

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

Violeta Berdejo,¹ Kirisitiana Navuta¹ and Sangeeta Mangubhai¹

Introduction

This is the 30th 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

¹ Wildlife Conservation Society, Fiji Country Program, 11 Ma'afu Street, Suva, Fiji. Phone: +679 331 5174 Fax: +679 331 0178. Email: violetaberdejo@gmail.com, smangubhai@wcs.org

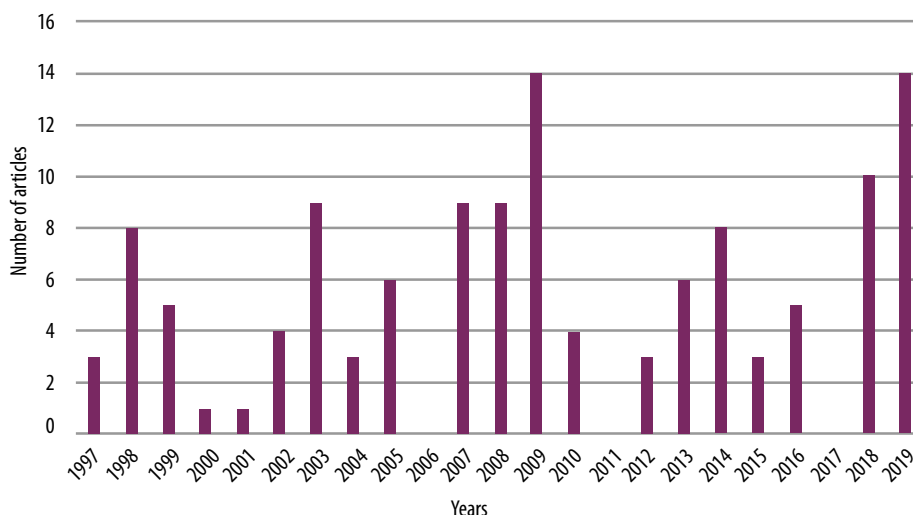


Figure 1. Number of articles produced between 1997 and 2019 in the SPC Women in Fisheries Information Bulletin. No editions were produced in 2006, 2011 and 2017, and two bulletins were released per year between 1998 to 2003.

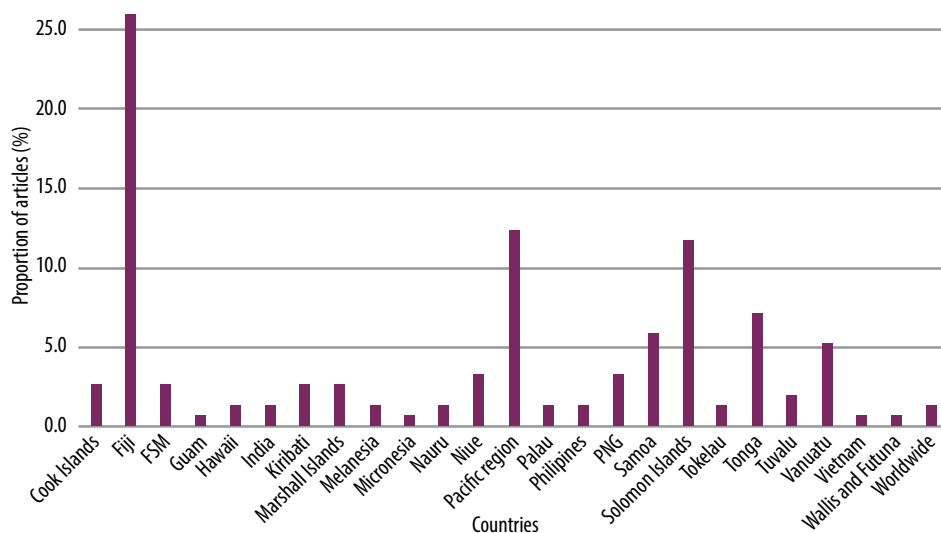


Figure 2. Geographical spread of articles featured in the WIF bulletin.

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.² 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.³

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

² Some studies include more than one fishing method.

