



# Women in Fisheries

information bulletin

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Women fishers in Fiji launch a mud crab management plan for their fishery

'Twisting and spinning' theatre into coastal fisheries management



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Reflections on gender, fisheries and managing the environment: Solomon Islands case study



Four women in fisheries profiles

Mangoro Market Meri: Women working together to protect their mangroves and build secure futures for their communities

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Participation at the Women in Fisheries Forum ©Chelcia Gomese, WorldFish

*"At the community level, there are a lot of challenges. Usually the men are the ones who speak. The women have their ideas but find it difficult to share these."*  
Ishah Pitamama, Choiseul Province, Fisheries Officer

Cultural beliefs can also affect women's involvement in fisheries. As an example, it is believed that pregnant women or young babies should not eat fish or fresh fish as it is good for developing babies, and that young children's stomachs are not strong enough to handle fish. Due to this belief, women and children in these communities do not benefit from the important nutrients that fish provide.

Low participation of women in decision-making  
The lack of equal participation of women in decision-making follows closely on the heels of the cultural norms of male dominance in community meetings. In some instances, women cannot and are not encouraged to be heard during discussions in some community committees, but their opinions are often ignored in that it does not translate into decision-making.

Low literacy and education levels and lack of opportunities  
The participation of both men and women in accessing and receiving information and opportunities on resource management, capacity building, networking and business training aged 5 years and older, but this decrease rapidly for children aged 5 years and older. One reason that girls drop out of formal education is to make way for other siblings, more often their males, to receive an education. Another barrier to women's education is the cultural restriction on their mobility. In most rural areas, young women are not allowed to travel alone and must be accompanied by a family member. Thus, the lack of education and mobility reduced the cultural norms on the education and mobility of rural women and girls make accessing opportunities even more difficult.

Solutions to overcoming barriers  
The pandemic provided a number of recommendations to overcome these barriers of women's empowerment to rural women in fisheries. It urged and sought to strengthen commitments for men and women in fisheries.

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Actors from the 'Twist Mo Spin' production during a community performance ©Paul Jones

The collaborative project seeks to convey critical messages around fish-based nutrition, livelihoods, and inclusive decision-making. Where WSB provides creative and theatre-technical capacity for the play staff and theatre-technical capacity for the play staff from WED under their Australian government-funded 'Pathways Project', provide technical guidance on coastal fisheries management. As such, the play 'Twist Mo Spin' (a reference to the existing and spinning of dolphins) was created in early 2019, and the case of 13 actors has since completed its first tour of communities in the southernmost province of Viti.

The story of 'Twist Mo Spin' follows a young couple, Lyn and Jason, who return to Jason's village to build a life together. As Jason falls comfortably into his familiar life in his village, Lyn has to re-learn the new community and family life in which she finds herself. Expectations and roles in family life. At the same time, the community is facing particular gender-related responsibilities and are placed on Lyn, for example, to have a son, and to assume particular gender-related responsibilities and are placed on Lyn. At the same time, the community is facing particular gender-related responsibilities and are placed on Lyn. At the same time, the community is facing particular gender-related responsibilities and are placed on Lyn.

The story builds to a point where Jason's father passes, and Jason must assume an important role in the family. Meanwhile, the community as a whole reaches a point of internal turmoil about the state of resources and who is to blame for that. The play ends with community members in a heated debate during a community fisheries meeting at which point an open-ended question is posed about what they want for the future and what they need to do about it. In essence, WSB brings the audience to the take-off point for collective action, namely the realisation that by working together they can have better outcomes for themselves and their community. To help resolve this challenge, the audience is then led into an interactive community workshop for people to start thinking most deeply about some of the drivers of degradation and ways to work together to better manage their resources.

Given the much of the challenges facing coastal fisheries have to do with people, the play's rescaling focuses on important social, economic and political aspects of life in remote coastal communities rather than making straight to technical fisheries management. Some key themes of the play include:

- social networking – for example, entrenched gender roles affect who has access to fisheries and the kind of benefits derived from them;
- life and livelihoods in remote coastal communities – family life and social relations within a community from a fundamental pillar in people's lives;
- importance of fish – people depend on and income day-to-day lives for food (nutrition) and income (livelihoods), and how the unpredictable nature of markets can change people's perception of the value and use of fish (for commercial or subsistence needs).

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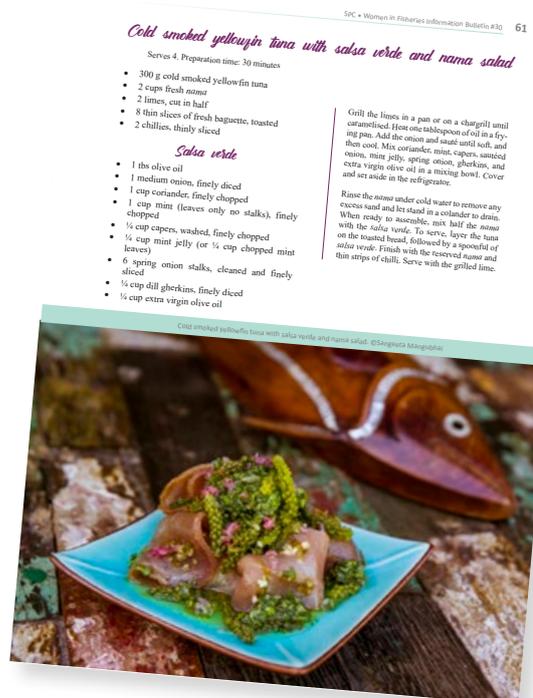


## Editorial

This 30th issue of the Pacific Community's *Women in Fisheries Information Bulletin* includes 18 original articles on a diversity of topics, including gender and development, mud crabs, national gender analyses and mangrove management. This bulletin also highlights two unique and creative approaches that are being used to highlight the vital role that women play in the coastal fisheries sector: 1) Wan Smol Bag Theatre in Vanuatu is using plays to discuss gender roles in the context of declining fisheries, climate change and population growth; and 2) The Wildlife Conservation Society launched Fiji's first sustainable seafood cookbook, which illuminates the role of women in fisheries, while promoting sustainable seafood choices by consumers.

This issue includes articles from the Federated States of Micronesia, Fiji, Palau, Papua New Guinea, Solomon Islands and Vanuatu, and features new Pacific Island female and male authors such as Ruth Konia from The Nature Conservancy in Papua New Guinea, and Pita Neihapi from the Pathways project in Vanuatu. And for those who want a bit of inspiration, we have profiled three women in leadership positions in fisheries agencies in Kiribati, Samoa and Solomon Islands. We also introduce Dr Manumatavai Tupou-Roosen, who is the first female Director-General for the Pacific Islands Forum Fisheries Agency.

### Sangeeta Mangubhai



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# Reflecting on 29 issues of the SPC Women in Fisheries Information Bulletin

Violeta Berdejo,<sup>1</sup> Kirisitiana Navuta<sup>1</sup> and Sangeeta Mangubhai<sup>1</sup>

## Introduction

This is the 30<sup>th</sup> issue of the Pacific Community's Women in Fisheries (WIF) Information Bulletin. First launched in October 1997, the WIF bulletin was established to 'provide a channel to exchange ideas, knowledge and experience' on issues of interest and concern to women who are directly involved in fisheries activities in the Pacific Islands region. The bulletin has produced over 120 articles highlighting and demonstrating the diverse roles of women in the fisheries sector, providing positive role models, and highlighting strategies for removing barriers to women's participation in fisheries decisions and policy-making. Over the years, topics have ranged from studies of fisherwomen, community-based resource management, fishing methods and practices used by women, food security and, more recently, climate change. There has been an increasingly stronger emphasis on gender equity, equality and empowerment of women in the fisheries sector.

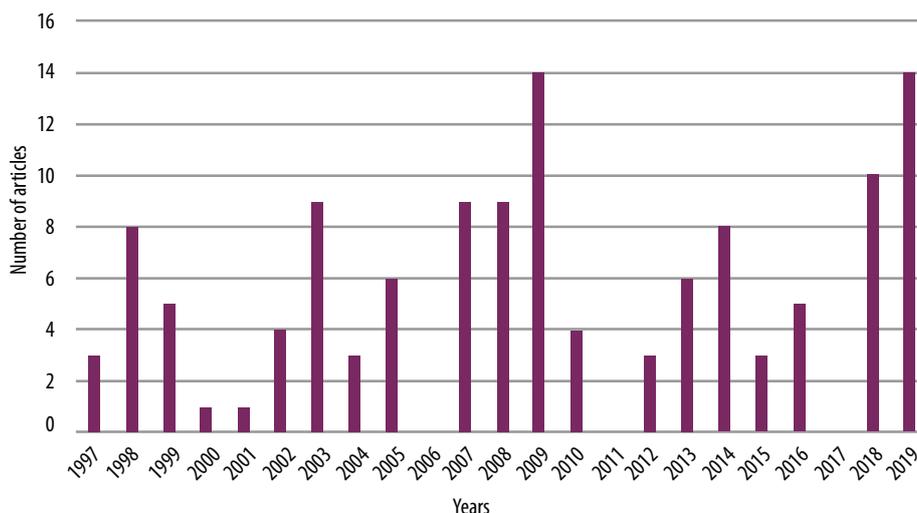
In this article we reflect on the diversity of information and stories captured by the WIF bulletin over the past 22 years. Many aspects of the bulletin have changed over two decades: black and white photos to colour images, printed copies to online versions, different editors, and an increasing number of new authors and topics covered. Figure 1 depicts how the number of articles has varied over the years, with a resurgence in the last two years. We did a rapid assessment of all articles

published to date to look at diversity of geographies and topics covered; for example, subsistence vs commercial fishing, inshore vs offshore fishing, aquaculture, and seafood value adding. Because of time limitations, we did not count all the summaries of workshops held and apologise in advance if we have missed any studies in this quick overview. By reflecting on the 29 past bulletins, we hope to bring new insights and a fresh direction to the bulletin for the next decade.

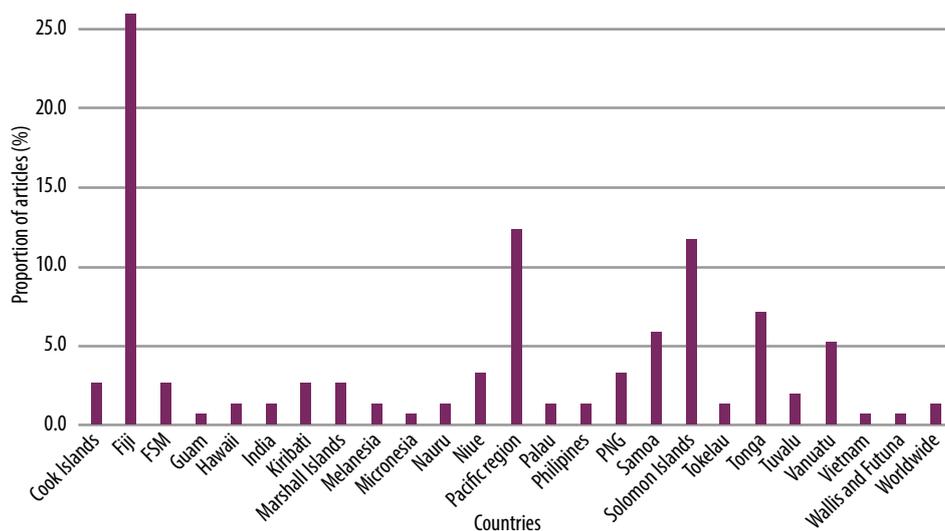


WIF Bulletins cover over the years

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**Figure 1.** Number of articles produced between 1997 and 2019 in the SPC Women in Fisheries Information Bulletin. No editions were produced in 2006, 2011 and 2017, and two bulletins were released per year between 1998 to 2003.



**Figure 2.** Geographical spread of articles featured in the WIF bulletin.

## Geographical distribution

The distribution of studies published in the WIF bulletin is spread over almost all countries in the Pacific (96.8%), and includes countries outside the region (1.3%) (Fig. 2). Other articles focus on broader concepts, ideas and frameworks around gender equity, equality or inclusion in fisheries and aquaculture (1.9%). The five Pacific Island countries that featured heavily in the previous 29 bulletins were Fiji (26.0%), Solomon Islands (11.7%), Tonga (7.1%), Samoa (5.7%) and Vanuatu (5.1%). Countries featured from outside the Pacific Islands region were largely from India (1.3%) and Vietnam (0.6%). Pacific Island countries that were underrepresented in the bulletin were New Caledonia, Northern Marianas and American Samoa (Fig. 2).

## Stories told

Over two decades the WIF bulletin has captured the diverse roles that women play in fisheries supply chains. Our analysis showed women participate in both inshore and offshore fisheries through the harvesting of finfish and invertebrates, and there are particular roles women played in these activities including fishing, gleaning, cleaning, value-adding and selling. Some of these activities were done by women independently, with their husbands, children or other family members (Kronen 2002; Ram-Bidesi 2015). Women, however, continue to face challenges to engaging in and benefiting equitably from the fisheries sector. Many of these challenges stem from limited access to or control over assets and/or resources, and time and labour burdens of unpaid work and inhibitive gender norms that define how men or women should behave.

## Inshore vs. offshore fishing

Overall, 83.1% of articles focused solely on inshore fisheries, 16.9% covered both inshore and offshore fisheries, and no articles focused exclusively on offshore fisheries. There were comparatively fewer articles written on freshwater fisheries, which are underrepresented in the WIF bulletin. In the Pacific, gender roles within communities are well established and demarcated (Kronen and Vunisea 2009), with women harvesting invertebrates in inshore waters for subsistence and commercial purposes, while male fishers dominated in offshore waters (Kronen and Vunisea 2009). Women not only collected fish and invertebrates such as crustaceans, molluscs and seaweed to secure the household's food security, but invested significant time in caregiving (i.e. children, aging or sick) and household duties (Chapman 1987). This can limit women's time available for paid work and means they may not be able to travel far from their home. Just over half of the stories on women featured them harvesting, processing, and/or involved in the sales of seafood. The majority of stories on inshore fisheries were from Fiji, Solomon Islands and more broadly the Pacific Islands region as a whole.

The WIF bulletin has documented women's activity in offshore waters for subsistence and commercial purposes (e.g. Kronen and Vunisea 2009; Tuara and Passfield 2012). These articles largely focused on tuna, and were mainly from Fiji, Palau, Papua New Guinea, Tonga and Vanuatu. Other topics included the integration of offshore fisheries in conservation programmes (e.g. Matthews 2002) and gender-sensitive policy formulation (e.g. Kronen and Vunisea 2007).

.....  
*Women not only collected fish and invertebrates such as crustaceans, molluscs and seaweed to secure the household's food security, but invested significant time in caregiving (i.e. children, aging or sick) and household duties (Chapman 1987)*  
.....

## Subsistence vs. commercial fishery

Almost three decades ago Ram-Bidesi (1993) pointed out that women are the 'invisible fisher folk' whose primary role is to fish and feed the family in addition to their unpaid household duties and caregiving. Other unpaid work includes collecting bait, fixing fishing nets, or cleaning fish. Most Pacific Island countries have estimates of their commercial fisheries production, but few have accurate estimates of their subsistence fisheries. Women's contributions to fisheries and food security are undervalued and overlooked in a commonly assumed male-dominated sector (Amos 2014). Previous studies show that 80% of coastal catches in Pacific islands are used for subsistence, contributing to household protein requirements, while the remaining 20% go to commercial markets (Lambeth 1998). Kronen and Vunisea (2009) indicated that men are mainly responsible for the proportion of the catch that goes to commercial markets and produce

profits. But, the contribution of fisherwomen to subsistence coastal fisheries is unknown (Lambeth 1998; Kronen and Vunisea 2009).

Women's subsistence fishing has been described in 15 Pacific Island countries, with articles largely from Fiji (37%), Solomon Islands (12%) and Tonga (8%). The studies described harvesting (91.8%), processing (38.7%), and selling (53%) practices.<sup>2</sup> Studies covered aspects such as type of catch, status of fish, species collected, fishery practices, gender roles, and management and conservation strategies. Some of the species that fisherwomen collected were crabs, lobsters, prawns, seaweed, clams, eels, shellfish and sea hares. For example, a study conducted in Fiji documented the important role women play in the subsistence fishery and their contribution of seafood as the main component of the household diet (Fay-Sauni et al. 2008). The study also found that excess fish collected and not consumed was sold within the village or to the local market, and the revenue was used to cover school fees or some household needs (Fay-Sauni et al. 2008).

Articles on commercial fisheries came largely from Fiji (45%) and Solomon Islands (18%), with a focus on harvesting (63.6%), processing (63.6%), and/or selling (81.8%) seafood. Species that women *processed* included sharks, seaweed, mud crabs, octopus, pearls, shellfish, seaweed and tilapia. Species that women *sold* included tilapia, giant clam, pearl, seaweed and shellfish.

The articles in the WIF bulletin provide evidence of women's dual role in subsistence and commercial fisheries and that they are increasingly taking up economic opportunities offered by small businesses involving marine resources (Kronen and Vunisea 2007; Lambeth et al. 2014). For instance, a study in Solomon Islands showed that women not only actively collect shellfish in order to secure food in their households but also to exchange shell pieces as money in the trading (Barclay et al. 2019). More recent work shows that 75-90% of vendors are women in markets in Pacific Island countries, and their earnings often make up a significant portion of household incomes in the informal sector.<sup>3</sup>

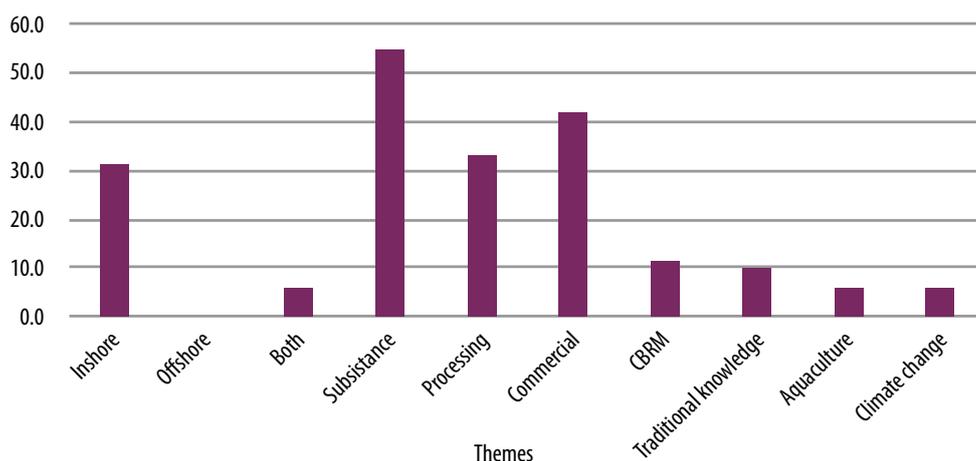
## Thematic areas

### Community-based resource management and gender

Most communities in Pacific Island countries are traditional owners of land and sea areas (Keppel et al. 2012); thus, participation of the people in the management of natural resources is necessary. Women bring a wealth of knowledge about fisheries and useful information that can assist with the development of management undertakings (Amos 2014), thereby playing a major role in the implementation and management of marine resources activities. For instance, the importance of women's role in contributing to community-based resource management (CBRM) to achieving sustainable management outcomes has been acknowledged in Solomon Islands (Hilly et al. 2012). In some communities, traditional structures, protocols and beliefs are slowly changing, with women becoming educated and working in the formal

<sup>2</sup> Some studies include more than one fishing method.

<sup>3</sup> <https://unwomen.org.au/our-work/projects/safer-markets/>



**Figure 3.** Thematic areas reported in the WIF bulletin over 22 years. Percentages are just indicative of the number of articles produced under different thematic areas.

employment sector, establishing new ways of conduct and systems of interaction; as a result, women are becoming agents of change, influencing decision-making in resource management at the community level (Amos 2014).

Only 14.4% of the articles in the WIF bulletin have covered CBRM, largely from Solomon Islands (34.2%), Fiji (19.4%), Samoa (11.1%), Marshall Islands (11.1%) and the Federated States of Micronesia (7.4%). The least represented countries were Niue (5.6%), Vanuatu (5.6%) and Tonga (5.6%). Some of the topics covered in these articles were broad conservation issues, fisheries management, and strengthening women's role in CBRM.

