

COMPARATIVE PERSPECTIVES ON PLURAL LEGAL GOVERNANCE OF MARINE RESOURCES IN THE PACIFIC

Sue Farran and Jennifer Corrin***

This article reflects on field studies whose purpose was to gain a better understanding of the experiences and concerns of Pacific women in accessing and using marine resources in their localities. The focus was on the Sustainable Development Goals which related to hunger, gender equality, life below water and cooperation to achieve those goals. The fieldwork was undertaken primarily in 2020 and funded by the Arts and Humanities Research Council, linked to the Global Challenges Research Fund.

Cet article dresse un bilan d'une série d'études de terrain dont la finalité était de mieux appréhender les vécus et les enjeux auxquels sont confrontés les femmes du Pacifique en matière d'accès et d'utilisation des ressources marines dans leurs régions respectives. L'accent a été principalement mis sur les 'Objectifs de Développement Durable' qui se rapportent aux problématiques de situations de sous-alimentation, d'égalité des sexes, d'accès aux ressources en eau et des modes d'entre-aide mis en oeuvre pour atteindre ces objectifs. Ce travail de recherche a été réalisé à partir de 2020 et a été financé par l'Arts and Humanities Research Council', dans le cadre du 'Global Challenges Research Fund'.

I INTRODUCTION

Pacific island countries have more sea than land and the waters that surround their many islands are significant in a number of ways. The late Professor Epeli Hau'ofa reintroduced the term 'Oceania' to describe the Pacific region.¹ Hau'ofa championed

* Reader in law. University of Newcastle.

** Professor Emerita, The University of Queensland.

The authors acknowledge the field work of Lysa Wini in Solomon Islands and Polly Walker-Dorras in Vanuatu, the time and contribution of the questionnaire interviewees in both the field work sites, the hospitality of the communities and the support of village chiefs and elders in permitting the research. They also wish to thank Jacob Piturara, Central Islands Provincial Fisheries Officer, for his assistance with fieldwork in Solomon Islands.

a reimagination of Pacific island countries as 'Our Sea of Islands', emphasising the significance of the ocean to Pacific islanders and inspiring an enriched version of Pacific identity.² The people of the Pacific voyaged across the oceans to reach the places they now call home. Stories of origins, myths and folklore feature the ocean and the creatures and spirits of the ocean.

More than 80% of Pacific islanders live in or near coastal areas.³ The sea, particularly coastal areas, estuaries and lagoons, provide a vital source of protein to many islanders and support livelihoods ranging from artisan fishing to sale of the harvest from the reefs and mangrove swamps in local markets by women. The deep seas provide income streams for national governments through the licensing of commercial fishing, especially for tuna and other species. Fish is a mainstay of food security for Pacific island countries⁴ and provides 50-90% of animal protein in rural areas.⁵ Coastal fisheries are the main source of this food, and customary marine tenure is one of the main forms of governance. While there has been considerable scientific research and comment on commercial fishing and tuna in the Pacific, there has been far less attention paid to subsistence fishing and marine resource harvesting.

The geographical focus of this article is Vanuatu and Solomon Islands, but the issues discussed are common to many small Pacific island countries. Although there has been growing urban drift in the last decades, many people continue to live subsistence lifestyles in rural areas.⁶ These areas are often poorly served by any infrastructure and are often remote from central government; here, as elsewhere in the Pacific, formal State law operates alongside informal, customary law. The former is administered by government officials, but the latter is left to traditional leaders: chiefs and elders.⁷ This gives rise to a plural legal system in which the regulation of

-
- 1 See, eg Epeli Hau'ofa "The Ocean in Us" (1998) 10(2) *The Contemporary Pacific* 392.
 - 2 See, eg Epeli Hau'ofa "Our Sea of Islands" in Eric Waddell, Vijay Naidu and Epeli Hau'ofa (eds) *A New Oceania: Rediscovering Our Sea of Islands* (IPS, Suva, 1993).
 - 3 Economic and Social Commission of Asia and the Pacific *Economic and Social Survey of Asia and the Pacific 2010* (ESCAP, 2010) 10.
 - 4 Johann Bell, Mecki Kronen, Aliti Vunisea et al "Planning the use of fish for food security in the Pacific" (2009) 33(1) *Marine Policy* 64.
 - 5 South Pacific Commission *Fish and Food Security*, Policy Brief 1 (2008) <<https://pacificdata.org/data/dataset/oai-www-spc-int-ced24e95-7e0a-401a-9f0b-d79316c49cb0>> accessed 11 January 2022.
 - 6 For example, in Solomon Islands, about 75% of the population live in rural areas; in Vanuatu it is about 74%: World Bank, Data <<https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=SB>> accessed 11 January 2021.
 - 7 The title of traditional leaders differs throughout both Solomon Islands and Vanuatu, see further, Geoffrey White and Lamont Lindstrom *Chiefs Today: Traditional Pacific Leadership and the*

the same subject matter, including marine resources, is often governed by several laws, which are rarely in harmony.

While access to and use of resources in international waters is governed by formal, international and regional laws, coastal, estuarine and reef fishing and marine resource harvesting tends to be governed by a mix of formal and informal laws. Researchers engaged in marine studies have long recognised that indigenous communities have their own customary forms of marine resource management. However, law reformers and development practitioners have, in the past, often ignored the relevant scholarship and State law reforms have taken place without an adequate understanding of the status quo.⁸ This approach has missed the opportunity to draw on the strengths of traditional practices. Where reforms are based on overseas models, there is also the risk of introducing systems that clash with local cultures and are therefore doomed to fail.

In addition to scholarly contributions, the importance of local marine resource management is now being advocated by organisations such as the charity, Locally Managed Marine Areas Network (LMMAN), working in partnership with a range of Non-Government Organisations (NGOs), regional and national bodies. At a regional level the importance of asserting Pacific control and governance of the 'Blue Pacific', has been articulated by people such as Dame Meg Taylor, Secretary-General of the Pacific Islands Forum,⁹ while the importance of drawing on customary law in the context of fisheries and marine resources is recognised in regional reports and national policy.¹⁰ Recent initiatives have included the promotion of marine protected areas, with the aim of conserving biodiversity and ecosystems.¹¹ In Solomon Islands

Postcolonial State (Stanford University Press, Stanford, 1997). In this article the generic terms chief and elders are used.

8 For an acknowledgment of this, see Brian Tamanaha, Caroline Sage and Michael Woolcock *Legal Pluralism and Development: Scholars and Practitioners in Dialogue* (Cambridge University Press, Cambridge (UK), 2013).

