was done through at-sea pilot patrols. The group split into two teams and role played as offender, authorising officer, recorder, and photographer to collect the three types of evidence: direct evidence, documented evidence and photographic evidence.

At the end of the pilot sea patrol, participants shared their views on the training. Most participants were grateful for the opportunity to learn about the fisheries legislation, particularly about protected and prohibited species, offenses and penalties. Participants emphasised after the training that they had a better understanding of fisheries management and the need to follow the rules to protect fisheries resources for present and future generations. The participants acknowledged that IUU fishing had been taking place in their fishing ground and their role as fish warden was to ensure that IUU fishing was reported to authorities. There was a request for more capacity building training and women's involvement in taking lead roles in fisheries conservation.

One of the challenges identified by participants was delivering the knowledge gained during the training to the rest of the community, and for community members to voluntarily comply with fishing regulations. The training ended with a closing ceremony and presentation of certificates to the participants.

Community awareness

An awareness session was conducted at Yacata Village on 19 November 2024. Twenty households were present during this informal session where general awareness was raised about fisheries legislation and services provided by the Ministry of Fisheries and Forestry. Fisheries officers explained the licensing process and urged all fishers to get a fishing licence if they are involved in commercial fishing. Community members asked questions about the establishment of a new marine protected area. Awareness raising was also carried out on Fiji's sea turtle harvesting ban and sea turtle nesting season, which occurs from October to March every year. Yacata Island is one of the nesting places for sea turtles, and community members were advised not to disturb turtle nests, or remove eggs, or kill any turtles.



General fisheries awareness in the Yacata community. ©P. Kumar

The awareness session also included getting the community to agree on where to deploy the FAD. Deployment was at the Yacata fishing ground to allow the community to establish a marine protected area, and allow the overfished reef system and lagoon area to recover through a coral restoration programme with the Vatuvara Foundation. FAD fishing offers several benefits to fishers, such as decreasing fishing pressure on the nearshore area, reducing fuel costs by reducing the distance and time spent reach the fishing ground, and increasing the income of fishers because they are now able to catch bigger pelagic fish such as tuna that aggregate around FADs.

Women and youth engagement in conservation efforts

The Vatuvara Foundation is working closely with the youth and women of Yacata Village to protect sea turtles. The turtle management initiative at Yacata started over a decade ago through a community-based conservation programme. The

two most frequently sighted sea turtles in this area are green turtle and hawksbill turtle. The sea turtle conservation and management provision are captured under the Fisheries Act 1942, as well as the offshore fisheries management regulation. All species of sea turtles are also included in the Convention for International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Yacata Village also has a community-based marine protected area (MPA) that was established in 2017, and the community intends to establish a new MPA for the nearshore reef and lagoon area to recover from overfishing. Coral restoration is also being done in partnership with the Vatuvara Foundation.

Gender perspective in fisheries conservation

Women participants shared their dedication to and passion for taking ownership to protect and conserve marine resources for present and future generations. Amelia Nawaqadau of Yacata Village, who is involved with the coral restoration project with Vatuvara Foundation, said that coral reefs play an important role because they support biodiversity and livelihoods, hence there is a need to protect this vulnerable ecosystem. She said the establishment of the coral restoration sites has helped revive damaged corals in the fishing ground. She further added that the corals in the Yacata fishing ground are mostly affected by overfishing, destructive fishing practices (night diving), and climate change. Amelia shared her sentiments that as a newly trained fish warden, she would encourage fishers in her village to obtain a fishing licence and ensure there is no harvesting of protected species or sales of undersized fish or crabs.

Like many other young women from Yacata Village, Amelia's long-term goal is to safeguard and improve the livelihood of her family and community who are dependent on fisheries resources. However, she faces several challenges, such as Yacata's isolated geographical location, limited resources, and inadequate training and awareness, all of which affect her efforts in fisheries conservation. Social norms and traditional roles further influence her ability to actively

participate in conservation efforts, thus highlighting the need for support and capacity building to empower women in fisheries. Women (in a traditional setting) are often seen as the caretakers of the household and their contribution to fisheries is often undervalued because it is often confined to post-harvest activities or subsistence fisheries. While this role is important, it has limited visibility because subsistence fishery data are not well captured. However, tradition can serve as a foundation to women's participation in fisheries conservation and management due to their traditional knowledge of ecosystems, and their sustainable harvesting practices, which is passed down through generations.

Way forward

Five suggestions were made on the way forward:

- 1 Revive the Yaubula Committee and the youth group.
- 2 Fish wardens to establish a committee with community representatives and Vatuvara Foundation to effectively carry out their work.
- 3 Engage women, youth and children in conservation initiatives, such as coral planting.
- 4 Establish an MPA to help protect marine ecosystems that are degraded by human activities, such as overfishing.
- 5 Raise community awareness and increase participation and empowerment through workshops on fisheries policies, conservation and management.

Acknowledgements

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Women participants learning how to build fish aggregation devices. ©Pretika Kumar

Women fish wardens in Fiji

Shereen Shabina Begg¹ and Mavileko Ramoica²

This article explores the fish warden system focusing on how the roles of iTaukei women have evolved over time.

Introduction

The fish warden system within rural communities in Fiji helps to effectively manage and safeguard fishing grounds to sustain the marine resources and livelihoods of communities (Joint SDG Fund 2024). Fish wardens play a pivotal role in supporting the compliance of regulations and combating illegal fishing activities within their designated areas (Joint SDG Fund 2024). This article shares the insights and experiences of Mavileko Ramoica from BirdLife International, based on his involvement in the Vatu-i-Ra Conservation Park and the implementation of the conservation management plan, which includes the use of fish wardens for monitoring and compliance. The article highlights the fish warden system in the Vatu-i-Ra Conservation Park, the need for including women fish wardens in the system, and the challenges they face.

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Vatu-i-Ra Conservation Park

The Vatu-i-Ra Conservation Park is the largest conservation area in Fiji, encompassing an area of 110.5 km², which includes reefs, lagoons, terraces and pinnacles, and Vatu-i-Ra Island off the northern coast of Viti Levu. Established in 2017, the park was established by local communities and supported by dive tourism (WCS 2018). Vatu-i-Ra Island is between Viti Levu and Vanua Levu, and belongs to the Nagilogilo clan who reside in the villages of Nasau and Navuniivi in Navitilevu District, within the larger traditional Nakorotubu District of Ra Province.

BirdLife International has identified Vatu-i-Ra Island as a Key Biodiversity Area that hosts several important seabird species, including the black noddy, *Anous tenuirostris* (Naiqama et al. 2020). Major threats to the black noddy





Vatu-i-Ra Island. © Mavileko Ramoica

include human disturbance, which can lead to a catastrophic decline in the noddy population. The likely impacts of climate change and severe weather events in the future are also expected to threaten the existence of the black noddy (BirdLife International 2024). The red-footed booby (*Sula sula*) and brown booby (*Sula leucogaster*) are also common on the island (Naiqama et al. 2020).

The dynamic team of stakeholders who contributed towards the establishment of the Vatu-i-Ra Conservation Park management plan comprised the Wildlife Conservation Society (WCS), BirdLife International, Fiji Environmental Law Association, Ministry of *iTaukei* Affairs, Ministry of Fisheries and Forestry, locally based tourism operators, liveaboard dive operators, Ra Provincial Office, *Turaga-ni-Koro* of Nasau Village, and communities from Nakorotubu District. More specifically, the *iTaukei* Affairs Officer (Lui Manuel), *iTaukei* Conservation Officer (Miriam Qoro), fisheries assistant (Sereima Masi), and the Regional Key Biodiversity Areas Coordinator at BirdLife International Pacific (Mavileko Ramoica).

These partners collectively developed a conservation management plan to protect the biodiversity of Vatu-i-Ra Conservation Park. Apart from incorporating the inclusion of women fish wardens, the current conservation management plan is being reviewed to include people with disabilities. For example, the picture opposite shown three men reviewing the management plan, including a person who is visually impaired.

Development of the conservation management plan has led to the establishment of a voluntary contribution to the park conservation fund, which helps protect the park and supports the Vatu-i-Ra Conservation Park Education Fund that provides tertiary education scholarships to students from the area. To that end, all visitors are charged FJD 15 per person. This is a voluntary fee and visitors can also make extra donations to support the education system of the Nakorotubu *qoliqoli* (fishing ground) (WCS 2018).

According to the *Turaga-ni-Koro* of Nasau Village who is also the head of the fish warden team, illegal fishing is a major issue in Vatu-i-Ra waters, and so monitoring the sea around the island has recently begun (Tabureguci 2023). As a result of the monitoring by the fish warden team, boats of illegal fishers coming from outside of Ra Province were apprehended by the team and reported to the Ministry of Fisheries and Forestry, which seized their fish and vessels (Tabureguci 2023).



Mavileko Ramoica (in white and blue shirt on the right) and Lui Manuel (blue shirt on the left) with the fish warden team. © Mavileko Ramoica



Vitulina Buna reads the management plan for Vatu-i-Ra Conservation Park to her children. © Mavileko Ramoica

Inclusion of women fish wardens from Nasau Village

Four villages are involved in the women fish warden system in the Nakorotubu *qoliqoli*. Nasau Village is of particular importance because it is nearest to Vatu-i-Ra, and the villagers there have traditional rights to the island. The Wildlife Conservation Society (WCS) initiated a management plan in 2009. The fish warden system began in 2008 and monitoring was done by fish wardens of Vatu-i-Ra Conservation Park. Initially, there were only two male wardens who were trained by WCS but who had not received their fish warden identity cards. A refresher training was provided by WCS and the Ministry of Fisheries to provide awareness and capacity building to promote the inclusion of women as fish wardens. This was done because female wardens can physically touch both male and female poachers unlike male wardens who face restrictions on touching females.

Only nine people are allowed in a boat at one time, for safety reasons. For example, when Mavileko Ramoica went on a trip to visit the village, he was accompanied by two fish wardens, two observers, one boat captain and a fisheries officer. Presently, there are nine male and three female wardens in Nasau Village. All wardens, observers and the boat captain are trained but only the boat captain has a certificate. Only two people are qualified to drive the boats on surveillance trips.

For every full-day trip, a fish warden and a boat captain are each paid FJD 70. Fish wardens are responsible for looking out for and checking fishing boats, spotting poachers, entering a poacher's boat, and writing reports on the types of fish the poachers caught and the equipment they used. Wardens also check fishing licences, particularly within the

island's fishing grounds. If fishers do not have a licence, their boats and equipment are confiscated and they are reported to police officers, who also accompany the fish wardens on trips. Sereima Masi, from the Ministry of Fisheries plays a major role in monitoring, identifying and reporting poachers, and confiscating equipment.

The first female fish warden, Vitilina Buna, joined in December 2023, and was followed by other women. In January 2024, two new female wardens, Turisi Lau and Wana-Naidole, joined and now there are three fish wardens. They are between 20 and 35 years, including two youths and one married woman. The three women have received training but are not certified wardens. Due to the boat capacity, all three female wardens do not go together. Since Vitilina Buna is now married, she does not go out to the sea. Turisi Lau goes instead. So far, these three female wardens have identified and caught eight poachers.

Challenges faced by female wardens

Women face several issues in the fish warden system. One of the challenges is the fear of what happens when they catch poachers. The women sometimes fear for their safety because the poachers are likely to be men who can easily harm them. Women wardens may also be afraid of the fallout after catching the poachers. Their courage, confidence and determination, however, has strengthened over time. Due to cultural and gender norms, only men are allowed to work, meaning that husbands generally do not permit their wives to work to ensure that the women complete the household



Woman fish warden (Vitulina Buna) writing report at sea followed by inland writing of report. © Mavileko Ramoica



Women fish wardens watching out for poachers. © Mavileko Ramoica

chores and participate in village activities. Therefore, women need approval from their husbands to allow them to work apart from performing domestic duties. Sometimes the women's voices are not heard. As a result, there are attempts to find ways of organising informal sessions to help raise awareness of the issues faced by women in their communities.

Network issues are also a problem, especially when poachers are caught and the matter needs to be reported to the police. As a way forward, refresher training and capacity building on governance structure are needed to highlight the need for women's inclusion in the fish warden system. Some of the occupational health and safety issues faced by women fish wardens include shaky boats, which can cause fatigue, stomach problems, headaches and loss of balance during windy and adverse weather conditions.