### Traditional knowledge

Traditional knowledge may be described as 'empirical' or 'anecdotal' evidence, but it is vital to women's fishing activities. Traditional knowledge is passed from one generation to the next by sharing information on gender roles, fishing methods and fisheries management, traditional use of plants and other resources, natural resource management, the best time of day to fish, where to fish, and any information required for women's fishing trips and their role in the community. For instance, Dakuidreketi and Vuki (2014) studied the traditional gender roles in Tonia Village, Fiji. They reported that women dominated the fishing activities using a fishing net to catch fish to feed their family. In contrast, men worked in the gardens, tending crops and livestock, but took part in traditional fishing methods such as *burabura*, *nimanima* and *cina*<sup>4</sup> whenever they are able.

The WIF bulletin provides a wealth of information on traditional management (Fig. 3), with the majority of studies focusing on Fiji (27.8%), Solomon Islands (16.7%), or the broader Pacific (11.1%). Fewer articles came from Tonga, Vanuatu, Samoa, Niue, Wallis and Futuna, Federated States of Micronesia, and Papua New Guinea (5.6% each for all articles published).

### Aquaculture

There have been a growing number of articles on women in aquaculture for livelihoods and food security (Fig. 3). Participation in aquaculture has increased the involvement in the village, and boosted women's visibility in the community by providing exceptional female role models who are inspiring and empowering females in other regions. Articles on aquaculture came mainly from Fiji (33%) and Samoa (33%); there were also regional (22%) and global studies (11%). The majority of articles were on freshwater (56%) rather than marine (22%) aquaculture. Aquaculture species included tilapia (57%), seaweed (14%) and mullet (14%). Recent work by the Pacific Community highlights the increasing and evolving role of women in aquaculture, and more articles and analytical pieces are needed from the Pacific.

### Climate change

Disaster risk reduction, natural resource management, and climate change adaptation are becoming important topics that are being featured more often in the WIF bulletin. Thomas et al. (2018) outlined the impacts of Tropical Cyclone Winston on mud crab fishing, which included short-term impacts to livelihoods, and a loss of independence and security. Anderson (2009) touched on risk management, climate change adaptation, and natural resource management from a gender perspective, and how gender informs the ways in which society works and decisions are made. Articles linking fisheries and climate change were largely from Tuvalu (22%), Fiji (22%), Solomon Islands (11%), Vanuatu (11%), and the Pacific region more broadly (22%). Given the threats of climate change on environmental health, food security and community stability, it is increasingly important to understand current and potential future impacts from climate change.

<sup>4</sup> *Nimanima* consists of scooping water out of depressions in rocks to collect the fish trapped inside after there has been a flood or heavy rain in creeks; *burabura* requires men to strike the ground with long, multipronged iron spears in muddy or swampy grounds with the aim of striking an eel or fish; *cina*, which means 'light' in Fijian, is a method where men burn torches made with leaves to catch fish while they are sleeping at night.

## Message from the Editor: Bulletin 30 and beyond

Although the WIF bulletin has covered a range of topics and areas related to women in fisheries, there are a number of underrepresented geographical areas and themes. Submissions from Micronesian countries are encouraged, all of which have issued less than 15% of the total articles over the last 29 editions. We encourage submissions on the topics of freshwater and offshore fisheries and aquaculture, as these are all topics that are underrepresented in the WIF bulletin.

Very few studies have looked at the threats to coastal fisheries from women's perspectives; these threats may range from overfishing to impacts from poorly planned coastal development and land-based sources of pollution. Studies in climate change should also receive more attention and become a component of the fisheries discourse given that the degradation of inshore and offshore resources due to natural hazards – compounded with other social pressures, such as population growth, rapid and unplanned urbanisation, and poor environmental legislation – can place a household's food security at risk. Anthropogenic threats can and will be exacerbated by current and future climate change scenarios.

The WIF bulletin will continue to support and encourage research that examines gender roles, responsibilities, and relationships within the unique social and cultural context that we work in. We encourage academics to continue delving into gender issues, conducting research and producing sex-disaggregated data on fisheries, and to share gender concepts and frameworks that help us better mainstream gender into decision-making and policy in the Pacific. To do this, we encourage the participation and contribution of male

researchers and practitioners given that more than 80% of the articles were written by women. Their perspectives and unique viewpoints are critical to gender equality and inclusion in the fisheries sector.

What is clear, is the wealth of knowledge that is out there in the Pacific. The question is no longer 'Are women involved in fisheries?' We have decades of evidence to show they are. The question is, 'Given they are so involved in fisheries how can we make sure they are included in fisheries planning, management and decision-making at all levels?' We need inspirational stories, and therefore encourage studies about female role models, empowered women, and success stories from the fisheries sector that provide testament of women's changing role in communities within the Pacific.

The WIF bulletin will continue to be freely available and accessible online for our readers because it is valuable for those working in fisheries science and management in the Pacific. Therefore, we encourage people to share their knowledge and experience from their country or region. We look forward to working with you on the next 30 editions of the WIF bulletin.

## Special thanks

A special recognition goes to the authors whose tireless dedication and expertise are the backbone of this bulletin. Similarly, a special thanks for the constant service and critical eye of editors, coordinators and reviewers of the bulletin (Table 1) who took time from their research and academic duties to offer us invaluable up-to-date information.

Table 1. Editors and coordinators of the SPC *Women in Fisheries Information Bulletin*.

Editors and coordinators	Years	Issue No.
Aliti Vunisea, University of the South Pacific	1997–1998	1–3
Lyn Lambeth, SPC	1999–2001	4–9
Kim Des Rochers, SPC	2002–2003	10–13
Aliti Vunisea, SPC	2004–2007	14–16
Veikila Vuki, Oceania Environment Consultants	2007–2018	17–28
Sangeeta Mangubhai, Wildlife Conservation Society	2019–present	29–30

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# Reflections on gender, fisheries and managing the environment: Solomon Islands case study

Whitney Yadao-Evans<sup>1</sup> and Duta Bero Kauhiona

## Abstract

This paper explores the interface of gender, fisheries and natural resource management. A socioeconomic study was designed to capture the gender perspectives of government officials, fisheries officers, non-governmental organisation professionals, and community members in Solomon Islands. In total, 21 individuals (15 women and 6 men) from over 17 separate private and public institutions were interviewed to collect opinions and observations on integrating gender into natural resource management, conservation and development. The study summarised the key findings into seven focal areas:

1. misconceptions of culture and gender roles;
2. transitioning from a traditional community to a modern society;
3. Solomon Islands women, fisheries and managing the environment;
4. the role of the national government in promoting and facilitating gender mainstreaming;
5. women's empowerment and capacity building through education and training;
6. communication and messaging about gender equality and women's empowerment; and
7. suggestions and techniques for improving awareness on gender and encouraging the balanced participation of men and women.

These key findings are intended to be used to improve efforts to integrate gender into natural resource management taking place in Solomon Islands and the wider Pacific.

## Background

### Socioecological context of Solomon Islands

Solomon Islands, similar to many Pacific Island nations, has a subsistence-based economy that relies on artisanal agriculture (yams, sweet potatoes, cabbages) and subsistence fishing (gleaning shellfish, small-scale aquaculture, nearshore fisheries) to provide for the food and livelihoods of more than half of the country's population of 500,000 people (Permanent Mission of Solomon Islands to the United Nations 2019).

Nearshore fisheries alone account for roughly 60% of consumption needs (Weeratunge et al. 2011). Furthermore, it is estimated that 50% of all women and 90% of all men participate in small-scale fishing in Solomon Islands (Gillett and Lightfoot 2012). The major economic sectors within Solomon Islands are agriculture or the extraction of natural resources. The main industries in the country are copra, timber, palm oil, fish, cocoa and beef cattle (FAO 2016).

Converging with this dependence on natural resources is the existence of the *wantok* system, which is a defining societal feature. The *wantok* system can be described as 'a network of cooperation, caring and reciprocal support, and a shared attachment to *kastom* and locality' (Nanau 2011). In

practice, someone's *wantok* refers to a relative or member of the same village, although in a global context this circle can expand to incorporate Solomon Islanders in general, or even Melanesians as a whole. Members of the same *wantok* have a common sense of responsibility toward each other and share communal access to natural resources from gardens or fishing grounds. This support system is both praised for its unifying qualities and regarded as an obstacle to development and national unity. Even in today's modern times, the *wantok* system dominates social dynamics and governs access to wealth and resources.

### Status of gender equality in Solomon Islands

Like many countries of the Asia-Pacific region, Solomon Islands struggles to provide equal opportunities and a safe environment for women. Progress has been made in expanding access to healthcare and education services to both men and women in recent decades; however, strict gender roles from traditional community structures persist, which prevent women's access to many economic opportunities. In some of the more conservative countries, women refuse to participate in public discussions and are at the whim of decisions made by male family and community members. In urban areas, far more men than women are employed and earn formal salaries, and twice as many men as women complete secondary

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## Keywords

gender, fisheries, empowerment, Pacific, culture



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education. In addition, the number of recognised female leaders is very low, with only one female representative in parliament (SINSO 2014). Furthermore, Solomon Islands has one of the highest rates of family and sexual violence in the world, with 64% of women aged 15–49 reporting physical or sexual abuse by a partner (Ming et al. 2016).

Despite these limitations, women in Solomon Islands are characterised by their strength and resourcefulness. Charged with the responsibilities of maintaining and caring for the family, women are highly valued traditionally for their knowledge, skills, and proficiency in the home and in subsistence agriculture and nearshore fishing. In some communities, especially those where matrilineal cultures persist, women are socially influential and are often active participants in community discussions and decisions. With the increasing prevalence of education and opportunity, the role of women in Solomon Islands, as well as in other countries of the Asia-Pacific region, is changing. Women in urban areas today are balancing traditional customs and identities with the demands of modern life. Solomon Islands today hosts a fair number of gender-focused projects and programmes, thus highlighting the public discussion that has commenced on the topic of gender.

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*[...] women in Solomon Islands are characterised  
by their strength and resourcefulness.*  
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### Solomon Islands women in fisheries

Traditionally, and in modern times, women have played a primary role in the collection of nearshore fish and invertebrates, and the harvesting resources from mangroves and other coastal and nearshore habitats in order to provide subsistence protein for their families and for sale (Chapman 1987). It is estimated that in the Pacific Islands region, 56% of the total estimated small-scale fisheries catches are from women (Harper et al. 2012). Furthermore, with the expansion of the pelagic commercial fishery, women have provided the major labour force for fish processing in this sector (Harper et al. 2013).

Despite this high level of participation in fishing activities and the fishing industry, women's contribution to the economy and their communities from fishing and harvesting activities are frequently overlooked. In marine resource management projects and programmes, women have often played a limited role due to the traditional male-dominated leadership of communities and clan systems. However, more and more, women's contributions to this space are being recognised. Women are now the target of localised projects and have begun to instigate mechanisms to support sustainable resource management of coastal and marine resources. For example, the women of Rovianna Lagoon in the Western Province of Solomon Islands participate in structured management programmes of a mud clams, which are a key local resource with practical nutritional and cultural value

(Aswani and Weiant 2004). Furthermore, the emergence of Savings Groups, groups in which women grow and manage secure funds to support their families and their communities, has further supported women to become active in community improvement initiatives, including the promotion of sustainable management of natural resources.

The need to better integrate women in the fisheries managed sector has been widely recognised. The Solomon Islands Ministry of Fisheries and Marine Resources instituted a Gender Implementation Strategy (2011–2014) to move toward a more gender-informed approach to coastal fisheries management and development (Krushelnytska 2016). Through mechanisms such as this, the government is beginning to address the extreme segregation in jobs and salaries in the fisheries sector. With the growing recognition of women's high levels of participation in the fisheries sector, the challenge facing government officials and non-governmental organisations is how to functionally integrate these two traditionally separate spheres – marine resource management and gender equality and women's empowerment. This study incorporates views from a broad scope of public sector agencies; however, the findings and recommendations are intended to apply particularly to the context of fisheries and marine resource management among other focus areas.

### Methodology

The study used a set of open-ended questions to explore individual views (of both women and men) and experiences on incorporating gender dimensions into natural resource management, conservation, development and public service projects and me. The types of questions varied from simple information seeking, to observations on gender-related themes, to opinions on statements concerning gender found in publically available texts. Targeted interviews posed these questions to individuals representing and/or leading organisations or initiatives in these sectors. The interviews were conducted informally to encourage open conversation and the free expression of views. The questions were used to guide the discussion but, were not followed in a strict format by either the interviewers or the interviewees, with the overall purpose of collecting expert views and opinions on progress made and challenges facing the integration of gender dimensions into natural resource development initiatives.

The study is fairly limited in its scope and methodology. In total, 21 individuals (15 women and 6 men) were interviewed, representing 17 separate institutions based in Honiara, Solomon Islands. These institutions and individuals were selected for their prior or current engagement in natural resource management, development, public service programmes, and their likelihood of accepting the solicitation to be interviewed based on their prior social connection with interviewers or their existing engagement on the topic of gender. Consequently, the results are biased as each of these individuals was predisposed to favouring gender integration and women's empowerment. However, because each individual interviewed was a director or leader and represented their respective institutions, their opinions on gender

and their insights on the challenges of integrating gender dimensions into natural resource management programmes was extremely valuable. Despite the limitations, this study exposed a wide breadth of experience, and identified key observations and lessons learned that can be considered and incorporated into new and ongoing programmes.

## Key findings

The key findings summarised below touch on a wide range of topics that influence gender roles and culture in Solomon Islands, and shed light on challenges faced by practitioners working to integrate gender and natural resource management. The observations and opinions of the study participants gathered from these interviews have been compiled into the following seven focal areas.

### Focal Area 1: Misconceptions of culture and gender roles in Solomon Islands

The interviews confirmed many aspects of Solomon Islands society and the status of gender equality that have been reported on in other sources. Public and private sectors are largely male driven at the upper levels of management. There is a resounding perspective that women will be less likely to prioritise their work in the face of family matters and are therefore not desired applicants for important positions. In recent years, some women have made headway into upper management roles, and this dynamic is increasing; however, the majority of women working in professional positions hold more socially acceptable roles for women, such as secretarial or administrative work.

Despite these trends, significant differences in culture and language across the country, as well as the persistence of both patrilineal and matrilineal systems, make generalising women's role in society very difficult. On some islands, such as Isabel, women have organised themselves in groups such as the Mother's Union (a group of women belonging to the Anglican Church, which travels throughout the island to conduct awareness on the importance of resource management), and have meaningful influence regarding natural resource use and management within their communities. In other communities, women are frequently left out of community decisions that have direct impacts on them, such as logging. This lack of consistency across the country forces natural resource management and development practitioners to address gender dimensions and other social issues using techniques and methodologies that are highly localised. Furthermore, a lack of understanding of the complexities of culture within Solomon Islands has bred misconceptions about women's level of influence within their families and communities. As Willie Kokopu, Fisheries Officer for the Guadalcanal Province commented: 'Women are involved to some extent in everything.' Eva Wagapu from the Solomon Islands Ministry of Women, Youth, Children, and the Family Affairs confirmed: 'It is hard to tell when the chief makes decisions alone, or when the communities make decisions together.' In reality, the extent to which women influence decisions made in their communities is extremely varied across the country. Women

may not be chief, but within the family and in many communities, they can have a high degree of influence.

### Focal Area 2: Transitioning from a traditional community to a modern society

The transition from traditional community structures to more modern, and often urban, settings has caused waves of change within the social and political dynamics of the country. As Elice Matiki, Trustee of the Taumako I Nukufero Savings Club commented: 'Strong traditional culture has advantages as well as disadvantages.' For example, under the traditional governance system with an intact chief system, social problems are actively dealt with by a chief and/or village committee of elders in a variety of ways, such as exile or compensation for various crimes. In some areas of the country, these traditional governance systems still function and are often considered to be efficient in maintaining communal peace and well-being of the community. Traditional values are embedded in the *wantok* system and the family. As Agnetha Vave-Karamui of the Ministry of Environment explained: 'You have a role first to your family, otherwise you won't be anybody in the community.'

In modern settings, the breakdown of the traditional governance system has hindered its capacity to effectively manage social problems. The traditional governance system is theoretically to be replaced with a democratic society; however, the transition between these two very different governance systems has been slow, and social challenges have emerged where the old and new values conflict. For example, as Agnetha Vave-Karamui of the Ministry of Environment explained: 'In the traditional setting, women don't drink or go to nightclubs, now women are saying this is my right and that causes violence.' Also, when women are employed, this changes the traditional roles women are expected to play in the home. As Nelly Kere of the Ministry of Environment commented, this extensive breakdown of traditional gender roles 'sometimes causes men to feel insecure; before we knew our customs and now it's not strong like before.' Elsie Wickham of the Ministry of Women, Youth, Children and Family Affairs summarised: 'Before it was a communal system and now it is an individual system' and this upheaval has had some negative effects such as the increase in domestic violence.

Even though this transition from traditional to modern governance systems has caused some social conflict, it has also opened many doors for the advancement of women and the ultimate social and economic well-being of the nation. More than ever before, women are participating in the public and private sector, achieving higher levels of education, and receiving training on various disciplines such as engineering, law, fisheries and other traditionally male professions. As Billy Mae of Rural Training Centres noted on the island of Isabel, there is a woman 'wearing a hard hat' and doing building construction and maintenance, a change never before seen. Similarly, Martha Manaka, a lawyer with the Landowners Advocacy and Legal Support Unit noted that her education and title have shifted the power dynamics she experiences saying, 'the term "lawyer" carries respect.' This change has been influenced by increases in opportunities for



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women to receive an education and find employment as well and by improvements in technology and media, increased urbanisation, and other factors.

In the pursuit of progressing women's empowerment, the virtues of traditional cultural systems cannot, and must not, be ignored or forgotten. For example, the creation of Saving's Clubs, groups in which women grow and manage secure funds to support their families and their communities, are based largely on traditional social security practices associated with the *wantok* system and have been improved to ensure long-term sustainability and fairness for communities' financial resources. As Duta Bero Kauhiona expressed: 'Valuable aspects of the culture are based on respect – women have to be mindful of those as well while in business and promoting rights.' By focusing on enhancing traditional practices instead of changing central values, the strength of traditional systems to maintain social well-being can be leveraged.

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*'Women make good decisions in the community... men really appreciate this, they can see the logic of why they need to include women in the decision-making.'*  
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### Focal Area 3: Solomon Islands women, fisheries and managing the environment

Women in Solomon Islands have an intimate relationship to the environment and the resources it provides. Eva Wagapu of the Ministry of Women, Youth, Children, and Family Affairs explained that traditionally women are 'responsible for the garden, bringing the food home, and planning the planting to feed the family for months.' Similarly, women often go out reef gleaning, collecting marine invertebrates and other species in seagrass beds, and fishing for the family in the near-shore reefs. In the past, these activities have been solely for the purpose of providing for the family; however, in conjunction with the decline of marine resources, population growth, and shifting preferences, the species of marine resources traditionally harvested by women are now becoming commercialised at the local and national level. Market demand for species such as mussels, oysters, sea urchins, clams, mud crabs and other animals has brought women into income-generating activities.

Today, more emphasis has been placed on enveloping women into the fold of these community discussions and decisions on the use and management of natural resources. For example, today many community councils 'tend to have a woman representative, and women are more trusted to look after money,' says Ronnelle Panda of the Ministry of Fisheries and Marine Resources. The increased inclusion of women is important because women and men are subject to different degrees of vulnerability and often have different concerns based on the roles and responsibilities they hold. Nelly Kere from the Ministry of Environment commented that when considering climate change, 'women are more concerned about food, while men are more concerned about infrastructure.' The

perspectives of women, just like those of men, are integral to preparing for and adapting to climate change, and must be considered in equal measure. In the case of logging, women are often disproportionately affected. As Lisa Horiwapu from Vois Blo Mere explained: 'Logging is making work harder... especially when women have to walk long distances to fetch clean water because the river is spoiled.' Other social changes in communities with logging are often disconcerting. Families often turn from eating from their gardens to using money to buy processed food, and there is a higher prevalence of alcohol, crime, and other social problems.

The perspectives of women, as primary caregivers and providers for the family, are essential for maintaining the sustainability of the environment and natural resources. Kristina Fidali of the United Nations Development Programme recounted that women have played very important roles in bridging dialogue between coastal and upland communities. Through their understanding of ecosystems through traditional knowledge and acknowledgement regarding the connectivity of the land and sea, they are helping their communities to negotiate and work together to manage their respective resources. As Elmah Panisi of Live and Learn commented: 'Women make good decisions in the community... men really appreciate this, they can see the logic of why they need to include women in the decision-making.' With the support of some communities, and of public and private sectors, study participants recognised that women are slowly beginning to be brought into the fold on natural resource management projects and programmes.