9 State of the Pacific Conference (2018).

10 Meg Keen and Rosalie Masu *The Blue Pacific in Action: Solomon Islands' National Ocean Policy* (Department of Pacific Affairs, Canberra, 2019); Blaise Kuemlangan *Creating Legal Space for Community-Based Fisheries and Customary Marine Tenure in the Pacific: Issues and Opportunities* (Food and Agriculture Organization of the United Nations, Rome, 2004); Annabelle Minter *Compliance and Enforcement for Coastal Fisheries Management in Fiji* (International Union for Conservation of Nature, 2008); Brendan Tobin *The Role Of Customary Law in Access and Benefit-Sharing and Traditional Knowledge Governance: Perspectives from Andean and Pacific Island Countries* (World Intellectual Property Organization and the United Nations University, 2008).

11 Protected Areas Act 2010 (Solomon Islands); Environment Management and Conservation Act 2002 (Vanuatu).

and Vanuatu this has resulted in a network of small protected areas, rather than the larger reserves that have been introduced in some countries.¹²

The contemporary value of customary practices as a sustainable development tool in the Pacific is now being more clearly acknowledged.¹³ In order to draw on locally developed management tools and develop plural forms of governance for marine resources it is necessary to establish what practices, customs and controls are in place in local communities. A necessary aspect in ascertaining how these systems operate is the involvement of women. In patriarchal societies, such as those found in Solomon Islands and Vanuatu, there is the danger that the experiences and opinions of women will be overlooked. It is commonly the men who 'speak', and often the men who are in positions of authority and are therefore the first to be approached or consulted on questions of local custom. Yet it is often women who are most impacted by regulatory frameworks, particularly if these are restrictive, and by the depletion of marine resources due to natural or man-made activities and events. It is they who have to feed their families and who may be most reliant on the modest income that selling marine resources at market can provide, not only to purchase other necessities but also to give them a degree of independence.

The purpose of the research underpinning this article was to gain a better understanding of the experiences and concerns of Pacific women in accessing and using marine resources in their localities in order to bring to light the relevance of their narratives in shaping policy and regulatory frameworks. Focusing on Sustainable Development Goals¹⁴ 2 (zero hunger), 5 (gender equality), 14 (life below water) and 17 (partnership for the goals), the research was situated within the more

12 See further, Shankar Aswani and Richard Hamilton "The Value of Many Small vs Few Large Marine Protected Areas in Western Solomon Islands", SPC Traditional Marine Resource Management and Knowledge Information Bulletin, #16 – March 2004, 3.

13 Robert Johannes "The Renaissance of Community-Based Marine Resource Management in Oceania", *Annual Review of Ecology and Systematics*, (2002) (33):17, 317; Blaise Kuemlangan *Creating Legal Space for Community-Based Fisheries and Customary Marine Tenure in the Pacific: Issues and Opportunities* (Food and Agriculture Organization of the United Nations, Rome, 2004); Janne Rohe, Hugh Govan et al *A legal pluralism perspective on coastal fisheries governance in two Pacific Island countries* (2019) 100 *Marine Policy* 90; and Erika Techera "Customary Law and Community Based Conservation of Marine Areas in Fiji" in Dennis Pavlich (ed) *Managing Environmental Justice* (Brill, Leiden, 2010) 143 and *Marine protected areas policy and legislation gap analysis: Fiji Islands* (IUCN, Fiji, 2009).

14 The Sustainable Development Goals are at the heart of the United Nations' 2030 Agenda for Sustainable Development <<https://sdgs.un.org/goals>> accessed 31 January 2022..

general theme of the global challenge of gender equity and inclusion in building local resilience to threats to marine resource food security.¹⁵

This article focusses on the results of fieldwork undertaken in 2020, backed by some follow-up in 2021. After a brief explanation of the methodology, the context of the two fieldwork sites is described and how and why they were chosen and their main features. This information is provided to give context to the discussion of the fieldwork. The responses from the fieldwork participants are then explored together with the findings that were garnered from them. The article concludes with some reflections on these findings and on how the knowledge acquired might be used to enrich the development of marine resource management policies and regulatory frameworks.

II THE RESEARCH METHODOLOGY

Fieldwork was undertaken using a questionnaire designed collaboratively between the fieldworkers, the authors (Farran as Principal Investigator and Corrin as Co-Investigator), together with a research partner in Fiji. The responses to the questionnaire were accompanied by observation, and reflections from fieldworkers. A research protocol was drawn up in a similar collaborative fashion. This governed the conduct of the research, the obtaining of consents and the steps taken to ensure participants and communities understood the purpose of the research and were consulted on how they wished to be acknowledged.¹⁶ In-country briefing for fieldworkers and local fieldwork supervision were factored into the originally project design. This was thwarted by COVID-19, which prevented inter-country travel by the investigators.¹⁷ However, with field workers in situ in the targeted countries, it was possible to undertake internal travel and to work around restrictive curfews.¹⁸ Briefings were conducted through Zoom sessions and this inevitably led to differences in how the field work was approached and recorded.

The original intention was to focus solely on women, but in response to cultural imperatives, gatekeepers' conditions and community requests at the field work sites,

15 This research was funded by the Arts and Humanities Research Council (AHRC), linked to the Global Challenges Research Fund (Grant number: AH/T008385/T).

16 The funding application and the PI's university required full ethics clearance, commitment to gender equality and clear data management strategies.

17 Similarly, there were challenges in getting cameras and recorders to field workers.

18 Fieldworkers were identified through personal network contacts and recommendations and perusal of biographies. Both fieldworkers had previous fieldwork experience and had worked with non-government organisations: Wan Smol Bag (an NGO with headquarters in the capital Port Vila), and the Local Marine Management Area organisation in Solomon Islands.

some men participated in the survey.¹⁹ In Vanuatu, five of the 20 people interviewed were men. In Solomon Islands, four out of 30 respondents were men. As it transpired, this additional data thus acquired was quite revealing.