Conclusion

The inclusion of women in the fish warden system is mandatory ascribed to the contributions they provide towards effectively managing traditional fishing grounds. Women are now overcoming cultural and gender barriers that have traditionally limited the capacity of women to expand their skills and knowledge. These women are working together with men to help control illegal fishing activities, safeguard their fishing grounds and natural resources, as well as the livelihoods of community members.

Hence, stakeholders must support the inclusion of women in conservation management plans and strategies to promote natural resource management. The provision of awareness and capacity building programmes, training, and certificates could help to improve the participation of women in the fish warden system.

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Strengthening small-scale fisheries in Fiji, Solomon Islands and Vanuatu – A project wrap-up

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Introduction

Pacific Island countries and territories (PICTs) rely on fish and fisheries for nutrition, employment and economic growth. Around half of the total fisheries' contribution to gross domestic product is sourced from coastal fisheries (Pacific Community 2016). Good management and governance of coastal fisheries is critical as the population increases and the production of fish from coastal fisheries decreases, exacerbated by climate change and the impacts of natural disasters. Coastal communities and their fisheries are exposed to climate-related extreme events including cyclones, sea-level rise, ocean acidification, floods and coastal erosion. Adaptive capacity can be improved by acquiring assets, such as insurance, technologies and knowledge.

Over the years, alongside an increased emphasis on community-based resource management, PICTs have increasingly turned to aquaculture as an additional source and sustainable supply of aquatic foods (Singh 2016). Aquaculture is identified among fisheries activities as a proven method for climate change adaptation, ensuring food security and enhancing community livelihoods.

Men and women participate in both subsistence and commercial fisheries, including aquaculture, with women particularly being active in post-harvest activities such as processing and marketing. Although men's contributions are relatively well understood, fully understanding the degree of women's participation in fisheries has been hampered by a lack of adequate research and data collection for policy development (Vunisea 2004; Avril 2018).

The Food and Agriculture Organization of the United Nations (FAO) project "Strengthening small-scale fisheries in the Pacific" (Canadapt 003), funded by Global Affairs Canada, was implemented in Fiji, Solomon Islands and Vanuatu from 2021 to 2024. The goal of the project was to increase the resilience of fishermen and women from coastal communities vulnerable to the impacts of climate change. The project was organised

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Food safety and post-harvest processing training for fishers and vendors in Auki, Solomon Islands. © Zafiar Naaz, FAO

around gender-specific outcomes (improved equal participation of women with men in decision making and improved gender responsive planning and budgeting in national fisheries agencies) that were linked to outcomes related to strengthened management capacity in small-scale fisheries; being better prepared for natural disasters and climate change impacts, and resilient fisheries value chains (Naaz et al. 2023).

The project ended in December 2024, and this paper summarises some of the key areas where the project was able to contribute to effective partnerships and by aligning to priorities of the respective fisheries agencies in each PICT.

Disaster risk reduction and disaster risk management

Approaches to disaster management in Fiji, Solomon Islands and Vanuatu have tended to focus more on post-disaster response rather than preparedness. The National Disaster Management Office (NDMO) in each country usually takes a lead in disaster management activities, although it is not focused on various sectors due to time and financial constraints. Sector-specific disaster risk management standard operation procedures (DRM SOP) can help fisheries agencies prepare and respond to disasters at the national,

provincial and regional level. The Canadap003 project supported fisheries agencies in working closely with NDMO and other stakeholders to progress fisheries sector-specific DRM SOPs, including outlining the institutional setting and coordination structure within fisheries for effective preparedness and response. As part of the development, fisheries officers were trained and provided with templates to collect gender-disaggregated and gender-sensitive data for guiding disaster response. To a different extent in each country, training included questionnaire planning, design and testing using KoboToolBox.

In Fiji, the fisheries DRM SOP was developed through stakeholder consultation attended by senior and divisional fisheries managers, and followed by training on how to use the SOP from September 2022 to February 2023.

The Vanuatu Fisheries Department had previously developed a draft DRM SOP with the support of the Australian Centre for International Agricultural Research Pathways project team. It was finalised through a series of stakeholder consultations attended by provincial fisheries officers and representatives from development partners. The DRM SOP was then internally reviewed followed by its official launching by the Vanuatu Fisheries Department in June 2024.

The Ministry of Fisheries and Marine Resource (MFMR) in Solomon Islands completed two facilitated stakeholder consultations attended by provincial fisheries officers, and resulting in a draft DRM SOP, which is now ready for completion.

Fisheries managers and divisional heads in each country provided advice based on lessons learned during previous disasters, an adaptive approach that is anticipated to be required for regularly reviewing DRM SOPs in all countries. For all countries, disaster preparedness messages have been developed into community posters to support DRM SOPs. These are being disseminated in English and local languages, and are also available in formats suitable for sharing on social media.

Aquaculture development planning in Fiji

Activities that addressed building fisheries value chains for fishermen and women in coastal communities, resilient to climate related changes, extreme events and other economic, social and environmental shocks, differed across the project countries depending on government priorities. Three examples are: 1) support to women's groups that are farming mangrove oysters in Fiji; 2) supporting the Fiji Ministry of Fisheries and Forestry (MOFF) in producing a national Aquaculture Development Plan; and 3) providing Solomon Islands' fisheries officers with kits to support post-harvest fish handling and food processing training in communities.

In partnership with the research division at MOFF and the Muanaira Women's group in Rewa, the project team developed an internal *Manual for edible mangrove oyster farming in communities*, which provides a detailed overview of the farming procedure primarily for reference by MOFF officers but also serving as a baseline for future development, such as new technological innovations. For example, the project procured and supplied commercially available disaster resistant mangrove oyster farming baskets from Australia. In partnership with MOFF and the Pacific Community, farmers and fisheries officers were trained on the assembly and installation of these innovative oyster baskets. If they prove to be a sustainable cost-effective option, they are expected to increase farming efficiency, reduce environmental impact, and improve the quality of oyster products.

With the increasing interest of new communities in Fiji wanting to engage in mangrove oyster farming, a gender risk assessment tool (Delisle et al. 2021; Waqa et al. 2023) was designed and applied in communities undertaking community-based mangrove oyster projects in Fiji. The findings then guided the production by MOFF of an Oyster Farming Site Selection Checklist, which addresses both environmental and social site selection criteria and can be adapted for other community-based commodities.

Under this project, a national consultant facilitated the development of a five-year Aquaculture Development Plan for Fiji to guide the ministry, its development partners and the private sector towards the nation's aspirations for economic and production targets. The Food and Agriculture Organization (FAO) of the United Nations consultant has also supported

the aquaculture division of MOFF to begin implementing the development plan. This includes scoping current aquaculture farms in Fiji's Central, Western and Northern divisions, starting to create model farms for priority commodities, and building the capacity of fisheries officers to provide extension service to aquaculture farmers on best practices.

Networking and capacity development

Because of the project's strong focus on gender equity, various training and workshops were implemented to improve women's participation in fisheries activities.

In partnership with the Women in Fisheries Network-Fiji, the Pacific Community, the University of Wollongong (Australia), and national fisheries agencies, the project supported a national forum in Fiji (Morris and Tuivucilevu 2024) and another in Vanuatu (Malverus et al. 2024) for women fishers, vendors and entrepreneurs. The Fiji event concluded with a call to action by the Women in Fisheries Network-Fiji (Anon 2024) and both fora stimulated ideas for future events to help connect women with local partners for exchange and learning.

In Vanuatu, VFD used project resources to hold a national fisheries symposium (national Fis Toktok) within Santo, Malekula and Maewo islands from August to September 2023. The symposium provided opportunities for men and women fishers and stakeholders to share challenges and opportunities for fisheries development.



Various post-harvest food processing training workshops were held in Solomon Islands. Project activities fostered equal participation of women and men through adopting inclusive community engagement processes (Delisle et al. 2021) such as having separate focus group discussions for men and women in community consultations, and scheduling field visits during a time of the day when women were available. In addition, where women were engaged in a fisheries value chain in large numbers they were also specifically targeted for some activities. For example, women who were particularly active in producing and selling smoked fish in the Shortland Islands not only participated in training on improved food safety and processing, but were also supported in participating in an Island Food Systems in Transition Forum hosted by Kastom Gaden Association, WorldFish, Solomon Islands National University, FAO and MFMR in Honiara.

FAO partners with national governments to deliver on their priorities. In support of this ambition, non-contractual partnerships with organisations and other projects working on similar issues in the project countries were a feature of successful outcomes in the project. Fostering such relationships helps to avoid duplication and, where longer-term support programmes are active, could improve sustainability of outcomes.

Overall, the project contributed to building capacity in disaster risk reduction and disaster risk management, fostered partnerships for gender in small scale fisheries, improved networking for women in small-scale fisheries value chains, and delivered on some policy and guidance documents of priority to the national agencies.

Acknowledgements

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Impact of the Collective Call to Action: Voices of Women in Fisheries in Fiji

Tupeope Samani¹ and Alani Tuivucilevu²

In March 2023, the Fiji National Women in Fisheries Forum convened for its second gathering, continuing a dialogue first launched in 2018 to amplify the voices of women fishers across Fiji. Organised by the Women in Fisheries Network – Fiji (WiFN), this forum created a space for over 37 women fishers from 10 provinces, as well as 46 representatives from partner organisations, to share experiences, challenges, and needs directly with policy-makers and development partners. Participants spoke about four critical themes: 1) women’s role in the blue economy, 2) the value of indigenous knowledge, 3) governance challenges, and 4) women’s resilience in the face of pandemics and environmental shocks. These discussions culminated in a powerful Call to Action (C2A) document – a concise list of priorities reflecting the voices and needs of women fishers (Morris and Tuivucilevu 2024).

C2A quickly became a vital tool in WiFN’s advocacy efforts, as Alani Tuivucilevu from WiFN shared in a 2024 follow-up by Tupeope Samani, the Pacific Community’s Monitoring, Evaluation and Learning Specialist. The follow-up served to evaluate the impacts of the Call to Action. For Alani, C2A transformed the way she communicated the issues faced by women fishers. Previously, she would share her knowledge along with extensive WiFN reports, which could be dense and time-consuming for stakeholders to read. C2A, however, offers a clear, concise list of issues and needs, making it an effective conversation starter with partners. The support of prominent organisations such as FAO, the European Union, the Swedish International Development Cooperation Agency, and the Wildlife Conservation Society whose logos feature on the C2A document – adds credibility to its message, positioning C2A as a resource that resonates with and mobilises stakeholders.

The impact of C2A has extended globally. Social media coverage of the forum drew the attention of major CROP³ agencies and media outlets, including the United Nations Office for Disaster Risk Reduction releasing a video highlighting these women fishers’ plights, ultimately shedding light on their roles as solutions to disaster readiness and preparedness and building community resilience.⁴

Additionally, a podcast produced with Justice Studio Sessions examined the lives of women working in Fiji’s fisheries section and brought the story of women fishers to a broader audience.⁵ Alani further promoted C2A during a fellowship in Washington DC, elevating the conversation around women fishers to an international platform.

Inspired by Fiji’s forum, Vanuatu held its own Women in Fisheries Forum in March 2024, underscoring the ripple effect of C2A as it continues to inspire and strengthen the voices of women in fisheries across the Pacific.

C2A’s impact has extended into concrete funding and projects. Projects that provide support for women fishers in WiFN’s membership base, including nine villages in Fiji’s Ra Province, with a Gender Equity and Social Inclusion training led by the Pacific Community in January 2024 marking the project’s kick-off. This funding enables communities to address the priorities highlighted in C2A, and will enable training and resources specifically designed to assist women fishers.

The traction generated by C2A also led the Fiji Broadcasting Corporation shooting the first of its kind documentary titled “Her catch – collecting women fisher stories from across Fiji”, which aired in August 2024 during the peak hour of 6 pm.⁶ The forum’s impact has also been felt at the grassroots level, as women who heard about the forum from others have subsequently reached out to join WiFN.

C2A has, thus, not only created a platform for advocacy, but has also driven real-world actions and alliances, enabling women fishers to gain visibility, support and resources to address their needs.