### Focal Area 4: The role of the national government in promoting and facilitating gender mainstreaming

The overwhelming opinion of study participants indicates that the national government should facilitate the process of gender mainstreaming throughout both the public and private sectors. As explained by Matilda Watesao of the Ministry of Rural Development, the role of the national government is to 'facilitate and support the process for private sector and NGOs to provide services for the people.' This includes the formation of policies and legislation that can provide guidance on the incorporation of women into the workforce and the protection of women in society. Improving the ability of women to own their own property and have access to disposable incomes were outlined as particularly important steps towards improving the well-being of women in Solomon Islands. In addition, with the variety of *wantoks* and cultures that exist within the country, it is wise to proceed in an open and nondiscriminatory discourse that promotes clear, direct messages on national level gender-related laws and initiatives. The national government should also strive to rise above the *wantok* divides, and seek to improve systems that share benefits fairly across the country.

One of the most fundamental building blocks to improving the well-being of women is improving equal access and representation in public and private sector services and programmes. Delvene Boso of WorldFish stated that the national government should 'ensure that all views [are included], not just those of men. All views, men and women, need to be

brought to the table and heard because they are all active in the fisheries sector.’ Furthermore, Agnetha Vave-Karamui expressed that ‘opportunities have to be accessible – our systems must understand that these needs are different [for men and women] – roads to get places, services, places to ask questions, etc.’ For example, access to banking and health services are often poorly designed to accommodate women, such as providing culturally appropriate spaces for women to ask questions about banking and accessing funds as well as facilities for pregnant women to rest while waiting in bank queues. Some government officers, such as Willie Kokopu who is a Fisheries Officer with the Guadalcanal Province, strive to include men and women in fishing trainings and capacity development sessions. Inclusive practices such as this need to be expanded and institutionalised into all public and private sector services and programmes.

**Focal Area 5: Women’s empowerment and capacity building through education and training**

Building the capacity of women to contribute meaningfully to their society is a basic way of improving the well-being of women in Solomon Islands. Elmah Panisi of Live and Learn explained that when ‘women think about their roles and think about the things that are happening, they start to become empowered and now some come out to the community and participate in community discussions.’ Education is widely agreed to be the cornerstone of building the confidence and capacity of women. More girls are receiving an education today than ever before, but the ratio of educated women to men is still very low. Projects and programmes aimed at improving women’s capacity to manage finances and improve marketable skills have made demonstrable improvements; however, a national discussion on the importance of education and extending access to education should be a top priority.

Positive effects of increasing the capacity of women are evident. Informal surveys administered by WorldFish in north Malaita showed that when women have access to disposable income, they spent it on school fees, medical bills and food, while men tended to spend some funds on other non-essential items such as cigarettes and betel nut. Specifically, in regard to finance, women have repeatedly demonstrated their ability to successfully engage in the market economy and make economically responsible decisions. Community projects, such as Saving’s Club, have demonstrated that women have the ability and capacity to responsibly manage funds to support communities and the individuals within. Women active in selling produce and marine resources in local markets have shown their ability to understand and incorporate business practices such as value-adding, record keeping and others. Billy Mae of Rural Training Centres explained that ‘women do the traditional skills, agriculture and life skills; infrastructure and construction is [most often] done by men.’ However, the courses offered at these facilities are open to both men and women, and women are starting to enter into the

courses traditionally dominated by men. Thus, women are slowly starting to see opportunities. Progress may be slow but providing equal access to opportunities allows women and their communities to build capacity in new, non-traditional ways, and to improve prospects for economic development and prosperity.

**Focal Area 6: Communication and messaging about gender equality and women’s empowerment**

To aid in developing social discussions on gender equity and women’s empowerment, success stories of women becoming empowered and benefiting their families and communities should be communicated and shared broadly. As stated by Agnetha Vave-Karamui of the Ministry of Environment: ‘We need champions and good stories of how inequality has been dealt with in society.’ Especially in the context of women and marine resource management, stories of women participating in management processes and community discussions without overt social conflict should be shared and learned from. Those communities with the unity, leadership and desire to do so will have the opportunity to learn from others and be able to incorporate more inclusive processes, as others have.

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*Women active in selling produce and marine resources in local markets have shown their ability to understand and incorporate business practices*  
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Some examples of empowering women in their communities and society already exist, but they are not well known. Saving’s Clubs, such as Taumako I Nukufero Women’s Association of Nukufero in the Russell Islands, have been formed around the country and have successfully started community financial security funds as well as community improvement initiatives. Also, in Tetepare communities, women have developed successful conservation-related income-generating activities that have significantly increased their disposable income and impressed upon their communities the importance of maintaining their marine resources. And, organisations such as the Mother’s Union on Isabel Island have been active in increasing awareness about marine resource management issues and motivating many communities to start taking management actions. Due to poor communication and limited press, these success stories are not well known and the potential of these champions to inspire others is consequently hampered. One solution suggested by Kristina Fidali of the United Nations Development Programme to address this shortfall is to connect ‘different clusters of women leaders who are dealing with gender, resource management, political issues, etc.’ This could effectively encourage a conversation across sectors on improving gender equity and women’s empowerment and promote success stories with individuals and organisations in positions to incorporate those examples and lessons.



### Focal Area 7: Suggestions and techniques for improving awareness about gender, and encouraging balanced participation of men and women in discussions

While there is a need for gender awareness throughout society, the mechanisms for changing gender perceptions and initiating open dialogue must take into account the family and community dynamics. As Agnetha Vave-Karamui of the Ministry of Environment expressed: 'It should not be a process that brings conflict, but enhances how do we participate equally in any decision.' With this softer approach, steps toward gender equality in Solomon Islands can be taken with little backlash, and with the greatest chance of success. This soft approach upholds principles of respect and cultural sensitivity as fundamental considerations. Malachi Tefetia, Fisheries Officer with Guadalcanal Province, recounts that separating women and men, which is consistent with traditional cultural practices, for meetings in some communities has positive impacts: 'When you separate women from men, the women come up with good ideas and [the group] gives them pride.' Without separating the men and women, he says, 'Men will dominate the discussion.' This practice uses indirect or less confrontational means of achieving broader inclusion and representation of both men and women. Through these methods, the soft approach often goes beyond simply counting women in the room, and encourages women to speak up and participate.

Several techniques were suggested by interviewees that support the application of a soft approach to incorporating gender dimensions into projects and programmes and initiating dialogue on gender equality within society. For example, trainers and facilitators working with communities should be educated on the concept of gender, prepared to guide communities through delicate discussions, and knowledgeable of socially and culturally appropriate mechanisms, such as separate women's and men's focus groups, to encourage the engagement and participation of men and women in training workshops and community discussions. Tools such as Powerpoint and visual aids should also be developed to help women (who have a low literacy rate) make meaningful contributions. Furthermore, male champions, such as elders or leaders, who speak out in support of incorporating women are invaluable in encouraging the shift in attitude and changes in culture.

Last, misguided perceptions on the meaning of the term 'gender' in Solomon Islands has hampered progress and open discussion. As explained by Kristina Fidali of the United Nations Development Programme, 'the word [gender] is tainted and confrontational. We have to pitch it at the right level and focus on the inclusion aspect... listening to the different perspectives and the different ideas that we share.' The overwhelming focus on domestic violence in Solomon Islands has created a difficult social context, and discussions surrounding topics on women and gender are mostly received defensively by both men and women. Many people perceived

discussions on gender equality as a prelude to blame and hostility. To address this reality, the communication and messaging on gender equity and women's empowerment must be improved and awareness should be conducted on the nature of gender as encompassing the roles of both men and women. Using key words such as 'inclusivity' and training that exemplifies the principles of inclusivity have the potential to address issues of gender inequality and work toward the empowerment of women and the betterment of society in a manner that is perceived less confrontationally.

Incorporating gender considerations into natural resource management and development initiatives is key to ensuring the sustainability of those solutions. Nelly Kere of the Ministry of Environment explained that: 'We need a gender lens so that women have their say on any decision that is made in the community so they have ownership.' By building ownership among both men and women through consistent messaging that reaches all social groups and demographics, community decisions will more accurately reflect the will and desire of the entire community, and behaviour changes in natural resource management and development initiatives can last and be passed along to the next generation.

### Conclusion

Advancing public discussion on gender equality and making progress in women's empowerment requires effective messaging and awareness, political and social will, and support from the government, NGOs and the private sector. Moving forward, gender in Solomon Islands should be more actively studied and discussed in national and international venues to facilitate an open dialogue that raises awareness and breaks down barriers to progress. Through this more open discourse, as well as through utilising the soft approach described in this article, progress toward gender equity can be made in Solomon Islands that aligns with cultural and social reality.

Further research is needed to explore gender dynamics in Solomon Islands in order to enhance the success and sustainability of natural resource management and development interventions. Potential topics for further research include: How does the availability and/or scarcity of natural resources impact gender roles in the Solomon Islands?; How do gender interventions in marine resource management initiatives influence social and environmental outcomes?; Does being 'educated' insinuate being 'heard' and 'respected'?; Is there a correlation between the breakdown between traditional governance systems and gender-based violence? And, were things really better before? Exploring these areas through academia has the potential to positively impact the ability of national and international agencies, public and private sector to make effective progress toward improving the long-term social and environmental sustainability of natural resource management and development initiatives, and strive for gender equality in Solomon Islands.

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# Women fishers in Fiji launch a mud crab management plan for their fishery

Alyssa L Giffin,<sup>1,2</sup> Mosese Naleba,<sup>1</sup> Margaret Fox<sup>1,3</sup> and Sangeeta Mangubhai<sup>1</sup>

## Background

Mud crabs (*Scylla serrata*), known locally in Fiji as *qari*, are an important food source for subsistence and livelihoods, and are caught mainly by women in Fiji's coastal communities (Mangubhai et al. 2017; Lee et al. 2018). In Fiji's Bua Province, mud crab harvesting is largely undertaken by women in mangroves, intertidal flats and rivers within their traditional fishing grounds (*goliqoli*) (Mangubhai et al. 2017). Locally, mud crabs are highly prized due to their high meat yield for household consumption and their ability to be harvested and sold without the need for ice or refrigeration. They are increasingly being sourced locally as an alternative to finfish during seasonal bans on target fish species (e.g. groupers) and moratoria on other marine species (e.g. sea cucumbers).

Commercially, mud crabs command high prices by resorts and hotels as a desired seafood commodity for guests. Due to this rising demand of mud crabs and the commercialisation of the fishery, prices of mud crabs have increased nationally (Lee et al. 2018), particularly after tropical Cyclone Winston in 2016 (Thomas et al. 2018a, b). Higher prices has driven some fishers to conduct unsustainable fishing practices, such as catching and trading undersized mud crabs or egg-carrying females. At the same time, the mud crab fishery nationally is threatened by continued mangrove habitat loss or degradation from a range of human-induced pressures, such as timber harvesting and firewood collecting, land reclamation for development, pollution and climate change (Mangubhai et al. 2019).

Despite women's involvement in the mud crab fishery, and the important contribution women make to household and village protein requirements (Kronen and Vunisea 2009), they are often poorly represented in fisheries planning and management decision-making processes in Fiji and the wider Pacific (Vunisea 2008; Mangubhai et al. 2018). The inclusion of women in developing local fisheries management plans is an important step toward gender inclusiveness in fisheries management in the Pacific.

## Designing a management plan

To address the social, economic and ecological issues associated with the harvesting and handling of mud crabs, Waitabu and Tacilevu villages, collectively referred to as 'Navunievu community', have developed a three-year (2018-2020) mud crab management plan with the support of the Fiji Ministry of Fisheries and the Wildlife Conservation Society. The Navunievu Community Mud Crab Management Plan was designed by mud crab fishers, and emphasizes the role of women in the monitoring and enforcement of management regulations.

The management plan was developed from a series of consultations with fishers and the wider community they are part of in order to identify key threats to the fishery, and possible management strategies to address them. To identify key issues in the mud crab fishery and develop appropriate management strategies for the management plan, consultation meetings were held between December 2016 and June 2018 with Navunievu community members. While the mud crab fishery is women-dominated, a gender-sensitive and inclusive process was used so that no fisher was left out, and the wider

community was also kept informed. The key issues identified by the community included:

- a lack of consistency in prices for mud crabs;
- distance to markets to sell mud crabs;
- increased effort needed to collect enough mud crabs to sell;
- lack of knowledge regarding mud crab post-harvest handling techniques to ensure quality; and
- lack of knowledge of market prices to ensure fair prices to fishers.

During community consultations, the Navunievu community's traditional leaders and women's and men's groups agreed to three objectives for their management plan:

1. ensuring the mud crab fishery in Navunievu is sustainable;
2. maximising economic returns from the fishery; and
3. ensuring the community of Navunievu complies with the plan.

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Because all customary fishing grounds fall under traditional authorities, the community obtained the endorsement and support of the *Bose Vanua* (Bua District Council) and the paramount chief, Tui Bua.

To ensure the mud crab fishery in Navunievu remains sustainable, everyone in the community agreed to comply with the legal minimum size limit of 125 mm, and to prohibit the catching of female crabs, carrying eggs, with any accidental catches released back into the wild. A *tabu* area (temporal fishing closure) was designated in the mangrove area with a surrounding buffer zone, with only members of the 'Navunievu Mud Crab Fisheries Committee' able to access the closed area to place mud crabs inside cages for fattening.

To maximise economic returns from the fishery training on mud crab fattening and post-harvesting handling was provided by the Crab Company of Fiji (a private crab farming company on Viti Levu) with support from the Wildlife Conservation Society (WCS) and the Fiji Locally-Managed Marine Areas (FLMMA) network. By improving the post-harvest handling of crabs, the community hopes to reduce the number of discarded individuals and wastage in the fishery. Under the plan, all thin and molting mud crabs larger than the minimum size limit of 125 mm that are caught will be placed into cages inside the *tabu* area for fattening – the greater the weight, the greater the profits. Crabs are fattened with discarded household waste such as chicken and fish discards. Fishers want to reduce fishing pressure by obtaining greater income from fewer but heavier crabs. WCS and the Ministry of Fisheries are assisting mud crab fishers

(who are mainly women) to consistently engage long-term buyers to purchase high-quality crabs. In the past, poor road conditions during rains or light showers greatly discouraged buyers from visiting Navunievu, but with better roads there is increasing opportunity to connect to buyers.

Lastly, to ensure the community of Navunievu complies with the objectives, actions and rules in the management plan they have established the Navunievu Mud Crab Fishers' Committee, with members who have been trained in proper mud crab fattening and post-harvesting techniques to maintain the quality of crabs coming from the village. Eventually, fish warden training will be provided by the Ministry of Fisheries to patrol *tabu* areas, with community funds allocated specifically for enforcement. The community hopes that fisheries management rules will be added as a condition of fishing licenses in villages across Bua District by the Ministry of Fisheries to protect the local rules they have in place to wisely manage their fisheries.

### Catch per unit effort

Concurrent to the planning process, catch per unit effort data were collected by mud crab fishers to assess the state of their stocks. All but one data collector were female. Fishers recorded the number of crabs they harvested on one day per week, from June 2017 to July 2018. Information on the timing of trips (i.e. tides, moon phases), distance to sites, time spent fishing, gear types, and the fate of the mud crabs (i.e. eaten, sold or traded) was also recorded. For each individual crab, data were collected on: i) sex, distinguished by the

Fisherwomen complete training on catch monitoring for mud crabs CPUE - ©Margaret Fox (WCS)



shape and width of the abdominal flap; ii) carapace width (to the nearest mm); and the iii) absence or presence of eggs. The data showed that the majority of crabs caught were sold for income (76.8%) while the remainder were eaten (14.7%) or traded with others in the village (8.5%). The average size of both female and male crabs were 136.6 mm and 147.2 mm, respectively, which is above the legal size limit of 125 mm carapace width. However, male–female ratios of crabs were slightly, suggesting that there was overharvesting of males, likely due to their larger size and weight, or due to the reproductive patterns of mud crabs, which go offshore to spawn while males remain in estuarine and mangrove areas. With the launch of the management plan in late 2018, the community hopes that the measures put in place will ensure the long-term sustainability of their fishery.

### Significance of the plan

Throughout the Pacific, women in fisheries often suffer from a ‘culture of silence’, where they are constrained in their participation in management discussions that directly affect their livelihoods (Vunisea 2008). Through the Navunievu Community Mud Crab Management Plan, women fishers are playing a key role in managing their own fisheries. This plan contributes to a broader shift toward more gender-inclusive fisheries management in the Pacific (see SPC 2018). Women are central to mud crab fisheries in the region and their knowledge and experience provides a great starting point to begin discussions on sustainable fisheries management. Actively engaging women in management plan formulation allows for the influence on actions by those who will ultimately be affected by them. Women’s involvement in decision-making processes can also

promote greater community support and compliance of the management plan. By enhancing women’s roles and influence in management decisions, the Navunievu Community Mud Crab Management Plan is helping shift the status of women in fisheries from users to shapers and makers (Cornwall and Gaventa 2001). It is important to understand the role of culture in shaping gender relationships that may differ between cultures and places. Women from Navunievu have a strong traditional belief in the spiritual power of the chief and his role in decisions related to land and sea resources.

In comparison to men, the food and economic gains generated from women’s fisheries catches is largely filtered back to their families (Chapman 1987; Harper et al. 2013; Kronen and Vunisea 2009; SPC 2018). Increasing women’s participation in management activities can result in a number of broader community benefits, including increased social and financial capital (Harper et al. 2013). As such, it is important that women receive adequate training and support, are given opportunities to participate in management consultations, and are provided with the capacity to influence the health and sustainability of their fisheries. The Navunievu Community Mud Crab Management Plan provides an example of how women fishers can participate more actively in the management of their fisheries within the cultural and social contexts they live in. By adopting experiences from the plan, communities can give fisherwomen the same platform as fisherman to manage their livelihoods and food resources.

Building mud crab fattening pens in Navunievu community - ©WCS



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Mud crabs ready for sale at a market in Fiji - ©Rebecca Weeks



Strings of mud crabs being sold in local markets in Fiji - © S.Mangubhai(WCS)



# ‘Twisting and spinning’ theatre into coastal fisheries management: Informing and engaging communities to address challenges

Pita Neihapi,<sup>1</sup> Ada Sokach, Douglas Koran, Jodi Devine, Joanne Dorras, Neil Andrew and Dirk J. Steenbergen

## Introduction

*Given the importance of fish in the lives of Melanesians, and the increasing pressures on marine resource stocks and habitats (Hickey 2008), managing coastal fisheries has been identified as one of the Pacific Islands region’s biggest development challenges (SPC 2015). And as with other Pacific Island countries, coastal fisheries in Vanuatu are primary source of food and income, and a cornerstone of local cultural identity (VFD 2019). At the same time, many coastal fisheries are experiencing declines in production due to increased fishing pressure resulting from population growth, market expansion and impacts of climate change (Léopold et al. 2013). Much of the current work around community-based fisheries management in Vanuatu is focused on determining how grassroots management initiatives can scale-up to reach more people more effectively (Tavue et al. 2016; Raubani et al. 2017). Essential to that goal, is effective communication and information exchange between communities and development partners to share understandings about fisheries management, and highlight the many layers of support needed to create and access opportunities, including from governments.*

## Keywords

community-based fisheries management, participation, social change, theatre for development, Vanuatu

## Raising awareness

Conventional awareness-raising meetings in communities often involve extension officers informing people of national fisheries laws, ecological processes and technical management options. Brochures or posters are often distributed among households or posted on communal notice boards for people to read in their own time. All instances, however, reflect a one-way information stream.

The challenges involved in reaching remote locations means that these meetings often do not happen, and when they do, facilitators must deal with:

1. conflicting daily schedules of people that limit their availability for such meetings;
2. reluctance among participants about speaking out publicly and/or challenging convention;
3. underrepresentation of marginalised social groups; and
4. community fatigue by participating in monotonous meetings.

This burden is often borne disproportionately by women. As a consequence, at no fault of their own, facilitators struggle to catalyse a lasting impact.

In Vanuatu, the spoken word – through music, storytelling and theatre – has been central to the culture for generations. Such public modes of communication continue to

form important platforms to address social, often sensitive, issues and taboos. Theatre and drama have proven far more effective in conveying messages, and educating and spreading awareness in society, particularly given Vanuatu’s low literacy rates (Sloman 2011). With funding support from SwedBio, a Swedish conservation and development fund, a partnership developed between the theatre group Wan Smolbag (WSB; <https://www.wansmolbag.org>) and the Vanuatu Fisheries Department (VFD) in 2018, to create and tour a theatre production, in combination with an interactive workshop, that would communicate the importance of fish and sustainable management of coastal fisheries to rural people in Vanuatu.

