



Gender analysis of the fisheries sector in Federated States of Micronesia



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by

the Pacific Community

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Abbreviations

CEDAW	Convention of the Elimination of All Forms of Discrimination against Women
CSP	Conservation Society of Pohnpei
CTSA	Center for Tropical and Sub-Tropical Aquaculture
CWC	Chuuk Women’s Council
DDCCEM	Department of Environment, Climate Change and Emergency Management
DFMR	Division of Fisheries and Marine Resources
DMR	Department of Marine Resources
DRD	Department of Resources and Development
EEZ	exclusive economic zone
EPA	Environmental Protection Agency
FAO	Food and Agriculture Organization
FFA	Forum Fisheries Agency
FGD	focus group discussions
FMI	Fisheries and Marine Institute
FSM	Federated States of Micronesia
KCSO	Kosrae Conservation and Safety Organization
KIRMA	Kosrae Island Resource Management Authority
KWA	Kosrae Women’s Association
MCS	Monitoring, Control and Surveillance
MERIP	Marine Environmental Research Institute of Pohnpei
MMME	Micronesia Management and Marketing Enterprises
MPA	marine protected areas
MRMD	Marine Resources Management Division
NFOP	National Fisheries Observer Program
NFC	National Fisheries Corporation
NGO	non-governmental organisation
NIWA	Neighboring Islands Women’s Association
NORMA	National Oceanic Resources Management Authority
OFCF	Overseas Fishery Cooperation Foundation
PACP	Pacific, African, Caribbean and Pacific (Pacific ACP) states
PEUMP	Pacific European Union Marine Partnership
R2R	ridge-to-reef
RRRT	Regional Rights Resource Team (SPC)
SDG	Sustainable Development Goals
SDP	Strategic Development Plan
SPC	Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme
TRCA	Tomil Resource Conservation Trust
TTPI	Trust Territories of the Pacific Islands
UNDP	United Nations Development Programme
UN	United Nations
USA	United States of America
USP	University of the South Pacific
VET	vocational educational training
WIO	Women’s Interest Officer
YAP CAP	Yap Community Action Program
YFA	Yap Fishing Authority
YWA	Yap Women’s Association

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Executive summary

The purpose of *Gender analysis of the fisheries sector in Federated States of Micronesia* (FSM) is three-fold:

- to better understand the roles of both men and women in the fisheries sector (coastal fisheries and aquaculture);
- to support the institutional strengthening of various government agencies and other state-level institutions that are involved in fisheries and marine resources management to mainstream gender across their activities; and
- to support the implementation of the Pacific European Union Marine Partnership (PEUMP) programme's objectives of 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 programme activities.

A gender and human rights approach recognises that gender equality is not only a fundamental human right but is also essential to achieving peaceful societies, recognising full human potential, and sustainable development. This requires a people-centered approach to identify ways in which policies and services can have a greater impact on both women and men at all levels of the fisheries sector.

Implemented effectively, a people-centered approach can contribute to improving the fisheries sector by ensuring that the decisions made and the services delivered are targeted to those directly involved in the sector. Women will continue to be marginalised in the fisheries sector if government policies and strategies fail to recognise and strengthen their contribution. Gender mainstreaming is about strengthening institutions to do this effectively. This requires political will, demonstrated through concrete gender strategies in the fisheries sector, with adequate resources to support the advancement of women.

Federated States of Micronesia lies in the northern Pacific. It is made up of four island groups – the states of Pohnpei, Kosrae, Chuuk and Yap – with over 600 islands. Gender relations in FSM are shaped by cultural norms and practices that vary greatly across the four states. In order to identify ways in which policies and services can have a greater impact on all involved, this analysis set out to establish an understanding of the policy environment that supports the development of the fisheries sector and to understand the level of involvement of women and men and how this involvement is influenced by social constructs and gendered relationships.

This analysis identified the active involvement of women in coastal fisheries and aquaculture across the four states, although quantifying gender participation in the sector was difficult due to a lack of data, gender analysis and assessments. Women contribute significantly to socio-economic well-being at the household level and in the wider economy, where, most visibly, they either go fishing to feed the family, access fish through their social network, or buy fish to supplement the family's nutritional needs. This analysis confirmed that women earn less and are relegated to minor roles in fisheries, with little consideration given to integrating them into planning or decision-making processes. This compromises the well-being of the sector, given the huge contribution women make in promoting sustainable fishing practices, inclusive participation and value-added activities from fisheries resources.

At an institutional level, the many different levels of governance add significant complexity to the management of the coastal fisheries sector. Management is carried out at national, state and local/municipal government levels, as well as at the community level. From a gender mainstreaming perspective, 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 state. As implementers of government policy and focal points for development programmes, it is, however,

important that national and state governments are aware of women's involvement in this sector, how women's groups mobilise and how the women of FSM can contribute to a sustainable fishery sector.

Technical capacity to mainstream gender is low, with the need for targeted training and consistent work to build capacity and develop a stronger appreciation of the importance of engaging women and men equally in the sector. While there is some political will for the integration of gender mainstreaming considerations, most of this is being driven by donor funded programmes. The endorsement of the FSM National Gender Policy in 2018 and the strong advocacy work by women's organisations at the state level provide the impetus for this work, with the recommendations from this assessment expected to result in more sustainable outcomes for the sector.

Recommendation 1: Using the newly endorsed National Gender Policy for FSM as a guide and SPC's Gender and Fisheries Handbook, conduct training in gender mainstreaming for the 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 socio-economic studies to better understand the dynamics of fishing communities, particularly the roles of both men and women in all four states.

Recommendation 4: Agencies within states that have active data collection programmes on market sales should also begin collecting sex-disaggregated data on a regular basis 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 Women's Interests Offices and women's associations at both national and state level. This will support community outreach activities that ensure the active participation, engagement and involvement of women, especially in 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
- need for healthy diets which 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 fishers (men and women) in all four states. Existing rules of 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, with full involvement of women utilising women's group networks, particularly in the Chuuk and Kosrae States, which export substantial volumes of personal marine resources by air to Guam and Hawaii respectively.

Recommendation 7: Promote community-based locally-managed marine 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 also Recommendation 5). Such activities could include monitoring of fisheries, enforcing size limits within their household and community, and supporting existing or developing committees to assist in management activities.

Introduction

Background and rationale

The management and conservation of marine resources in FSM and the support the sector has received has been influenced by the traditional Micronesian understanding of 'fishing' as the capture of fish and solely the domain of men. This strict division of labour in traditional Micronesian society does not consider the collection of seafood from the reefs and mangroves by women and children and the use of hand lines and nets by women, as 'fishing.' As a result, small-scale seafood harvesting, processing and marketing activities by women have generally been overlooked as fisheries activities (Lambeth 2000). Across the Pacific, however, governments have long recognised the significant contribution of women to the fisheries sector and, in 1991, the SPC Women Fisheries Development Section was established at the request of SPC member governments.