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³ CROP is the Council of Regional Organisations of the Pacific

⁴ Link to the video by UNDRR: https://www.youtube.com/watch?v=_TLdmBmd7Qct

⁵ Women in Fisheries in Fiji podcast Justice Studio Sessions: Justice Studio Sessions - 9. Women in Fisheries in Fiji | RSS.com

⁶ FBC story on HerCatch documentary release: <https://www.fbcnews.com.fj/news/hercatch-series-to-highlight-womens-role-in-fisheries/>



Women in fisheries profiles

Tracey Boslogo

By Tracey Boslogo¹ and Teri Tuxson²

Born and raised in Lovongai in New Ireland Province, Tracey Boslogo spent a lot of time at her parents' island home where, as a child, she loved fishing and collecting shells in the mangroves with cousins. The sea is an integral part of life, and fishing, gleaning and paddling were daily ocean activities.

Tracey Boslogo is a Marine Conservation Officer with the Wildlife Conservation Society (WCS) in New Ireland Province, Papua New Guinea (PNG). She has been with WCS for eight years. In addition to coordinating WCS's scientific research, she is also responsible for communicating science to the local communities WCS works with to help them relate science to their traditional ecological knowledge. Her role is to ensure local communities understand the science and biological processes that are involved in the development of marine organisms and ecosystems, and how this benefits them (the people) and their families.

Tracey has been happily married for six years and has two young children. She grew up in Noipuas, a logging site in West Lovongai, where she attended elementary school. In Grade 5, the family moved to Kavieng Town, and she attended Carteret Primary School. For secondary school, she first attended Tokarara High School in Port Moresby, and then after Year 10, she attended Port Moresby National High School. She completed her tertiary education at the University of PNG Moresby Campus pursuing Environmental Science, Chemistry and Geography.

What encouraged you to pursue a career in Environmental and Marine Science?

Growing up, I witnessed firsthand the impacts of logging, damage to the natural environment, and the unfulfilled promises made to so many local communities. Initially, this inspired me to become an advocate against logging, which eventually led to other marine science work, but this all stemmed from wanting to help our communities here at home in Papua New Guinea. Education also helped to influence my mindset.

What are your main projects with WCS?

Our main project is the establishment of the marine protected area (MPA) in Lovongai and Murat. The MPA is nearly 17,000 km², and was a massive effort that took over seven years of engaging with local communities, as well as national and provincial stakeholders. Nearly 80 communities in Lovongai and 26 communities in Murat all work together to identify problems, and even more importantly, identify community-led solutions.

How did you achieve this huge undertaking?

It was essential to carry out a consultative and transparent engagement with communities through the "free prior and informed consent" process, whereby communities consent on what should be included in the management plan for the MPA in both Murat and Lovongai local level governments (LLGs). A technical working group was formed to provide advice on the MPA from the initial stage through to the endorsement of LLG laws. A legal consultant was engaged to support the process for enacting laws in addition to the MPA management plan. In 2023, the two LLGs enacted this for recognition under the national government. But there is still much work to be done. In the future, we are partnering with all stakeholders on the ground (in New Ireland Province) again to roll out the implementation plans for both MPAs.

Your work also entails more than the MPA implementation project. Can you share with us a bit more about your other work?

We have quite a few projects on the go, so we are always busy. At the provincial level in New Ireland Province, we are working on scaling up community-based fisheries

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management. This is the fourth year we have hosted the Annual Locally Managed Marine Area Learning Network meeting with LLG fisheries officers and community champions coming together to share lessons learned over the year in how to support more communities in managing their resources. We have also worked with the Provincial Fisheries Office providing mentorship in aligning their workplans with the New Ireland Province Coastal Fisheries Roadmap, and developing databases for the Fisheries Division to support their work in tracking communities and activities. We also have a shark and ray project, developing awareness materials for communities, as well as instituting protection laws for them within MPA boundaries. In Tigak and Lovongai, we are conducting key informant surveys for socioeconomic data collection and catch per unit effort (CPUE) work; this is to understand fisheries health and socioeconomic benefits from marine resources. CPUE data collection is ongoing (every two years) as it helps to inform community-based fisheries management in these communities (Tigak and Lovongai). Finally, together with West New Britain and Manus, we are working on food security and nutrition through the development of traditional diet cookbooks for local women.

What do you like most about working at WCS?

The teamwork and dynamics within our office and among the staff really create an environment conducive to success.

What is your most memorable achievement in working with coastal communities?

My most memorable achievement is the success of the MPA. There are challenges ahead but if we continue to build relationships with our partners, we can ensure continuity and success.

What is a story from your childhood that you would like to share with readers from which you find inspiration?

When I was 10 years old, I caught a very large skipjack tuna, and my parents told me, *"If you share your catch, the next time you go out fishing, you will always catch more."*

What advice would you give to women involved in fishing or fisheries management?

If this is your dream, you must go for it and pursue it. There is a great need for women in the fisheries space. Women are naturally gifted with managerial and mentorship skills. It is very important to network and broaden your circle, so you learn from other people's experiences. You would be surprised when you start networking and sharing information with others, they are learning from you too.

Thank you, Tracey, for your time and for sharing your experience. It is truly inspiring for us all!





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 mangroves 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.



Women in fisheries profiles

Loise Erikha Erekalī: A young guardian for fisheries compliance in Solomon Islands

Mark Nicholson¹ and Loise Erekalī²

Loise takes pride in protecting marine resources for future generations and enforcing fisheries regulations to promote sustainable practices. Her work provides her with a deep sense of professional fulfilment as she makes tangible contributions to environmental conservation and public safety.

Loise Erikha Erekalī, hailing from Sulagwalu Village, North Malaita, Malaita Province in Solomon Islands, is a Senior Fisheries Compliance Officer under the Offshore Division at the Ministry of Fisheries and Marine Resources. Employed since 2016, Loise is dedicated to ensuring the effective management and sustainable use of marine resources. In addition to her professional role, she actively engages in volleyball with friends and colleagues, and oversees the youth ministry at her church.

Loise's role is extensively operational and encompasses a wide range of responsibilities. She verifies and validates catch log sheets and landing documents to support the process of the European Union illegal unreported and unregulated (IUU) catch certification documentation. She provides support to the National Observer Programme and Port Sampling Programme, and assists the Competent Authority in certifying fishing documents. Loise is also responsible for implementing the compliance annual work plan and strategy, ensuring high-quality, error-free data production, and supervising fish offloading at Honiara Port. Additionally, she leads case management for both inshore and offshore cases, handling infringements and investigations.

Her interest in fisheries was sparked during her studies, particularly when doing a unit on fish stock health in the Pacific. Concerns about overfishing, climate change, and marine pollution motivated her to pursue a career in fisheries compliance, with the aim of protecting the livelihoods of her community and the region. Her academic background in marine science provided her with a theoretical foundation, which she now applies practically in her day-to-day responsibilities, bridging the gap between theory and practice in fisheries management.

Working in fisheries compliance presents a unique set of challenges and rewards. Loise often finds herself working in hazardous conditions and remote locations, with limited resources and funding, and coordinating enforcement actions across multiple jurisdictions. Combatting corruption and governance issues also presents a significant obstacle. Despite these challenges, the rewards are substantial. Loise takes pride in protecting marine resources for future generations and enforcing fisheries regulations to promote sustainable practices. Her work provides her with a deep sense of professional fulfilment as she makes tangible contributions to environmental conservation and public safety.

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One of the more memorable initiatives Loise has been involved in was addressing the European Union's "Yellow Card", which was issued to Solomon Islands in 2014. Seeking to reconcile this problem, a laborious process ensued. Loise was recruited alongside 15 other officers to reinforce the Ministry of Fisheries' compliance capabilities. Their collective efforts led to the lifting of the Yellow Card in 2017, underscoring the importance of effective monitoring, control, surveillance and enforcement (MCS&E) in the fisheries sector. This rectification was a significant achievement for Solomon Islands, acknowledging its efforts in combating IUU fishing.

Loise's motivation to specialise in MCS&E stems from her passion for marine conservation, her commitment to combating IUU activities, and her desire to protect the livelihoods of coastal communities. Her work is driven by a deep sense of duty to enforce regulations and prevent activities that could harm marine environments and local economies. Despite the challenges, she remains motivated by reflecting on the broader goals of her work and seeking opportunities for professional development. Key moments, such as advice from her late father, and inspiration from mentors like Mark Nicolson and Allan Aba, have reinforced her commitment to this field.

Obtaining a Certificate IV in Coastal Fisheries and Aquaculture Compliance has been instrumental in Loise's career, providing her with essential skills and knowledge in fisheries compliance. Key takeaways include understanding her legal powers, identifying offences and penalties, and mastering the process of market inspections. These skills have directly impacted her effectiveness in her role, enabling her to conduct thorough inspections, lead operations, and manage incidents proficiently. She applies these lessons daily, ensuring that she maintains meticulous records, leads with confidence, and enforces fisheries regulations accurately.

Loise emphasises the importance of knowing one's powers, maintaining contemporaneous and detailed notebooks, and being well-versed in fisheries laws and regulations. She encourages her 2023 cohort to focus on time management, teamwork and continuous learning. Reflecting on her time with the 2023 cohort, Loise underscores the importance of time management, knowing why you are in your role, and being equipped with the right knowledge and application of MCS&E processes. She advises the present cohort to stay engaged, be open-minded, and seek out opportunities for professional development.

Looking ahead, Loise believes that advancements in technology, such as satellite monitoring, drones, big data analytics, and artificial intelligence, will revolutionise MCS&E efforts. These tools will enable more efficient and cost-effective monitoring of fishing activities, improved detection of illegal vessels, and enhanced data analysis for evidence-based decision-making. She also foresees greater collaboration among governments, organisations, and the private sector in addressing IUU fishing and strengthening MCS&E capacity. Strengthening legal frameworks and governance structures will be crucial for combating IUU fishing effectively, ensuring that fisheries management remains robust and adaptive to emerging challenges.

Loise has a message to her contemporaries, especially her 2023 Certificate IV cohort: *"Hope all is well with each of you. You are indeed some of the most experienced professionals I have met, each passionate about marine resources. Although we come from different islands, we are united by one ocean. Keep enforcing the regulations but always know your powers. I hope our paths cross again in the future."*

Loise Erikha Ereka's journey in fisheries compliance is marked by her dedication, resilience, and passion for marine conservation. Her early contributions to the field, from addressing IUU fishing to leading compliance initiatives, highlight the importance of effective fisheries management for the sustainability of marine resources and the livelihoods dependent on them. Her story serves as an inspiration to her colleagues and future cohorts, emphasising the value of continuous learning, professional development, and unwavering commitment to protecting our oceans.

Women in fisheries profiles

Josephine Rambay

By Vasemaca Malverus¹ and
Josephine Rambay²



“Fisheries might be seen as a male dominated sector; however, women participate in really important aspects of fisheries and add value by playing key roles in the aquaculture industry. For instance, an aquaculture farm is usually owned by a male, but the farmer’s wife is the greatest support behind the scenes. Women oversee the logistics and maintenance of a farm, feeding the fish on time every day, report any recommendations for the farm and handling the fish sales during harvest on top of their expected household duties.”
– Josephine Rambay

Josephine Rambay, married with four children, is originally from Malekula in Vanuatu. She works as Principal Freshwater Aquaculture Officer at the Vanuatu Fisheries Department (VFD). She sees herself as someone who received her qualifications late in life, because after high school and starting at the University of the South Pacific she paused for a few years to get married and have kids, so it took a while before she could go back to complete her studies. Nevertheless, she has a Bachelor in Marine Science and Postgraduate Diploma in Aquaculture from the University of the South Pacific. In between her bachelor and postgraduate degrees, she helped her father run a small internet café in Port Vila. After gaining her postgraduate diploma, she worked in several places, including the Department of Environment Protection and Conservation as administration support. She also worked as project coordinator for the National Biodiversity Strategy Action Plan, and as an Industry Officer at the Shefa provincial Department of Industry.

What inspired you to study aquaculture?

When I was helping my Dad at the small internet café business, I signed a contract with Skills Partnership to clean reefs, collect the poisonous starfish, crown-of-thorns (COTS) and plant corals. Engaging in this activity increased my motivation to get rid of COTS. With my interest in aquaculture, my thought trail led me to thinking that I should make feed material for animals out of the COTs. So, this inspired me to make fish feed for aquaculture from

COTS, resulting in my proposed field in postgraduate studies in aquaculture. A fish feed usually contains proteins, carbohydrates and fats. So, for my postgraduate diploma I studied local products to supplement the protein ingredient and I used dried COTS to support reef cleaning, and since it can be locally found, I used it in the fish feed. Unfortunately, my findings showed that COTS is only rich in calcium and not enough protein, thus, overall it was not an appropriate protein supplement for fish feed. Needless to say, the exercise was a big learning moment for me in so many ways

What are your current roles in VFD?