III VANUATU'S FIELD WORK SITES

The location of the Vanuatu fieldwork was the coastal village of Sunae, one of two villages on Moso Island. Moso island lies to the South-West of the island of Efate, within Shefa Province. There are no roads or cars on the island. It is accessible by boat from Tanoliu village, the nearest location on the island of Efate. From the capital, Port Vila on Efate, Moso is accessible by road and then by boat across Havannah Harbour, which was a strategic naval shelter in World War II. There are 250–300 inhabitants on the island the majority of whom reside in Tassiriki village. There is no mains electricity supply to village houses. There are three primary schools, but no secondary schools and so children have to travel to either Port Vila or North Efate. There are two churches on the island: Trinity Church and Praise and Worship Church. The language spoken is Nakanamanga²⁰ (the local language) and Bislama (the lingua franca) which is one of the three official languages of Vanuatu.²¹

The location was nominated by a representative from Wan Smolbag Theatre, which supports and coordinates a Turtle Monitors conservation programme (Vanua-Tai).²² He suggested this village based on the fact that the turtle monitor there is a woman and that there is considerable reliance by the community on marine resources for food and economic livelihoods. This was therefore a location where there had been prior engagement with marine resources conservation initiatives. Moreover, it was discovered on arrival at the village that the reef around the village had been earmarked as a conservation zone in 2005/2006. This had been achieved as a result of local dialogue between the Vanua Tai monitor,²³ the Chief and the Village Council which had led to the Council and the community agreeing on the need for a conservation area. This area stretches for one kilometre and the zone is closed to

19 These were the chiefs and members of village councils.

20 John Lynch and Terry Crowley *Languages of Vanuatu* (Pacific Linguistics, ANU Canberra, 2001) 112.

21 Constitution of Vanuatu 1980, s 3. The other official languages are English and French.

22 The turtle conservation operates through the agency of turtle monitors. This one was in Tassiriki. Her role is to tag turtles and encourage communities to place bans on killing and eating turtles and turtle eggs.

23 Vanua-Tai is a network of individuals who are supported by Wan Smolbag and the State Department of Fisheries to encourage their communities to preserve marine resources. There are Vanua Tai monitors throughout the country. See further Francis R Hickey and George Petro *Documentation of Wan Smolbag's Vanua-Tai Resource Monitor Program in Vanuatu* (SPREP, March 2005).

fishing activities all year round except for special community events such as Chief's day. On these occasions, the Chief will allow fishing for a period of 3-4 hours. The zone is protected through a *tabu* put in place by the community and enforced through the Vanua Tai monitor, Village Council and the Chief. Beyond the conservation area there is still fishing, shell collecting and more generally the harvesting of marine resources.

IV SOLOMON ISLANDS' FIELDWORK SITE

In Solomon Islands, fieldwork was carried out in two villages: Nagotano village and Soso village, both bordering Sandfly Passage, in Buena Vista Ward (Nggela constituency) in Central Province. Both were accessed by outboard motor boat. The people from Nagotano are descendants from Bugotu in Isabel Province. A friendship between their forefathers gave them rights to live in Nagotano and Tarthi, this includes gardening rights on allotted areas on Buenevesta Island (sometimes spelt as Buena Vista) and rights to fish and manage the fisheries around their coastal areas.²⁴ Within the customary governance system for Nagotano, there are women Chiefs with particular responsibility for the welfare of the women of the village. This is because Nagotano, whilst its physically within Nggela area, still has strong links to Bugotu including following the customs from Bugotu where women have chiefly roles and play a big part in decision-making. The people from Soso village are from Nggela and they claim rights to land and their coastal areas. However, women in Soso are more engaged in gardening compared to the women in Nagotano.

Both these villages are under the Vatilau House of Chiefs. This means that any decision to impose customary rules must be discussed and agreed to by the Executive of the Vatilau House of Chiefs. The Vatilau House of Chiefs consists only of men.

Nagotano consists of approximately 450 people, most of them living in traditional thatched-roof houses with only 1-2 semi-permanent roof houses. As in Sunae, there is no mains electricity. There are 2-3 permanent buildings, one of which is the church. There is only one religion on the island, the Church of Melanesia.²⁵ There is a primary school for children ages 6-12. All secondary school level students (ages 13-18) travel to the Buenevesta²⁶ Island which is 5 minutes by outboard motor boat or 20 minutes by canoe. The students attending this school live with their extended

24 Fisheries management, conservation and development in Solomon Islands is the responsibility of the relevant Minister in accordance with the Fisheries Act 2009 (Solomon Islands).

25 Which is basically Anglican.

26 Buenevesta Island is commonly referred to as the 'main land'. The island is owned by the Nggela speaking people but there are allotted spaces for gardening given to Nagotano and Tarthi villagers (descendants from Bugotu in Isabel Province).

families during weekdays and return to Nagotano at weekends to spend time with families. The languages spoken are Bugotu, Nggela, Savo dialects and Solomon Islands Pijin. Pijin is the common language for children during playtimes.

Nagatano village was chosen following recommendation from Jacob Piturara, Central Islands Provincial Fisheries Officer, who identified this site as a place where customary practices are still followed, for example the practice of using taboos to manage resources, and where fishing is the main source of livelihood for men and women. Nagatano was also a village where there has been limited influence from external non-government agencies, including overseas bodies. Marine resource management decisions are taken by the chiefs and church leaders, although nearby areas have been used by the Ministry of Fisheries for trials for aquaculture products such as clamshells, seaweed and bêche de mer.

Soso village is slightly smaller with approximately 300 people living in thatched-roofed houses. There are only two permanent buildings, the church building being partially permanent with thatched walls and an aluminium roof. The village has a primary school with grades from Prep to Grade 6. Two secondary schools are located 20 minutes away by foot on each side of the village. All children attending secondary school live with extended families in the school area during weekdays and travel home at weekends to get food supplies. There is one church, operated by the Church of Melanesia. The languages spoken are Nggela and Pijin. As with Nagatano village, Soso was chosen on the recommendation of the Provincial Fisheries Officer.

The field-work encountered an unforeseen hurdle: Sadly, there was a death in the neighbouring village on the day of arrival. This meant that most people from both villages went to the funeral, thereby reducing the pool of potential respondents. This event also meant that the third village where fieldwork had been planned, Tarthi, which was where the death had occurred, could not be visited.

V PARTICIPANTS' RESPONSES

The research questionnaire was divided into four parts. The first focussed on the nature of the marine harvesting (including fishing) and the relationship of people with the marine resources. The second sought to establish whether or not these activities were gendered. The third looked at the formal and informal regulatory framework for managing these resources and the fourth focussed on the participation of women in making rules and decisions in respect of marine resources. The responses are discussed under four corresponding parts, although there is inevitably some overlap between the themes.

A The Relationship between People and Marine Resources

In Solomon Islands, the areas used for marine harvesting included the reef (97%), the deep-sea beyond the reef (10%), the river (15%), and mangrove swamps (43%). Harvests included shells, crabs, bêche de mer and fish. In Vanuatu, the areas were similarly the reef and the deep-sea, and the river. Only 15% used the mangrove area. In Vanuatu, as in Solomon Islands, the main marine resources were fish, shells, including clam shells, but also octopus from the reef, oysters, mud shells, clams and mud crabs from the mangroves.