The establishment of the section recognised the need to broaden the understanding of 'fisheries and 'fishing' in order to ensure sustainability of the sector and the development of all marine resources and those engaged. Accordingly, this analysis covers all fisheries activities, such as handlining and netting in inshore areas; collecting shellfish and other marine life from the reef mangroves; cleaning, cutting, cooking and preserving seafood; marketing seafood; and all other related activities that involve women, children and men as fishing.

The analysis was managed by SPC's Fisheries Aquaculture Marine and Ecosystems Division for the Pacific European Union Marine Partnership programme and was supported by the SPC Social Development Programme. It was undertaken in partnership with the FSM national government with support from fisheries agencies in all four states of FSM.

PEUMP is a five-year programme managed by the Pacific Community (SPC) with several implementing partners, including the Secretariat of the Pacific Regional Environment Programme, the University of the South Pacific and the Forum Fisheries Agency who have other associated implementing partners.

Methodology

Gender analysis of the fisheries sector in Federated States of Micronesia was informed by an extensive literature review of both gender and fisheries issues in FSM. Visits to all four states were also conducted from the 11 February to 2 March 2019. During this period, one-on-one interviews and focus group discussions were conducted with individuals, representatives of community-based fisheries organisations, and representatives of the four state governments and the national government. A full list of those consulted is attached as Annex 1. SPC's national fisheries counterpart organised the national and state consultations.

Interviews with representatives of state and national government to determine the enabling environment for gender mainstreaming were guided by SPC's gender stocktake methodology, which assessed the five areas of political will, organisational culture, accountability mechanisms, technical capacity, and adequate financing.

Limitations

The analysis was limited by time, given the complex nature of FSM and the uniqueness of the four states, with their differing levels of development and social and cultural norms, as well as the differing ways the local state governments operated. While the team sought to interview as many relevant actors as possible, they recognise that a few days in each state is insufficient to capture the complexity of the fisheries sector. The complexities of the relationship between national and state level government was also apparent during the undertaking.

Country context

Geography

Federated States of Micronesia (FSM) is located in the western Pacific Ocean within the Carolinian Archipelago. The four states consist of 607 islands with a total area of 4,887.5 km² comprising 436 km² of land and 4,451.5 km² of lagoonal systems. Kosrae, the smallest and easternmost state, consists of five islands. Pohnpei consists of the single large island of Pohnpei and 25 smaller islands within a barrier reef, in addition to 137 outer islands, of which the major atolls are Kapingamarangi, Mokil, Ngatik, Nukuoro, and Pingelap. Chuuk includes the large Chuuk lagoon, enclosing 98 islands, and major outer island groups, including Halls, the Mortlocks, Namunweito, and Pattiw Islands. Yap, the westernmost state, consists of four large islands and seven smaller islands surrounded by barrier reefs, in addition to 134 outer islands, of which the largest groups are Satawal, Ulithi, and Woleai. The cumulative FSM coastline distance is 6,112 km. The 200-mile exclusive economic zone of FSM covers a sea area of approximately 1,930,000 km².

Northeast trade winds heavily influence the climate of FSM, with strong trade winds prevailing from December to April and periods of weaker winds and doldrums occurring from May to November. Rainfall is extremely high on the elevated volcanic islands. FSM is affected by storms and typhoons that are generally more severe in the western islands, and by periods of drought and heavy rainfall associated with the El Niño Southern Oscillation. The mean temperature for FSM is 27° C.

History

It is thought that the eastern Caroline Islands were probably settled earlier than the second century. The Portuguese and Spanish reached the Caroline Islands in the 16th century and the Spanish incorporated the archipelago as part of their trading company at the time, the Spanish East Indies. In 1887, the Spanish founded the town of Kolonia in Pohnpei. After the Spanish-American War of 1898, Spain sold their Caroline Islands possession to Germany and Germany governed them in association with their German New Guinea possessions to the south.

Japan occupied the Islands in 1914 after they supported the Allies in World War I and, despite protests from the United States of America, Japan formally received a League of Nations' mandate in 1920 to administer the Caroline and Marshall Islands as part of the South Pacific Mandate.

Following World War II, the islands of the former Japanese mandate were placed under UN trusteeship and became known as the Trust Territories of the Pacific Islands (TTPI) with the USA responsible for their civil administration.

In 1965, the TTPI elected the Congress of Micronesia, endowing it with legislative powers. In 1975, the Northern Marianas voted to become a commonwealth of the USA, known as the Commonwealth of the Northern Marianas Islands.

In 1978, Kosrae, Pohnpei, Chuuk, and Yap were established as a federation. The Marshall Islands and Palau formed republics in 1979 and 1981 respectively. FSM, along with the now Republic of the Marshall Islands voted in popular referendums in 1982 and 1983 for compacts of free association with the USA. Free association, as defined in the compacts, gave full internal self-government and substantial authority in foreign affairs but vested the USA with full responsibility and authority for their defense.

Compacts and trust funds

Under the original compact with FSM, the USA provided economic assistance (including support from various USA government agencies in the form of grants, services, technical assistance, and loans), defense of FSM, and other benefits in exchange for US defense and other operating rights in FSM, including the denial of access to FSM territory by other nations. FSM also benefitted by its citizens having unlimited ability to live and work in USA as non-immigrants and stay for unlimited periods of time.

In 2003, the USA and the FSM reached agreement on an amended compact that provided an estimated USD 2.3 billion for extended economic assistance from 2004 through to 2023. Under the amended compact, annual grant assistance is provided according to an implementation framework with several components. For example, prior to the annual awarding of compact funds, FSM is required to submit a development plan that identifies goals and performance objectives for each sector.

FSM faces a range of economic challenges as it approaches 2023, when financial assistance under the amended compact expires. The immediate challenge is to facilitate and sustain strong private sector growth through the use of its own land and marine resources. It also needs to create an enabling environment conducive to private sector development that can complement Compact Trust Fund resources and sustain FSM financially beyond 2023.

The FSM Congress created a separate FSM Trust Fund in 1999, which the FSM national government has made significant contributions to so as to provide sufficient income after the current compact agreement expires in 2023. The Compact Trust Fund put in place by the FSM Trust Fund will provide greater flexibility come 2024 when funds can be accessed. At the end of 2016, the FSM Trust Fund had a total balance of USD 82.6 million.

Employment and income

In 2016, FSM's annual gross domestic product per capita was nearly USD 3,100 per person. Approximately 40% of all households in FSM receive remittances from family members abroad; with households in Kosrae receiving the most. Economic growth and international competitiveness are severely constrained by FSM's small size, remoteness, geographic isolation and great distances between the four states and to major markets. Associated with these constraints are transportation difficulties and costs, and insufficiently developed institutional capacity and human resources. Infrastructure development is slow; there is a shortage of skilled labour, and weak fiscal discipline.