In my current role, I look after freshwater aquaculture activities in the whole of Vanuatu. The two main sites where this activity is centered are Santo (in the northern province) and Efate (in the southern province). I oversee the two main seed production centers and any other work that is related to freshwater aquaculture. This means that I produce the annual work plan for the aquaculture program and tasking the officers in the field. All aquaculture requests from communities, farmers and other groups needs my approval and I ensure that my officers have the necessary equipment and support to achieve these targets. I am also responsible for the quarterly reports to the office of the Director for the aquaculture section. I also provide advice to the mariculture team, where necessary.

From my past experience as a project coordinator, I have the network and efficiency in organising events and so VFD

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Josephine and colleagues laying the pond liners. © Josephine Rambay

occasionally requires my skills and experience. So, I have been part of various organising teams in doing logistics for such events in Port Vila and other islands of Vanuatu.

What aspects of your role inspire you the most?

It is inspiring to see aquaculture become an alternative income generation as part of the resource management together with food security in communities during disasters. To relieve fishing pressure on reef fish, communities are encouraged to shift to deep bottom fishing or aquaculture to have access to alternative household protein sources and as an income source. During disasters, aquaculture has been proven to be an important fallback source of protein for the community immediately after tropical cyclones with the leftover root crops in the gardens while they wait for relief supplies. So, it is fascinating to see how the aquaculture program, even though its small, has the potential to make a big impact on the surroundings of an aquaculture farmer. For example, when category 5 Tropical Cyclone Harold hit Santo in 2020 and affected communities had to wait for relief supplies, the Wailapa Community which was severely impacted had tilapia from the community pond for about two weeks as the main protein source. Similarly, it is very rewarding to see a successful farmer in an in-land community has a positive impact on the community as a whole. His family benefits from it, his fellow community members also benefit from the activity by working for the farmer for household income and having access to protein on site. So, it is inspiring to see successful harvests from farmers I work with because when they are happy, I am happier.

But what inspires me the most is that working in this male-dominated environment allows me to realise the role of both men and women in this sector. Fisheries might be seen as a male dominated sector; however, women participate in really important aspects of fisheries, and add value by playing key roles in the aquaculture industry. For instance, an aquaculture farm is usually owned by a male, but the farmer's wife is the greatest support behind the scenes. Women oversee the logistics and maintenance of a farm, feeding the fish on time every day, report any recommendations for the farm and handling the fish sales during harvest on top of their expected household duties.

What are some challenges you had to overcome in your role within VFD?

One of the major challenges I encounter periodically is linked to staff (the majority of them being men) and the lack of human capacity. Human capacity is a challenge that affects all divisions at VFD, not only the aquaculture team. However, we always try our best to hit our targets annually but sometimes work can be delayed due to lack of people on ground. So, there are times when I end up with hard labour work. For example, when my team has an immediate dateline to meet but there are not enough boys for the job, I have to help them to dig the ponds with the spade and place the bond liners which can happen in harsh weather such as heavy rain or a hot sunny day. I find this physically very challenging sometimes!

Also, it is a very male-dominated field. At the moment, I manage four male staff members in the aquaculture

hatchery and extension services and I also work with aquaculture farmers who are all male. As a woman it is challenging sometimes working in a male-dominated field.

Additionally, getting training for specific technical needs to increase our capacity is becoming more difficult within the aquaculture sector in the region. There are few opportunities since I begin with VFD, but those are more technical which I was not being included and it might be because I have the theoretical knowledge on aquaculture from my studies while my male staffs have more technical experience. To me, I believe it will be more beneficial if we can all benefit simultaneously as it will strengthen team work and exchange knowledge and experience to support each other to develop our capacity and achieve our targets efficiently.

Finally, there is also a challenge with my family being a wife and mother. I work in an environment where I get torn apart sometimes but then I have to balance it all with my family and my responsibilities at home. At first, I struggled, but now I am grasping the management part of it, so now I can cope with managing both my work and my family at the same time.

What are some challenges that women in Vanuatu have had to overcome in the aquaculture sector?

In Vanuatu, women are highly involved in aquaculture but the visibility of their involvement is often hidden. Women are often the operational staff in a farm that is owned by their husbands, who are the fish feeders, farm maintenance workers and fish sellers. But at the end of the day, it is the farmer himself getting all the recognition from a very successful farm while the women are the hard workers behind the scenes. In my experience, I always see men coming forward to collect the free materials I have for distribution such as pond liners, but I hardly see women. There are also women farmers involved in backyard farming but the challenge is that they do not seek advice from me as the female lead in this program so I see that women are not making use of this opportunity. I assumed it was due to cultural barriers and the norm that

this is an activity for males. It might be that women do not socialise a lot that they don't have access to this type of information, or it might be lack of confidence coming from a rural community to take up this task. However, this year I am seeing more women showing interest and reaching out for the help they need. And I think it is because of the exposure during the first Women in Fisheries Forum organised by VFD this year and the Facebook live promoting women in Fisheries in celebration of the 2024 International Women's Day.

What advice would you give women who participate or are interested in aquaculture farming?

My advice to women in Vanuatu is to take the opportunity of having a woman heading the freshwater aquaculture programme. They need to step forward and speak about their interests or even their challenges so I can assist them. I want to see a change in the aquaculture sector through women. To do so, I need to know how I can assist women and what can we do to get them to become an aquaculture farmer. Even women having a backyard farm (fish pond), should let me know how I can help them with it.

Do you recall a "WOW" moment where you felt that you had achieved something important?

I have a lot of WOW moments in aquaculture. Every time I support a farmer to build his pond and seeing it completed with all the fish inside, is a wow moment for me. It is a good opportunity for me to sit and reflect on that particular success. When I hear about his/her successful fish harvest and sales, it is also a wow moment for me – as I know that all the hard work has paid off. Sometimes there are bad weather days, with heavy rain. On those days, pond building should be postponed but the work still must go on, and at the end of those days, I will be very happy, personally. Finally, an important wow moment for me is when all my staff are present and we communicate well, engaging in our tasks and achieving more than our targets in a year. I will surely celebrate these achievements because I am overwhelmed by our team work.



Josephine at work on a rainy day with the men. © Josephine Rambay



Women in fisheries profiles

Merelesita Fong

Ever since Merelesita Fong was little, she has loved being in the water. Her fondest memory was taking long walks by the seawall in Suva, where she grew up. She was always intrigued by marine life and all its little critters, spending most of her time scavenging in rocky pools.

Merelesita Fong (Meme to her family, friends and colleagues), holds a bachelor's degree in Marine Science from the University of the South Pacific. Throughout the four years of her study, she actively participated in various volunteer and ocean conservation activities with organisations such as World Wide Fund for Nature (WWF), Uto ni Yalo, Pacific Ocean Litter Youth Project, and Wantok Moana Association. After graduating in 2021, Meme assisted three PhD students with their research. The first one included studying patterns of coral relative to 3D coastal hydrodynamics, physicochemical water parameters and nutrients. The second project involved using indigenous and local knowledge of fishers across Fiji to fill knowledge gaps present in the conservation and management of marine and freshwater resources. With the third project, she supported laboratory practical sessions on the life history, reproductive biology and feeding ecology of the largest endemic riverine fish in the South Pacific (*Mesopristes kneri*).

In late 2022, Meme worked with regional fisheries expert Robert Gillett to compile the fourth edition of the Benefish Study on *Fisheries in the Economies of the Pacific Island Countries and Territories*. The book included a chapter for each Pacific Island country and territory covering: 1) recent annual fishery harvests, values and volumes covering six fishery production categories; 2) fishing contribution to gross domestic product; 3) fishery exports; 4) government revenue from the fisheries sector; 5) fisheries employment; and 6) fisheries' contribution to nutrition. She spent three months interning at Talanoa Consulting, supporting the gender analysis of the fisheries and aquaculture sector in Kiribati, which led to an opportunity that allowed her to be a marine biologist at Barefoot Manta Resort in Yasawa.

Why did you choose to work on fisheries?

It was not so much about choosing to work in fisheries, it was rather just being completely open to trying new things. I was a fresh graduate when I heard there was an opportunity to co-author a fisheries book, and I was willing to take on whatever came my way. I have always recognised the importance of fisheries to the economies, livelihoods and cultures of Pacific Island countries, but I was only able to fully appreciate the complexity of their economic significance while carrying out the in-country visits, for which I was very grateful.

What was it like working on the economics of fisheries in the Pacific?

For a newly graduated young woman working on a project as big as this one, it was exciting and frightening at the same time. Throughout the eight months of being a junior consultant, I had the privilege of travelling with Robert Gillett to several Pacific Island countries to learn how in-country visits work, the protocols for entering each country, and organising meetings with fisheries officials. Prior to the visits, I assisted Mr Gillett with conducting internet searches relevant to fisheries in the Pacific, and learned how to analyse the information procured from fisheries agencies. I made trips to Nauru, New Caledonia, Samoa and Tonga, all of which provided me with new challenges and memorable experiences. My first solo trip to Nauru was quite difficult due to being nervous and doubtful that my young, inexperienced self would be able to do as good a job as Mr Gillett. Although I felt like I was thrown into the deep end of the pool I thought that maybe there was no better way to learn something. I was fortunate to expand my network

of people within other national fisheries agencies and made friends from different sectors and positions along the way. And it was very encouraging to see that although fisheries agencies are typically male-dominated, Mr Gillett and I were met with an all-female fisheries department in Samoa.

What challenges do you face as a young woman in your career?

I know a lot of young women whose parents think studying marine biology is a waste of time and doubt its potential. I, too, had my parents scratching their heads when I decided I wanted to study marine life. But I was fortunate enough to be able to pursue it, unlike others who were expected to follow whichever career path their parents preferred. Furthermore, it can be quite challenging and concerning for women to travel alone for work (or for anything in general) requiring us to take extra precautions. Moreover, I have received various

forms of prejudice from older men in senior positions, which can be discouraging as well, especially when they expect a fisheries consultant but find a young, timid woman instead.

What advice would you give to other young women?

Do what makes you happy. It's never too late to live your life how you want. It can be difficult going against the advice of friends and family who disagree with your career path, especially if they feel it may not "take you anywhere". Your career choice will occupy a big part of your life so make sure it is what you are passionate about and enjoy doing. Life is too short to be dreading going to work every day. And once your family sees you are happy and have a successful career, they will value and support the decisions you made. After all, most parents only want the best for their children.



Meme planting coral at Barefoot Manta Resort. © Rafa Jaklik



Women in fisheries profiles

Empowering Tuvalu fisheries: Matelina Stuart's journey in communications and awareness

Tupeope Samani¹ and Matelina Stuart²

Meet Matelina Stuart, the driving force behind transforming the communication efforts at the Tuvalu Fisheries Department. As Fisheries Librarian and Public Relations Officer, Matelina has taken significant strides to enhance how the department engages with the public, bridging gaps in knowledge, and creating impactful awareness materials.

In November 2019, Matelina embarked on a transformative two-week work attachment in Noumea, New Caledonia, funded by the Pacific Regional Oceanscape Program under the World Bank and the Pacific European Union Marine Partnership Programme (PEUMP). This opportunity focused on honing her skills in communications and information dissemination. During this time, she mastered Canva, a graphic design platform that revolutionised her approach to creating professional, polished content. Since then, Matelina has used Canva to elevate the quality of visuals shared across the department's Facebook page³ and website⁴, moving away from Microsoft Office tools and embracing a more modern and creative approach. Her efforts have not gone unnoticed, with colleagues praising the new, refined look of the department's communications.

Matelina has also been strategic in crafting messages that resonate with various audiences. By advising her team on the use of the local Tuvaluan language, she ensures that the content is culturally relevant and easily understood, particularly for local community members and donors. This cultural sensitivity has made a lasting impact on how the department communicates.

In July 2023 and April 2024, Matelina participated in PEUMP co-funded communications training workshops led by the Pacific Islands Forum Fisheries Agency in Suva and Lautoka, where she learned to use artificial intelligence tools such as ChatGPT. These tools have streamlined her storytelling process, reducing the time spent drafting social

media posts and website content. What once took over 30 minutes now takes significantly less, making her work more efficient without compromising quality.