These marine resources were used for food (90% of Solomon Islands interviewees; 100% Vanuatu interviewees) and selling at local markets or on the roadside (63% Solomon Islands interviewees, 75% Vanuatu interviewees). The use of marine resources for food was not just a case of availability or preference, but also resulted from the high cost of other forms of protein. If money could be made from other resources, such as selling charcoal and firewood in Vanuatu, then there was no need to sell fish. However, if it could not all be consumed, excess catch had to be sold because of lack of refrigeration facilities.

The use of seaweed for medicine was also mentioned by 25% of interviewees in Vanuatu, where two interviewees also referred to other resources harvested for medicinal purposes, such as vines from near the beach, used to make a medicine for cancer, and boiled salt water with custom leaves for medicine for the teeth. In Solomon Islands, the medicinal properties of mangroves for medicine, and seagrass to cure stomach ache were mentioned. Two women interviewees said that corals were cooked or used for lime with which to chew betelnut. When the Vanuatu Fisheries Department allowed it, bêche de mer was harvested and sold overseas for medicinal use.²⁷

All interviewees in Solomon Islands indicated that marine resources were important for food. This appeared to be a gender-neutral response. It was echoed by interviewees in Vanuatu, where 80% of interviewees said marine resources were important for feeding the family. The other 20% reflected the view that marine resources were just one source of food for them, and if they did not catch enough, they had to find another source. Only one woman interviewee indicated that marine resources were not that important; she considered that villagers could find other food, such as meat from wild pigs or cattle on the island.

There was widespread recognition that marine resources were a good, and indeed for many the main source of protein and that this was important for health, especially

²⁷ The management, development and conservation of all fisheries within Vanuatu are the responsibility of the Minister, acting in accordance with the Fisheries Act Cap 315 (Vanuatu).

of children. One Vanuatu interviewee mentioned that these resources were healthier than rice, and two others stated that these resources were healthier than the canned and packaged foods from the stores. There was also the practical consideration, mentioned by one interviewee, that there was not another type of protein that could be stored on the island. Reliance on natural resources had been accentuated during the Covid-19 pandemic and villagers' main source of food has been from their gardens. However, their main source of protein was still fish, so marine resources were very important for feeding their family. One woman said that they also used sea water to cook with (especially if they have no salt).

In all villages, the money made from selling marine resources was used for a multitude of purposes. The most common one was the payment of school fees.²⁸ Also mentioned were payment for house materials, purchase of food, meeting community commitments, and fundraising. In Vanuatu, mention was made of the use of marine resources for exchange or barter (a customary practice of informal, cashless exchange) with other villages.

In both countries, marine resources were referred to as an important part of community events such as feasts, marriages and religious festivals, and other special occasions, where they were shared between family, friends, and visitors. As discussed further below, this highlights not only the economic, and nutritional value of these resources, but also the social role.

Asked whether the marine resources were used for purposes other than those described above, the majority of respondents in Solomon Islands (73%) indicated they were not. Ten percent of the women respondents, however, indicated that mangrove wood was used for building and that reef stone was used to make jetties or passages for canoes to come ashore. In Vanuatu, one respondent mentioned that the strong wood of mangrove branches was used to remove coconut husks, and to make bows and arrows. In Solomon Islands, two respondents mentioned that shells were sold to the Langa Langa people²⁹ to make traditional Solomon Islands shell money. In Vanuatu, there was also reference to the use of shells (including turtle shells) to make jewellery or domestic ornamentation.

The relationship between the villagers interviewed and the marine resources they harvest is a multi-dimensional one. Asked if the marine ecosystems and resources

28 In Solomon Islands, school fees are payable for children attending school in year 7 onwards. In Vanuatu, although there is a free education policy, it appears that all students pay some form of school fees.

29 Langa Langa people are 'saltwater people', living on man-made islands in Langa Langa Lagoon, off the coast of Malaita. They are renowned for their shell-money making skills.

held any cultural significance for them as women, the majority responded affirmatively (81% in Solomon Islands, 100% in Vanuatu). This cultural significance was closely related to the role of marine resources as food, for example, 54% of Solomon Islands women indicated that marine resources were their main source of food and allowed them to look after their families. This link, between people, the sea and its resources, was stated to go back over centuries to their ancestors, allowing women to nurture their families. Many women mentioned that marine resources were part of their lives. The cultural significance of these resources extended to shells being used as custom ornaments, and the significance of the mangrove areas as the breeding grounds for many marine species. Another cultural factor mentioned was that women could not dive on some reefs, as they were believed to host the spirits of their ancestors. According to customary belief, it would bring bad luck if women went to these tabu areas.

In Vanuatu, all of the women who answered this question emphasised that the ecosystems and their resources held a cultural significance for them. A common reason for this, as in Solomon Islands, was the link to food: Traditional local recipes that are passed on through generations, food to feed the family, and food to contribute to community feasts. One woman talked about the cultural significance in terms of the resources as living beings created by God (including, eg shells), which was a further reason for not harvesting undersize produce. Another woman expressed the belief that because water was life it had to be respected.

There was some awareness about the potential threats to local cultural resources arising from a decline in customary laws and practices, including rules governing what could be harvested and when. Although this question was primarily directed at women respondents, three of the men interviewed in Vanuatu did respond. All three emphasised that traditions had been lost (one specifically mentioned losing the tradition of using shells as money). One man stated that their ancestors viewed the sea as an extension of themselves and thus used it wisely without overfishing or selling what they caught. The Chief mentioned that long ago they would have a special chief to take care of the sea and make decisions regarding fishing.

The close relationship between people and the marine resources they rely on provides insights into the physical transitions they have witnessed over the years. Asked whether they had noticed any changes in the last 20 years, 93% of Solomon Islands respondents stated that marine resources had noticeably declined (shells and fish were both specifically mentioned). Two of these respondents referred to an increase in intense cyclones which were destroying the reefs and thus causing a decline in the number of fish through destruction of habitats. There were also a few references to overharvesting and the impact of population growth on availability of resources: One person said they now had to travel far to find good-sized fish. Another

respondent said that in the past a high number of fish could be caught within one kilometre of land. Of those that had not noticed any changes, this was either because they did not often use the sea or were recent incomers (through marriage).

In Vanuatu, 95% of respondents stated that there had been changes in the marine resources over the last 20 years (there were no notable gender differences within these answers). Eighty percent of respondents stated that marine resources had been depleting rapidly. The most common resources mentioned were fish and shells, however one person also mentioned *bêche de mer*, and another mentioned a drop in seaweed, which used to attract fish to the area. There were a number of reasons given for the depletion in resources, all related to over-harvesting: people from other villages harvesting on their reef; an increase in hotels and restaurants, resulting in more taken to sell; the use of rods and nets to harvest fish for selling, and a larger population. One respondent mentioned that they now had to go to the deep sea to find good-sized fish. A small number of respondents (3) thought that resources had actually improved due to conservation. However, one respondent who referred to the conservation area said that clam shells were dying because they were not being harvested so they were just left to grow old and die, making the point that they should be allowed to be harvested so they do not go to waste.