FSM has a very narrow production base, with subsistence agriculture, fisheries, and the public sectors dominating a large subsistence economy, except in larger towns, where the economy is centered on government employment, accounting for around 50% of all formal employment in FSM. Fewer women than men participate in the formal labour market, with men outnumbering women by almost two to one in waged employment, and fewer women than men receive income from the subsistence economy. The formal commercial sector is small.

In order to create a workforce of the future, education development strategies must focus on:

- the adequacy of resources allocated to schools;
- the quality of the teaching staff;
- the quality of the teaching of mathematics, science, and language at all levels to enhance numerical, technical and communicative skills; and
- the continuous concern for the nation’s customs, moral, and ethical values.

Vocational education and training (VET) schools offer pathways to provide for the qualified workforce needed across all sectors of the FSM economy. Equal access to affordable, high quality VET schools is a target of FSM’s Sustainable Development Goals (SDGs), with an emphasis on substantially increasing the number of youths and adults with the relevant skills for employment, decent jobs and entrepreneurship by 2030.

One key impediment to foreign investment is associated with land ownership, as foreign ownership of land is prohibited. Much of the land in FSM is owned and passed on within the clan structure, leading to conflicting title claims, the need to negotiate leases with multiple parties, and the possibility of dramatic changes when the original senior lessor dies. In 2018, FSM was ranked at 187th out of 190 countries worldwide in the World Bank’s Doing Business Survey.

Demography and population dynamics

Linguists and archaeologists suggest that the Caroline Islands were settled by Lapita peoples from an area between the southeast Solomon Islands and northern Vanuatu (Kirch 2000). The people of FSM are classified as Micronesians of Malayo-Mongoloid origins, although people of the Kapingamarangi and Nukuoro atolls in southwestern Pohnpei are of Polynesian descent. In total, there are nine ethnic Micronesian and Polynesian groups in FSM. Each person, however, is known as Chuukese, Yapese, Kosraean or Pohnpeian, depending on which state they are from.

The population in FSM in 2016 was estimated to be 104,562 people, with slightly fewer women than men (Table 1). Data collected by SPC’s PRISM programme shows that the population of FSM decreased by 1.8% between 2007 and 2014 through out-migration to Guam, Hawaii and the mainland of USA. Additionally, people are moving from remoter atolls and islands to the main islands, where access to services is better and life is generally more amenable.

Table 1: Population of FSM by sex and age in 2016

Age	Males	Females	Total
0	6,109	5,818	11,927
5	5,622	5,439	11,062
10	5,616	5,234	10,851
15	6,030	5,657	11,688
20	5,325	4,885	10,209
25	4,106	3,611	7,717
30	3,602	3,451	7,054
35	3,376	3,118	6,494
40	2,848	2,839	5,687

Age	Males	Females	Total
45	2,555	2,701	5,256
50	2,407	2,379	4,786
55	2,104	2,138	4,242
60	1,729	1,650	3,379
65	1,076	1,051	2,127
70	419	533	951
75+	411	721	1,132
Total	53,336	51,225	104,562

(Data from 2016 Census)

In 2015, the average annual growth rate for FSM was 2.02% per annum. In 2016, FSM had just over half of its population below 25 years of age (Table 2).

Table 2: Age structure in FSM by age group in 2016

Age (years)	Percentage (%)
0-14	32.36
15-24	20.94
25-54	35.38
55-64	7.29
65 and over	4.03

(Data from 2016 Census)

The situation of women in FSM

Gender relations in FSM are shaped by cultural norms and practices that vary greatly across the four states. Women rarely become traditional leaders and tend to defer to men in community affairs. As yet, not one woman has ever filled one of the 14 positions in the FSM National Congress, although there has been some representation of women at national cabinet level and also at the State Congress level.

FSM has one of the highest rates of maternal mortality in the Pacific region, with all four states reporting high teenage pregnancy rates (SPC Stocktake 2012). Until recently, the age of consent in the four states has been 13–16 years of age, with Chuuk recently increasing the age of consent to 18 and Yap State planning to do the same (UPR 2015).

Women's groups in all four states have lobbied extensively over the years for legislation that protects women from domestic violence and marital rape. In their concluding observations to the FSM government, the CEDAW Committee raised concerns about the discriminatory provisions, particularly in relation to sexual offenses against women, in the penal codes and conditions of employment in the labour laws in FSM. Previously, penal codes did not provide for

mandatory prosecution of sexual offences, with bail being made available for defendants in sexual offences cases, even if there was a risk of violence to the survivors. There was also no minimum sentence for sexual offences, and the penal codes stated that customary practices of forgiveness are given due recognition by the court. Since the CEDAW concluding observations were received, Pohnpei passed the Family Protection Act in 2017, addressing some of these concerns, with Yap and Chuuk yet to institute specific legislation that provides for the protection of women against domestic violence and against the concerns raised by the CEDAW Committee. Kosrae passed similar legislation in 2014.

The FSM National Constitution is the supreme law of the land and the constitutions for the four FSM states all have equal protection clauses that guarantee fundamental rights and freedoms upon all of FSM's citizens, regardless of sex, race, ancestry, national origin, language religion, or social status. This same constitution, however, also gives legal status to customary law and community practices that are discriminatory against women (CEDAW 2015). FSM ratified the Convention on the Elimination of All Forms of Discrimination against Women in 2004 and is committed to the 2012 Pacific Leaders' Gender Equality Declaration. In 2018, the FSM Government endorsed the National Gender Policy that builds on the strategic goals for gender equality under the FSM Strategic Development Plan 2004–2023 and consultations with the women of FSM during the National Women's Conference in 2016. The policy has six goals.

- Goal One: Better representation of women in decision making;
- Goal Two: Elimination of gender-based violence;
- Goal Three: Equitable education outcomes;
- Goal Four: Address barriers facing women in the workforce;
- Goal Five: Women have better health care and improved choices over their fertility; and
- Goal Six: FSM and state governments mainstream gender and will support all government agencies to consider the impacts of policies and programs on women and men and boys and girls.

Each of the four states has adopted different ways of providing services to benefit women. Pohnpei and Yap States make provision for the position of a women's interest officer within their government administration to coordinate activities for women and provide strategic guidance to the state on gender issues. Chuuk State relies largely on the activities of the Chuuk Women's Council, which is the umbrella organisation for more than 40 women's groups. Kosrae State provides support to the Kosrae Women's Association, which is also an umbrella organisation that represents the women of Kosrae.

To support gender mainstreaming at a national and state level, the governments of FSM have funded various conferences for women since 2010. The conferences bring women from the four states together to discuss emerging issues and are guided by the commitments made towards development goals (CEDAW 2015).