Matelina's passion for education goes beyond social media. She has conducted awareness sessions in primary schools, using videos such as Fishers Tales⁵ and Guardians of the Pacific⁶ to engage students and their families. These sessions have sparked interest from mothers, who have requested copies of the videos to share with their communities. By tailoring these videos in the local language during workshops on the outer islands, Matelina ensures everyone can connect with the content, regardless of age or background.

In March 2024, Matelina joined a strategic communications workshop that focused on creating video and radio content for sustainable fisheries management. This workshop highlighted the potential for the department to create engaging, locally relevant content. A standout success was a video⁷ produced by the Tuvalu Climate Action Network Communications Officer and Niutao Community Fisheries Officer, which reached over 16,000 views on Facebook, showcasing the power of localised storytelling.

Despite these achievements, Matelina faces ongoing challenges. As the sole person handling both communications and library management, she struggles to balance the demands of these roles. Limited resources, such as a digital camera and colour printer, funded by the Tuvalu Fisheries Support Programme under New Zealand, restrict the department's ability to expand its communications efforts. Broadcasting on Tuvalu TV also presents financial hurdles, with high costs limiting the reach of their content to Funafuti viewers only. External donor support remains crucial to overcoming these barriers.

Through her dedication and creativity, Matelina continues to make waves in Tuvalu's fisheries sector, empowering her community with knowledge and driving sustainable change. Her story is a testament to the power of communication, innovation and cultural connection in making a lasting impact.

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³ Tuvalu Fisheries Department Facebook page link: <https://www.facebook.com/profile.php?id=100064525366745>

⁴ Tuvalu Fisheries website link: <https://tuvalufisheries.tv/>

⁵ Link to the Fishers Tale videos: <https://cbfm.spc.int/resources/species-and-habitats/fishers-tales-videos>

⁶ Link to the Guardians of the Pacific videos: https://www.youtube.com/playlist?list=PLCq-WnF3HdrlL2_eEya24Bram3XJCsigy

⁷ Link to the video produced by TUCAN officer: <https://www.facebook.com/watch/?v=3231397027005093>

Women in fisheries profiles

Seeing the value of my role: The journey of Lesiala Petaia

Tupeope Samani¹ and Lesiala Petaia²

Lesiala Petaia, also known as Pole, stands as a testament to the transformative power of education, perseverance and seizing opportunities. Her journey from humble beginnings to becoming a key player in Tuvalu's fisheries sector illustrates how training and personal growth can profoundly impact both individual lives and communities.

The youngest in her family, Lesiala is no stranger to hardship. With her mother leaving for New Zealand and her father working in Tuvalu as a captain on a vessel, then work taking him to Fiji, she found herself living with her brothers, dependent on their earnings. Each payday, she would ask them for money for her basic needs, which made her feel vulnerable and helpless. Eager to change her circumstances, she sought employment as a shop salesgirl, but when an opportunity arose to apply for a fisheries observer position – a role traditionally reserved for men – she took a bold step and applied. Despite her father flying back from Fiji to discourage her, she remained determined.

Lesiala was offered the fisheries observer role and her decision to embrace the position marked the beginning of a remarkable transformation. Upon completing her time as a fisheries observer, Lesiala transitioned into the position of Assistant Fisheries Officer, where she was responsible for overseeing observer data entry at the Tuvalu Fisheries Department.

While she initially knew little about the broader fisheries and marine management landscape, the experience she gained from her observer and fisheries officer role – coupled with various training courses she undertook under support through the Pacific European Union Marine Partnership Programme (PEUMP) and the Pacific Fisheries Leadership Programme – would shape her perspective, career and community contributions.

The first turning point came when Lesiala learned about the Certificate IV in Fisheries Enforcement and Compliance Course in 2020–2021 (an activity implemented under PEUMP by the Forum Fisheries Agency). It was an opportunity to develop skills that would not only help her professionally but also broaden her understanding of the

interconnectedness of marine management. She realised the data she was collecting in her role as an observer had far-reaching implications, feeding into scientific studies, supporting case investigations, and influencing policy decisions. She no longer viewed her job as merely data entry; she became acutely aware of her role in a much larger system.

Her pursuit of growth did not stop there. Lesiala continued to seek out learning opportunities, taking part in the Certificate IV in Resilience Course in 2020 (an activity implemented under PEUMP by the University of the South Pacific, USP), and the Certificate IV in Training and Assessment Course in 2022 (a joint PEUMP–USP activity). Her participation in all the courses not only enhanced her technical knowledge but also developed her leadership skills. Through face-to-face interactions and hands-on experiences, such as standing in court and simulating enforcement actions, she gained practical skills that would later prove invaluable.

One of the most profound lessons Lesiala learned was the importance of self-awareness and leadership. She was exposed to methods of handling difficult conversations and realised that open communication with her superiors was crucial. Before the training, she had been hesitant to challenge authority figures or voice her opinions. But afterward, she felt empowered to engage in meaningful dialogue, understanding that her contributions were valuable to the team's success.

Beyond the workplace, the skills she gained also helped her assist her community. Her father, now a community leader, was involved in a rainwater catchment project. When they faced challenges in securing funding for work labour, it was Lesiala who advised him on how to approach the local government and secure additional support. Her knowledge of feasibility assessments, which she had learned from her courses, became instrumental in helping the community move forward with their project efficiently and effectively.

Reflecting on her journey, Lesiala recognises that the training opportunities she pursued were instrumental in shaping her academic and professional development. Without these courses, she would not have met the qualifications necessary for acceptance into the USP's Marine Management

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Women in Fisheries Forum, 14 March 2024.

programme at USP. The Certificate IV qualifications she earned through institutions such as the Pacific Islands Forum Fisheries Agency and USP enabled her to embark on her bachelor's degree, which she is currently pursuing as a privately funded student, drawing from her own savings. These credentials have also strengthened her candidacy for job applications, consistently earning her a spot on shortlists and positioning her as a strong contender in the job market.

Lesiala's story serves as an inspiration to many. It highlights the critical role that education, particularly in the form of targeted training, can play in empowering individuals. Her journey from a young woman struggling to make ends meet, to a confident, educated leader in her community, is a powerful reminder that with determination and access to the right opportunities, anyone can achieve their dreams and contribute to the well-being of their community and people.

Her advice to others is simple yet profound:

"Don't just sit back. There are opportunities, make use of them. If you don't have money, look for funding and sponsors. There is always something you can do to build yourself up."

Outcomes of the first regional Gender and Social Inclusion in Fisheries Symposium

Rose Martin¹ and Natalie Makhoul²

Introduction

Pacific fisheries play a critical role in the economic and social development of the region, contributing to food security, livelihoods, and national revenues. Despite its significance, challenges around gender equality and social inclusion (GESI) persist. Around 56% of annual small-scale fisheries catches are by women (Harper et al. 2013) who dominate the onshore processing sector (Ruia et al. 2023), are often underrepresented in decision-making processes, and face multiple barriers to accessing resources and opportunities.

The first regional Gender and Social Inclusion in Fisheries Symposium, which was co-hosted by the Pacific Island Forum Fisheries Agency and the Pacific Community, brought together 55 (42 women, 13 men) coastal and offshore

fisheries practitioners, representatives from civil society organisations, academia, regional organisations, fisheries entrepreneurs and political leaders.

The discussions explored challenges and pathways to the quantification of women's roles and their socioeconomic contributions to fisheries, how to empower small-scale fish entrepreneurs and enhance inclusive participation in fisheries management and development, including decision-making.

The outcomes of the deliberations are shared below under three of the symposium's thematic areas, which were identified as priorities for both coastal and offshore fisheries.

Participants to the first regional Gender and Social Inclusion in Fisheries Symposium, held at the Pacific Islands Forum Fisheries Agency in Honiara, Solomon Islands. Image: © Josaia Nanuqa



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Theme 1: Data and information on women's contributions and socioeconomic benefits

- 1 Improved coordination and partnerships between agencies of the Council of Regional Organisations of the Pacific (CROP) and increased partnerships between national fisheries agencies and women's machineries.
- 2 Advocacy and awareness for Pacific Island fisheries leaders and gender equality leaders to create high-level political support for GESI in fisheries. This can be done through improved CROP initiatives that are in line with high-level GESI commitments in regional frameworks.
- 3 Harmonising and standardising data collection across and within sectors (e.g. fisheries, gender, agriculture, statistics, climate change) and organisations (e.g. academia and civil society groups at the regional and national level) to integrate GESI indicators into existing research tools and systems to guide GESI and fisheries policy commitments.
- 4 Increasing capacity for fisheries socioeconomic data collection and analysis with GESI lenses, including on welfare and well-being for small-scale and commercial fishers and fish workers. This should combine formal and informal forms of capacity building aiming at skills development for GESI analysis.
- 5 Increasing documentation of traditional knowledge of Pacific Island women and men to inform fisheries management practices with indigenous peoples in the centre of fisheries management as stewards of their maritime spaces and marine resources.
- 6 Strengthening inclusive and community-driven solutions for sustainability.

Theme 2: Empowering small-scale fisheries enterprises

- 1 Long-term strategy, investment and partnership, including with the private sector is required to increase the success of formal and informal small-scale seafood businesses.
- 2 Comprehensive capacity building and training that is accessible to local groups and small-scale fisheries enterprises. This includes post-harvesting, marketing support for accessing local and international markets, and business literacy, all of which must be integrated.
- 3 Provision of and support to access financial services and products that are suitable for small-scale businesses and community groups. Financial support must be tailored to ensure it does not disadvantage community groups such as women, youth and others.
- 4 Collaboration with educational institutions to deliver micro-qualification courses or similar training units to build individual and group business skills to facilitate access to finance and to enable inclusive training opportunities for rural women, men, youth and marginalised groups.
- 5 Interventions aimed at value-adding must be tailored to the local and rural context using climate smart, economically viable and culturally appropriate approaches. Interventions should utilise readily available and low-cost materials and techniques with an emphasis on food safety and hygiene, coupled with awareness and advocacy on nutrition and healthy foods.
- 6 Improved transport and infrastructure, including cold storage, to enhance access to domestic and international markets. Capacity support to understand and meet export requirements and development of marketing strategies to better connect small-scale entrepreneurs while managing expectations.
- 7 Regulations, policies and laws to enable and protect locals when engaging in regional or international trade. Enable locals and groups to understand policies and laws so that they can be used to facilitate and protect them when dealing with overseas business partners.



Theme 3: Inclusive voices for a meaningful participation in fisheries management, conservation and development

- 1 Mentorship programmes and leadership training tailored to address gender biases can empower women and young fisheries career starters to break through cultural barriers as evidenced by imbalances in mid to senior management positions to support their professional growth with equal opportunities to become leaders of tomorrow.
- 2 Adoption of a people-centred approach, fair recruitment practices, and addressing access barriers improve diverse participation in building leadership capacity. Emphasis on supporting conflict management and nurturing emerging leaders. This involves fostering a culture of collaboration and shared leadership, where diverse voices are valued and empowered.
- 3 GESI-sensitive community engagement at all phases of programmes and interventions is a prerequisite to achieving sustainability and ownership.
- 4 Long-term engagement and involvement of a wide range of stakeholders, including women, in decision-making processes through various methods and avenues. This includes creating inclusive spaces for women to voice their perspectives, and ensuring their representation in leadership positions across sectors.
- 5 Communication and information strategies aim to empower communities to achieve meaningful participation in sustainable resource management. This involves utilising culturally appropriate and GESI-transformative communication channels, messages and languages to disseminate information effectively and inclusively.
- 6 Advocacy for union involvement and the importance of traditional engagement mechanisms in addressing worker issues. This entails recognising the historical significance of unions in advocating for workers' rights and amplifying the voices of marginalised workers, including women and minority groups.
- 7 Decolonising GESI by integrating traditional values with modern principles and addressing deep-rooted issues. This requires challenging colonial legacies and power structures that perpetuate gender and social inequalities, particularly when addressing social identities that still remain sensitive and tabu to talk about.
- 8 Ongoing dialogue, research, and collaboration are necessary for inclusive, equitable GESI approaches. This includes fostering partnerships between government, civil society, academia, and communities to co-create and implement GESI-responsive actions.