One respondent mentioned that the level of water in the river had dropped. Two other respondents mentioned changes to the land itself. One stated that the area used to be just sand but now it had become very rocky due to the sea coming up to the shore, and the other said the sea was getting closer to the village and washing away the soil. Whether these were just factual observations or informed by a greater awareness of the negative consequences of climate change, or both was unclear.

Given the reliance of women on these marine resources either as food or to sell (or both) the research sought to ascertain whether the changes referred to above had affected their livelihoods. In Solomon Islands, 88% of women interviewed indicated that these changes had affected their livelihoods. Six of the women talked about how it was now much more difficult to find resources: They now had to work harder and travel further, and it took much longer to catch fish. Thirteen women said that these changes had affected their income: they now had less money because of the decline in resources. One woman mentioned that shells they used to sell were no longer commonly available. One woman mentioned that as a result of the reduced income, she did not have money for school fees. The men interviewed also commented on this. One said that, whilst men were able to travel far using outboards to look for fish, women used canoes and could only travel limited distances to look for bigger fish to sell. The other said that women had to travel and spend hours looking for a good catch to sell. One man talked about how the changes had affected him; he used

to go out for an hour and net a catch worth \$200, but now caught less and so received less money.

In Vanuatu, 80% of the women respondents indicated that these changes had negatively affected their livelihoods. The majority mentioned that it was now very hard to get marine resources for food as there were very few fish left. Three women said that they used to be able to get enough food for three meals, but now sometimes could only get enough for one. Consequently, a lot more energy was expended trying to find food because of scarcity of these resources (especially because they had to walk a long way for these things). Unlike before, they might also have to go out on consecutive days because they could not find enough on the first day. This meant that women now waste more of their time. There was mention of not being able to find enough shells to make the traditional meal of lap lap,³⁰ as well as no longer having enough to sell.

In Vanuatu, there were mixed attitudes to the effects of the conservation area on women. A few interviewees viewed it as an unwarranted restriction on where they were able to fish. One woman said that the other side of the island (which is outside the conservation area) was currently subject to a land dispute, so they were no longer able to fish there either. Another said that, because of the conservation area, they had to collect resources from outside that zone, but people in other villages who had boats ignored the ban and came to fish in their area, which reduced the number of fish. Other views of the conservation area were more positive. One respondent stated that previously there were not many fish, but now there were enough to feed their families and attributed this to the Chief putting limits on what could be harvested. The men who answered this question said that these changes had affected livelihoods because the resources were now depleting, making it harder to feed their families and make money (one mentioned that they relied on these resources for income because they had no alternative skills to produce income). Instead, families had to resort to more store bought tinned foods because it was harder to find these fresh marine resources. One male respondent mentioned that these changes affected women specifically because the mothers might spend their whole day at the reef and still not catch anything and thus not have enough food for the family.

B Are Marine Resource Harvesting/Fishing Gendered Roles?

The general consensus in both field studies was that fishing and marine resource harvesting was not gendered in the sense that it was undertaken only by men or by women, but that there was a difference in the roles played in the harvesting. While

30 Lap lap is a baked dish made from grated root vegetables, bananas, and coconut milk, to which fish or other protein may be added.

it was men who did most of the fishing, women undertook harvesting such as crabbing and shell-collecting. This was done on the reefs, at low tides and in mangrove swamps and estuaries. While some women fished, sometimes by line but more often with nets, it was men who tended to do deep-sea fishing either with lines or by diving and spear-fishing.

Further, in Vanuatu, the majority of respondents stated that diving is the men's job (one woman suggested this was because men could hold their breath longer) and harvesting resources from the reef was the women's job. One (woman) respondent stated that fishing was previously considered a woman's job but not everyone could fish. Another woman stated that her husband would collect food if she could not, and she expressed the view that it was men's responsibility (especially when it came to diving) because women had a lot of other work to do. Additionally, one woman referred to how men specifically fished from the deep sea.

In Solomon Islands (96%) of women said that they collect marine resources themselves and in Vanuatu all the women interviewed indicated that they collected marine resources themselves. Sometimes women go out together or take their children with them, teaching them how to find and harvest the marine resources. Asked whether there were social or cultural expectations that men or women or both would fish or gather marine resources, the general consensus was that this was a matter of choice but also of community expectation and shared obligation when there was a community event for which food was required.

This shared responsibility, albeit possibly divided between tasks, is significant because it highlights the importance of considering the perspectives of both men and women in developing policies and regulatory frameworks for managing these resources.

VI THE REGULATORY FRAMEWORK

All participants in the fieldwork were aware of limitations and controls being imposed on what they could catch or harvest. As indicated, at the Vanuatu fieldwork site a conservation area had been established in order to protect marine resources and all the respondents referred to this. The control measures in place were a mix of customary 'taboos' complemented by formal State Fisheries Department regulations.³¹ Members of the community had received conservation awareness training from non-governmental organisations. Fishing and harvesting from the conservation area was only allowed for a limited period to meet the needs of a special occasion (for example for a day or part of a day to cater for a large feast) and then

31 See above nn 24 and 27.

only with the permission of the Chief. One respondent mentioned that visitors would be told that they might swim in the conservation area but that they were not allowed to take anything from it.

Apart from the conservation area, there were other restrictions imposed by the Fisheries Department. For example, nine respondents (45%) referred to a number of specific species that they were banned from harvesting: trochus, green snails, turtles, bubu shells, bêche de mer, dugongs, and trochus shells.³²

One respondent mentioned that anyone caught fishing in the conservation area was called to attend a meeting about this. If a serious infringement was reported to the Chief, he referred the matter to the police. A further restriction mentioned by 40% of respondents was in respect of the size of fish and shells they were allowed to take; they were not allowed to harvest small fish. One of these respondents mentioned that the Chief had told them not to use one-finger nets because these nets could catch very small fish. The villagers also observed a customary restriction imposed by the Chief forbidding the placing of *namele* leaves (palm tree leaves) in the sea or river.

At the Solomon Islands fieldwork site, 28 respondents (93%) referred to *tabu* areas. These included the reef around the island; no harvesting of resources was allowed in this area without the Chief's permission. As in Vanuatu, the *tabu* was lifted for special occasions such as Saints Day in October or to meet the obligations of funerals or big church events. Here the customary controls appeared to be designed to let stocks replenish before further taking was permitted, thereby balancing social obligations with conservation measures in a traditional way.