Gender equality frameworks in FSM

At the national level, the Gender Development Office sits under the Department of Health and Social Affairs with a National Gender Officer looking after all national-related gender issues, as well as other areas, including disability, aged care, youth and children. The Gender Development Officer provides technical assistance to government sectors at the national level to implement sectoral commitments to gender equality and to also assist state level implementation when requested. The Gender Development Office was instrumental in working with partners, particularly SPC, in the development of the National Gender Policy that was endorsed by the President's Office in 2018.

In terms of gender mainstreaming across various government agencies, slow progress has been made. The slow uptake of gender mainstreaming has been attributed to the traditional roles of women as carers and nurturers and not visible in the formal economy or decision-making arena. This, however, is changing with time, with a growing commitment to include women. There are different levels of understanding of gender equality, with a passive ignorance within communities and, according to national officials within the Department of Social Affairs, 'no conscious intent to exclude or aggressive attempt to include' women.

While there is political will at the national level, there is, in general, not enough action. Gender sensitisation has been done in FSM with assistance provided by the NGO sector, but there is room to do more, combined with adequate allocation of resources. Technical capacity is limited, and there is a need for more people with appropriate skills and abilities to conduct gender mainstreaming within sectors.

In the Department of Health and Social Services, the Secretary (equivalent to a ministerial portfolio) is a woman, whose Assistant Secretary for Health is a man. The Program Manager responsible for gender, disability, youth and the aged is a woman. The position of Assistant Secretary for Social Services is still vacant, with resources needed to fund the position. The fact that the position is not prioritised for funding could be interpreted as a lack of political will from the national government.

Gender analysis of the fisheries sector

A gender and fisheries assessment conducted by SPC in all four states in 1999–2000 noted the vital role that women play in the fisheries sector in FSM. On Kosrae, women have traditionally been regular providers of seafood for the family, through netting, handlining and reef gleaning activities (Lambeth 2000s). Men's contribution was mainly in catching those species that required fishing beyond the reef in boats or in diving or spearfishing. In Yap, fishing is not considered as such an important activity for women, but women are involved in many aspects of fisheries from gleaning, processing and marketing (Lambeth and Santiago 2000a). This is similar to Chuuk and Pohnpei, where women tend to be more involved in the collection of shellfish and other invertebrates as an important subsistence activity, rather than fishing beyond the reef (Lambeth 2000b). In Chuuk, women also undertake a significant amount of inshore fishing (Lambeth and Santiago 2000a). Kronen et al. (2009) surveyed four locations, two in Yap State and two in Chuuk State and estimated that, in Yap, 20% of fishers were women and in Chuuk 32% were women.

Eighteen years later, women in FSM are still active players in the fisheries sector, with some notable shifts of women going out with their husbands when they go night fishing in Kosrae and Yap. This has been attributed to better boats and also mobile phones, so there are fewer risks involved in going out fishing at night and it is safer for women. In Chuuk, there are significant differences in fishing practices by women who live in the lagoon area and those who live on the outer islands, but this needs to be explored further in a more detailed study. According to those who were interviewed, the gender roles are very different in the outer islands, where women do a lot of the work. Also in Chuuk, the fisheries officials noted an increase in the number of women now managing the marketing and selling of fish, which was attributed to women being better managers of financial resources. In Kosrae, many women have no choice but to accompany their husbands or to fish for their livelihood, as the youth or the men now work in Guam and Honolulu.

Formal employment in the FSM fisheries sector is very limited, with only about 250 people working for wages, the majority of these being men. Overall, less than 2% of all wages earned is from formal fisheries-related employment. Women, however, stand to benefit from plans by the government to support the development of tuna-loining plants in Pohnpei and Kosrae States. Da Yang Seafood, Inc. currently operates four purse-seine vessels within FSM's EEZ and

recently signed a 40-year lease with the Kosrae State Government to establish a tuna-loining plant and cold storage facility, which is expected to employ hundreds of people. Similarly, FSM Seafood's Inc., which is a joint venture of Frabelle (Philippines), Silla (Korea), and Caroline Fisheries Corporation (FSM) has established a tuna-loining processing plant in Pohnpei, with an expected 800 jobs to be made available. As evident in the tuna-processing sector across the Pacific, the majority of these jobs will be taken by women.

Once expanded port infrastructure and modernised logistical arrangements are in place, it is thought that there will be considerable potential for development of a domestic long-line fishery, providing a greater opportunity for job creation in the formal fisheries sector of FSM. There is concern, however, regarding the availability of workers. Should these plans eventuate, there is a need to ensure that women who are employed in the sector are treated fairly and not exploited by the industry.

Unfortunately, quantifying gender participation in the fisheries sector of FSM is difficult. This qualitative assessment does, however, suggest that women in FSM do play a significant role in the sector. Women contribute to socio-economic well-being at the household level and in the wider economy, where most visibly they often either fish themselves to feed the family, access fish through their social network, or buy fish to supplement the family's nutritional needs. Women also sell fish on the roadside or at local markets, and they sell fish as a value-added product, such as fried fish lunch packs on the roadside or at local markets. Nonetheless, women tend to earn less or are relegated to minor roles in fisheries. No consideration is given to integrating them into planning and decision-making processes, or providing them with formal access to the larger commercial fishing sector based around tuna. Such an attitude compromises overall fisheries and social well-being, as in some cases women are better champions for transparency, conflict management, and inclusive participation in fisheries (Teh et al. 2019).

There is a clear customary delineation of fishing roles and activities between men and women across FSM. Women generally fish in the inshore reef waters, between the outer reef and the shoreline, including rivers and mangrove areas. They use a wide range of fishing techniques and fishing gear (e.g. reef gleaning, handling/rod and reel, gill and cast nets), targeting a wide range of finfish and vertebrates, particularly sea cucumbers for their intestines.

Men traditionally fish outside the reef for pelagic finfish species using trolling and, in some cases, drop-stoning on the outer reef slope. Men also target finfish and invertebrates (e.g. clams, gastropods) using a wide range of fishing techniques and gear (e.g. hand lining, rod and reel, spearfishing, hand collection).

There is a need for a more systematic gathering of data from all fishers across FSM to be able to clearly quantify gender participation in the sector. From interviews conducted during this assessment, the engagement of women in fishing varies from community to community and even from family to family within communities. However, there is still a need to systematically gather data from those engaged in fishing and value-added activities to ensure that they can be provided with the relevant support.

Gender and subsistence fishing

In the 2016 Census, there was a total of 15,544 households across FSM, with just over half of all households engaged in fishing activities (Table 3). The average household size across all four states was 6.72 people per household.