WSB has achieved significant success in highlighting social development issues through television, community-based theatre and local movie productions (Taylor and Gaskell 2007; Drysdale 2014; Woodward-Hanna 2014). The power of humour and metaphor to communicate, without overtly challenging intrinsic community power relations, is a universal tool. WSB uses these tools to convey important messages in their community theatre productions, and challenges audiences with the unvarnished truth. As a grassroots non-governmental organisation based out of Port Vila, staff and volunteers have worked for three decades in developing awareness of challenging issues, promoting community action, and providing training and materials to schools, communities, and government departments. Bringing this capacity into the realm of coastal fisheries management offers an opportunity to mobilise civil society groups to take more active roles in managing their marine resources.

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JOHN BOITA DONALD FRANK HELEN KAILO KALKOT KALTAPAU MICHAEL MAKI REXNETH MARANDA PATRICK ATEL



A WAN SMOLBAG THEATRE PRODUCTION

# TWIST MO SPIN

2019 & 2020 COMMUNITY TOUR

IN PARTNERSHIP WITH VANUATU FISHERIES DEPARTMENT'S PATHWAYS PROJECT

'TELLING A STORY ABOUT LIFE ALONG THE VANUATU COAST AND THE IMPORTANCE OF FISH TO PEOPLE .... AND PEOPLE TO FISH'



RITCHIE BENJAMIN EVELYN SARA VIRANA TAMATA MORINDA TARI LILIAN TASSO PETER BELL

PRODUCTION JOANNE DORRAS, JODI DEVINE, PETER WALKER TECHNICAL ADVICE PITA NEIHAPI, ADA SOKACH, DOUGLAS KORAN, DIRK STEENBERGEN

WWW.WANSMOLBAG.ORG



PHOTOGRAPHY: PAUL JONES

'Twist Mo Spin' touring production poster. (images: Paul Jones, design: Kristel Steenberg)





Actors from the 'Twist Mo Spin' production during a community performance - ©Paul Jones

The collaborative project seeks to convey critical messages around fish-based nutrition, livelihoods, and inclusive decision-making. Where WSB provides creative and theatre-technical capacity for the play, staff from VFD, under their Australian government-funded 'Pathways Project', provide technical guidance on coastal fisheries management. As such, the play 'Twist Mo Spin' (a reference to the twisting and spinning of dolphins) was created in early 2019, and the cast of 13 actors has since completed its first tour of communities in the southernmost province of Tafea.

The story of 'Twist Mo Spin' follows a young couple, Lyn and Jason, who return to Jason's village to build a life together. As Jason falls comfortably back into his familiar environment, Lyn has to fit in with the new community and family life in which she finds herself. Expectations are placed on Lyn, for example, to bare a son, and to assume particular gender-defined responsibilities and roles in family life. At the same time, the community is dealing with declines in fisheries from catching too many fish, climate change and population growth.

The story builds to a point where Jason's father passes, and Jason must assume an important role in the family. Meanwhile, the community as a whole reaches a point of internal turmoil about the state of resources and who is to blame for that. The play ends with community members in a heated debate during a community fisheries meeting, at which point an open-ended question is posed about what they want for the future and what they need to do about it. In essence, WSB brings the audience to the take-off point for collective action; namely the realisation that by working together they can have

better outcomes for themselves and their community. To help resolve this challenge, the audience is then led into an interactive community workshop for people to start thinking more deeply about some of the drivers of degradation and ways to work together to better manage their resources.

Given that much of the challenges facing coastal fisheries have to do with people, the play's storyline focuses on important social, economic and political aspects of life in remote coastal communities, rather than rushing straight to technical fisheries management. Some key themes of the play include:

- social stereotyping – for example, entrenched gender roles affect who has access to fisheries and the kind of benefits derived from them;
- life and conditions in remote coastal communities – family life and social relations within a community form a fundamental pillar in people's lives'
- importance of fish – people depend on fish in their day-to-day lives for food (nutrition) and income (livelihoods), and how the unpredictable nature of markets can change people's perception of the value and use of fish (for commercial vs subsistence needs);
- challenges of collective action – people are faced with managing private (family) interests and communal problems, where, for example, contesting claims in a community over the cause of reef damage requires open discussion and decision-making.

As gripping as 'Twist Mo Spin' is, it is not simply an entertaining distraction – this is theatre for social change (Sloman



Audiences at different 'Twist Mo Spin' community productions held on Tanna Island - ©Paul Jones



2011). The play illuminates issues and makes people think in ways that no focus group discussion could. The audience is confronted with issues that are often left unspoken; in a public space, they each reflect on a shared reality. Spring-boarding off this personal reflection, the cast guides the adult audience in the interactive workshops through five different activities. Activities involve diverse formats, ranging from smaller disaggregated group discussion to plenary debates. The activities are energetic and challenge people to reflect on what they saw in the play (i.e. what they learned, and what is similar and/or different to their context), to think about leadership and fisheries rules in the community, and to debate feasible futures (i.e. what is being done already, and what should be done and how).

The workshops have become a critical part of the awareness-raising campaign as the partnership seeks to not only further the messages of the play, but more importantly have people take ownership of ideas relevant to their particular contexts. Based on the play, and on community responses, the

project is also developing creative new multi-media materials such as comic books and DVDs that will help keep the messages in 'Twist Mo Spin' alive in local conversation beyond the project's lifetime.

The experience from the first tour has demonstrated the power of theatre in bringing sensitive taboos to the forefront of discussion without undermining anyone. This is a key aspect of effective communication with local groups, and a fundamental first step towards conversing and co-learning with people is to break down barriers for participation that come with formal meeting settings. The 'Twist Mo Spin' play and workshop once again shows how alternative formats, materials and approaches deserve more widespread application across sectors that seek to engage a broad range of local people and give them a more inclusive voice in addressing the rural development and natural resource management challenges communities face.

With the conclusion of the first community tour in Vanuatu's southernmost province of Tafea, the cast and crew will gear up for a second tour to the northern provinces of Sanma, Malampa and Penama in early 2020. For more information on the partnership and the 'Twist Mo Spin' initiative please contact:

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Post play interactive workshop activities with community audiences - ©Paul Jones



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Post play interactive workshop activities with community audiences - ©Paul Jones



# Mangoro Market Meri: Women working together to protect their mangroves and build secure futures for their communities



Mangoro Market Meri logo

Ruth Konia,<sup>1</sup>Barbara Masike<sup>1</sup> and Robyn James<sup>2</sup>

Mangoro Market Meri brings together women from across Papua New Guinea to support sustainable mangrove management for the benefit of improved livelihoods, including tourism, women's empowerment, food security, storage of 'blue carbon'<sup>1</sup>, and the protection of coastal communities from sea level rise and storm surge. Led by The Nature Conservancy and women's groups in Papua New Guinea, Mangoro Market Meri is building a platform for women to generate income based on the sustainable management of their mangroves. Potential economic opportunities include building local markets for sustainably harvested mangrove products such as shellfish and mud crabs (short term), exploring the potential for ecotourism (medium term) and preparing to engage in blue carbon (long term). It is a partnership between several key partners, including women leaders from communities across the country, provincial and national government, academic institutions, non-governmental organisations and business.

## Papua New Guinea's mangroves

While blue carbon ecosystems such as mangroves, seagrass beds and saltmarshes constitute only 2-6% of the total area of tropical forests, their degradation emits the equivalent of 19% of the annual carbon emissions from global deforestation. Papua New Guinea (PNG) is home to some of the most intact and diverse mangrove forests in the world. In addition to serving as nurseries for juvenile fish, mangroves support the food security and livelihoods of many coastal communities. Women and their children particularly rely heavily on mangroves for fuel wood for cooking, and for fish, crabs and shellfish for household consumption, and sale for cash income. PNG's coastal mangroves, however, are under threat by development and clearing, which reduces local food and livelihood security while exacerbating climate change impacts.

Demonstrating the economic benefits that can flow from mangroves, and ensuring these benefits are shared equitably, can incentivise the sustainable management of this important resource. Women have an important role to play in leading such efforts. While they are disproportionately vulnerable to environmental and climate change impacts, they also possess important knowledge to address these threats. Unfortunately, women in PNG often have limited access to leadership and capacity-building opportunities, such as training, networking and accessing loans, which would help them generate economic benefits. Cultural norms also mean that women are not recognised by men for their leadership skills and tend to do the bulk of childcare and household tasks, thus reducing their available time to participate in decision-making and income generation.

This project is a response to understanding and contributing to effective local, provincial and national methods of securing PNG's mangrove forests. It will assist PNG with

contributing to global efforts to mitigate climate change, while simultaneously building coastal resilience and supporting local livelihoods.

## Nature's leading women

In August 2017, The Nature Conservancy (TNC) led a 'Women and Mangroves' workshop in Milne Bay Province, which involved community-based organisations, national and provincial governments and non-governmental organisations. Building on the significant momentum this generated, TNC held the first ever 'Nature's Leading Women' event in November 2017 in Australia. The event brought together over 30 women from five locations across the Pacific and northern Australia. Each delegation came up with an idea for simultaneously advancing conservation and generating income, and were given training and mentoring in leadership, financial literacy, branding and marketing. There, the PNG delegation developed their idea of *Mangoro Market Meri*.

## Building coastal communities' resilience to climate change in Manus and Milne Bay provinces

TNC and partners will turn the vision of *Mangoro Market Meri* into a reality with support from the Australian Government and some generous donors. It will begin by engaging women from Manus and Milne Bay provinces. For example, TNC is exploring the potential to connect *Mangoro Market Meri* with domestic and/or international markets for sustainably harvested mud crabs. This model has already proven successful elsewhere in PNG, where TNC has connected local fishing communities in Manus with buyers in Hong Kong who are willing to pay a premium for a seafood product (e.g. dried sea cucumber) that can be certified as having been sustainably harvested. The project will also support women with purchasing and using clean cookstoves by working in partnership with the Global Alliance for Clean Cookstoves.

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<sup>2</sup> The term 'blue carbon' does not refer to the colour of the physical carbon element. Rather, it relates to where the vast majority of this kind of carbon is captured and stored, namely coastal and marine ecosystems.



Participants to the Mangrove Forest Ecology and Restoration Workshop - ©Ruth Konia (TNC)

Many PNG households cook on open fires or traditional cookstoves that burn fuels such as wood and charcoal, which can lead to overexploitation of timber and air pollution.<sup>3</sup> Introducing cleaner, fuel-efficient cookstoves can reduce the amount of fuelwood required, time spent cooking, and improve air quality – all of which benefit women and children, who do most, if not all, of the cooking.

Progress to date includes the following:

- A local tours and expedition entity, led by a local woman entrepreneur, was engaged by the project to conduct mangrove awareness campaigns in three mangrove communities in Milne Bay Province.
- PNG's female mangrove specialist, Mazzella Maniwavie, was engaged by the project to ensure that awareness materials and messages produced by the project were as accurate as possible and simple to understand. She has also produced training materials and handbooks for the Mangrove Forest Ecology and Restoration Training.
- A focus group survey was conducted in three of the biggest villages along the east coast of Milne Bay Province to understand how mangroves are used and how women can benefit from mangrove products that could be sold as certified sustainably harvested seafood.
- Following on from the survey, a Mangrove Forest Ecology and Restoration Training was conducted in these villages, targeting women. The objective was to ensure that the women understood the importance of mangroves and mangrove ecosystems, and could identify the major drivers of mangrove forest loss and what people can do to restore the mangrove forests. Over 50 women attended the training and many cried when they received their certificate as it was the first training they had ever had the opportunity to complete since school.
- A set of awareness materials, including a facilitator's manual, community flip chart and posters were produced by the project and will be used for awareness raising in Milne Bay and Manus provinces. These are unique as they have been developed locally based on the needs and communications styles of people in the villages.
- In Manus Province, TNC assisted the local women of Manus Island to formally establish a group that represents all women. The Pih Environment Development Forum now has a constitution, a strategic plan to guide its work and a board that will guide the organisation as it progresses.
- TNC assisted in facilitating a planning meeting with the Manus Disabled People's Association to meaningfully engage the disabled community in activities in Manus Province. TNC will work with this group to better understand its needs.

<sup>3</sup> This is a widespread issue as over 3 billion people worldwide cook using these fuels and technologies.



## Going forward

Tourism can significantly contribute to environmental protection, conservation and restoration of biological diversity, and the sustainable use of natural resources. Tourists are attracted to historical sites, unique cultural experiences, and beautiful environments and natural areas. Hence there is a need to keep such ‘attractions’ alive, while earning an income at the community level. Additionally, tourism has the potential to increase public appreciation of the environment and to spread awareness of environmental problems when it brings people into closer contact with nature and the environment. This connection may increase awareness of the value of nature and lead to environmentally conscious behaviour and activities to preserve the environment – in this case, the mangrove ecosystem. Thus, it is important that we engage with ecotourism entities and focus on working with our tourism partners to develop nature-based tourism activities and messaging that further promotes the aims of *Mangoro Market Meri*.

TNC is facilitating a biodiversity and conservation training workshop at the request of tour operators in Milne Bay Province so that they can better promote and protect the natural values of the province and share these with tourists. TNC will continue this partnership with VilLink Tours and Expedition to deliver the message about the importance of mangrove ecosystems across the province. Forty-five women who recently graduated with certificates of participation in the mangrove forest ecology and restoration training will be on hand to volunteer in carrying out awareness campaigns with VilLink Tours and Expedition. These women are very engaged and excited to be part of this programme.

TNC is also exploring locally relevant sustainable finance options, such as a ‘green fee’ that tourists to the region would pay in order to help support the costs of sustainably managing the mangrove forests. Exploring handling and marketing options – both domestically and internationally – for mangrove products such as crabs and shells is another priority for the project for both Manus and Milne Bay provinces. Once locally managed women’s groups begin marketing their mangrove products, TNC will ensure that these women’s groups receive adequate financial management training to better manage their finances.

In Manus, TNC is supporting the Manus Disabled People’s Association to register as an organisation and to review the association’s vision and plans. Manus Disabled People’s Association will be linked to Pihi Environment Development Forum so they can be actively engaged in activities relating to natural resource management. TNC will work to help these organisations reach their objectives. Mangrove restoration and locally managing marine areas are holistic approaches to restore mangrove forests and mangrove ecosystems in both Milne Bay and Manus provinces in communities where mangroves and mangrove goods are neglected or depleted. *Mangoro Market Meri* will continue to work with women’s groups in other provinces, such as Tulele Peisa in Bougainville and the Pari Women’s Association in the National Capital District, to create a network and opportunities for sharing and learning among women.

*Mangoro Market Meri* will also continue to support women’s efforts at the provincial and national level and to develop sustainable mangrove policies.

Identifying and recording mangrove species - ©Ruth Konia (TNC)





# Gender-inclusive facilitation for community-based marine resource management

## *An addendum to 'Community-based marine resource management in Solomon Islands: A facilitators guide' and other guides for community-based resource management*

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### Keywords

Facilitation techniques; community-based marine resource management; equity; decision-making

### Abstract

*Both women and men should be included in community-based marine resource management. To create an inclusive management process it is necessary to use deliberate and thoughtful and reflexive strategies that do not rely on or worsen existing power imbalances. Researchers using a reflexive strategy are self-aware and constantly reflecting on and critiquing their potential biases and how those might influence their research. In this paper we offer concrete examples of gender-inclusive facilitation strategies that could be used as part of a larger reflexive community engagement process. These strategies are drawn from experience across the Pacific Islands region.*

### Introduction

People who rely on a natural resource should be central to decisions about how that resource is used and managed. This principle is at the core of community-based management and other forms of co-management. Community-based management aims for high levels of resource-user participation in decision-making and in the management of resources. In practice, however, the processes and outcomes from collaborative management approaches: 1) are experienced differently by different social groups (Evans et al. 2011); 2) can preferentially benefit (Cinner et al. 2012) or disadvantage (Béné et al. 2009) certain sectors of society; 3) can exacerbate existing power imbalances; and 4) can lead to 'elite capture'<sup>1</sup> (Béné et al. 2009; Cinner et al. 2012), and may inadvertently exclude or marginalise women (or other groups) from decision-making processes and from the very resources on which they rely (Kleiber et al. 2015; Vunisea 2008).

When any management partner or facilitator engages with communities they must use deliberate, thoughtful and reflexive strategies to reduce the risk of exacerbating existing power imbalances (Schwarz et al. 2014). Researchers using a reflexive strategy are self-aware and constantly reflecting on and critiquing their potential biases and how those might influence their research. We draw lessons and experience from across the Pacific Islands region where there is a long history of community-based approaches to address fisheries and marine resource management (e.g. Johannes 1982), decades of national programming (e.g. King and Faasilili 1998;

Raubani et al. 2017), relatively recent high-level recognition (Secretariat of the Pacific Community 2015), and widespread interest in the spread and improvement of these approaches (Govan et al. 2009).

In this paper we aim to support facilitators' capacity to use, reflect on, and adapt gender inclusive strategies in their work with communities. Furthermore, we aim to increase the frequency and quality of strategies used to reach women, men and other social groups in the preparation, design, implementation and adaptation stages of community-based resource management (CBRM). While the advice here is prepared with Pacific Island countries and community-based marine resource management in mind, some elements are more broadly applicable and are reflected in extensive experiences and feminist research from other agricultural and development sectors. We focus on gender-inclusive strategies that facilitators can use when working with communities; when used thoughtfully, as part of a larger cycle of gender-aware reflection on the equity of the process, the strategies are meant to enable gender-equitable participation in CBRM discussions, negotiation, planning and decision-making processes. This is not a step-by-step manual on 'how to do gender', or a recipe that will guarantee equitable processes or outcomes.

While gender-inclusive facilitation or practice has multiple dimensions, we refer to this in shorthand as 'reaching' women and men (see below). We begin by highlighting what it means to 'equitably reach' women and men, or being gender-inclusive in facilitation, and who is responsible for this facilitation.

<sup>1</sup> Elite capture refers to situations where resources are managed in a way that benefit a few individuals of superior social status to the detriment of the welfare of the larger population.

## Why do we use gender-inclusive facilitation?

We share strategies that can contribute to more gender-inclusive CBRM discussions, planning and decision-making processes. It is important, however, to recognise that there are many steps to gender-inclusive participation, and having both women and men at a meeting is only one step (Fig. 1). Gender-inclusive facilitation techniques can be an important foundation that influences equity at all stages of participation.

Is equitably reaching women and men the same as achieving equitable outcomes or even empowerment? Not at all. The strategies outlined here fall within engagements focused on 'reach' (Fig. 2). Reach refers to ensuring both women and men are participating in information exchange, and discussions and decision-making processes. Many initiatives wrongly assume that effectively reaching women will be sufficient to benefit and empower them (CGIAR 2017; Theis and Meinzen-Dick 2016). Equitably reaching women and men is an important first step, but success at this step alone will not necessarily lead to equal benefits, empowerment, or deeper transformation of gender norms, beliefs and relations (Johnson et al. 2017); for this to occur, other strategies (not detailed here) would be needed. Nonetheless, good practices and gender-inclusive facilitation to reach women, men and other groups in societies may increase the likelihood that benefits are equitable, and that women and men are more empowered, but does not guarantee it.

## Who is responsible for gender-inclusive facilitation?

We view gender-inclusive facilitation as the responsibility of all members of a facilitation team to ensure that the gender-inclusive facilitation strategies are applied throughout any process of community engagement. This must be more than simply ticking boxes. The questions throughout the reflexive facilitation cycle (Fig. 3), and the list of gender-inclusive facilitation strategies listed below can serve as a guide for prompting regular reflection on inclusive engagement. It is good practice to keep a written record of gender-inclusive processes and reflections. Such documentation is also critical for good project management and monitoring and evaluation, and enables researchers to better understand how the quality of a process might impact upon equity of outcomes and management success.

## Reflexive facilitation cycle

Good facilitation includes planning, but it also requires observation of the process and critical reflection afterwards (Fig. 3). Observation and reflection can then be used to inform the next stage of planning. This creates a reflexive facilitation process that can respond to changing circumstances or unintended outcomes, and allows for adaptation and improvement over time.