Villagers were also aware of government-imposed controls on certain species.³³ Twelve respondents (40%) referred to specific bans on bêche de mer,³⁴ trochus and crayfish. There were also restrictions on the size of catch/harvest (although respondents were not entirely clear if these were formal State limits or customary ones or a mix of both). Size limits were mentioned for: trochus, clam shells, mud shells, fish, and crayfish. One respondent specifically said that there was a permanent ban on taking shells (trochus/clamshells/mudshells) that were less than 3 inches.

32 See Fisheries Regulations 1983 (Vanuatu); Turtles (Protection and Conservation) Regulations 1974 (Vanuatu).

33 See Fisheries Management Regulations 2017 (Solomon Islands).

34 See Fisheries (Protection of Sea Cucumbers) Regulations 2006 (Solomon Islands).

Two respondents also mentioned restrictions regarding nets: a permanent ban on the use of steel nets, and net fishing was not currently allowed.³⁵

These restrictions, whether customary or stemming from formal law are gender neutral in application, although certain other restrictions may apply to women in terms of what marine resources pregnant women are permitted to eat. In Solomon Islands, there was also some suggestion that women are not allowed to be present when men go diving and that when *tabu* areas are opened up, men are allowed to access them before the women. Some resources are also more accessible to men, for example trochus, because it is predominantly men who undertake the deep-sea diving.

It is apparent from the above that government and customary regulations exist side by side. The process by which these management frameworks are arrived at is however quite complex. In Solomon Islands 97% of respondents indicated that it was the Chief or Chiefs who decided on these regulations at village level. Where there was more than one Chief there might be a Chiefs' Council. Whether or not such councils are traditional or stem from colonial influences is outside the scope of this article.³⁶ In the part of Solomon Islands where the fieldwork was carried out, there were some women Chiefs, although their responsibilities usually focussed on women's affairs, with particular responsibility for looking after 'incomers', that is, women who married into the village. There were three women on the Chiefs' Council in this village. One person said that the Chiefs were controlled by the Executive from the District House of Chiefs. The Chiefs were not, however, the only people influencing the harvesting of marine resources. Two respondents referred to resource owners: one said that some reefs on their side of their island were owned by families, and that there were villagers who had a custom claim over some reefs (and presumably some say on what could be taken and by whom). Four respondents referred to the elders (who were apparently all men) having a say in marine resource management and three interviewees referred to the church pastor (Mama/Priest), and the Chairman of the Church as having an influence.

At a national level, however, it is the government, specifically the Ministry of Fisheries exercising powers under the Fisheries Act, that decides the catch size limits and species bans.

In Vanuatu, there is a similar mix of formal and informal regulatory processes. At a local level and aligned with customary governance, the Chief and the Village

35 Fisheries Management (Prohibited Activities) Regulations 2018 (Solomon Islands).

36 See further, Geoffrey White and Lamont Lindstrom *Chiefs Today: Traditional Pacific Leadership and the Postcolonial State* (Stanford University Press, Stanford, 1997).

Council and a sub-committee (which included women members) looked after the conservation area. Although in the past the Chief appears to have acted autonomously in imposing a *tabu* on certain areas, an interesting hybrid has arisen, with decisions, including extension of the conservation area tending to be taken by the Council. Because one of the purposes of the conservation area is to protect the turtle population a number of people act as Vanua-Tai turtle monitors in the different villages. These monitors work with Chiefs, communities and village councils to make conservation decisions, which must be signed off by the Chief. The monitors also have the authority to report people catching or killing turtles.

Other players involved in marine resource management were also mentioned, for example, one interviewee said that the community partnered with a Fisheries department project called 'Grace of the Sea' that helped them put a ban on taking trochus and green snails. Another stated that NGO's, the Environment Department and Fisheries people visited and cooperated with the Chief and Village Council in informing the community about the rules (presumably formal rules regarding prohibited species). Another stated that there were people who worked with the Fisheries Department. These people attended training programmes and then provided feedback and corresponding rules were applied. Another referred to Vanua-Tai (turtle monitoring) training. The overall picture, therefore, appears to be that the Chief and the Village Council set the rules, with input from State fisheries authorities, NGOs and other bodies that provide advice, including the conservation committee.

In both Vanuatu and Solomon Islands, it appears that women are involved at the local level in marine resource management including conservation measures. Where there is only one Chief that is invariably a man. Where there is more than one Chief there may be a chiefly hierarchy. Where women may hold a chiefly title, there is more chance of women being involved at the local level. However, just as it is not only the Chiefs who are responsible for determining the rules for managing marine resources, it is also not just Chiefs who enforce these rules. Government officers from the Ministry or Department of Fisheries may also be involved, as are the ordinary members of the community. In Solomon Islands, for example, a number of interviewees stated that community members are good at complying with rules set by the Chiefs, and that community members (including the local pastor or priest) help enforce the rules by keeping a look out and reporting violations. Similarly, in Vanuatu it was suggested that it was also the community's responsibility to oversee the conservation area. If someone is found breaching the rules then a meeting is called, the purpose of which is not just to name, shame and fine the offender but also to remind everyone of the rules. As to who could impose a fine there seemed to be some dispute as to whether this was the Chief and/or Village Council or only the

turtle monitor. It seems that as a final resort an offender could be brought before the State courts, although a decision to do so would normally be preceded by a customary meeting at the *nakamal* (village meeting place).

Whether these rules are written down or not seemed unclear. In Solomon Islands, 90% of interviewees said they were not. In Vanuatu, 45% of interviewees stated that they were written down, 40% said they were not. Those who thought they were written down referred to them as 'by-laws'. While Chiefs have no statutory authority to make formal laws, the constitutional recognition of customary law as a source of law endorses the making of customary laws in whatever form the chiefs or traditional leaders think fit and these will be enforceable in State courts provided that they do not conflict with the Constitution or legislation.³⁷ In some cases, rules may be recorded in writing in the meetings of village councils. The status of these 'laws' is also somewhat confused in Vanuatu by the Council of Chiefs (the Malvatumauri) encouraging communities to write down their 'laws' using the term 'by-laws' but probably meaning customary laws.³⁸ As is evident from the above, the regulations that govern marine resources are hybrid, and some relatively recent rather than traditional.³⁹ Indeed 75% of interviewees in Vanuatu either expressed or indicated the view that these restrictions were not custom rules. Two noted that the Council had noticed a decrease in their resources, so they had come up with the idea of putting these restrictions in place for conservation purposes. Another said that the rules relating to water were not custom rules 'as such' but had been developed with the help of NGOs, the Environment Department and Fisheries Department.