Conclusion

The symposium was a pivotal step toward creating a regional platform for advocacy and awareness, including debating, sharing and learning from experts. The symposium ultimately fostered a vision of a more inclusive and equitable fisheries sector with stronger buy-in from leaders, regional organisations and fisheries and gender experts. By addressing the data gaps, empowering small-scale entrepreneurs, and promoting inclusive governance, the region can improve the lives of communities that rely on fishing for their livelihood and income. Ongoing collaboration and commitment will be essential to achieving these goals, and both the Pacific Island Forum Fisheries Agency and the Pacific Community are committed to working with member countries to progress the recommendations from this symposium.

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Consultations on gender-based violence in the Pacific fisheries sector

Natalie Makhoul¹ and Julieanne Wickham²

Regional consultations were held to discuss how gender-based violence relates to the Pacific region's fisheries sector – an important consideration. It became clear, that different forms of gender-based violence can occur across fisheries employment operations at sea or onshore as well as across informal supply and value-chains, including marketing lines or at home with negative impacts on the sector and the people at play such as women, men, migrant workers, and other at-risk groups.

Background

The first Pacific-wide consultations to discuss potential research on gender-based violence (GBV) related to, or stemming from, the fisheries sector took place on 29 February 2024 in Suva, Fiji. The half-day consultations (virtual and in-person) were organised by the Pacific Community (SPC) and supported by the Pacific-European Union Marine Partnership (PEUMP) programme in collaborative effort between SPC's divisions of Fisheries, Aquaculture and Marine Ecosystems (FAME) and Human Rights and Social Development (HRSD).

A need for consultations – as the first step to inform research gaps and needs – emerged during internal discussions between FAME and HRSD, and stipulated by the global research paper led by Dr Sangeeta Mangubhai from Fiji entitled, “Gender-based violence: Relevance for fisheries practitioners”, which was supported by SPC PEUMP (Mangubhai et al. 2023). The paper confirmed alarming gaps in the literature at the

international level on this intersecting topic, including in the Pacific. The significant discrepancy between documented information compared with the number of anecdotal stories on GBV in fisheries in the Pacific was also observed by SPC in the development of the Pacific handbook for human rights, gender equity and social inclusion in tuna industries (Barclay et al. 2023). Given the significance of fisheries for food security, livelihoods, employment, culture and broader socioeconomic benefits of Pacific people, it is imperative that research be conducted using a sector lens to examine GBV issues. The relevance of GBV in fisheries using a sector lens would help us to understand the triggers, underlying root causes and industry impacts, and determine the scope for action to address issues related to, or stemming, from the fisheries sector. The prevalence of violence against women in the Pacific is alarmingly high with UN Women warning that it is among the highest in the world (about twice the global average), with evidence showing that up to 68% of Pacific women are reported to be affected. Addressing GBV is a regional and national priority, supported by numerous commitments at both the national and regional level.



Group photo of in-person participants, and (bottom) virtual participants.
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While acknowledging that the range of stakeholders is quite broad and spans many sectors, obtaining the opinions, support and buy-in of key stakeholders as well as their assistance as experts on research priorities, needs and gaps was unquestionably a vital step in shaping SPC's future interventions. Key stakeholders from government agencies responsible for fisheries and gender and women's affairs, non-governmental and intergovernmental organisations working on fisheries or related matters, fishing industry representatives, and national and regional GBV networks (including faith-based organisations) were invited to be part of the consultations. Twenty-five participants attended (both in-person and virtually), with regional representatives and country representatives from the Federated States of Micronesia, Fiji, Kiribati, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands and Tuvalu.

The diversity of stakeholders enabled nuanced discussions exploring the relevance of GBV in a variety of contexts and situations in line with the purpose of the consultations' purpose. This also allowed a broad and open definition of the fisheries sector that included onshore and offshore activities, coastal fisheries (including aquaculture), and activities ranging from large-scale commercial to small-scale and the community level. In the discussions, GBV was not limited to a specific form of violence, but was more comprehensively discussed and guided by the following categories: physical, sexual, emotional and economic, including culture, as an underlying factor that can perpetuate other forms of violence.

Setting the scene – contextualising GBV issues related to, or stemming from, the fisheries sector

The consultations started with introductory presentations on the matter to set the scene for the consultations. These introductory presentations included:

- 1 An opening speech that highlighting the increasing socioeconomic pressure on small-scale fishers exacerbated by climate change impacts on blue foods and marine spaces with the potential to spike GBV risks. Furthermore, the women-dominated fish processing workforce and the women-dominated fish market frontline was highlighted as an at-risk group to experience forms of GBV in formal and informal workspaces and at home.
- 2 An overview on GBV issues from a regional perspective, which highlighted commitments and frameworks to address GBV as a regional priority with a reference made to the Pacific Platform for Action on Gender Equality and Women's Human Rights (2018–2030)¹ and the Pacific Leaders Gender Equality Declaration (2012).² The overview included sharing GBV statistics for the Pacific, and emphasised the national level actions taken, with 15 Pacific Island countries having passed legislation to address domestic and family violence.

- 3 A presentation of key findings from a global context showcasing how different forms of GBV have been associated with the fisheries sector. These included, a) physical violence in the forms of human trafficking, forced labour or child labour and largely impacting men, boys and people of diverse gender and sexual orientations fuelled by ideas of (hyper)masculinity promoted on boats; b) linkages of human rights abuses in illegal, unreported, undocumented (IUU) fishing; c) highly gendered sexual violence in and around port areas with money or other goods being exchanged for sexual services (transactional sex) and an increasingly documented "sex-for fish" practice, leaving female fish workers exposed to sexual and/or economic violence; or d) the fisheries sector is not neutral to the local context it operates in, and so social norms and underlying cultural practices and power dynamics do intersect with fisheries activities and can trigger, enable or reinforce forms of GBV. in sociocultural values and norm systems, cultural practices intersecting with different forms of GBV.

- 4 A presentation on GBV in Pacific fisheries, highlighting the lack of documented information despite the growing body of research on gender in fisheries. References were made to the recent analysis on gender and social inclusion in tuna fisheries in the Pacific (Mauli et al. 2023; K. Barclay unpublished report) were noted. Barclay's report confirms that there are GBV risks for women working as crew on fishing vessels, and highlights the growing number of female fisheries observers emphasising the highly gender-segregated workforce on fishing vessels (mainly men) and in processing (mainly women), with gender-specific risks experiencing forms of GBV for both women and men. Furthermore, while human rights in the Pacific's fisheries sector are receiving more attention (e.g. articles, projects, regional dialogues), these topics seem to be more broadly discussed under the human rights framework in commercial fishing contexts and with a focus on labour rights rather than specifically addressing or unpacking GBV in the context of informal small-scale fisheries. A few case studies and findings on GBV-related issues are documented in the Pacific handbook for human rights, gender equity and social inclusion in tuna industries (Barclay et al. 2023). These include incidences concerning physical violence at sea, sexual violence as a major safety concern for trained women crew members and observers in their line of work, and GBV concerns of tuna processing workers, most of whom are women. The literature on coastal fisheries-related gender does not provide much information on GBV, but limited research subtly indicates there are GBV risks for women fishers and fish workers who take on new or extended fishing activities that are commonly associated with men. These changes in gender roles can stir power dynamics at home, leaving women vulnerable to GBV. Market-related GBV incidences in the Pacific are better understood and documented, although they are not analysed to understand fisheries-related specifics and miss the link with economic violence. Growing

¹ <https://www.spc.int/sites/default/files/wordpresscontent/wp-content/uploads/2017/09/PPA-2018-Part-I-EN2.pdf>

² <https://forumsec.org/sites/default/files/2024-02/Revitalised%20Pacific%20Leaders%20Gender%20Equality%20Declaration.pdf>

pressure on women to fish more or expand their fishing activities for food and/or income because of changing demographics, growing food insecurities exacerbated by climate change, and associated lifestyle changes, to name a few, are additional indications suggesting a potential link with GBV.

- 5 There is a likelihood that these growing stressors and changing gender roles can heighten GBV risks as they are embedded in Pacific sociocultural systems that influence fishing activities and vice versa.

A summary of key messages, recommendations and potential actions by fisheries practitioners and stakeholders to address GBV were presented in concluding remarks (see box).

What was discussed?

Following the introductory presentations, consultations were held using a break-out group format with two virtual groups and one in-person group. To ensure a diversity of stakeholders, participants were initially divided into the region's three subregions: Melanesia, Polynesia and Micronesia. The in-person group, however, consisted solely of stakeholders in Fiji (Suva in particular), with a small number representing the regional level. Nevertheless, only two virtual groups with a more diverse geographic representation were created because of last-minute cancellations and some virtual participants withdrawing owing to erratic internet connectivity.

The participants discussed the following three questions in their break-out groups:

- 1 Do you see a need to investigate GBV issues related to, or stemming from, the fisheries sector?
- 2 What could the scale for potential research look like?
 - a Geographic scale: Should it be a regional study? Or selected countries? If selected, which countries should we focus on?
 - b Thematic focus: What are the topics we should focus on?
 - c Do you have suggestions or ideas for the research methodology?
- 3 Are there any other aspects that we should consider?

The second part of the consultations were held using an open plenary discussion to better understand the ways and approaches to engage with GBV networks, given the interdisciplinary nature of the proposed field of research with currently no established forms of engagement between fisheries and GBV stakeholders.

Consultations outcomes

The consultations confirmed a research need on GBV related to the fisheries sector in the Pacific with all stakeholders across government, civil society, regional organisations and the industry agreeing that a study will not only allow a better

Key messages, recommendations and potential actions by fisheries practitioners and stakeholders to address GBV

- There is increased recognition of the gender dimensions of fisheries but fisheries practitioners have not yet seriously addressed GBV issues.
- While there is a growing body of evidence of physical and sexual GBV in fisheries, there is comparatively less research on the psychological, economic violence and related cultural aspects.
- The literature often focuses on industrial fishing and abuse of labour rights at sea, with less emphasis on small-scale fisheries and along the informal or processing value chains where women often dominate.
- There is limited recognition and investment in GBV in fisheries policies, practices and institutions.
- Addressing GBV is inherently part of working on gender, and cannot be disentangled from other actions taken to address gender inequality, and should be integral to any work on improving the social benefits from fisheries.

understanding of GBV issues related to, or stemming from the fisheries sector, but that it would and should also provide an important guidance on actionable and practical steps that the sector can take to address GBV issues. Most stakeholders shared anecdotal stories on GBV with little documented research being known that captures GBV in fisheries-related matters. Often GBV-related aspects come out in side-stories when gender issues are discussed more broadly. The nature of coastal fisheries and offshore fisheries varies drastically so that participants recommended that the two be looked at separately.

Thematic focus

A brief summary of participants' commonly shared views and key points regarding the thematic focus for a potential study as discussed during break-out-groups is provided:

- Small-scale marketing including value chains and GBV-related aspects looking at safety, health and well-being, harassment risks, conflict potential in crowded market spaces, teasing and bullying, inequalities related to bargaining powers.
- Changes in power dynamics and the reverse consequences of women's economic empowerment, changing gender roles in fisheries and behaviour linked to control, jealousy, shame, economic, emotional and physical violence.
- Growing food insecurity pressure on women and men from climate change-related environmental changes and how this can lead to GBV.

- Cultural norms and practices in fisheries that can perpetuate GBV.
- Domestic violence as part of GBV. Violence experienced in domestic spheres can have impacts on women and their fishing activities, both formal and informal fish work. It is not enough to look at workplace-related issues of GBV.
- Community-based fisheries management related to decision-making and conflict potential from resource management measures.
- In male-dominated offshore fishing industries, men's experiences with GBV such as hypermasculinity and the risks for people with diverse gender identities and different sexual orientation should also be considered.
- There is a growing number of women who are fisheries observers and female trained crew, resulting in associated GBV risks.
- Community perceptions of cannery workers. Based on experience of faith-based organisations, which provide community counselling, fish cannery workers who are predominantly rural women sought counselling frequently due to the stigma they faced in the community because of their work in the canneries.
- Connecting to GBV support services, including the role of faith-based organisations. Services for survivors of GBV are often available through civil society, including faith-based organisations. In many instances these organisations provide referral support to health care providers, legal aid or other needed services on a case-by-case basis. The fisheries sector and people working in this sector are often unaware and not connected to such service systems because GBV may not be understood as a relevant topic in fisheries.
- GBV behaviour and experiences start in the community and are carried over into work structures.
- Men on fishing vessels are often at sea for long periods of time, and there are resulting risks of GBV when they return home.
- Working conditions offshore and in processing plants.
- Transactional sex, child labour and human trafficking and the GBV lens. While issues related to transactional sex, child labour and human trafficking are human rights issues that occur in commercial fisheries contexts, these issues are rarely looked at from a gender perspective and or how gender perceptions (including masculinity dynamics of mostly exclusive male crews) can enable or trigger forms of violence.