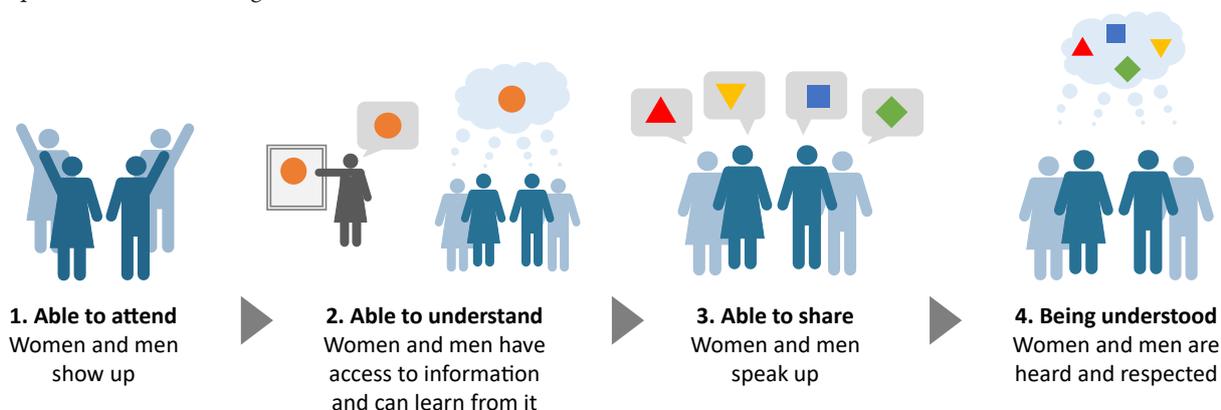


Figure 1. Gender-inclusive participation in the community-based resource management process includes four steps

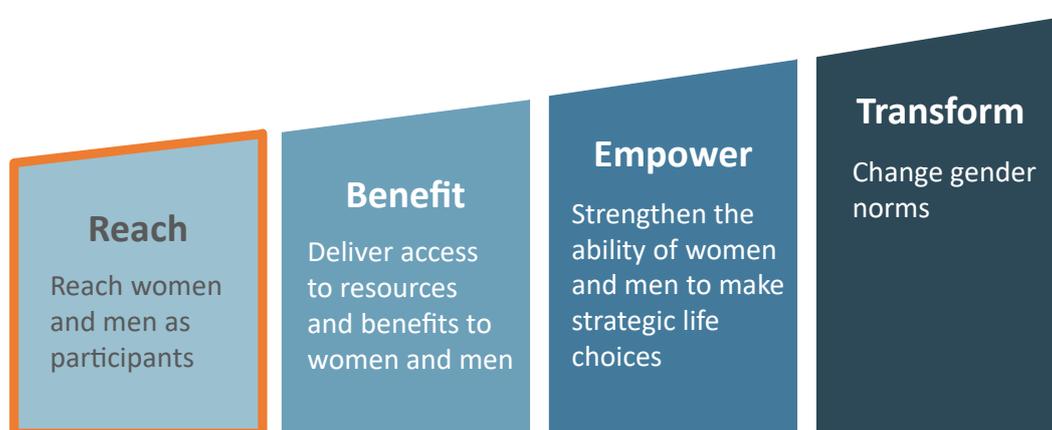


Figure 2. Four stages of development engagements and research questions.  
Sources: Adapted from CGIAR 2017; Johnson et al. 2017; Theis and Meinzen-Dick 2016

The following points can act as prompts for reflections in Stage 3 (Critical Reflection) that may lead to adjustments to your facilitation plan, the structure and skills of your team, or your overall engagement with a community.

**1. Did pre-existing equity issues create barriers to participation by some groups?**

Did the equity issues you expected in the planning phase come up? Did equity issues that you did not expect in the planning phase come up? Were you able find strategies to overcome these barriers?

**2. Were all fisheries activities considered and valued?**

Have you included all methods of harvesting from places and habitats? Collecting seafood by hand from mangroves or intertidal areas is often neglected, or not given as much value. Have you considered pre- and post-harvest activities and roles (e.g. gear preparation, cleaning, cooking, selling catch)? Have discussions that you have led, facilitated, or brought to the surface, views about the different and similar ways in which women, men and youth use resources, habitats, methods and species?

**3. Were all groups given a fair chance to participate (and how)?**

Have you ensured that women, men and youth, people with disabilities, elderly, non-landowners, and newcomers, are participating in the process (Fig. 1):

- a. Able to attend: Have you invited everyone and chosen times and places that work for different groups?
- b. Able to understand: Are you using language and communication styles that can reach everyone in the meeting?

c. Able to share: Are you accounting for social norms about public speaking (e.g. whether it is socially acceptable for women and youth to share opinions in communal meetings)?

d. Being understood: Are your places and strategies enabling the views, concerns and solutions of women, men and youth to be shared, heard and considered?

**4. Did all groups participate?**

Are women, men and youth present and participating in discussions where decisions about resource use, access and benefits are being negotiated and made?

**5. Were the outcomes seen as equitable by different groups?**

Did the people participating feel that the decisions made were equitable? Did they feel some groups shared a bigger cost or benefit? If so, who?

**6. Were there unintended or negative consequences or social conflict?**

Did people display or report social conflict or other negative consequences?

**7. How can you improve the facilitation and overall engagement the process going forward?**

Are there formal or informal structures (adaptation processes, review of monitoring, decision-making committees) whereby decisions can be renegotiated and adapted (including around management decisions, rules and enforcement) in a way where women and men can share their perspectives? Have your actions or suggestions played a role in making these structures and processes more equitable?

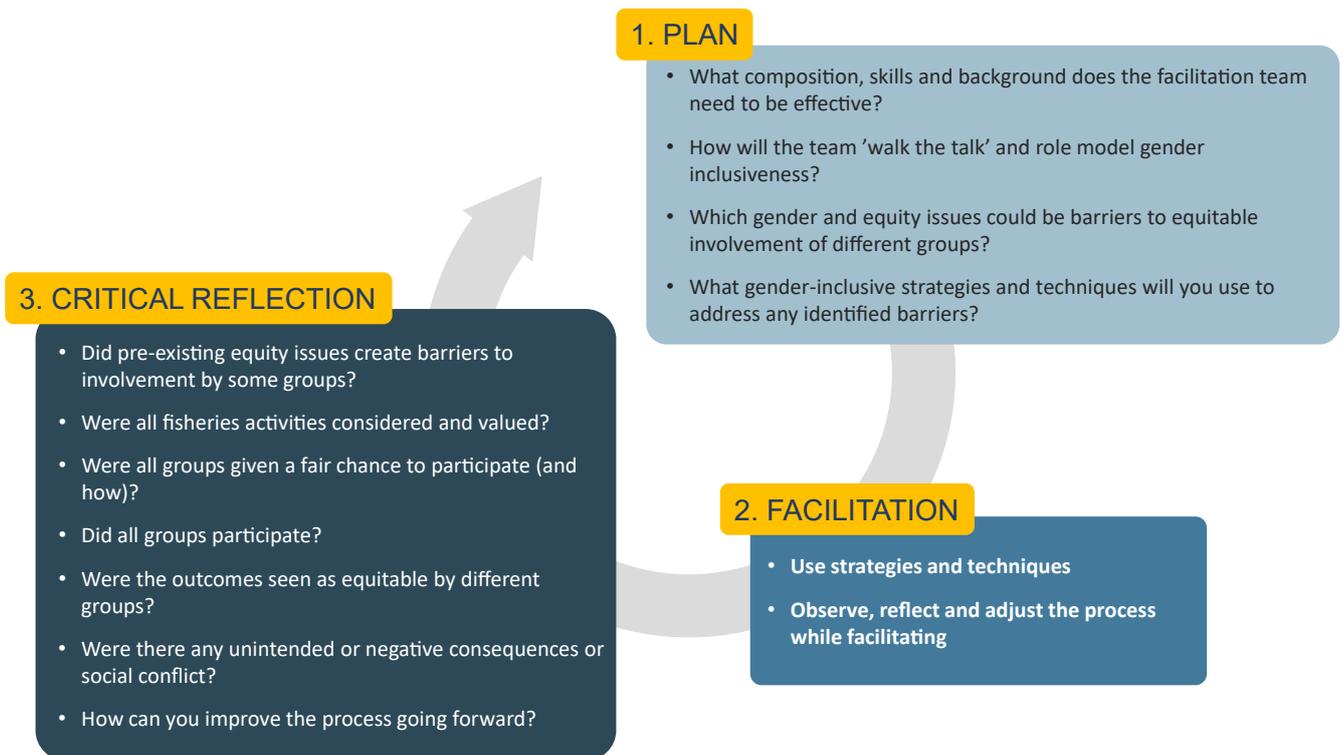


Figure 3. Reflexive facilitation cycle

## Strategies

To increase the likelihood that CBRM facilitation is gender-inclusive and effectively engages men, women and youth, facilitators should consider the following strategies that have been used (individually or together) in CBRM facilitation in Solomon Islands, Vanuatu and Kiribati. These strategies will help minimise the risk of marginalising women, men or youth, and enabling a more equitable decision-making process. Not all strategies will work in all contexts; for example, local social norms and engagement objectives will determine what is most appropriate, and the efficacy of any of these strategies is reliant on the skills and experiences of the facilitator.

### Pre-facilitation strategies

- **Meet with community leader(s), women's group leader(s) and youth leader(s) prior to engagements**

Before entering a community, leaders (female, male and youth) should be contacted verbally and/or in writing. There may be specific cultural and social protocols that should be followed. Seeking out women leaders, or leaders of women's groups, may take a little longer and more effort – but it is important. At this time you can set expectations that your engagement intends to work with women and men. Use the opportunity of this meeting to discuss the rationale for including women and youth, and discuss ways to make this possible.

- **Gather information about social and gender groups, and dynamics and potential barriers**

If possible, ask the leaders or other contacts about potential barriers to equitable participation. This could include local customs about who is allowed in, or allowed to speak in meeting areas, as well as common time constraints for women and men. Also, potentially identify leverage points or allies.

- **Check on the facilitation team's own gender dynamics**

Have a team meeting about the gender dynamics you practice. Are men usually presenting while women take notes? What are some inclusive behaviours you could adopt and model during the facilitation? Such as taking turns to talk, not interrupting or talking over each other, respecting each other's input.

- **Be explicit within the facilitation team regarding the aims and strategies to be used**

Have a team meeting to discuss the equity barriers you anticipate, and the strategies you will use during the facilitation process. This includes planning out the different responsibilities, and making sure they are shared equitably (see strategies on the team gender dynamic above). Also discuss how you plan to deal with conflict if it comes up.

## Facilitation strategies

### Attendance strategies

- **Ensure that meeting times are when women, men and youth will be available**

It is the responsibility of the facilitation team to make sure that meetings and discussions take place at times that suit

men, women and youth within the community. Different times may suit different groups (Baereleo Tavue et al. 2016). In some contexts, meeting on weekends may be best, or on a Sunday evening when men, women and youth can attend. Keep note of times that work well or do not work well, and record the reasons to help with future planning.

- **Make sure that meeting catering does not limit women's participation**

Catering for a community meeting is common, and often expected. Although it offers an opportunity for groups within a community to generate some income, it may also prevent women from joining because they are cooking for the meeting. It can also subtly reinforce gender stereotypes of men as decision-makers and women as caretakers. Possible solutions could be having less-formal meetings where everyone brings ready-made food, or ensure that decisions are made after the catering has finished. Other solutions could include single-sex meetings (see below).

- **Allowing children in the meeting and go with the flow**

Women are often tasked with childcare. Allowing children in the meeting may enable women to participate who may not otherwise be able to do so. The structure and flow of a meeting of women can be quite different from that of a men's group (which may potentially be more formal) (Dyer 2018).

- **Ensure you have a venue that allows women and men to attend and participate**

There are some venues in a community that are cultural places where meetings with both women and men can take place. Ensure that these venues not only allow for both women's and men's attendance but allows them to freely speak in front of the assembly to ensure joint discussion. As a facilitator, it is your role to also ensure that single-sex meetings are held in venues that are considered appropriate for the group of interest. For women, ensure that a meeting venue is both safe and easily accessible as long-distance travel may be difficult and thus limit attendance.

### Understanding strategies

- **Make the presentation or process accessible to all groups**

Select a presentation style to share knowledge, prompt discussion or deliver training that is accessible to all groups, including marginalised groups such as youth. Take into account that there will be differing levels of education, literacy and different preferences for how information is transferred and received. For example, some people may prefer active demonstrations rather than verbal explanations or presentations. In general, good facilitation will involve less formal meeting settings and ensure a range of different and active sessions and activities that encourage debate, engagement and discussion. This can also help to breakdown some of the formal barriers and gender imbalances in meetings.

- **Using theatre and story telling<sup>2</sup>**

Theatre, song and drama provide powerful platforms to engage a broad range of people within a community in a discussion, and potentially action around CBRM processes and objectives. Using theatre that presents a fictional yet relevant

<sup>2</sup> See, for example: Neihapi P, Sokach A, Koran D, Devine J, Dorras J, Andrew N, Steenbergen DJ (2019) 'Twisting and spinning' theatre into coastal fisheries management: Informing and engaging communities to address challenges. SPC Women in Fisheries Information Bulletin 30:24–29.

story, with embedded information and lessons, can effectively make sensitive subjects discussable, challenge ideas without finger pointing, and attract members of communities whom would not otherwise attend meetings. Importantly, plays as standalone performances are less likely to deliver useful outcomes if they are not immediately followed by a tailored workshop that draws on the play to interactively discuss ideas and have them make sense in people's own frames (Neihapi et al. 2019).

### Sharing and being understood strategies

- **Have male and female facilitators, data collectors and interviewers**

When preparing to engage with a community, plan to have both female and male facilitators. The facilitation of single-sex meetings by facilitators of the same sex may assist community members to openly express themselves, bring up issues that they might otherwise not feel comfortable discussing with a facilitator of the opposite sex, and be reassured that their ideas and opinions will be listened to and recorded. Similarly, facilitation may work better when there is a cultural affiliation between the facilitator and the community.

- **Having single-sex meetings with joint reflection**

This strategy requires women and men to meet or discuss separately, but then gather together to reflect on similarities and differences in outcomes. Here, you may need to actively facilitate by ensuring that you steer the process to allow the sharing of views from women and men. This technique is often applied in the diagnosis phase, for example, where groups of women and men may separately map the areas of importance for fishing, 'free list' species of importance, or identify issues and strategies for management. It is important for facilitators to take note of how many women and men participate, and the confidence they have in their participation. It is also worth noting that some groups may nominate a spokesperson or representative. This is not the same as having individuals dominating.

- **Having single-sex meetings without immediate joint reflection**

Separate meetings or discussions may be undertaken in separate groups of women and men; in many instances, focus group discussions work very well in this way. It may be that these groups do not come back together for sharing reflections immediately. This has been found to work well, for example, in a process that first builds knowledge, dialogue and confidence among a group of women (Hilly et al. 2011). In this process we try to encourage more women and young girls to fully participate and increase their participation by creating space and providing opportunities for them to share their concerns, ideas and thoughts on their livelihoods, nutrition, fisheries, access to land and sea resources and so forth.

- **Active inclusive facilitation**

Where women, men and youth are present, facilitators can help ensure equal participation of women and men during the meeting. This may mean noticing who is not speaking, and actively seeking contributions from those who may not have a chance to share otherwise. This can mean soliciting

input from an individual, or making a statement such as 'I've noticed we haven't heard from any of the young men at the back. Could you please share what you think about XYZ?'. Another technique is to split into smaller groups and have a representative from each group report back. Without active facilitation, the meeting may be dominated by particular people. It is also important to acknowledge the contributions of people equally. Active facilitation can be challenging and may not fit the context, meaning that in some instances one large communal meeting (especially early in the process, or in some communities), will not be effective for equitable participation, and other strategies will be needed. Good, active facilitation that leads to a balanced discussion requires experience and great skill; simultaneously, care needs to be given so that facilitators are not influencing the main points that emerge from discussions.

- **Help less powerful or marginalised groups prepare for engagement**

Organise a separate pre-meeting to gather the thoughts and needs of marginalised people, and even practice sharing key points 'in group'. This can allow marginalised groups to better engage in the moment.

- **Set up the meeting space in a way that positions participants as equals**

Avoid high and low seats, back rows, or seating that does not have a clear view of the meeting.

- **Count how often women and men talk in the meeting**

To make a more objective measure of contributions to a meeting or discussion where women and men are both present, it is possible to count how many times a woman or man speaks (see Dyer 2018). These data could be used to help the team reflect on how the facilitation is going, and perhaps analyse trends in contributions over time (e.g. Baereleo Tavue et al. 2016 reported anecdotally that women's contributions in joint meetings increased over time). It does not matter whether it is the same person speaking but it is important to identify and understand who is confident, influential and has the ability to speak out in meetings. Using the male (♂) and female (♀) symbols in your own notes is helpful, and facilitators should note if the same person speaks a number of times during the meeting.

### Post-facilitation strategies

- **Stay in the community, allow time and space for informal conversations**

So much is never said or understood through meetings or interviews, no matter how skilled the facilitation team is in creating an environment that promotes exchange. Mutual understanding is much better generated through genuine relationships and communication. Where CBRM partners stay, and how they engage and behave outside of any structured programme is influential. 'An important, but more informal, strategy [to understand different perspective] was that the female facilitator would make the most of break times, meal times and evenings to engage women in discussions and hear their perspectives.' (Baereleo Tavue et al. 2016:32)

- **Find out how different people experienced the process**

Using informal discussions with different people (including people from marginalised groups), ask if they felt respected, and if they felt the outcomes were equitable. Also reach out to people who did not attend, or who did not participate, and ask why.

## Acknowledgements

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# A gender analysis of the fisheries sector in the Federated States of Micronesia

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## Background

In March 2019, the Pacific Community (SPC) – through its Division of Fisheries, Aquaculture and Marine Ecosystems and its Social Development Programme – conducted a gender assessment of the fisheries sector in the Federated States of Micronesia (FSM). This assessment was funded by the Pacific European Union Marine Partnership (PEUMP) programme. PEUMP aims at improving the economic, social and environmental benefits for the 15 Asia, Caribbean and Pacific states in the Pacific Islands region by incorporating a gender- and human rights-based approach across all of its programme activities. The FSM gender and fisheries assessment was the first assessment under PEUMP and was conducted across all four FSM states. The FSM assessment’s analytical findings on gender mainstreaming capacities at different government levels will support the institutional strengthening of various government agencies and other state-level institutions that are involved in fisheries and marine resource management to mainstream gender across their activities.

The FSM gender and fisheries assessment was informed by an extensive literature review and field visits in all four states. Interviews and focus group discussions were conducted with identified stakeholders with support from the FSM Government, and the respective state fisheries departments. The survey methodology developed by SPC’s Social Development Programme uses a gender and development approach and a gender mainstreaming capacity assessment. This follows a consistent structure that allows comparative studies of gender and fisheries assessments in other Pacific Island countries with a view to regional gender and fisheries development needs and gaps.

## Main findings

### Country context and its challenges

FSM’s complex federalist state structure, with four levels of governance and the uniqueness of all four states with regards to social and cultural norms, further complicates the advancement of gender equality and gender mainstreaming efforts in the fisheries sector. Overlapping mandates of different key players at different government levels create institutional challenges for effective coastal fisheries management while the legislative framework is found to be fragmented. The assessment, however, found that the management of coastal fisheries at the community level provides an entry point for stronger engagement and visibility of organised women’s groups within each of the four states.

### Understanding FSM’s fisheries sector and gender roles

The assessment identified the vital roles women play in the collection of seafood from the nearshore reefs and mangroves, their advocacy roles in promoting sustainable fishing practices, and their broader contributions to the well-being of the fisheries sector. However, findings confirm the

short-comings in the validation of women’s contributions. Coupled with a strict gender division of labour, there has been little attention to women’s active roles and limited consideration to having women involved in planning and decision-making processes, or providing greater access to women participating in the fisheries sectors.

### Example of women’s groups and their advocacy role for sustainable fishing practices

In Chuuk State, the Department of Fisheries has partnered with the Chuuk Women’s Council to create awareness in communities about the dangers of dynamite fishing as a destructive fishing method, and have reported a decrease in the number of reported cases with increased awareness. The Department recognised the Chuuk Women’s Council as a suitable partner for this activity due to its extensive network across Chuuk’s outer islands.

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### Changing gender roles

Compared with findings from a baseline gender and fisheries study conducted by SPC in 1999–2000, this assessment confirms that in 2019 women in FSM are still active players in the fisheries sector. Better boats, safer equipment and improved telecommunication means fewer risks and augmentation of the wider acceptance of women joining fishing trips. There has also been an increase in the number of women managing the marketing and selling of fish. Despite these changes, the communal acceptance of women who fish is still low. The study also revealed that increased labour mobility of younger men and women to Guam and Hawaii meant the older generation of fishers had to continue to fish and fend for themselves while their children worked abroad to send money home. While for some this meant a new outboard boat, income for medication or other food, elderly men and women fishers often go out fishing together now, more so than 10 to 20 years ago. They do this for the company and for safety reasons.

### Formal and informal employment and subsistence economy

Formal employment in FSM's fisheries sector is very limited, with only about 250 people working for wages, and the majority of these being men. Overall, less than 2% of all wages earned come from formal fisheries-related employment.