Whether or not rules were written down was not a decisive factor in making them well known, as clearly efforts were made to ensure that incomers, visitors and children were aware of them. Asked how people acquired this knowledge, in both field-site locations the majority of interviewees indicated that this was through announcements (93% in Solomon Islands, 55% in Vanuatu). These were made by the Chief or Chiefs or in church or both. Announcements were also made at village gatherings or community meetings. Villagers were also aware of *tabu* areas because they were marked with sticks, particular leaves and/or articles of clothing. Knowledge was also passed through families; one Solomon Islands interviewee indicated her husband told her about the rules, while in Vanuatu 30% of respondents

37 Constitution of Solomon Islands 1978, s 76(c), Sch 3.3.

38 Malvatumauri, Resolution 6, endorsed on 8 September 2011.

39 On the confusion between State 'laws' and village rules called by-laws (which often consist of lists of misdemeanours and the fines attaching to these) see Heidi Tyedmers *Conflict Management and Access to Justice in Rural and Remote Vanuatu* <<https://www.dfat.gov.au/sites/default/files/conflict-management-access-justice-rural-vanuatu.pdf>> 97.

indicated that they learnt of the rules either through the community or from their parents.

A The Participation of Women in Making Rules and Decisions on Marine Resources

The responses summarised above indicate that custom remains an important source of regulation, even if some of the imperatives that inform a custom are of recent origin. In Solomon Islands, 93% of interviewees indicated that custom rules are made by the Chiefs, but these may include women Chiefs. Women also sit at the higher (district) level of Chiefs, the Bogotu Council of Chiefs, which meets every three years at a 'Custom Convention', although women Chiefs appear to be in a minority. Other rule-makers, including elders, village pastors or priests, and land and reef owners are predominantly men. In Vanuatu, there was some disagreement as to whether the Chief, the committee of the Village Council which oversaw the conservation area, or the Village Council as a whole, made the rules. There was, however, general consensus that, whatever the process, most people obeyed the Chief. There was some disagreement, with some respondents indicating that that custom has changed a lot and that people had lost respect for the sea and marine life. In particular, there was resentment of outsiders coming in without permission and 'stealing' fish or other marine resources.

Neither of the field worksites were so remote as to be untouched by social and economic developments, and we were interested to know if villagers thought custom had changed. In Solomon Islands, 23% thought it had not changed very much, but some thought what had changed was the social life and people's attitudes, influenced by the 'outsiders' way of life. One respondent said that modern influence is significant, but that the community is still governed by customary rules, a view endorsed by a further respondent who said they still maintain their chiefly inheritance system. 77% thought that custom had changed. However, the changes complained of had little to do specifically with the role of Chiefs or customs relating to marine resources, but rather reflected social changes which permeated traditional ordering more widely, such as women's clothing, the music listened to by the younger generation, more social promiscuity amongst that generation, and an increase in inter-tribal marriage. What was relevant to the topic of marine resources was the increase in fishing and harvesting for economic gain, changes in diet to consumption of more store-bought food as opposed to traditional custom food, both generally and at feasts. Similar views were expressed by respondents in Vanuatu, including a loss of respect for the sea.

Clearly some women of status are involved in the process of making rules to manage marine resources, but what of other women? We asked our women

respondents if they had ever been asked for their opinion about fishing or harvesting restrictions. In Solomon Islands, 62% of respondents said they had not been asked; 38% said they had. Where respondents had been asked, this seems to have been via community consultations or gatherings of the whole community prior to imposition of a rule or a ban is applied. One mentioned that usually the Chief gave them time to ask questions before placing a *tabu*. Another said that women were specifically asked to contribute to a decision on what is allowed and not allowed in the *tabu* areas. Of the four men interviewed, three (75%) said they had been consulted.

In Vanuatu, 53% of the women interviewed had been asked their opinion. Three of these referred to being able to voice their opinions at council meetings. Another interviewee mentioned that some people from the Environment Department asked them how they collected shellfish/fishes, and as a result it was decided that there should be a conservation area to address the over-harvesting. Another interviewee stated that the community went to the *nakamal* and decided to have a conservation area. Another interviewee mentioned that the Fisheries Department discussed with the community what they should and should not do. However, 35% of women interviewees said they had not been asked their opinion.

Asked whether women should be asked about custom, 73% of women interviewees in Solomon Islands answered yes. A few of these women said that older women (elders) especially should be asked as they provided counsel to the younger generation. Two mentioned their *vugho* (grandmother) being consulted about custom. Women's knowledge about custom included knowledge about lineages and skills as mediators for family feuds. Of the men interviewees, one said women were not asked about custom, and one said they were not asked as much as in previous times. Two said women are asked; especially the women Chiefs whose role it was to know about the customary values and to pass them on.

In Vanuatu the answers appeared to be more conditional. 55% of respondents (men and women) answered that women were asked what they knew about custom 'sometimes' or dependent upon the context, by which they seemed to be referring to the forum. Four interviewees referred to meetings, another said that when the women leaders had a meeting, they would talk about how they needed to change their ways and one male respondent said that during big meetings the women were sometimes part of the discussion, but not always. Two interviewees mentioned that husbands would sometimes discuss custom with their wives. Four women interviewees indicated that women were not asked about custom.

The exclusion of women's narratives may not be significant if men and women have the same understanding of custom. So, we asked whether, 'women have a different understanding of custom from men' In Solomon Islands, 30% of

interviewees thought men and women had the same understanding of custom. One of the men stated that a reason for this was that the community organised intergenerational learning to ensure all girls and boys understood the customs and community values. 63%, however, believed that men and women had a different understanding of custom. The explanations for this included the view that women respected the customs and followed them more than men; that men and women see things differently so understand differently; that older women had a better understanding of custom than young men; and that women respected custom more and took the time to teach the children.

In Vanuatu, 15% of respondents expressed the view that women knew less about custom than men. The reasons given for this included the view that men could do a lot more and speak better than women; and that men had more chance to get together and discuss custom, whereas women were busy taking care of the home. A similar percentage thought that women knew more about custom than men. One of these women said that in her village women knew more than men; she said that whilst men knew about custom, they did not apply or live by it to the same extent as women. Another woman who expressed a similar view added that sometimes the women taught the men custom.

45% of interviewees thought that men and women had the same understanding of custom or expressed some sort of relatively neutral standpoint. The reasons for this were that they all lived in the same community, and the women learned from what the men told them. Another view was that, whilst previously it was men who knew more about customs and traditions, women were starting to learn more about customs because nowadays women were more aware of their rights and specifically their right to learn.