Geographic focus

With regards to the geographic scope of a potential study, participants agreed to a regional study with selected country case studies or a subregional approach to capture regional issues with localised research at national levels. Different criteria for the selection of countries for case studies were shared for consideration. These included but were not limited to:

- countries with significant commercial operations including onshore processing;
- countries with best practices on tackling GBV;
- countries where women do not fish much because of strong cultural barriers and beliefs; and/or
- countries with an existing baseline.

Methodology

Common views were shared regarding ideas and tips for the methodology to be used. All groups referred to pre-existing methodologies used in GBV that are currently being practised in the Pacific, generally a mix of qualitative and quantitative instruments. Participants suggested to look at existing sector studies on GBV that can be used or adopted. Strong ethical considerations were highlighted as being important to include in research approaches, such as standard operating procedures for researchers and research participants as social safeguards. The need to tailor approaches to Pacific GBV realities was also discussed, and this could be done using story formats.

How will the outcomes be used?

The outcomes of the consultations will be used to inform SPC's next steps in supporting a regional study on GBV in fisheries.

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Inclusive research to build capacity and ownership: Kiribati's gender and fisheries analysis

Tupeope Samani,¹ Natalie Makhoul² and Victoria Pilbeam³

Background

Between October and December 2023, the Kiribati Ministry of Fisheries and Marine Resource Development (MFMRD) – in partnership with the Pacific Community (SPC) through the Pacific European Union Marine Partnership (PEUMP) programme⁴ and with support from the University of Wollongong ANCORS Pathways Project – conducted a gender analysis of the fisheries and aquaculture sector, covering 10 communities on the atolls of Tarawa, Maiana, Nonouti and Kiritimati (Mangubhai et al. 2024). The analysis is a tool to better understand the gender dimensions and dynamics in fisheries and aquaculture in local communities. An institutional analysis of MFMRD was also conducted to assess the environment for gender mainstreaming in fisheries. The approach was a mix of field research and data collection coupled with training for MFMRD staff in collecting field data. This work was part of MFMRD's commitment to ensuring that gender equity and social inclusion are better integrated and mainstreamed into all aspects of its work.

Change process

Survey questionnaires were developed to collect data, including a focus group discussion tool that was tested in the field and adapted to suit the local context (Mangubhai et al. 2024). An institutional analysis of MFMRD assessed five key areas of gender mainstreaming: 1) political will and commitment to gender mainstreaming in government; 2) organisational culture that supports or does not support gender mainstreaming; 3) accountability and responsibility mechanisms to support gender mainstreaming; 4) technical capacity to carry out gender mainstreaming; and 5) availability of adequate resources to finance gender mainstreaming.

Training

A three-day gender equality and social inclusion (GESI) training was conducted for 22 MFMRD staff from the agency's technical and policy units (14 women, 8 men). Prior to the training, 20 participants completed a gender



MFMRD participating in gender training and socioeconomic survey design

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⁴ For more information on the PEUMP programme visit website: [Home | PEUMP](https://www.peump.org/)



Field team on Kiritimati Atoll © SPC

attitude survey, which revealed key insights. This type of survey helps to assess the immediate impact of the training. The pre-survey findings underscore a strong collective belief in gender equality in decision-making, but also highlight areas where attitudes toward women's full participation in fishing can be improved. When asked if fishing should be solely a man's responsibility, 70% disagreed, 25% agreed, and 5% were neutral. However, when asked whether women should own boats, fishing nets and other means to fish, only 15% agreed and 85% disagreed. Crucially, 100% disagreed with the notion that women should remain silent in community-based resource management meetings, and

all participants unanimously agreed that men and women should make community fisheries decisions together.

A post-training evaluation revealed that all participants agreed (92% strongly agreed, 8% agreed), that they gained new knowledge from the training. Additionally, 93% now have a clearer understanding of how to integrate GESI into their work. The training also encouraged critical thinking, with all participants agreeing (75% strongly agreed, 25% agreed) that the sessions challenged their perspectives. Participants particularly appreciated the group discussions on integrating GESI, as well as



Fishers from Banana Village on Kiritimati Island © SPC

interactive sessions using games, quizzes, and GESI tools and analysis. Notably, no session was rated unfavourably.

Field research

Over 60 focus group discussions took place with 488 fishers and aquaculture farmers from 11 villages (246 women and 242 men). These included young, middle-aged and elderly women and men. There were also key informant interviews with 12 MFMRD staff (7 women, 5 men) across senior management and technical staff. Also consulted were 2 women staff from the Ministry of Women, Youth, Sport and Social Affairs. The key highlights and findings included a set of recommendations to progress gender in fisheries, which were presented in-country in March 2024 along with separate validation sessions for senior managers and technical officers.

Results and impact

The approach taken prioritised the building of in-country capacity within MFMRD, focusing on socioeconomic research with a GESI lens. Rather than simply delivering the gender analysis of the fisheries and aquaculture sector in Kiribati, the support aimed to equip local MFMRD staff with the skills to conduct comprehensive gender analyses independently, interpret findings, and communicate their significance at the to community and national level.

MFMRD staff were engaged at each stage of the analysis, and participated actively in survey and tool development, which included focus group discussions and key informant interviews. This engagement allowed staff to shape the tools and ensured the surveys were culturally relevant and grounded in the local context. The training sessions, paired with mentorship, offered MFMRD personnel hands-on experience in analysing gender data. This practical exposure enhanced their understanding of gender roles within Kiribati's fisheries and aquaculture sector, encouraging them to see beyond traditional perceptions and recognise the socioeconomic contributions of women in fisheries.

The inclusion of MFMRD staff in data review, analysis, and interpretation also proved instrumental for team cohesion and skill building. After the training, participants showed confidence in applying GESI principles, with many expressing plans to incorporate these perspectives into their work. This included initiatives such as establishing women's fisheries organisations and using GESI tools in community engagement, highlighting a meaningful shift toward inclusive practices. Additionally, MFMRD staff contributed to an article in the Women in Fisheries Information Bulletin, capturing key insights from undertaking the analysis.

Through her leadership, MFMRD's Director for Coastal Fisheries, Tooreka Teemari, was part of the process from the initial planning stages to the review of the final report, and she presented the key findings at the 16th session of the Heads of Fisheries meeting in April 2024 in Noumea, New Caledonia. This public acknowledgment of the importance of GESI underscores Kiribati's political will to embed gender equality principles and approaches in fisheries and aquaculture. This opportunity to share their findings publicly was a meaningful

step toward communicating their achievements at a high-level regional meeting, thus demonstrating ownership and leadership to progress gender equality in the fisheries sector.

The analysis recommended integrating GESI perspectives into the draft MFMRD strategic plan, and this suggestion was taken on board by MFMRD leadership, and SPC provided technical advice to support this.

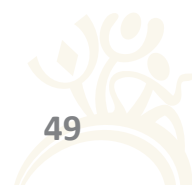
Lessons learned

The lessons learned are shared here.

- Building capacity goes beyond training sessions; it involves hands-on guidance and opportunities to directly apply GESI knowledge and tools. Tailored support strengthens local stakeholders' ability to implement and adapt learnings and tools effectively.
- Engaging stakeholders in tool development and piloting ensures tools are practical, contextually relevant, and effective. Stakeholder feedback provides insight into any necessary adjustments to better suit the local context.
- Training sessions and hands-on GESI exercises are powerful tools for fostering lasting change within organisations. They not only equip staff with essential skills but also serve as catalysts for broader organisational shifts. The commitment shown by MFMRD staff to implement GESI-focused actions in their daily work, alongside the integration of GESI recommendations into the strategic plan, underscores how capacity-building efforts can drive sustained progress in gender equality and social inclusion.

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Understanding patterns of gleaning and the contribution of women to small-scale fisheries in Tonga

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In many parts of the world, women's involvement in fisheries is largely overlooked and can lead to inaccurate estimates of catch effort and methods, and furthering women's marginalisation. As a result, women-dominated activities such as gleaning, which refers to the collection of marine organisms from nearshore environments with minimal to no gear, may often be excluded from national fisheries assessments. In Tonga, little to no information exists on gleaning, although it may comprise a significant portion of the national catch. Thus, a collaborative project comprising researchers from James Cook University in Australia, and representatives from Tonga's Ministry of Fisheries, has been set up to better understand gleaning and the contributions of women to Tonga's small-scale fisheries.

Small-scale fisheries are local, community-based fisheries that contribute to the livelihoods, culture and food security of coastal communities. These fisheries are built around common resources and generally follow more traditional and sustainable fishing practices to provide sustenance and livelihoods to those involved (Smallhorn-West et al. 2023; García-Lorenzo et al. 2024). Approximately 492 million people depend on small-scale fisheries for food and livelihood security, which contribute 40% to the global catch (FAO 2022; Stiepani et al. 2023). For Pacific Island communities, small-scale fisheries are a mainstay for food, livelihood and ecological security. Finfish and invertebrates account for 50–90% of the animal protein consumed by communities, thus providing essential micronutrients (Malm 2009; Harding et al. 2022).

Gleaning – defined as the collection of marine organisms from the littoral zone (Furkon et al. 2019) – is an important harvesting method in the Pacific for food and income for coastal communities (Furkon et al. 2019; Grantham et al. 2020; Stiepani et al. 2023). The practice of gleaning is strongly embedded in Pacific Island cultures and communities, with gleaning knowledge usually passed down from generation to generation (Grantham et al. 2020; Stiepani et al. 2023). While men tend to engage in diverse forms of fishing, women are often exclusively engaged in gleaning due to various social and cultural beliefs about gender roles and responsibilities (Williams 2015; Malm 2009; Lau et al. 2023). Gleaning techniques are often characterised as “walking gleaning”, where collection occurs on foot along rocky shorelines (Furkon et al. 2019), or “general gleaning”, swimming and/or diving for invertebrates in shallow waters (Stiepani et al. 2023). Both forms of gleaning may include the collection of a diversity of invertebrates, algae or seaweed, and seagrasses from these habitats (Stiepani et al. 2023). Despite being an invaluable fishery and cultural resource to Pacific Island

counties and territories, there is a lack of information on the economic and non-economic value of gleaning activities and harvesting in Pacific communities, and women's contribution to gleaning in particular (Harding et al. 2022).

Tonga is a nation with a high dependency on small-scale coastal fisheries and gleaning activities. Coastal fisheries in Tonga are primarily subsistence fisheries or small-scale commercial fisheries, with gleaning being one of the primary fishing techniques (D'Andrea et al. 2024). Preliminary studies conducted by a local non-governmental organisation, the Vava'u Environmental Protection Association, have identified some of the key species that are targeted by gleaners, including sea cucumbers, ark clams, conch, and jellyfish. To develop further evidence of the patterns of gleaning in Tonga, the Vava'u Environmental Protection Association has also identified a need to collect information on species and sustainable practices for gleaning activities. A lack of sex-disaggregated fisheries data means there is also limited understanding of women's and men's



A woman cleans her catch after gleaning in Vava'u, Tonga.
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fisheries catch effort and methods, including women's likely significant contribution to gleaning activities. This understanding is further obscured by a scarcity of published information on gleaning. These knowledge gaps may result in underestimating the contribution of women to small-scale fisheries, and risking their marginalisation in both formal and informal sector activities (Lawless et al. 2021). Building a better understanding of women's contribution to small-scale fisheries in Tonga could also have important implications for community-based management programmes (Smallhorn-West et al. 2020) and may improve the recognition and inclusion of gleaning grounds within local management.

The lead author, Rhea George, a Master's student of Marine Biology at James Cook University in Australia, is leading a new research project designed to directly support the Ministry of Fisheries in Tonga by:

- 1 establishing an estimate of the contributions of gleaning to national fisheries catch; and
- 2 highlighting the extent to which women contribute to national small-scale fisheries in Tonga.