However, research findings suggest that state investment plans for the development of tuna longlining plants in Pohnpei and Kosrae states will create more formal employment opportunities. As evident in the tuna processing sector across the Pacific, the majority of these jobs will most likely be taken by women. The assessment's scope of study was limited to the coastal and aquaculture sector; thus, this opportunity was not further investigated. Nevertheless, it is crucial that FSM takes into consideration lessons learned and recommendations made regarding gender issues in the tuna industry based on previous studies in the Pacific Islands region (Ram -Bidesi and Sullivan 2008).

Despite the insignificant formal employment rates, results from the FSM Household Income and Expenditure Survey (FSM Government 2014) showed that for all households in Kosrae, Chuuk and Yap states, fishing was the greatest income earner, while in Pohnpei State, it was ranked fourth. In Pohnpei, the number one income earner is the production and sale of kava (*sakau*).

### Gender mainstreaming

The institutional capacity of mainstreaming gender into the fisheries sector was found to be low across all levels of government in all four states. There is widespread recognition that the engagement of women and women's groups is beneficial to the successful outcome of various projects, such

Wahlung, Kosrae Island fishers Sepe (66 years of age, to the right) and Simeon (67 years of age) - ©SPC



as the establishment and enforcement of marine protected areas using women's groups and their advocating network structures. The involvement of women in decision-making and management would also ensure a stronger likelihood of sustainability. The endorsement of the FSM National Gender Policy in 2018 is seen as a main entry door to support mainstreaming in the fisheries sector while building bridges to a more collaborative workstyle with the national women's interest office and the various women's organisations on the ground. The National Gender Policy is also seen as key to improving gender responsive budgeting to support mainstreaming activities in light of minimal national budgets allocated to gender-related activities.

## Recommendations

The FSM gender and fisheries assessment included recommendations to be taken into account by PEUMP and other development partners to improve gender mainstreaming capacities of main state institutions and to progress with the integration of gender-related issues at the project level. Recommendations include the need for gender mainstreaming training using the 2018 National Gender Policy to connect all levels of government in a more systematic manner while engaging women's groups to support gender-related activities. The need for more sex-disaggregated data and further socioeconomic studies with gender-integrated research was stressed. The lack of market hygiene standards needs to be addressed as well as educational awareness of health impacts due to unhealthy imported foods. Plans for community-based and locally managed marine areas need to include clear roles for women, and promote a socially inclusive approach.

**Recommendation 1:** Using FSM's newly endorsed National Gender Policy as a guide, and SPC's Gender and Fisheries Handbook, conduct training in gender mainstreaming for appropriate government agencies involved in fisheries management, development and enforcement at national and state levels in collaboration with the Women's Interest Office and women's associations where they exist.

**Recommendation 2:** Incorporate into future gender-related training, a specific component on how to conduct participatory rural appraisals and how to collect both quantitative and qualitative data to ensure that any data collected are clearly disaggregated by sex and can be used for monitoring and evaluation purposes.

**Recommendation 3:** Undertake socioeconomic studies to better understand the dynamics of fishing communities, particularly the roles of men and women in all four states.

**Recommendation 4:** Agencies within respective states that have active data collection programmes on market sales should also begin collecting sex-disaggregated data on a regular basis in order to better understand the involvement of both men and women in catching, processing and marketing fish.

**Recommendation 5:** National and state government agencies involved in fisheries management, development and enforcement should build stronger relationships with the respective Women's Interests Offices and women's associations at both the national and state level to support community outreach activities that ensure the active participation, engagement and involvement of women especially in the areas of:

- advocacy for fisheries management activities within the household and community;
- post-harvest, including best seafood handling practices;
- value-adding to seafood to increase income;
- understanding financial literacy; and the
- need for healthy diets that involve seafood.

These activities could be supported by targeted educational campaigns through various forms of media, with input from various government agencies and civil society groups.

**Recommendation 6:** Improve the quality of marine resources sold by women in all four states. Existing rules on hygiene for licensed fish markets should be enforced by the appropriate authorities. As part of this, the introduction of a certification process for personal fish exports should be investigated, particularly in the states of Chuuk and Kosrae, which have substantial volumes of personal marine resources exported by air to Guam and Hawaii, respectively.

**Recommendation 7:** Promote community-based locally marine managed areas and encourage co-management arrangements of marine resources through community involvement, with clearly defined roles for women. This could involve training women to act as advocates for ensuring the sustainability of marine resources (see Recommendation 5). Such activities could include monitoring fisheries, enforcing size limits within their household and community, and supporting existing or developing committees to assist in management activities.

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## Women in fisheries profiles

### Rosalie Masu

Rosalie Masu was born in Honiara, Solomon Islands but grew up in a rural coastal village in Isabel Province.

Rosalie's earliest childhood memories are of fishing and gardening with her parents to meet the family's subsistence needs.



Rosalie holds a Master of Applied Science in marine biology from James Cook University in Australia, and a Bachelor of Science degree from the University of the South Pacific in Fiji. She is currently the Deputy Director of the Inshore Division at the Solomon Islands Ministry of Fisheries and Marine Resources. Rosalie's main roles and responsibilities include overseeing inshore fisheries management, research, marketing and development, and community-based fisheries resource management activities. Since joining the Ministry in 2001, she has gained a diversity of experience in the development of national policies, fisheries management and development plans, fisheries regulations and practical hands-on experience in inshore fisheries management.

Rosalie is known and respected national, regionally and globally for her fisheries expertise. In addition to her national work, she has represented Solomon Islands and shared experiences from her country at regional fora. For example, she was involved in the development of 'A new song for coastal fisheries pathways to change (Noumea Strategy)', the Melanesian Spearhead Group (MSG) 'Roadmap for Inshore Fisheries Management and Sustainable Development (2015–2024)' and the 'Coral Triangle Initiative for Coral Reefs, Fisheries and Food Security'. Internationally, Rosalie has been engaged in developing Solomon Islands' voluntary commitments to contribute towards Sustainable Development Goal 14, and also participated in work under the Convention on the Trade in Endangered Species of Wild Fauna and Flora, and the Convention on Biological Diversity.

#### Why did you choose to work in fisheries?

*I didn't really choose to work in the fisheries sector at first. I had always wanted to be a medical doctor but that dream was not possible and so instead I did a Bachelor of Science majoring in biology and chemistry. I imagined myself working in laboratories or some similar setting, wearing a white lab coat. But seeing my peers enjoying marine biology field trips, I realised I was more interested in marine science courses because they were very practical and they related to my life style as an islander. I undertook marine science courses for my biology strand. It was very interesting to learn about the marine environment, the biology and science about the marine life. Working in the Ministry of Fisheries and Marine Resources was, and is still, a golden opportunity that I embrace and value very much in being able to contribute to fisheries development and management in Solomon Islands.*

#### Why is the engagement of women in fisheries management important to you?

*Engagement of women in fisheries management is important because of the roles they play in many different aspects of*

*fisheries. Women access different fishing grounds, use different fishing and harvesting methods, and also target different fish species, than men. For example, in my community, women normally target mangrove areas to glean for mud crabs and mangrove shells. Women also target closer reefs to the village to dive and glean for clam shells, other edible shells and sea urchins. When fishing, they only use hand and line in the nearby fishing grounds. Women also play different roles in fisheries value chains, including fish cleaning and processing (cooking). In our ongoing efforts for an inclusive approach, women's voices on fisheries management must be taken into consideration. Not only women's voices but also those of youth and men.*

#### What message do you have for women wanting to work in fisheries or aquaculture in Solomon Islands?

*I would encourage women to take up fisheries or aquaculture training because as Pacific Islanders, we are ocean people and our marine resources are part of our livelihood and culture. With many threats facing our marine resources, women as well as men have to work together to ensure that marine resources are developed and managed sustainably for today and for future generations.*

<sup>1</sup> SDG 14 is to Conserve and sustainably use the oceans, seas and marine resources for sustainable development.



## Women in fisheries profiles

### Ulusapeti Teleasau Tiitii

Ulusapeti Teleasau Tiitii is from the village of Savaia Lefaga on the island of Upolu in Samoa. Ulusapeti spent her childhood living, enjoying and eating seafood fresh from the sea as any young village girl does.

She completed her final year of secondary school at Wesley College, Pukekohe, Auckland, New Zealand then graduated with a Diploma in Environmental Resource Management from Northland Polytechnic in New Zealand). She then earned a Bachelor of Applied Science degree from Southern Cross University in Australia, with a double major in Marine Science and Fisheries Management and Aquaculture.

Sapeti is a Principal Fisheries Officer within the Ministry of Agriculture and Fisheries, overseeing the implementation, research, monitoring, and evaluation of activities for the development, conservation and management of coastal fisheries and aquaculture in Samoa. However, she is currently taking a small break from the Ministry while she is pursuing a Master of Science at the University of the Sunshine Coast in Australia, looking at restoring and understanding traditional use and knowledge of edible seaweeds in Samoa by evaluating cultural values, consumer preference and nutritional benefits. Her studies are sponsored by the John Allwright Fellowship through the Australian Centre for International Agricultural Research (ACIAR).

Sapeti has coordinated the implementation of multiple national plans, including the Samoa Sea Cucumber Fisheries Management and Development Plan 2015, Samoa's Aquaculture Plan 2012-2017, and Samoa's Coastal and Fisheries Plan 2013-2016. Over her 20 years with the Ministry she has helped to highlight fisheries and environmental issues through radio programmes and other awareness campaigns. Some of the topics Sapeti enjoys sharing her knowledge on includes climate change, fisheries, aquaculture activities (e.g. seaweeds, giant clam farming, tilapia farming, trochus), ecosystem and species management, and community-based fisheries management. Those topics were promoted through her leadership role managing ACIAR-funded projects such as: i) seaweed diversification, ii) community-based tilapia aquaculture, and iii) reef colonisation and socioeconomics of trochus in Samoa reefs. She was also involved in the project 'Coping with Climate Change in the Pacific Island Region' funded by the GIZ.

Sapeti is an unstoppable force of nature, and a role model for women in science in the Pacific. Recently, in partnership with the Pacific Community (SPC), she led a gender analysis of the fisheries and aquaculture sector in Samoa and has helped to review a Pacific handbook on Gender and Social Inclusion for Coastal Fisheries and Aquaculture launched by SPC at its Heads of Fisheries meeting in 2019. She also led socioeconomic surveys on Samoa's fisheries in 2013 in collaboration with SPC, and for fish aggregating devices in collaboration with the Food and Agriculture Organization in 2018. With a rich and diverse professional background, Sapeti has received a number of leadership awards, including the John Dillon Fellowship in 2015 and soon will complete the John Allwright Executive Fellowship (JAFel) award in 2020 from the prestigious ACIAR.

#### Why did you choose to work in fisheries?

*As a village girl living close to the sea, I have always been passionate and had an interest in sea creatures and the natural environment they live in. After completing my diploma in New Zealand, the Government of Samoa through the Public Service Commission had a system at the time where graduates were directly appointed to ministries according to their qualification. So they placed me to work for the Fisheries Division of the Ministry of Agriculture and Fisheries. I believe that it was my call and a dream came true as I was aware of the difficulties our people face in sustaining food security and livelihoods. With the passion I have of the environment and the primary resources, working with fisheries is the right choice, because this is a great opportunity to serve our people through working collaboratively with communities in providing support where necessary.*

#### Why is the engagement of women in fisheries management important to you?

*The engagement of women in fisheries management is very important as we are living in a world where a 'balance' to everything is essential, including gender equality. Engaging all village groups (men, women and youths) in developing management plans and decision-making is crucial as each gender plays a huge role at the community level, organisational level, and government level. Each gender does different types of fishing activities. So, including both men and women and all age groups is vital in the management of resources. Women often refer to their roles as preparing food or household production; however, those duties give women a fair idea of how to make decisions and give advice. For instance, if they see undersize fish and invertebrates brought to their house, or their husbands and children catching small fishes. If they are good with household activities and cook food for the family, no doubt they are able to see changes over time, and that can bring to the table where decision is made for the sustainable of the resources. Therefore, I feel that engaging women in fisheries management will help with food security and livelihoods of our families, communities and the country as a whole.*

#### What message do you have for women wanting to work in fisheries or aquaculture in Samoa?

*My message for the women who would like to work in fisheries and/or aquaculture in Samoa to 'go for it', as the future of our fisheries resources are in your hands. With your passion, courage and commitment you are able to provide support and utilise your expertise and knowledge to help manage fisheries resources and promote aquaculture activities for our people today and for future generations.*



## Women in fisheries profiles

### Tooreka Teemari

Tooreka Teemari was born on Maiana Atoll in the Gilbert Island group in the Republic of Kiribati. She has fond memories of her early childhood living near the sea with her mother, older brother and younger sister.

She moved to Betio in South Tarawa when she was quite young. Her father worked as a seaman so the whole family relied heavily on gleaning as a source of protein. She recalls going out at low tide to glean, and then swimming with her brother and sister among the mangrove roots.

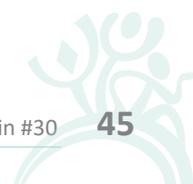
Tooreka holds a Master of Science degree in Marine Science and Resources Management from the National Taiwan Ocean University, and a Bachelor of Science from the University of the South Pacific in Fiji. She is the Director for the Coastal Fisheries Division at the Kiribati Ministry of Fisheries and Marine Resources Development, overseeing the development of coastal fisheries, mariculture and aquaculture. Since joining the Ministry in 2014, she has gained extensive 'hands-on' experience with market chains, including fisheries harvesting, post-harvest processing, value-adding and sales. In addition to fisheries, she has worked on climate change issues in Kiribati throughout her career, and led a project for the United Nations Food and Agriculture Organisation after Cyclone Pam in 2015 to restore community livelihoods on Arorae Atoll by providing training on value-adding of fish products through drying and smoking techniques. The project assisted people on Arorae to better prepare for future disasters by ensuring there is enough food available that will not spoil quickly.

Tooreka sits and advises on a number of project committees, including the United Nations Development Programme-funded 'Enhancing Food Security in the face of Climate Change'; the New Zealand Ministry of Foreign Affairs and Trade-funded 'Tobwan Waara', which focuses on coastal fisheries development and sustainable management; and the Australian Centre for International Agricultural Research Pathways project on community-based fisheries management

to improve the wellbeing of coastal communities through more productive and resilient fisheries and better food and nutrition security. She is a member of the Scientific Advisory Committee that oversees all research, monitoring and data relating to the conservation of marine and terrestrial resources in the Phoenix Island Protected Area, and is the Secretariat to the National Task Force for Coastal Adaptation Project, which was established to advance access to climate finance to protect Kiribati's coastal areas from climate change impacts.

In Kiribati, 30–40% of the land and inshore waters are owned by communities through traditional tenure. Tooreka explains that: 'A community-based management framework is critical for natural resource management in Kiribati. I envision a better future for our people that involves communities managing their own resources. Given that our natural resources are critical to our wealth and health, involving communities will ensure that people are committed to putting in place the best management measures and strategies.' She further explains that: 'In terms of I-Kiribati traditions, every decision was historically made by chiefs and unimwanes (elders), but this practice has been slowly diminishing. I believe by relighting this ember and focusing on coastal fisheries management, we will all be rewarded with sustainable livelihoods and a rich abundance of fish for both current and future generations to come.'

Asked why the engagement of women in fisheries management important to her? She answered 'I find it important to have women involved because it is women's nature to care and nurture. If engaged in discussions, they will be highly committed to looking after their fisheries. Engaging women means everyone in the whole community will benefit.'





## Women in fisheries profiles

### Dr Manumatavai Tupou-Roosen

#### Leading the Pacific way

Dr Manumatavai Tupou-Roosen has worked for nearly 20 years in fisheries, including over a decade as the Pacific Islands Forum Fisheries Agency Legal Counsel.

In this role she was responsible for providing legal and strategic advice to the Director General and FFA Members on significant Agency and fisheries wide issues. Dr Tupou-Roosen was unanimously appointed by the Fisheries Ministers at the conclusion the 15th Forum Fisheries Committee Ministerial meeting in Cook Islands on 3–5 July, 2018. She began her term as the first female Director-General of FFA in November 2018. Dr Tupou-Roosen gained a Masters of Law in 1997 under a New Zealand scholarship, focusing on international fisheries and achieved First Class Honours. She was also awarded a PhD in Law in 2004 under a Commonwealth Scholarship, with a focus on international and regional fisheries compliance. In pursuing her education, Dr Tupou-Roosen was always intent on returning and serving in the area of fisheries in the Pacific Islands region.

*Like others growing up on a Pacific island, my affinity with the ocean runs deep. Swimming, seafood and a never-ending fascination with the ocean has always been a big part of my family life. I have fond memories of accompanying my grandmother to place pandanus in the shallow seawater, in preparation for making mats. In addition, waiting at the wharf at sunset on Saturdays for my father to return from fishing so I could look at the selection of fish, which was then shared and enjoyed amongst the family.*

*I credit my family for developing my commitment to public service. I was raised by my great-grandmother while my parents worked for the Tongan Government and I learnt very early that there is no replacement for hard work, love for family and a strong faith in what is possible.*

*From childhood, I wanted to be a lawyer like my father. In my final year of Law School, I studied International Law, which included a section on Law of the Sea. I was hooked! Being able to combine my fascination with the ocean and my studies was ideal and I went on to complete my Masters in International Law. My thesis was on the (then) recently concluded UN Fish Stocks Agreement.*

*Later, as part of my PhD studies, I visited the Pacific Islands Forum Fisheries Agency (FFA) and was so inspired by its mission to maximise the benefits from fisheries for our people that I was determined to work there.*

*As FFA's Legal Counsel, my role was to provide legal advice on significant agency-wide issues and manage the Legal team.*

*I'm now humbled to be entrusted by Members with my current role as FFA Director-General. My primary responsibility is to lead our team in facilitating regional cooperation on fisheries management and develop strategies to ensure the sustainable use of our offshore fisheries resources.*

*I enjoy how dynamic our fisheries work is, with its ever-changing challenges. The most rewarding part of our work is the close collaboration with Members, listening carefully and responding appropriately to ensure we jointly deliver what works best for our countries and our people.*

*Ensuring that regional solidarity prevails amongst FFA Members can be summed up in one word – cooperation. It epitomises our Pacific Way and will always be our strength. Cooperation has been, and continues to be, at the core of our achievements to establish world-leading tools and standards, such as our monitoring, control and surveillance framework.*

*Currently, we are working on a project to collect and share information on people involved in illegal unregulated and unreported (IUU) fishing, rather than being focused heavily on vessel monitoring and compliance histories. I firmly believe this new focus will significantly improve the way we combat IUU fishing.*

*Our oceans and its fisheries resources is our past, present and future. We always hear that we have a responsibility to sustainably manage our fisheries resources for present and future generations but equally important, I believe we have a duty to those who came before us. They fought hard for the rights we enjoy today, so we need to exercise those rights responsibly.*

*I reflect often on the unwavering and precious support I receive from my husband and family as well as the opportunity to work with a very close-knit team of like-minded and passionate colleagues. Having the right support at home and at work makes all the difference. It has allowed me to combine motherhood and a career; a gift I never take for granted.*

*Especially to our young Pacific Islanders reading this: Keep up your faith, Know that anything is possible, Always follow your heart. As with anything in life, there will be bumps along the way but these experiences will only make you stronger.*

*As for where I will be in 10 years from now: Still committed to contributing to making a positive difference in the lives of our Pacific people. This is a life-long calling for me.*

# Innovate for change, our fisheries future: A women in fisheries panel on International Women's Day in Solomon Islands

Chelcia Gomese<sup>1</sup> and Delvene Boso<sup>2</sup>

*'Solomon Islands is surrounded by the ocean and we depend entirely on the sea for our food and basic needs. I think about the life we live today and wonder what the future will be like for future generations. Will our children enjoy the things we enjoy today?' This statement was made by Iulah Pitamama from Choiseul Province, Solomon Islands, who is the only female Provincial Fisheries Officer in the country.*

## Introduction

International Women's Day is a global celebration that is held on 8 March every year. It celebrates the social, economic, cultural and political achievements of women, and calls for accelerating gender parity<sup>3</sup>. To celebrate International Women's Day in 2019, WorldFish organised a 'Women in Fisheries Forum' to link fisheries management, sustainable use and livelihoods with gender equality. The forum brought together nine expert panelists from the fisheries, environment, nutrition, market and education sectors under the theme 'Balance for the better: Our fisheries future'. The forum had two sessions: 1) sharing personal insights to engagements with gender and women within their sectors, and 2) a discussion panel on barriers to and solutions for women's empowerment and well-being in rural areas.