Although there was a divergence of views on this point, it was generally agreed that women should be asked about custom. In Solomon Islands, 90% of interviewees thought they should; in Vanuatu 93% thought they should. In Vanuatu, a number of reasons were given for this view including the importance of custom to the village lives of women; that women took part in most of the custom practices; that any decisions being made affected both men and women; that certain aspects of custom were better known by women; that women were able to share the knowledge with other women who knew less and to pass it on to their children; that custom was applied in their everyday lives; that women were the ones who applied it (unlike men); and women knew about the resources in the sea. One woman said that sometimes their children married people from different islands and that they should know their own customs first.

VII REFLECTIONS

The survey results highlight some interesting examples of hybridity, where State and customary institutions and laws are interwoven. A recent development in Solomon Islands has enhanced the opportunities for collaboration between the two spheres. The Fisheries Management (Fisheries Advisory Council) Regulations 2020 provide that membership of the Fisheries Advisory Council, established by the Fisheries and Management Act 2015, must include a representative of indigenous fishing communities as a member of the Council. Appointment is by the responsible Minister whose choice is not restricted by gender conditions. No appointments appear to have been gazetted but given the gender of past appointees to State institutions, it is highly likely that the appointees will be men.⁴⁰ In Vanuatu, the Fisheries Act 2014 refers to a communities' based fisheries officer, but this person, who is most likely to be male, must be appointed by the Minister. The Act does however refer to taking into account 'the interests of artisanal, subsistence fishers and local communities' in the management of fisheries, the maintenance of traditional forms of sustainable fisheries management and the need to ensure the participation of 'Vanuatu nationals' in the sustainable use of fisheries resources.⁴¹

In both the fieldwork sites villagers had previous exposure to ideas on environmental conservation so the concept of management measures for the sustainability of species was not new to them. The slight drawback was that as a result of these encounters these communities were already adopting plural approaches to marine governance, which made the question of how a plural approach be developed, somewhat redundant.⁴² However, there were established pathways into these communities, which was an advantage. As our Solomon Islands fieldworker expressed it, "it is important to go with a trusted person who is able to also provide guidance on community protocols that we as researchers should be aware of. Jacob was a trusted figure and had good relations with the village so we were welcomed and looked after well in both communities". Despite the perceived drawback, the fieldwork responses provided insights into how the plural approaches worked in practice, who the key figures were and what issues arose.

40 See further, Helen Tavola, Afu Billy and Josephine Kama *Advancing Australia's Work on Leadership and Decision-Making "The Next Level" Scoping Study on Women in Leadership and Decision-Making* (DFAT, 2016) <<https://www.dfat.gov.au/sites/default/files/solomon-islands-scoping-study-womens-leadership-decision-making.pdf>> accessed 13 January 2022.

41 These are included in the principles underlying the Act, s 4. However, the thrust of the Act is directed at offshore fishing vessels. There is no indication that the Fisheries Management Advisory Council should include women or even a representative from the Council of Chiefs to put forward customary perspectives.

42 Further field work has been undertaken in 2021.

Although the questionnaire had been developed collaboratively with the fieldworkers and others, testing it in the field highlighted a number of challenges, particularly in respect to questions about the cultural significance of the marine resources used and questions about custom. We asked one of our fieldworkers whether the first of these questions could have been worded differently. She replied:

I tried all sorts of different translations. I mostly asked if the resources had any importance under the person's culture or custom. The men were much more confident answering but my theory is that women very rarely get asked about custom and don't feel they can speak authoritatively about it. Also, I think for many places, the sea is a source of food but not the centre of many specific customary practices – there are a few islands where there is this focus, but not many. Customary practices are more centred around people/relationships, food preparation, dances, rites of passage, planting times etc.

On reflection the difficulty may have been attributable to a divergence of perception. As lawyers we are looking for rules that govern behaviour, but culture is how people live and custom is what they do. We encountered similar problems in questions about customary regulations. A number of the responses focussed on relatively minor restrictions on what people could and could not or should not do in their social lives. These rules were clearly important to the respondents, but were customs or usages rather than customary law. This raises the question that frequently challenges legal pluralists: When does custom become law. Clearly, the use of tabus backed up by sanctions for a breach amounts to customary law, but a lot of the respondents daily actions seemed more a matter of customary practice than law. This confusion of understandings was aggravated by the relative novelty of some of the restrictions being imposed by community leaders on the use of marine resources and whether or not these were being governed by custom in the sense understood by respondents. A more nuanced approach focusing on norms rather than laws might have assisted here, something that would have been explored with fieldworkers had the opportunity for more extensive briefing not been hindered by COVID related travel restrictions.

VIII CONCLUSION

This research project set out to establish the importance of hearing women's voices when determining policy and strategy to manage marine resources. The fieldwork engaged women and listened to and recorded their experiences and opinions. Some of the original hypotheses were rebutted. Women were being listened to, not always, but in some contexts; they were sometimes in positions of authority; there were forums in which women could participate; there was a

realisation, not overwhelming but nevertheless present, that women's voices counted, at least at village level.

In terms of the Sustainable Development Goals focussed on, it was clear that marine resources were an essential element in addressing zero hunger and that threats to this source of food and income jeopardised this goal. The burden of ensuring that family food needs were met fell heavily on women who were finding that an increasing amount of their time was being taken up in accessing and harvesting marine resources, either to meet immediate food needs or for selling to meet both food and other needs. Local initiatives to ensure the sustainability of marine resources were being undertaken, addressing SDG 14 (life below water), but these had both positive and negative consequences. One of the negative consequences was the lack of alternatives available to women, either in accessing protein for feeding the family or accessing resources that could be sold for cash. Conservation efforts met with mixed responses and perhaps need to be explored more holistically. For example, if an area is declared a marine conservation no-take area, what is the impact of this on the daily lives of women? From the research it appeared that women had to work harder, travel further, and be away from their villages for longer, leaving them less time for other tasks, let alone any leisure. The focus of the research on women and the issue of gender equality (SDG 5) was a central one. In some respects, it was reassuring to note that women were involved in decision-making and were consulted about environmental protection measures. Nevertheless, it was clear that in some forums men predominated, and women's voices were incidental or only heard via male speakers.

It was also apparent that there were a plurality of key players and forms of regulation working together to develop forms of governance for marine resources that would or could shield those resources from over-exploitation. The development of partnerships between non-governmental organisations (such as Wan Smolbag and the Vanua-Tai network in Vanuatu), government officers, chiefs and local communities were clearly fruitful and by and large agreed conservation measures appeared to be accepted and rarely infringed.

What we hope can be taken from this research is that the experiences and opinions of women, as well as men, are relevant and informative. The majority of women respondents in both fieldwork locations expressed a willingness to share their experiences more widely and they deserve an audience. Environmental policies directed at promoting the sustainability of marine resources work best when they are inclusive of a diversity of players, complementary regulation and involve all members of the community.