Table 3: Households involved in fishing in FSM by state in 2016

Households	Yap	Chuuk	Pohnpei	Kosrae	Total
Did fishing	1,378	4,222	2,434	474	8,508
Did no fishing	901	2,001	3,571	563	7,036
Total	2,279	6,223	6,005	1,037	15,544

(Data from 2016 Census)

Coastal fishers target a wide range of finfish and invertebrate resources using multiple fishing techniques and gear for subsistence and small-scale commercial activities. Fishers target both reef-associated and nearshore pelagic resources. Both men and women are involved in various aspects of fishing throughout the nation, with specific roles based on traditional and cultural aspects of the states and communities. Of all households engaged in fishing across the four states in 2016, spear-fishing was the most common, followed by fishing with a line, either bottom fishing, handline or using poles; and trolling (Table 4). Rhodes et al. (2008) determined that in Pohnpei State, just over 65 % of all fishers target lagoon locations, while the remainder fish the outer reefs or a combination of both, with spear-fishing accounting for 71.3% of the catch, followed by line (24.3%), net (4.2%) or a combination of gear (0.3%).

Table 4: Types of fishing by households in FSM by state in 2016

Fishing type	Yap	Chuuk	Pohnpei	Kosrae	Total
Spear-fishing	1,050	3,071	1,577	107	5,805
Bottom fishing (including drop stone)	633	2,335	825	146	3,939
Trolling	634	1,728	759	176	3,297
Fishing (handline and pole)	403	1,443	1,105	176	3,127
Cast netting	380	1,475	786	145	2,786
Gleaning	181	876	364	130	1,551
Traps, weirs and nets	261	774	386	128	1,549
Poisons and dynamite	5	92	147	33	277
Other	1	49	48	17	115

(Data from 2016 Census)

Some very destructive methods of fishing also occur, but fortunately rarely. Dynamite fishing is practised in Chuuk State, and poison is reported elsewhere, despite these fishing practices being banned in national and state legislation. In Chuuk, the Department of Fisheries has partnered with the Chuuk Women's Council (CWC) to create awareness in communities about the dangers of dynamite fishing and have reported a decrease in reported cases with increased awareness. The Department recognised the CWC as a suitable partner for this activity, due to their extensive network across the outer islands of Chuuk.

It is difficult to obtain accurate estimates of coastal fisheries production for FSM. Previous estimates suggest that possibly around 12,600 mt are fished, gleaned and harvested annually (Table 5). In 2014, Gillett (2016) using data from the 2013–2014 Household Income and Expenditure Survey (HIES) estimated annual production of 5,280 mt (Table 5).

Table 5: Estimates of commercial and subsistence fisheries in FSM (mt)

Year	Commercial	Subsistence	Total	Source
Early 1990s	637	6,243	6,880	Dalzell et al. (1996)
Late 1990s	5,000	5,000	10,000	Gillett and Lightfoot (2001)
Mid 2000s	2,800	9,800	12,600	Gillett (2009)
2014	1,725	3,555	5,280	Gillett (2016)

(Data from 2016 Census)

In the late 2000s, Hopkins and Rhodes (2010) and Rhodes et al. (2011) indicated that, in Pohnpei State, approximately 725 mt of finfish were being taken off the reefs surrounding Pohnpei, with about two-thirds of this being coral reef fish caught for commercial purposes. Rhodes et al. (2015) estimated that Pohnpei and its surrounding atolls had a finfish yield of about 4,068 mt per year. This would suggest that a sixth of all finfish in Pohnpei is harvested annually. Rhodes et al. (2011) also noted that around 60 mt of coral reef fish were marketed in Yap State annually. Cueto-Bueno (2014) suggests that about 453 mt of coral reef fish were caught for commercial purposes in Chuuk lagoon each year, with approximately half being sold at Weno's urban markets and the other half being exported to Guam. Using extrapolations from the 2013–2014 HIES, Gillett (2016) estimates that, for all of FSM, 1,166 mt of tuna and other pelagics were caught, 3,414 mt of coral reef fish were caught and 274 mt of invertebrates were gleaned or harvested, making a total of 4,854 mt of marine resources caught, gleaned or harvested.

Results from the 2013–2014 HIES showed that, for all households in Kosrae, Chuuk and Yap States, fishing was the highest income earner, whilst in Pohnpei State it was ranked fourth, with the production and sale of sakau being the number one income earner.

The main targeted marine species by household across the four states in 2016 was coral reef fish (Table 6), which concurs with the type of fishing gear used, as identified in Table 4. Octopus and squid were also heavily exploited. Tuna and other pelagic fish were next, followed by crustaceans (crabs and lobsters). On Pohnpei, fishers have been reported to go fishing an average of 1.8 days per week (Hopkins and Rhodes 2010).

Table 6: Species targeted by households in FSM by state in 2016

Species	Yap	Chuuk	Pohnpei	Kosrae	Total
Coral reef fish	1,251	3,203	1,994	351	6,799
Octopus and squid	650	3,155	515	28	4,348
Tuna and other pelagic fish	629	1,577	709	144	3,059
Crabs	439	1,831	653	85	3,008
Lobster	604	1,756	436	54	2,850
Turtles	408	1,348	421	33	2,210
Shellfish	351	1,365	355	15	2,086
Ornamental fish	332	1,206	293	47	1,878
Sea cucumbers	32	927	256	22	1,237
Fresh water fish species	4	59	130	39	232
Sea urchins	15	95	22	2	134
Coral (dead) for lime production	18	41	26	0	85
Coral (live)	4	35	19	1	59
Other	2	10	8	1	21

(Data from 2016 Census)

In general, it is thought that there has been a large decline in recent years in accessible fisheries resources in FSM (Kostka and Gavitt 2006; Rhodes and Tupper 2007, Burgoin and Joseph 2008; Rhodes et al. 2008; Hopkins and Rhodes, 2010; Cuetos-Bueno 2014; Rhodes et al. 2015, 2018). This is particularly apparent for resources that have a high economic value (e.g. sea cucumbers, mangrove crabs), preferred food fish (e.g. rabbit fish, bump-head parrotfish, hump-head wrasse, grouper) and those species that can be easily targeted by specific fishing methods (e.g. parrotfish by nighttime spearing, juvenile species on the reef flats using gill nets and/or targeting fish spawning aggregation sites).

On Pohnpei, the Madelonimw Municipality had the highest percentage of households with fishers (88%), followed by Uh (69%), Sokehs (68%), Nett (64 %) and Kitti (62%). Kolonia Town had only 39% of households with fishers. Similarly, Madelonimhw and Uh had the highest percentage of female fishers (11–13%), whereas Sokehs had the lowest (3%) (Hopkins and Rhodes 2010). On average, around 26 kg of coral reef fish were caught per week by fishers in all of Pohnpei’s municipalities, with fishers in Uh Municipality on average catching around 36 kg per person and around 25 kg per person in Madelonimw Municipality (Hopkins and Rhodes 2010). Rhodes et al. (2008) found that about 40% of all fishers on Pohnpei sold 25% of their catch, 60% was for home consumption and 15% was distributed to other kin and friends. This is consistent with the findings of this assessment.