## Inspirational stories

Panelists began by sharing stories of inspiration for why they work in their sectors. Sources of inspirational stories centered on three main themes: connections to the ocean, concern for the future, and women's empowerment and raising the visibility of women in the fisheries sector.

### Connections to the ocean

People's connectedness to the oceans was the key source of inspiration for panelists. This connectedness relates to traditional ties to the sea with local kastom, dependency on the ocean for livelihoods, and the need for fisheries sustainability. Most were inspired by the fact that the ocean gave them identity.

### Concern for the future

A general concern for future fisheries sustainability was the second popular source of inspiration. These concerns stem from the increasing human population and subsequent pressures placed on fish stocks, with a general concern of sustenance for future generations.

## Women's empowerment and raising the visibility of women in the fisheries sector

Raising the visibility of women and empowering them across all parts of the fisheries sector was the third common inspiration. Often, women's roles within fisheries are invisible; thus, raising the visibility of women locally, and highlighting the different roles of men and women adds to the global picture of the fisheries sector.

## Barriers to women's participation in fisheries

Both men and women play a variety of roles within the fisheries sector in Solomon Islands, with women primarily focused on post-harvesting processes (SPC 2018). The panel discussed some of the barriers women face to participation and recognition in their fields, but also explored some of the deeper relations within society. The top three barriers are summarised below, and form some of the gender norms and gender relations that exist locally. Gender norms are defined as the standards that determine socially acceptable activities for both men and women and shape their roles. The Food and Agriculture Organization (FAO) of the United Nations defines gender relations as 'the way in which a culture or society defines rights, responsibilities, and the identities of men and women in relation to one another' (FAO 2004). Understanding these social and cultural norms and relations is critical because they often determine how men and women experience benefits, opportunities and challenges in fisheries (SPC 2018).

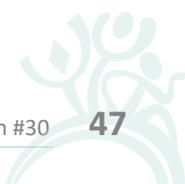
### Cultural norms and beliefs

One of the key barriers to women's participation in fisheries is the cultural norm regarding how women and men are expected to participate in community meetings. In most communities, men are the leaders and spokespersons and it is common for men to dominate community meetings. When women attend such meetings, they are less likely to speak up and share their opinions, which is often a sign of respect for their male leaders and elders. In such a male dominant society, this could result in biased information when only half of the community voice is heard.

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<sup>3</sup> Refers to a statistical measure that provides a numerical value of female-to-male or girl-to-boy ratio for indicators such as income or education.





Participants at the Women in Fisheries Forum - ©Chelcia Gomes, WorldFish.

.....  
*'At the community level, there are a lot of challenges. Usually the men are the ones who speak. The women have their ideas but find it difficult to share these.'* –  
Iulah Pitamama, Choiseul Province Fisheries Officer  
.....

Cultural beliefs can also affect women's involvement in fisheries. As an example, it is believed that pregnant women or breastfeeding mothers should not eat fish or feed fish to their young babies. This comes from the belief that fish are not good for developing babies, and that young children's stomachs are not strong enough to handle fish. Due to this belief, women and children in these communities do not benefit from the important nutrients that fish provide.

#### Low participation of women in decision-making

The lack of equal participation of women in decision-making follows closely on the heels of the cultural norm of male dominance in community meetings. In some instances, women are given the opportunity to share and be heard during discussions and be members of community committees, but this is sometimes a 'token' gesture in that it does not translate into decision-making.

#### Low literacy and education levels and lack of opportunities

Low literacy and education levels in rural areas are barriers to the participation of both men and women in accessing and receiving information and opportunities on resource management, capacity building, networking and business. The 2009 census reported high rates of school enrolment for children aged 5 years and older, but this decreases rapidly by the time children reach 14 years of age (Solomon Islands Government 2009). One reason that girls drop out of formal education is to make way for other siblings, most often their males, to continue with their education. Another barrier to women's access to opportunities is the cultural restriction on their mobility. In most rural areas, young women are not allowed to travel alone and must be accompanied by a family member. Thus, the lack of education and mobility enforced by cultural norms on the education and mobility of rural women and girls make accessing opportunities even more difficult.

#### Solutions to overcoming barriers

The panelists provided a number of recommendations to overcome these barriers of women's empowerment in rural areas, and sought to strengthen commitments for men and women in fisheries.

### Provide opportunities for women in education, and help them to access information

With the above-mentioned barriers in mind, ensuring accessibility of information and opportunities for women is one key solution. Speaking on tailoring education programmes for access by different groups, including women, Jim Hyacinth of Solomon Islands National University (SINU) likened it to ‘bringing fisheries closer to home to assist women to easily participate in fishing activities.’ This then becomes the driver for participation and contribution to issues within the community. Additionally, awareness raising activities and the dissemination of information also needs to be tailored for different community audiences to ensure that messages are translated and understood by all.

Providing a safe environment for dialogue and sharing ideas and experiences are key to getting women to participate in community discussions. Women need to know that their opinions matter and are even sought after but will not do that if they know there will be repercussions for speaking out.

.....  
*‘Give women the opportunity for women for dialogue in a setting where they feel comfortable to speak out.’* – Duta Kauhiona, Expanding the Reach in Solomon Islands Project Officer, Conservational International/ Ministry of Fisheries and Marine Resources  
.....

### Engage at the household level

Another solution to overcoming barriers to women’s participation in fisheries is to engage women at the household level rather than targeting specific groups within communities. An example was shared by the UN Women’s Markets for Change project within their work on micro-savings clubs in the country where there was success with engagement strategies at the household level rather than focusing specifically on just men or women.

.....  
*‘It is difficult to concentrate on individual men and women on the savings plan. In Solomon Islands, the household is involved.’* – Kristy Nowland, Project Manager for the UN Women’s Markets for Change  
.....

### Increase visibility of women’s contribution to fisheries

Men tend to participate more in reef and offshore fishing, while women participate more in inshore areas such as lagoons and mangroves (SPC 2018). Gender norms and relations that determine what constitutes socially acceptable activities help shape these roles. In formal statistics, women’s contributions to fisheries – through gleaning and household



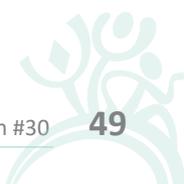
Panelists at the Women in Fisheries Forum - ©Chelcia Gomes, WorldFish.

processing – are sometimes discounted, or are lumped with men’s contributions. This can hinder the provision of opportunities for fisherwomen because the data does not reflect their contributions. Gendered research efforts – together with an understanding of cultural norms – is essential for visibility of both men and women, by tracking trends and supporting equality. Gendered research efforts – together with an understanding of cultural norms – is essential for visibility of both men and women, by tracking trends and supporting equality.

### Improve stakeholder partnerships and linkages

A key challenge in implementation of gender programs in Solomon Islands observed by panelists is that the programs are bounded within sectors. For example, gender programs in the environment and fisheries sectors has little connection to gender programs within the development sector that often has a focus on gender-based violence alleviation and human rights. The final recommendation was provided in a closed session of panelists and facilitators: to build a network of gender practitioners working across the different sectors of government and civil society groups. This would help strengthen partnerships and allow for learning and sharing of lessons across the field. The Ministry of Women, Youth, Children and Family Affairs (MWYCFA) was identified as the key ministry for gender mainstreaming, and would be the lead facilitator in coordinating such a network.

This challenge of sector-based silos to gender programs is likely found elsewhere in the Pacific. Such networking initiatives could also be done at the regional level, linking programs and making progress on not only Sustainable Development Goal (SDG) 5, but also SDG14 and 15.



## Acknowledgements

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## List of panel participants

Rosalie Masu (MFMR),  
Delvene Boso (WorldFish),  
Lisa Wini (SIG),  
Iulah Pitamama (Choiseul Province Fisheries),  
Jim Hyacinth (SINU),  
Janet Saeni-Oeta (WorldFish),  
Shannon Seeto (WWF),  
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Kezyiah Saepioh (SINU),  
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Ezekiel Leghunau (MECDM),  
James Rahii (SINU Student),  
Shirlene Hiru (SINU Student),  
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Titus Godfrey (OceanWatch),  
Adi Galokepo (Oxfam),  
Nancy Taniveke (SINU Student),  
Leila Galo (WorldFish), and Meere Rubo (WorldFish).

## Abbreviations

ANCORS UOW- Australian National Centre Ocean Resources and Security, University of Wollongong, Australia  
CBO – Community Based Organisation  
MECDM- Ministry of Environment, Climate Change, Disaster Management and Meteorology  
MFMR- Ministry of Fisheries and Marine Resources  
MWYCFA- Ministry of Women, Youth, Children and Family and Affairs  
SIG- Solomon Islands Government  
SINU- Solomon Islands National University  
UN-M4C- United Nations Markets for Change  
WWF- World Wild Fund for Nature

# What does economic empowerment look like for women fishers in the Pacific?

Tara Chetty<sup>1</sup>

*Pacific Women Shaping Pacific Development (Pacific Women) was announced by the Australian Government at the Pacific Islands Forum Leaders' meeting in August 2012. The programme commits up to AUD 320 million over 10 years in 14 Pacific Islands Forum member countries, and aims at improving opportunities for the political, social and economic advancement of Pacific women. Pacific Women will support countries in meeting the commitments they made in the Pacific Leaders' Gender Equality Declaration in 2012. Pacific Women's focus areas are: leadership and decision-making; economic empowerment; ending violence against women; and enhancing agency.<sup>2</sup> Pacific Women is managed by Australia's Department of Foreign Affairs and Trade (DFAT), with strategies and implementation guided by the values and intentions of Pacific Island people and governments. The Pacific Women Support Unit provides the programme with logistical, technical and administrative support and is based in Suva, Fiji, with a sub-office in Port Moresby, Papua New Guinea.*

Women fishers in the Pacific are resilient, adaptable and creative in how they link to markets and address multiple barriers to their economic empowerment. For *nama* (seagrapes) fishers in Fiji, this means using trusted public bus drivers to transport their product to market and to return with the cash from the sales. Similar relationships of trust in Solomon Islands have seen a collective of rural women grow their joint savings to more than SBD<sup>3</sup> 2 million in just a few years of careful community-based organising. While work done in Fiji to quantify the value of women fishers' investments and assets, post-natural disaster, also indicates the economic gain that they bring to their communities.

These were among the stories shared during a panel on 'Achievements and opportunities in Pacific fisheries for women's economic empowerment', organised by WorldFish and the Wildlife Conservation Society, at the recent Pacific Women Regional Learning Forum on Women's Economic Empowerment. The Learning Forum, convened by the Pacific Women programme brought together 150 development practitioners, community organisers, policy-makers and researchers from around the region. Discussions during the three-day forum, from 27-30 May at the University of the South Pacific in Suva, focused on social norms change, inclusion of diverse women in development, and building enabling environments for realising women's economic empowerment.

Speaking on the women in fisheries panel at the Learning Forum, experienced researcher Aliti Vunisea noted how cultural norms can be important enablers of women's economic empowerment. Cultural knowledge in the form of traditional fishing practices also underpins how women manage, process and transport their catch and harvest. In Fiji, kinship networks are key to women fishers' ability to pool resources and share tasks based on unwritten rules of work. In one example, women established a rotating responsibility to attend market. This meant that the other women in the collective then gained time, a particularly precious resource in the face of competing productive and reproductive work priorities.<sup>4</sup> Rosemary McIndoe, a woman fisher who travelled from Namuaimada (north coast of Viti Levu) to attend the Learning Forum, cited a lack of time as her key challenge, along with the cost of transport to market.

There was some debate across the three days of the Learning Forum regarding the perceived burden of certain socio-cultural norms. Participants noted that women in both rural and urban areas of the Pacific face diverse cultural obligations that can mean heavy financial and work burdens. These obligations are gendered, with women often encountering long hours of work to meet cultural and community expectations. However, for speakers such as Ms Vunisea and Dr Alice Pollard, the complex web of kinship, social and cultural norms in rural and remote areas of the Pacific offer more in the way

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<sup>2</sup> <https://pacificwomen.org/about-us/our-approach/>

<sup>3</sup> SBD: Solomon Islands dollar (SBD 1.00 = AUD 0.17, June 2019)

<sup>4</sup> <https://www.exploring-economics.org/en/discover/reproductive-labour-and-care/>



of opportunities for women's economic empowerment. Dr Pollard shared her learning on working with cultural and religious institutions that govern women's lives in the Pacific: 'Chip away where it is softer'.

Dr Pollard, Pacific scholar and community organiser, began her presentation with a reality check on what it means to live in a rural and remote Pacific community: 'Rural for us means no power, no road, no regular transport and no banking services'. She described the regular community-community collection process for the women's savings clubs that she works with, where much of the income is earned through coastal fisheries. In her work with the West 'Are Are Rokotanikeni Association (WARA), Dr Pollard takes an adaptive development approach, where the organisation learns by doing: 'We say "let's experiment with this idea"'. This approach led to WARA's network of 12 women's savings groups and over 1000 members reaching SBD 2 million in savings in 2018. WARA is an example of a contextually relevant and locally driven women's economic empowerment initiative, which has led to 'long-term, self-sustained livelihoods, and is transforming the lives of thousands of women across Solomon Islands'.<sup>5</sup>

Strong partnerships are one of WARA's strengths, and WorldFish Solomon Islands is working with the organisation to reach rural women and support their fisheries-based livelihoods. Margaret Batalofo said WorldFish is learning from global and local researchers who suggest working with local established women's groups rather than costly fisheries interventions that focus only on men. In their work with WARA, women's groups decided on their own project priorities that led to a solar-powered freezer project that both preserved catches and generated income for the women. Importantly, WorldFish is working closely with the Malaita Provincial Government to share learning from the project, and help policy-makers incorporate women-focused efforts in fisheries development.

Dr Sangeeta Mangubhai of the Wildlife Conservation Society is also working with government agencies to help support a gender-sensitive response to women in coastal fisheries

affected by natural disasters. Working with partner organisations, surveys were conducted in 154 communities in Fiji affected by Tropical Cyclone Winston in 2016. They were seeking to help identify the fisheries-dependent communities most in need of assistance in the aftermath of the category 5 cyclone. While responses often focused on the needs of men who fished and who are perceived as having lost the most in terms of assets, the Wildlife Conservation Society and partners survey uncovered and debunked these gendered assumptions. For example, among the villages surveyed in Ba Province, women and men lost assets of a similar value: men lost fishing equipment valued at FJD 156,164, while women lost a little more at FJD 161,972. These data matter if decision-makers, development agencies and government departments can use it to appropriately respond in disaster recovery. The numbers can tell us which communities are most fisheries-dependent, and who in those communities is most in need of assistance, including both women and men.

Using a gender lens in analysing fisheries livelihoods can also help governments and development agencies understand a lot more about the local context for disaster recovery and adaptation. Dr Mangubhai's research documented the resilience of women fishers and the strategies they use to recover from disaster. Women were found to access multiple habitats and fisheries in their harvesting activities, enabling rapid adaptation when particular fisheries were destroyed by a cyclone. This means, for example, if fishing nets have been destroyed, the women may switch to catching mud crabs, or harvesting *kuta* reeds for hand crafting. However, men's fishing activities tend to have a much narrower focus and can be completely stalled by cyclone-destroyed boats. Yet, experience shared in the room showed that the majority of post-disaster assistance ends up distributed according to existing power hierarchies – meaning that it is largely men who benefit.

There is now considerable data from the Pacific showing women's roles in coastal fisheries and how they drive local economies in rural and remote areas. There are stories of women's adaptability and resilience, and key role in enabling fisher communities to recover from natural disasters. However, the question is when and how policy shapers and decision-makers use this information to address the needs of Pacific women.

For more information on Pacific Women:  
<https://pacificwomen.org/>

<sup>5</sup> International Women's Development Agency. 2016. Available at: <https://iwda.org.au/case-study-west-areare-rokotanikeni-association-solomon-islands/>

## Illuminating gender dimensions of hidden harvests

Sarah Harper<sup>1,2</sup> and Danika Kleiber<sup>3</sup>

*“47 per cent of the total workforce is women, which in developing countries equates to 56 million jobs”  
(World Bank 2012)*

*Since 2012, gender and fisheries papers and presentations often start with a statement that 47 percent of fishworkers worldwide are women. This estimate challenges assumptions of fisheries as a male-dominated sphere, broadening the production-focus of fisheries to include the range of fisheries-related work that contributes to this sector. But where does that number come from? Forty-seven percent was a key finding from efforts by WorldFish and the World Bank to count what had previously been hidden: the small-scale fisheries sector that included both fishing and post-harvest activities. These global estimates were based on fisheries data from 28 case study countries. While the study was ground-breaking, it also had limitations. For example, sex-disaggregated data were very limited, and there were no Pacific Island nations or territories included in the assessment.*

As a follow up to this report, the Food and Agriculture Organization (FAO) of the United Nations, Duke University (United States) and WorldFish have launched the Illuminating Hidden Harvest (IHH) project, which focuses specifically on the small-scale fisheries subsector and its potential contributions to the Sustainable Development Goals.<sup>4</sup> Like the 2012 Hidden Harvest study, the IHH project is based on a case study approach, but this time there will be more case studies, representing a greater diversity of small-scale fisheries contexts, including the Pacific. The research delves into the social, environmental, economic and governance effects and roles of marine and inland small-scale fisheries at the local and global level. It will incorporate gender analysis in all themes, while also having gender as a stand-alone theme.

The IHH approach to gender reflects the current understanding of gender as a cross-cutting theme in small-scale fisheries, and in ecosystem services more broadly (Fortnam et al. 2019). The importance of gender in fisheries has been recognized in the Small-scale Fisheries Guidelines (FAO 2015) and is being increasingly echoed in regional and national fisheries policies (e.g. SPC 2015). The emphasis on gender equity and equality emerges from a human rights-based approach to small-scale fisheries (FAO 2017), which is gaining momentum worldwide (Smith and Basurto 2019). However, much remains unknown about gender dimensions of small-scale fisheries in various contexts around the world,

despite increasing efforts to bring a gender lens to this sector, especially in certain regions such as the Pacific.

Working with gender and fisheries experts from around the world we are leading the IHH gender theme team to illuminate gender dimensions of this project. The IHH gender team, which includes researchers and practitioners from a range of institutions and with expertise from a variety of small-scale fisheries contexts, are investigating gender and intersectional aspects of small-scale fisheries to provide a more in-depth account of gender and small-scale fisheries than was possible for the initial Hidden Harvest study. The project is already underway, with IHH project partners collecting data in over 50 countries around the world on food security, livelihoods, governance and the environment. These data will be collated for further analysis and defined within each of the theme chapters.

For the gender thematic component of this project, we have developed research questions to align with the five thematic areas outlined for the IHH study: 1) Social; 2) Environmental; 3) Economic; 4) Governance; and 5) Drivers of change. Recognising that gender is crosscutting, we have developed questions based on the indicators developed for each of these themes, which asks for specific data to be disaggregated by sex. While much of the gender-relevant data being collected will not go beyond the gender binary, we aspire to draw out additional details regarding identities to broaden

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<sup>3</sup> WorldFish, Penang, Malaysia and ARC Centre of Excellence for Coral Reef Studies, James Cook University, Queensland, Australia.

<sup>4</sup> See: [www.fao.org/voluntary-guidelines-small-scale-fisheries/ihh/en/](http://www.fao.org/voluntary-guidelines-small-scale-fisheries/ihh/en/)

intersectional understandings of small-scale fisheries participation and contributions.

The methods used for this component of the study include a literature review, quantitative data analysis from country case studies, and a text analysis of open-ended questions from these case studies. Although the data will not cover all countries and contexts of the world, the case studies from over 50 countries represent all regions of the world and will provide a reasonable cross-section of small-scale fisheries contexts and the diversity that exists. The goal is to highlight both similarities and differences across contexts and regions, while also identifying gaps in data and understanding.

This study is an excellent opportunity to draw attention to the embedded and crosscutting nature of gender and small-scale fisheries, a topic that has largely been under-represented in fisheries management and policy worldwide. This work also invites a critical look, through a systematic, cross-country investigation, at the state of sex-disaggregated fisheries data necessary for developing gender aware policies and programmes. The gender theme chapter that emerges from this work will highlight both of these dimensions, as an important part of advancing gender equality in small-scale fisheries. Stay tuned for the results and insights from this work, which will be widely shared in 2020. If you are interested in the progress of this work or have insights to share that could enhance our global understanding of gender and small-scale fisheries, please reach out to us.