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

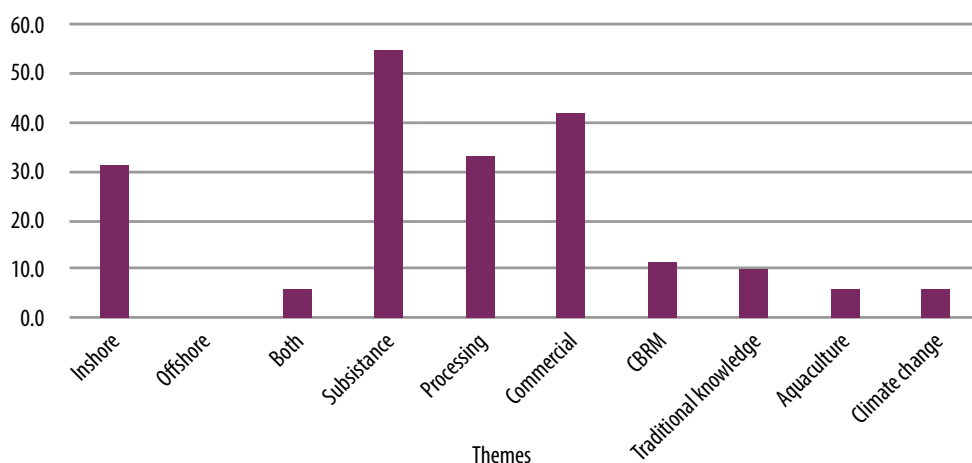


Figure 3. Thematic areas reported in the WIF bulletin over 22 years. Percentages are just indicative of the number of articles produced under different thematic areas.

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*⁴ 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.

⁴ *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

References

- Amos M. 2014. Growing and empowering women in fisheries work in the Pacific region. *SPC Women in Fisheries Information Bulletin* 25:3–5.
- Anderson C. 2009. Gendered dimensions of disaster risk management, natural resource management, and climate change adaptation in the Pacific. *SPC Women in Fisheries Information Bulletin* 20:3–9.
- Barclay K., Lawless S., McClean N., Foale S. and Sulu R. 2019. Gender and coastal livelihoods: The case of shell money production and trade in Langalanga, Solomon Islands. *SPC Women in Fisheries Information Bulletin* 29:20–23.
- Chapman M. 1987. Women's fishing in Oceania. *Human Ecology* 15(3):267–288.
- Dakuidreketi M.R. and Vuki V. 2014. Freshwater fishing, fisheries management and the roles of men and women in Tonia Village, Viti Levu, Fiji. *SPC Women in Fisheries Information Bulletin* 24:38–40.
- Fay-Sauni L., Vuki V., Paul S. and Rokosawa M. 2008. Women's fishing in Fiji: A case study of Nadorian women in Fiji. *SPC Women in Fisheries Information Bulletin* 18:26–29.
- Hilly Z., Scharwz A.M. and Boso D. 2012. Strengthening the role of women in community-based marine resource management: lessons learned from community workshops. *SPC in Fisheries Information Bulletin* 22:29–35.
- Keppel G., Morrison C., Watling D., Tuiwawa M. and Rounds I. 2012. Conservation in tropical Pacific Island countries: Why most current approaches are failing. *Conservation Letters* 5:256–265.
- Kronen M. and Vunisea A. 2007. Women never hunt – but fish: Highlighting equality for women in policy formulation and strategic planning in the coastal fisheries sector in Pacific Island countries. *SPC Women in Fisheries Information Bulletin* 17:3–15.
- Kronen M. and Vunisea A. 2009. Fishing impact and food security – Gender differences in finfisheries across Pacific Island countries and cultural groups. *SPC Women in Fisheries Information Bulletin* 19:3–10.
- Lambeth L. 1998. Women and community-based fisheries in Samoa. *SPC Women in Fisheries Information Bulletin* 3:11–16.
- Lambeth L., Hanchard B., Aslin H., Fay-Sauni L., Tuara P., Des Rochers K. and Vunisea A. 2014. An overview of the involvement of women in fisheries activities in Oceania. *SPC Women in Fisheries Information Bulletin* 25:21–33.
- Matthews E. 2002. Learning about land crabs in Palau. *SPC Women in Fisheries Information Bulletin* 11:15–16.
- Ram-Bidesi V. 1993. Women in commercial fisheries in the South Pacific: A focus on the Fiji situation. p. 105–119. In: South R. (ed.) *The Ray Parkinson Memorial Lectures: Marine Resources and Development*. Suva: PIMRIS, University of the South Pacific.
- Ram-Bidesi V. 2015. Recognizing the role of women in supporting marine stewardship in the Pacific Islands. *Marine Policy* 59:1–8.
- Thomas A., Vandervord C., Fox M., Nand Y., Nalasi U. and Mangubhai S. 2018. Impact of Tropical Cyclone Winston on mud crab fishers in Fiji. *SPC Women in Fisheries Information Bulletin* 28:3–7.
- Tuara P. and Passfield K. 2012. Issues on gender in oceanic and coastal fisheries science and management in the Pacific Islands: Case studies from Solomon Islands, Marshall Islands and Tonga. *SPC Women in Fisheries Information Bulletin* 22:3–16.