In the four states, the majority of marine resources caught, gleaned or harvested by people aged over 15 years of age was utilised for home consumption in 2016. Hopkins and Rhodes (2010) noted that, in the late 2000s for Pohnpei, roughly equal amounts of coral reef fish were obtained by being caught (27%), bought (35%) or given (33%). Fish for home consumption, once caught, was usually put on ice in a small cooler and returned to the home. On short trips, or fishing without a boat, no ice is used, and the fish is consumed soon after it is taken home. Women who fish tend to keep their catch for home consumption but, if the catch is larger than what can be consumed by the family group, it is sold or, more often, given away.

Table 7: Use of catch by population over 15 years of age in FSM by state in 2016

Use	Yap	Chuuk	Pohnpei	Kosrae	Total
Home consumption only	4,470	12,557	4,017	546	21,590
Mainly home consumption	167	2,323	924	149	3,563
Mainly for church activity use	82	1,248	729	109	2,168
Mainly or only for sale	13	447	158	12	630
Other	7	32	10	7	56

(Data from 2016 Census)

Gender and marketing

The main place to sell was to fish markets, followed by direct sales to consumers (Table 8). Marketing of the fresh catch was generally done by the fishers themselves or their wives or other household members, either directly from the landing place or from a central landing place where buyers come to purchase the catch. Fishers may also sell the fish to a retailer. In all states, there are many small markets and outlets selling fish. In general, these are regarded as unhygienic and consequently there is contamination of fish and other marine resources on sale. For example, Lindsay et al. (2018) found that fish in Pohnpei fish markets had on average temperatures between 13.8° C and 22.2° C, with some fish having temperatures up to 26.6 ° C. Levels of bacteria, especially *E. coli* and *Vibrio sp.* were found on fish and display tables in all sampled markets.

Interviews with a restaurant owner in Pohnpei confirmed that restaurant owners in general deal directly with the fishers and place orders, which are delivered directly to the restaurant. Most markets in FSM are privately owned.

Table 8: Catch sold by households in FSM by state in 2016

Sold to	Yap	Chuuk	Pohnpei	Kosrae	Total
Public market	2,922	1,631	1,081	129	5,763
Direct to consumer	2,452	1,964	330	95	4,841
Local shop	759	281	345	39	1,424
Restaurant / hotel	175	105	38	7	325
Other (obs)	110	69	27	8	214

(Data from 2016 Census)

Fish prices (Table 9) in the four states have remained relatively unchanged in the past five years and have not kept pace with the cost of imported commodities, particularly fuel. There is some division of fish pricing based on desirability of certain species by the consumer and by size, however these are relatively minor variances.

Table 9: Fish prices for FSM states

State	Retail price (USD/lb)	Fisher price (USD/lb)
Kosrae	1.75–2.75	1.15–2.25
Pohnpei	1.65–1.75	1.25–1.45
Chuuk	1.65–1.75	1.25–1.45
Yap	1.15–1.25	1.00

(Data from 2016 Census)

For informal exports by air from Chuuk or Kosrae States, fish is bought either directly from a fisher, or from a retail fish outlet. This fish is then returned to the purchaser's home and frozen in plastic bags in a domestic freezer, packed in insulated boxes and taken to the airport, where it forms part of the accompanied baggage of a passenger. There is no quality control at any stage. Large volumes of mangrove crabs are also reported to be regularly exported.

Gender and aquaculture

Aquaculture has been promoted in FSM for some 35 years, receiving numerous technical and development assistance from various national institutions (e.g. the College of Micronesia, and the previously Catholic-supported Pohnpei Agricultural Training School), international institutions and agencies (e.g. the University of Hawaii's Center for Tropical and Sub-Tropical Aquaculture, the Japan Overseas Cooperation Volunteers, the Pacific Community, and the UN Food and Agriculture Organization), and non-governmental organisations (e.g. the Conservation Society of Pohnpei and The Nature Conservancy). This focus has resulted in numerous projects, reports and reviews, some of which emphasise (over-optimistically) the potential of specific forms of aquaculture for development, usually as a 'tool' to encourage wider reef awareness and management, and as an economic incentive for conservation. Amos et al. (2014) indicate that FSM aquaculture activities consist of corals, giant clams, sponges, black-lip pearl oysters, sandfish and a small amount of seaweed. Overall, there are very few households across FSM that reported doing aquaculture in 2016 (Table 10).

Table 10: Households involved in aquaculture in FSM by state in 2016

Households	Yap	Chuuk	Pohnpei	Kosrae	Total
Did aquaculture	69	186	222	22	499
Did no aquaculture	2,210	6,037	5,783	1,015	15,045
Total	2,279	6,223	6,005	1,037	15,544

(Data from 2016 Census)

Of all households that reported doing aquaculture in 2016 in FSM, giant clams were the main commodities farmed (Table 11). Two varieties of sponges (*Cosinoderma matthewsi* and *Spongia matamata*) are now grown under extension activities supported by the Marine Environmental Research Institute of Pohnpei (MERIP), with *Cosinoderma matthewsi* being the predominant species grown. Sponge culture does have some merit as a supplementary income activity for the people of Pohnpei (Adams et al. 1995; Neitsen and Gjertsen 2010). Coral farming has been more successful than sponge farming in Pohnpei. MERIP currently supports both soft and hard coral farmers to produce these for exports and currently supplies the Micronesian Management and Marketing Enterprises MMME in Kosrae. It uses the facilities of the National Aquaculture Centre under a lease arrangement. It also supplies the Marshall Islands Mariculture Farm in Majuro with farmed corals. MMME in Kosrae is the main producer of giant clams from FSM. In Yap, there is currently a small aquaculture project based on farming the sea cucumber species, sandfish. The USA Land Grant programme supports this project with technical support from the University of Guam.

Table 11: Species aquacultured by households in FSM by state in 2016

Species	Yap	Chuuk	Pohnpei	Kosrae	Total
Giant clams	62	127	118	6	313
Sea cucumbers	4	73	49	7	133
Trochus	36	29	16	4	85
Sponges and soft corals	1	30	27	4	62
Seaweed	2	49	8	0	59
Hard corals	1	33	24	0	58
Finfish	2	31	9	6	48
Black pearls	1	31	12	1	45
Ornamental corals	1	34	10	0	45
Crabs	1	23	8	2	34
Freshwater species	0	14	19	1	34
Other	0	10	5	2	17

(Data from 2016 Census)

Farmers in general exhibit a lack of commitment and motivation to participate in aquaculture activities, particularly when more viable and lucrative economic options arise (e.g. fishing, and the recent opening of the trochus fishery). People are accustomed to being paid for the time they work, or for products that are more quickly harvested (e.g. fish) or more predictable (e.g. crops, *sakau* in particular). Despite increasing evidence of depleting fish stocks and other current livelihood options, the harvesting of wild species and use of them for food or domestic and export sales remains immediately available, compared to the growing period needed for farmed sponges and corals.