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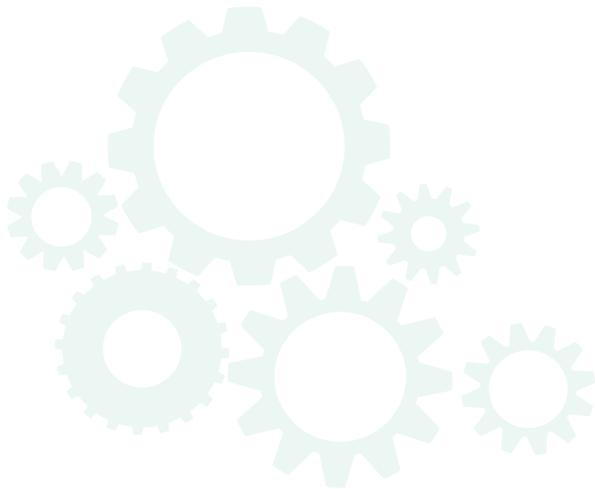
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Digging for mud shells in Malaita Province, Solomon Islands - ©Wade Fairle



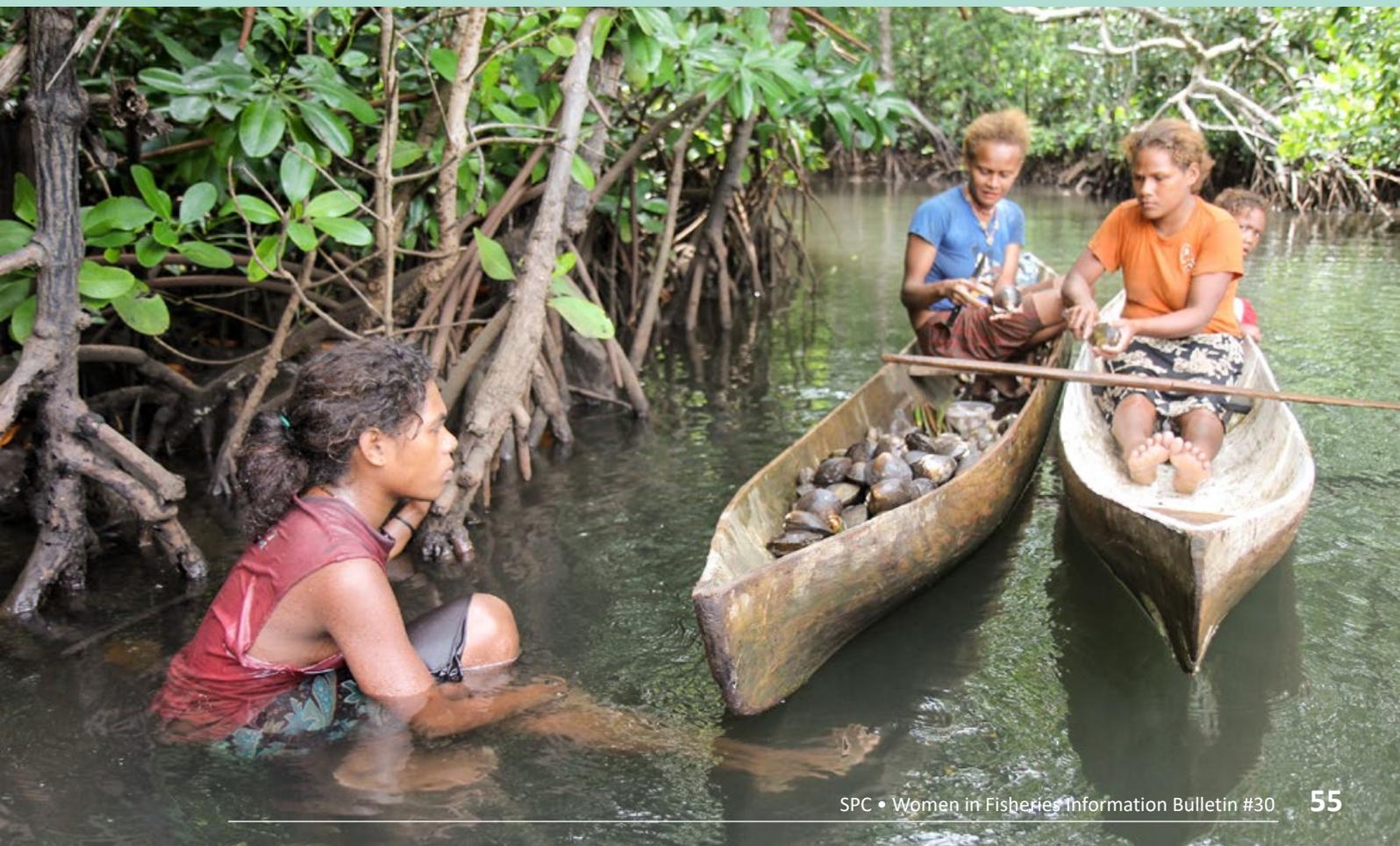
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Measuring an urchin - ©Danika Kleiber

Women removing the shell from mangrove mudshells in Malaita, Solomon Islands - ©Wade Fairley



# Mainstreaming gender, social inclusion and human rights-based approaches – A key to integrated programming

Natalie Makhoul<sup>1</sup> and Jeff Kinch<sup>2</sup>

## Background

The Pacific European Union Marine Partnership (PEUMP) programme, which was launched in August 2018, has a strong mandate of mainstreaming gender equality and social inclusion, and human rights-based approaches into its programme design, implementation and outcomes. The mainstreaming of cross-cutting issues stretches across six key result areas (KRAs), involving coastal and oceanic fisheries, and the conservation of marine biodiversity, and requires a holistic approach in order to ensure that the social, economic and environmental aspects of the fisheries sector are translated into PEUMP activities. -

The main overarching PEUMP objective is to assist Pacific Island countries (PICs) with better managing their oceanic and coastal fisheries for food security and economic growth while also addressing climate change resilience and conservation of marine biodiversity. Oceanic fisheries are vital to the Pacific Islands region, contributing to government revenues, while providing employment and spin-off business opportunities. Coastal fisheries are vitally important to supporting community livelihoods, food security and income.

## Regional multi-agency approach

The six KRAs are implemented by multiple regional partners including the Pacific Islands Forum Fisheries Agency, the Pacific Community, the Secretariat of the Pacific Regional Environment Programme, the University of the South Pacific, other non-governmental organisations, civil society organisations, and the private sector. Multi-agency, cross-collaboration provides an opportunity to enhance a regionally united response to address issues affecting coastal and oceanic fisheries in PICs. The mainstreaming process will be guided by the PEUMP Project Management Unit and supported by SPC's Regional Rights Resource Team and its Social Development Program.

## Gender and fisheries assessments under PEUMP

To ensure effective and meaningful mainstreaming of gender equality and social inclusion, and human rights-based approaches principals in all PEUMP project activities, gender baseline studies in the form of assessments, stocktakes and gender-integrated research will be undertaken. Currently, a systemised data collection of gender roles in the fisheries sector in PICs does not exist. Existing literature appears as ad hoc work that uses different methodologies. The information that is currently available, while informative at varying levels, does not allow comparison between PICs, and much of it is outdated.

PEUMP will soon undertake an assessment on the status of gender and fisheries through a desk-top review of existing gender and fisheries literature to identify specific gaps and needs in gender and fisheries within PICs. The desk-top review will also provide PEUMP with recommendations on where further gender and fisheries assessments are required, including the extent of such studies and highlighting any priorities for greater investigation. The results of this assessment will help to guide and inform future PEUMP activities as well as assist in ameliorating possible duplication of work

Fisheries staff conducting fish biosampling at Tarawa market - ©Pauline Bosserelle (SPC)



between implementing partners. From an efficiency point of view, PEUMP will be better positioned to allocate much-needed resources for future fisheries and gender assessments in a more strategic way.

As part of the assessment process, an evaluation of existing research across the Pacific Islands region and PIC-specific information will also be undertaken with the categorisation of available information aligned to the six KRAs. For example, the assessment will provide information on the:

- institutional capacity within PICs to mainstream gender across policy, fisheries management and development plans;
- processes of involving communities in co-management arrangements;
- role that both women and men have in the PIC fisheries sectors;
- cultural barriers and constraints that women and men

face with regards to participation in fisheries management and development activities;

- areas where market and value chains can be improved to support greater participation of women and men;
- place of women and men involved in the formal and commercial oceanic fisheries sector, particularly in the post-harvesting area; and
- level of women's participation in fisheries science and management across PICs.

The Pacific European Union Marine Partnership (PEUMP) programme was launched in August 2018. PEUMP has a total budget of EUR 45 million. Of this amount, EUR 35 million is provided by the European Union, and the remaining EUR 10 million comes from the Government of Sweden. PEUMP is expected to be implemented over a 57-month period and will provide for activities to be conducted in the 15 Asia, Caribbean and Pacific countries of the Pacific, including Timor-Leste.

#### PEUMP's six key result areas (KRAs)

KRA 1: High quality of scientific management advice for oceanic fisheries provided and utilised

KRA 2: Inclusive economic benefits from sustainable tuna fishing increased

KRA 3: Sustainable management of coastal fisheries resources and ecosystems improved

KRA 4: Illegal, unreported and unregulated (IUU) fishing reduced

KRA 5: Sustainable utilisation of the coastal and marine biodiversity promoted

KRA 6: Capacity built through education, training and research

Cleaning oyster spat collectors - ©Jeff Kinch (SPC)





## Winners and losers of sea cucumber exports from Palau

Caroline Ferguson<sup>1</sup>

*Caroline Ferguson is a PhD student in the Emmett Interdisciplinary Program in Environment and Resources at Stanford University in the United States. While conducting community-based participatory research on Palau's sea cucumber fisheries, she hopes to bring feminist theory and methodologies to bear on fisheries management challenges for more equitable and sustainable outcomes.*

### Project background

Pacific Island nations have been exporting dried sea cucumber (beche-de-mer) to Chinese markets for over a century, but the magnitude and extent of the trade has rapidly expanded, accelerating the depletion of sea cucumbers worldwide (Eriksson and Clarke 2015). Over 50% of stocks are now overexploited or depleted (Purcell et al. 2013). My research examines the social impacts of serial sea cucumber depletions throughout Palau. Marine invertebrates, including sea cucumbers, are customarily owned and predominantly utilised by women for subsistence, local markets and cultural purposes in Palau; their depletion is, therefore, likely to disproportionately impact women. Understanding the social impacts of the sea cucumber trade through a gender lens is critical for the equitable and sustainable management of these fisheries, in the context of their rapid decline in Palau and across the Pacific.

In response to declining stocks, Palau banned the export of sea cucumbers from the country in 1994. In 2011, however, Palau re-opened the fisheries to export for a six-month window. In response to high prices, fishers from across the country – including men – flooded into the sea cucumber fisheries, despite strong cultural norms that would prevent men from participating under normal conditions. In six months, fishers were paid a total value of USD 1.3 million (Pakoa et al. 2014), a significant influx of cash to rural areas. However, this money was not equally distributed among all fishers. Preliminary interviews suggest it was primarily men that benefited from the international trade of these resources, which customarily belong to women.

The environmental impacts of the harvest have proven to be long-lasting: the fishery had still not shown signs of recovery as of the last survey in 2014 (Rehm et al. 2014). This is typical of sea cucumber fisheries worldwide. Sea cucumbers are broadcast spawners and, therefore, require a high density of individuals for reproduction; low densities can inhibit recovery (Anderson et al. 2011). At the conclusion of the six-month harvest, Palau passed national legislation banning the export of all sea cucumber species in response to concerns about population declines, following the classic boom-bust-ban pattern observed in sea cucumber fisheries across the Pacific (Eriksson and Clarke 2015). The ban remains in place

today, but ongoing harvest for subsistence and local markets continues to put pressure on already-depleted stocks.

### Research objectives

My research asks: Who benefited from the export of sea cucumbers in Palau, and how? Who is now paying the costs of sea cucumber depletion? I propose that existing social inequities placed some fishers in a better position than others to exploit the fishery while prices were high, and that the depletion of sea cucumbers has, in turn, exacerbated these inequities. To investigate these linkages, I will combine qualitative interviews, surveys, and focus groups with fishers that are diverse across multiple identities, with attention to gender, immigrant status, age, marital status and rank.

#### Who benefited from the export of sea cucumbers, and how?

First, I will investigate what factors shaped fishers' access to sea cucumbers during the lucrative export harvest. I will examine each of the mechanisms proposed by the 'Theory of Access' (Ribot and Peluso 2003), with particular attention to how fishers' identities – especially gender – mediated their access to sea cucumbers. For example, I will observe that the majority of boat owners are men and ask whether access to boats gave men an advantage over women during the export harvest. Boats would have enabled men to collect and store many more sea cucumbers than women who typically wade into shallow waters at low tide with small buckets. In my analysis, I will draw lessons from intersectionality (Crenshaw 1991), examining other social identities in relation to gender. For example, I will examine whether Palauan women had greater access to boats via their extensive social networks than did immigrant women, and whose networks are smaller and weaker.

#### Who is now paying the costs of sea cucumber depletion?

Second, I will investigate which fishers are now bearing the cost burden of sea cucumber depletion. Fishers today report having to go out farther, for longer periods of time in order to collect fewer sea cucumbers. This translates to less protein and lower income for those who rely on the fishery. Since the export of sea cucumbers from Palau was banned, men have stopped collecting sea cucumbers (a return to normal conditions), while many women have not, despite the difficulty in

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harvesting them in their depleted state. Thus, I hypothesise that the depletion of sea cucumbers may have increased pre-existing social inequities by benefiting fishers who already had more resources and then placing greater costs on fishers with few alternatives.

#### Next steps: Participatory monitoring and management

In the next phase of research, I will work with a diversity of sea cucumber fishers to develop recommendations for the monitoring, management and possible restoration of sea cucumbers in Palau. In collaboration with Palauan researcher and community organiser Ann Singeo, we will develop a participatory monitoring protocol that incorporates a diversity of ecological knowledge held by fishers. It is my hope that this work will promote the recovery of the fisheries and the greater inclusion of a diversity of women in resource management decision-making in Palau.

#### Acknowledgements

This work would not be possible without the fisherwomen that have generously given their time and knowledge to this research, or without my advisors and collaborators, including William Durham, Fiorenza Micheli, Bob Richmond and Ann Singeo. Thanks also to Sangeeta Mangubhai, whose revisions greatly encouraged me and improved this piece. This work is funded by the Emmett Interdisciplinary Program in Environment and Resources and the Stanford University School of Earth, Energy, and Environmental Sciences McGee and Levorsen Grants.

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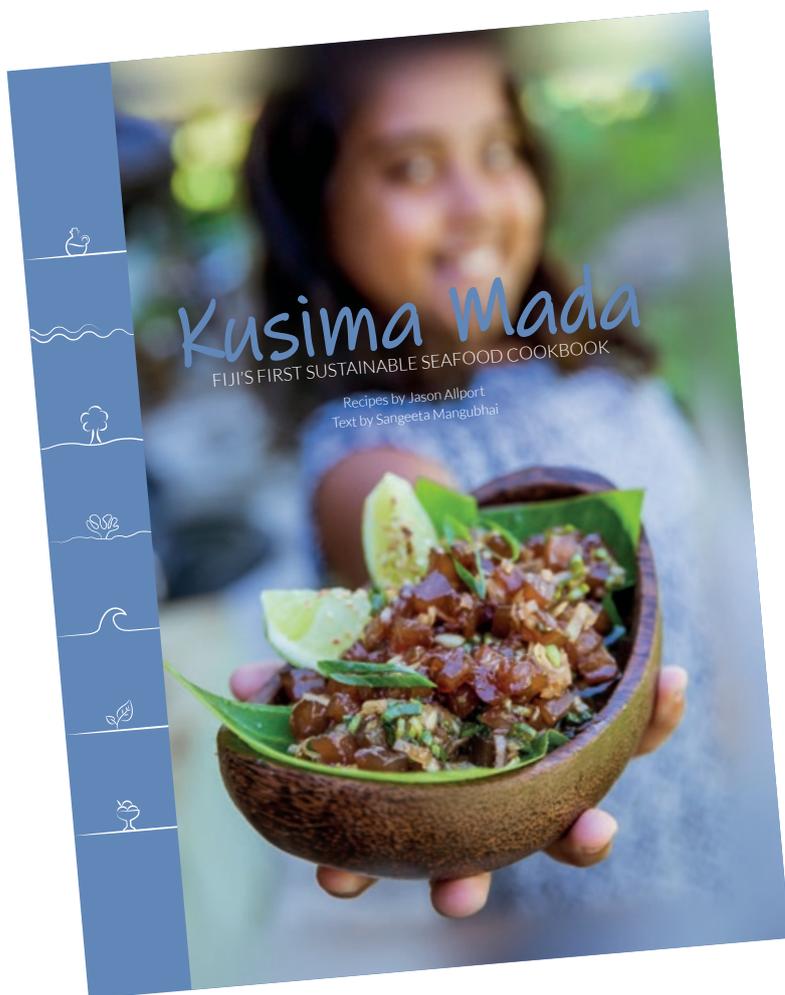
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Sea cucumbers are hand-collected



A package of processed sea cucumbers (locally called *eremrum*).





## ***Kusima mada: Fiji's first sustainable seafood cookbook showcases women in fisheries***

*Sangeeta Mangubhai<sup>1</sup> and Jason Allport*

*Food is very much a part of our culture and lives in the Pacific, and it brings families and friends together. The Wildlife Conservation Society (WCS) has partnered with Chef Jason Allport to put together Fiji's first sustainable seafood cookbook 'Kusima Mada', with over 80 new unique recipes using local seafood and produce. The word 'kusima' is Fijian (iTaukei) and describes the pinnacle of appreciation of seafood. Kusima mada is, therefore, an invitation to come experience the mouth-watering taste of seafood.*

The cookbook uses delicious, easy-to-make seafood recipes and vibrant photographs to recognise and celebrate fisherwomen and the vital role they play in terms of food security and livelihoods to support their families. The photographs show women hunting for eels in upland rivers, collecting bountiful seagrapes (*nama*) from the sea, harvesting mud crabs from mangrove areas, fishing off reef dropoffs, and selling their seafood at municipal markets.

Recipes are grouped to highlight the interconnectedness of different habitats in island ecosystems such as Fiji – from mountain rivers to mangrove forests to coral reefs

and out to the open sea – recognising that each plays an important part in the health, wealth and survival of Pacific Island people.

The cookbook hopes to inspire its readers to make sustainable seafood choices as a consumer. It has a simple message: get to know the different size limits for fish species and any national bans in place to protect a species and promote its recovery, and follow them. Size limits are linked to the size at which fish and invertebrates reach maturity, and are a critical fisheries management tool. The timing of the book is opportune as the Fiji Ministry of Fisheries, in partnership with cChange and other non-governmental partners, gets ready to launch a national 'Set Size Campaign' to promote size limits in fisheries species.

The cookbook is dedicated to 'all the women in the coastal fisheries sector who contribute to the food security and the livelihoods of their families, and to Fiji's national economy. Their local and traditional knowledge of the freshwater and marine life on our doorstep is key to our long-term health, sustainability and well-being. Such knowledge is priceless, and it is given freely – all we have to do is sit quietly and listen.'

<sup>1</sup> Wildlife Conservation Society, Fiji Country Program, 11 Ma'afu Street, Suva, Fiji. Email: smangubhai@wcs.org

## Cold smoked yellowfin tuna with salsa verde and nama salad

Serves 4. Preparation time: 30 minutes

- 300 g cold smoked yellowfin tuna
- 2 cups fresh *nama*
- 2 limes, cut in half
- 8 thin slices of fresh baguette, toasted
- 2 chillies, thinly sliced

### *Salsa verde*

- 1 tbs olive oil
- 1 medium onion, finely diced
- 1 cup coriander, finely chopped
- 1 cup mint (leaves only no stalks), finely chopped
- ¼ cup capers, washed, finely chopped
- ¼ cup mint jelly (or ¼ cup chopped mint leaves)
- 6 spring onion stalks, cleaned and finely sliced
- ¼ cup dill gherkins, finely diced
- ¼ cup extra virgin olive oil

Grill the limes in a pan or on a chargrill until caramelised. Heat one tablespoon of oil in a frying pan. Add the onion and sauté until soft, and then cool. Mix coriander, mint, capers, sautéed onion, mint jelly, spring onion, gherkins, and extra virgin olive oil in a mixing bowl. Cover and set aside in the refrigerator.

Rinse the *nama* under cold water to remove any excess sand and let stand in a colander to drain. When ready to assemble, mix half the *nama* with the *salsa verde*. To serve, layer the tuna on the toasted bread, followed by a spoonful of *salsa verde*. Finish with the reserved *nama* and thin strips of chilli. Serve with the grilled lime.

Cold smoked yellowfin tuna with *salsa verde* and *nama* salad - ©Sangeeta Mangubhai