This project is supported by the Australian Centre for International Agricultural Research, in collaboration with the Ministry of Fisheries in Tonga, and is part of a larger effort to economically evaluate Tonga's inshore fisheries. A team of researchers from James Cook University, the Ministry of Fisheries in Tonga, and fisheries' representatives have been closely involved in research planning and data collection. Data collection was undertaken between September and November 2024 in the island groups of Vava'u in the north and Tongatapu in the south. A combination of methods, including catch surveys, recall surveys and key informant interviews, were used to obtain socioecological data on the type and number of species caught, total hours spent gleaning, and the importance of gleaning to communities. This research aims to highlight the contribution of overlooked fishers and fisheries in regions of Tonga, and will have implications for how equitably fisheries are managed, monitored, and evaluated at local, regional and national levels. The study's findings will be used by the Ministry of Fisheries to better evaluate their coastal fisheries as well as inform future management considerations, particularly for their community-based Special Management Area programmes.

For more information about this project please contact
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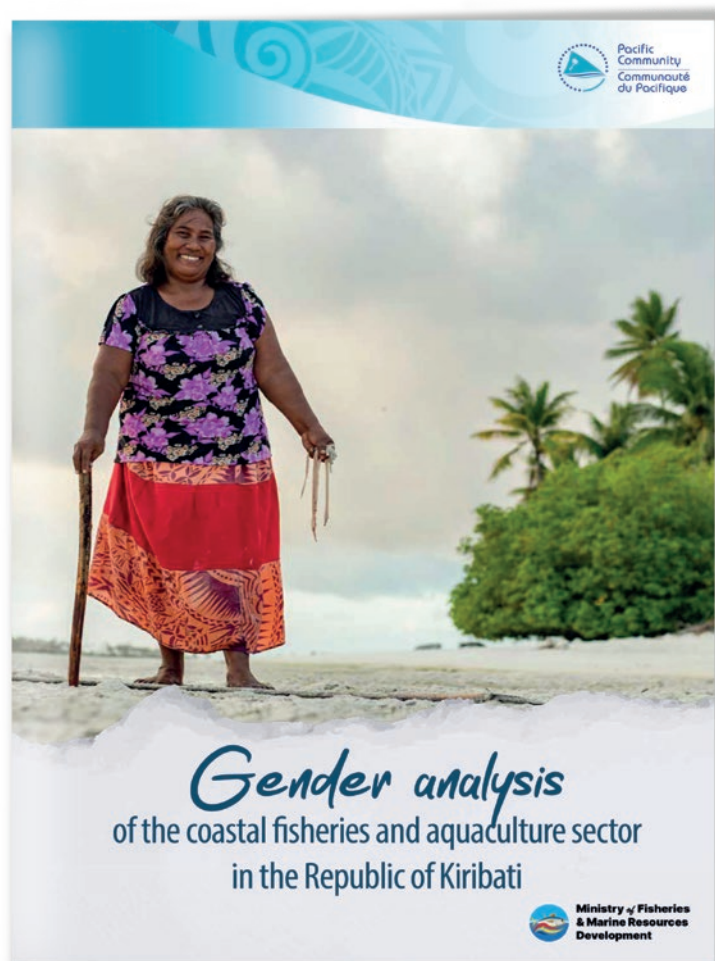
Gender analysis of Kiribati's coastal fisheries and aquaculture sector

Sangeeta Mangubhai,¹ Natalie Makhoul² and Margaret Fox²

Coastal fisheries are deeply rooted in Kiribati's cultural traditions, serving as a means of social cohesion and the preservation of ancestral practices. In many communities, fishing is a way of life that fosters a strong sense of identity and connection to the ocean.

Fishing has long been a central activity for the people of Kiribati, not only for sustenance but also as a means of cultural expression and identity. With the commercialisation of fisheries in the 1960s and subsequent aquaculture investments in the 1980s, fishing practices have evolved, influencing traditional methods and livelihoods. However, the scarcity of gender or sex-disaggregated information on fisheries and aquaculture, including value-chains, impedes a comprehensive understanding of the roles, knowledge and contributions of both women and men in this vital sector, thereby hindering efforts towards inclusive and equitable resource management and development. The Ministry of Fisheries and Marine Resources Development (MFMRD) recognises that, by mainstreaming gender into the planning, implementation and development of fisheries and aquaculture, and fostering broader inclusive policies, Kiribati is not only advancing gender equality but also enhancing the resilience and productivity of the sector.

A gender analysis of Kiribati's coastal fisheries and aquaculture sector was conducted by MFMRD in partnership with the Pacific Community (SPC) between 24 October 2023 and 29 January 2024 (Mangubhai et al. 2024). A desk review was first completed to synthesise all available gender-related information on fisheries and aquaculture. An institutional analysis and capacity assessment of MFMRD as the main fisheries agency responsible for the sustainable management and development of the fisheries and aquaculture sector was then conducted, adapting SPC's Stocktake of Gender Mainstreaming Capacity survey instrument. The institutional analysis covered five main areas: 1) political will and commitment to gender mainstreaming in government; 2) organisational culture that supports or does not support gender mainstreaming; 3) accountability and responsibility mechanisms to support gender mainstreaming; 4) technical capacity to mainstream gender; and 5) availability of adequate resources to finance gender mainstreaming. Led by MFMRD staff who were trained in social research methodologies (Samani et al. 2024), focus group discussions were conducted with selected fishers (women and men) from 11 communities from three atolls in the Gilbert Islands (Tarawa, Maiana, Nonouti) and one in the Line Islands (Kiritimati). Fishers were divided up by gender and age (i.e. youth, middle-aged adults, elders). The surveys covered seven thematic areas:



- 1 Amount of time women and men spent on productive work;
- 2 Gender roles, responsibilities and traditions;
- 3 Selling and marketing;
- 4 Decision-making and access to, and control over, resources;
- 5 Access to capital and financial institutions;
- 6 External impacts; and
- 7 Access to support and external opportunities and aspirations.

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The report was published in August 2024 and is now available on SPC's website.³ Fifteen recommendations were made under five broad areas, which are summarised below.

Ensure institutional policies and plans support gender mainstreaming

- 1 **Political commitment.** The current high commitment for gender mainstreaming in MFMRD needs to be maintained through the highest levels of political leadership.
- 2 **Policy improvement.** Gender equity and social inclusion (GESI) should be integrated into policies being developed by MFMRD and the Ministry of Women, Youth, Sports and Social Affairs (MWYSSA).

Improve GESI in community-based fisheries and aquaculture projects

- 1 **Gender analysis.** Where data are lacking, MFMRD staff should undertake gender analyses of the communities with which they work to gain insights and better understanding of the roles, contributions, and constraints of women and men in fisheries and aquaculture.
- 2 **Disaggregated data.** The collection of relevant disaggregated data (e.g. by sex, gender, age, (dis)ability, other factors of diversity) across MFMRD divisions and units is essential. The data not only support targeted interventions to address gender disparities but also enable the formulation of evidence-based policies and programmes that promote gender equality, enhance women's empowerment.
- 3 **Traditional knowledge and practices.** MFMRD should further invest in the documentation of traditional knowledge and practices in fisheries held by women and men. Doing so would help preserve valuable cultural heritage and ensure its transmission to future generations, and may be valuable for the sustainable management of marine resources.
- 4 **Inclusive extension services.** It is essential to establish GESI-responsive extension services that can be provided by trained MFMRD staff, cater to the specific needs and circumstances of both women and men in coastal communities, and address gender-specific barriers.

- 5 **Supporting women and youth.** Supporting women and youth is required to foster an inclusive fisheries and aquaculture sector in Kiribati. Acknowledging the crucial contributions of marginalised groups, particularly women and youth, initiatives must be strategically crafted to amplify their participation and leadership roles in culturally sensitive ways.

- 6 **Gender-sensitive value chains.** Encourage the development of gender-responsive value chains and market systems that recognise and reward the contributions of women along the entire production and distribution process. This includes gender-equitable access to productive assets, such as land, water, fishing gear, and technology, addressing traditional barriers and inequalities that limit women's participation and productivity.

- 7 **Inclusion in community-based fisheries management and decision-making.** The inclusion of women, youth and persons with disabilities in community-based fisheries management and decision-making processes in culturally sensitive ways, is paramount to achieving sustainable and equitable fisheries governance in Kiribati.

- 8 **Aquaculture.** Given the lack of public or internal information on the gendered aspects of aquaculture, MFMRD could benefit significantly from investing in better documentation of gendered aspects of its aquaculture investments and support to local communities. This information can inform the design of more inclusive policies, programmes and livelihoods that address gender disparities, empower women, youth and other marginalised groups in aquaculture.

Improve MFMRD's technical capacity for GESI mainstreaming

- 9 **Training.** Investing in building the knowledge and capacity of MFMRD staff is essential to advance GESI within the fisheries and aquaculture sector. MFMRD staff need to understand GESI principles and develop practical skills to integrate these principles into their daily work.
- 10 **Designing gender and socially inclusive fisheries and aquaculture projects.** All new projects should have specific objectives, activities and deliverables that contribute towards gender equality and broader social inclusion in fisheries and aquaculture in Kiribati.



Strengthen institutional conditions for gender mainstreaming

- 11 Resources for gender mainstreaming. Allocating financial and human resources for gender mainstreaming is crucial to establishing an enabling environment for inclusive policies and programmes tailored to address the specific needs and challenges encountered by women in the fisheries and aquaculture sector.
- 12 Monitoring and evaluation. Monitoring and evaluation are indispensable components of effective gender mainstreaming efforts within MFMRD. Robust monitoring and evaluation mechanisms need to be established to systematically track progress towards gender mainstreaming goals.

Invest in partnerships and collaborations

- 13 Strengthening MFMRD's relationship with MWYSSA. MFMRD should further invest, strengthen and expand its current relationship with MWYSSA to support mainstreaming efforts in the fisheries and aquaculture sector. The partnership could prioritise helping develop policies, improve the design of future projects, and address training and capacity needs.

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An overview of “Making the case for gender-inclusive fisheries governance, policies and climate adaptation”

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Women fisher folk in Limbe in Cameroon ©Ayodele Oloko

Gender equality has been a key consideration for policy-makers and natural resource managers in assessing climate risk and developing effective adaptation strategies (Oloko et al. 2024). However, the interests and concerns of women in relation to climate-related planning and fisheries policies are often neglected. This underrepresentation of women, particularly those from developing countries, poses a risk of overlooking opportunities to support vulnerable fishing communities. Additionally, it inadvertently increases the vulnerability of marginalised women fisherfolk.

Making the case for gender-inclusive fisheries govern, policies and climate adaptation (recently published in the journal *Discover Oceans*) reviews 122 refereed publications on the empowerment of local fishing communities, gender participation in fisheries governance, development, and the

need to consider gender dimensions in climate adaptation programmes worldwide. It highlights the socioeconomic impacts of climate change on livelihoods, and discusses potential adaptation measures.

Women have consistently been at the forefront of environmental movements, driven by the aforementioned factors (Harper et al. 2023; Rice et al. 2024). The development of progressive, alternative governance structures capable of addressing climate change equitably, particularly at local and urban levels, is being exemplified through global solidarity and gender-based partnerships (Alber et al. 2017). These approaches and frameworks encompass a variety of community-based initiatives, such as collaborative enterprises, community land ownership structures, and numerous other collective endeavors focused on livelihood

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sustainability (Fakoya et al. 2022). These initiatives unite individuals to foster community resilience in response to climate change vulnerability (Klein 2014). In addition, recent initiatives within fisheries, such as the 2015 FAO Voluntary Guidelines for Small-scale Fisheries in the Context of Food Security and Poverty Alleviation and other international fisheries policies, have made explicit commitments to enhance women's participation in governance.

This brings up the need to recognise the important link between Sustainable Development Goal 5: Gender Equality and SDG 14: Life Below Water, which specifically pertains to fisheries (Gustavsson 2020). Recent scholarly attention has focused on various forms of gender discrimination, particularly in relation to blue justice and blue economy narratives, including the gender dimensions of human rights associated with small-scale fisheries (Kleiber et al. 2017). These include procedural, recognitional, and distributional injustice, as well as the marginalised status of women in ocean governance (Mangubhai et al. 2023).

The findings support the adoption of frameworks and policies that provide alternative metrics for women's empowerment, inclusion in fisheries governance, and climate adaptation strategies. The study also offers recommendations for governments, non-governmental organisations, and development agencies responsible for fisheries governance and climate adaptation initiatives.

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