Gender and aquaculture studies done in Samoa and Fiji identified the significant roles played by women in the maintenance of the aquaculture activities but these roles were undervalued by the women themselves and also by fisheries officials. This assessment in FSM was unable to gather specific data on women's involvement in the sector, but it will be part of the systematic data gathering activity recommended.

Gender and food security

Across FSM, the traditional diet was once reliant on locally grown carbohydrate staples, rich in vitamins, minerals and fibre, along with fish and seafood. Culture change, including availability, affordability, convenience and status of food items, all affect decisions on what type of food is consumed in the household (Keating 2000; Hezel 2001). Although bananas and breadfruit remain important, imported foods have taken on greater status value, replacing other food products that once marked status in the community. There has been a shift from local foods to energy-dense, imported food with low nutritional value, such as white rice and foods high in fat, salt and sugar. These include turkey tails, chicken and canned meat products, soft drinks and other processed foods. This shift and the increasingly sedentary lifestyle are expediting health issues amongst the Pohnpei population, with over 80% of Pohnpei's population in the 35–55 year-old age group estimated to be overweight or obese and at risk of developing lifestyle diseases (Enhelberger et al. 2003; Corsi et al. 2008). There is also an expected rise in diabetes in the next quarter century, with half of the population of FSM expected to suffer from diabetes, causing increased premature deaths (Corsi et al. 2008).

Previous estimates of annual per capita consumption of marine resources in FSM have ranged between 72 kg and 114 kg per person per year (Gillett 2009, 2016). Gillett (2009) estimated that the consumption of all fisheries products, including imported products, as well as leakage from tuna transshipment operations in the mid-2000s, was 142 kg per person per year. Bell et al. (2009) using data from 2001 and 2006 HIES, estimated that the annual per capita fish consumption (whole weight equivalent) was 69.3 kg for FSM, of which 92% was fresh fish. For rural areas, the figure for per capita consumption of fish was 76.8 kg, and for urban areas it was 67.3 kg. Vali et al. (2014) estimated a per capita subsistence catch rate of 90.71 kg per person per year. Gillett (2016) suggested an annual per capita consumption of domestic coastal fishery products of 49.9 kg. Kronen et al. (2009) indicate that the average annual per capita consumption of fresh fish at the four sites surveyed in Yap and Chuuk was about 63 kg.

In nutrition surveys conducted by Corsi et al. (2008), locally caught fish and seafood were reportedly eaten by 79 % of all respondents on average 4.8 days per week. This was twice as frequently (2.4 days per week) as the 41% reported consumption of imported canned fish and seafood (Corsi et al. 2008). Hopkins and Rhodes (2010) previously estimated per capita coral reef fish consumption levels of 17–20 kg per person per year. Rhodes et al. (2015) provide information on fish consumption on Pohnpei, which he expressed as edible amounts (i.e. food actually consumed as opposed to whole weight equivalent) in the above studies and estimated that the annual per capita consumption of reef fish, pelagic fish and non-fresh fish on Pohnpei ranged from 94–126 kg per person per year. This consumption rate, however, does not consider imported fishery products, local sales of tuna from locally based offshore fishing, or leakage from tuna transshipment operations.

Policy, legislative and institutional context

FSM Strategic Development Plan

The FSM Strategic Development Plan notes that FSM has vast marine resources, particularly with regard to tuna and other pelagic fisheries. In the early 1990s, in an attempt to develop the economy, FSM embarked on a strategy of substantial public sector investment in fisheries facilities and enterprises. None of these public sector fisheries enterprises achieved profitability and, in most cases, the operations became either defunct or operated at a loss. The main benefit of tuna resources has been the annual rents earned from fishing access fees, which make a substantial contribution to government revenues.

Under the fisheries sector of the FSM Strategic Development Plan, Strategic Goal 2 calls for appropriate management of coastal marine resources. There have been problems with meeting this goal because of the decline in fishing success caused by increasing subsistence and commercial harvesting and the demise of traditional management over the last few decades. Strategic Goal 3 calls for coastal marine resources to be effectively exploited to meet subsistence and artisanal needs. Strategic Goal 4 is intended to ensure that FSM's tuna and other pelagic fisheries are managed with best practice methodologies to ensure harvest levels remain within sustainable parameters. This is the responsibility of the National Oceanic Resource Management Authority (NORMA). Strategic Goal 5 for the sector is for oceanic resources to be exploited in a manner that ensures optimum economic benefit to FSM. This is the responsibility both of NORMA and the National Fisheries Corporation.

A fisheries investment policy is under development. It will provide fisheries investors with guidance on areas of potential investment within the formal fisheries sector of FSM. A USD 15 million World Bank-funded maritime investment project is also under preparation, which will focus on improving maritime infrastructure including, replacing and upgrading navigational aids to improve safety at sea.

Legislation

The key legislative challenges for coastal fisheries and aquaculture management include:

- a fragmented legal framework, which reflects the numerous government agencies involved in coastal fisheries and aquaculture management;
- lack of regulations for the implementation of the main acts;
- problematic access to legal texts in force (e.g. it is difficult for officers to find the most recent version of all the laws relevant to coastal fisheries and aquaculture); and
- weak enforcement, mainly due to lack of capacity for monitoring, control and surveillance (MCS).

From an institutional point of view, there are two main challenges. The first relates to the number of government agencies with overlapping mandates and responsibilities in coastal fisheries management, as defined in their respective legislation. The second institutional challenge is that, in FSM, coastal fisheries management is carried out at national, state and local/municipal government levels, as well as at community level. Having four different levels of governance adds significant complexity to fisheries management and development and requires strong coordination. From a gender mainstreaming perspective, however, the management of coastal fisheries at a community level provides an entry point for stronger engagement and visibility of organised women's groups in each state.

Fisheries resources management in coastal waters (this includes territorial seas and internal waters) are under the responsibility of states, and the national government has a role of coordination. Municipalities do not have jurisdiction over adjacent waters but most communities are involved in coastal fisheries management. In the Chuuk and Yap States, coastal communities claim customary marine tenure over the reef and coastal waters.

Coastal and nearshore marine and fisheries resource use is comprised mostly of coastal fisheries (those taking place in mangroves, reef areas, and lagoons), nearshore fisheries for large pelagic species (including tunas) and bottom fisheries (for snappers, groupers and other demersal species). Women are more involved in gleaning activities on reef flats and in the mangroves (Lambeth 2000).

Fisheries in FSM can be categorised into three subsectors:

- subsistence fishing (mostly for home consumption and employment is informal);
- local-based commercial fishing (coastal and offshore); and
- foreign-based offshore fishing.

While the first two subsectors contribute approximately 10% to FSM's gross domestic product (GDP), foreign-based offshore fishing contributes to the economy by way of fishing license fees paid to the national government. Foreign-based vessels fishing in the exclusive economic zone, mostly from China, Japan, South Korea, Taiwan and USA, pay fishing licenses to the national government. These fees are determined by the 1982 Palau Arrangement of the Parties to the Nauru Agreement. Under the Palau Arrangement, fishing companies pay a flat fee per vessel called the Vessel Day Scheme. In the 2016 financial year, revenue from fishing license fees was worth USD 63.4 million, accounting for 19% of FSM's GDP and over 45% of national government revenue.

Organisations involved in the fisheries sector

National Oceanic Resources Management Authority

The National Oceanic Resources Management Authority (NORMA) obtains its mandate from the 2002 Fisheries Act (Title 24) to develop and manage the marine resources within FSM's economic exclusive zone from 12 nautical miles to 200 nautical miles. This mandate, however, relates to the oceanic fisheries sector and not coastal fisheries. NORMA has three divisions:

- the Management and Development Division, with responsibilities for implementing fishing agreements and day-to-day operational finance and administrative tasks;
- the Research Division, with responsibilities for management of the National Fisheries Observer Program (NFOP); and
- the Statistics, Compliance, and Technical Projects Division, with responsibilities for recording and reporting catch and effort data, as well as other fisheries-related statistical data, including catch documentation and validation, trans-shipments, zone notifications and vessel control.

NORMA staff reported that no formal mechanisms for gender mainstreaming were in place but they have plans to institute a sexual harassment policy, following an incident in the office.

Table 12: Enabling environment factors in the Ministry of Fisheries and Marine Resources

Political will	NORMA does not currently have a gender policy, plan or strategy
	There is some commitment within the Human Resources Division to institute a sexual harassment policy, following an incident
Organisational culture	NORMA has a number of women in senior positions in the organisation, with this perceived as progress in gender mainstreaming
	Interviews identified a willingness to mainstream gender but a lack of understanding as to how this could be done
Accountability mechanisms	None exist
Technical capacity	Limited awareness of gender concepts and technical aspects of analysis
Adequate financing	There is no clear allocation of financing to gender mainstreaming within the organisation

FSM Department of Resources and Development

The FSM Department of Resources and Development (DRD) is one of seven national departments. It has the responsibility of supporting and managing the development of the nation's economy and utilisation of its natural resources in a sustainable manner, while being in line with the applicable provisions of the nation's Strategic Development Plan (SDP). The DRD is also responsible for assisting the four states to develop their economies by focusing on the four priority sectors of agriculture, energy, fisheries and tourism. Despite the lack of a specific FSM coastal fisheries sector strategy, the development and management of FSM's coastal fisheries sector sits within DRD's Division of Resource Management and Development (DRMD). The role of DRMD is to support the state fisheries agencies because DRMD has the powers and duties under the jurisdiction over territorial seas, which extend from the high water mark to 12 nautical miles, as well as to manage the activities of international partners, such as SPC and Japan's Overseas Fishery Cooperation Foundation (OFCF). In FSM, the OFCF provides technical transfer and capacity building through repair and restoration of fishery-related facilities in each of the four states. OFCF also provides training opportunities, in particular, training in post-harvest processes.

The DRD has a statistics division that is responsible for collection of national statistics, including fisheries and general economic indicators, as well as the national census. The Investment and Trade Division of DRD does not place any emphasis on coastal fisheries. Transportation costs, lack of freight space, stringent quarantine and certification requirements, inadequate processing plants, inadequate offloading facilities, improper ice-plants and lack of funds are all recognised as challenges for improving the fisheries infrastructure as constraints to development of the coastal fisheries sector. Aquaculture is seen as having some potential but after at least 30 years of investment and technical support, there is only one commercial aquaculture enterprise located in the Kosrae State.

In DRD, there is an equal number of men and women who work under the guidance of two male managers and one woman assistant secretary. The department secretary is also male.

Table 13: Enabling environment factors in the Department of Resources and Development

Political will	The secretary acknowledges the need for gender mainstreaming to be done in a more institutionalised form
Organisational culture	Gender balance in terms of numbers of men and women within the department Gender mainstreaming is required with donor-funded projects they implement, so there is some recognition of its importance and some commitment to do gender mainstreaming
Accountability mechanisms	Gender mainstreaming is a requirement in donor-funded projects (e.g. the World Bank funded project, Ridge to Reef) so gathering sex disaggregated data is mainly done by those involved in projects. It is not done systematically across the department,
Technical capacity	There is some capacity based on work with donor-funded projects but there is a need for more training in gender analysis and mainstreaming
Adequate resourcing	Donor funds support mainstreaming work through donor-funded projects

FSM Department of Environment, Climate Change and Emergency Management

The FSM Department of Environment, Climate Change and Emergency Management (DECCEM) does not have direct responsibility for activities related to coastal fisheries, but it does support activities that involve coastal fisheries sustainability issues, such as the Ridge to Reef project (R2R). The R2R Coordinator sits within DECCEM whilst the Technical Advisor is based in the Department of Resources and Development (DRD). The overall goal of the R2R project is to maintain and enhance ecosystem goods and services through integrated approaches to land, water, forest, biodiversity, sustainable livelihoods and climate resilience.

Within DECCEM and DRD, gender mainstreaming is built into project documents implemented with intergovernmental and UN organisations, but capacity for implementation is low. Implementation and the engagement with women’s groups are often dependent on the capacity of the programme manager or the person responsible for implementation.

There is recognition that the engagement with women and women’s groups is taking place, but the reporting against gender mainstreaming is weak. Setting up marine protected areas requires the involvement of whole communities, with women fulfilling an important role in sustaining these areas and also in advocating for sustainable fishing practices within communities.

DRD recognises that, where community conservation officers are engaged by a process of consultation with the local government and with communities, there is a stronger likelihood of sustainability of marine protected areas. Both DECCEM and DRD are working to improve on data collection disaggregated by sex when conducting community meetings and also when gathering baseline data for projects in the states. Data on the effect of projects and programmes on men and women, boys and girls are scarce. Consultations conducted in communities are dependent on the subject of the consultation, usually engaging men and women together.

The endorsement of the National Gender Policy in 2018 is expected to lead to a more strategic way of implementing gender mainstreaming across FSM with the introduction of performance-based budgeting to be linked to specific gender mainstreaming activities that can be budgeted for.

National Development Bank

The National Development Bank (NDB) has a very small loan portfolio for development of the coastal fisheries sector, which is lumped under agriculture. These two sectors make up less than 5% of all loans. There appears to be limited demand for loans from the NDB, with many small-scale fisheries activities being supported by informal lending

from family members or from savings. High interest rates from the NDB, as well as other commercial banks, also act as a disincentive to borrow money for fisheries-related equipment. Smaller loans are sometimes obtained from moneylenders, but also incur high interest rates and are thus paid back quickly. These loans are used to fund specific fishing trips and to purchase fuel, fishing equipment, food and stimulants, or they are used to do maintenance on fishing assets, particularly outboard engines. No data could be obtained on women seeking assistance for agriculture or fisheries initiatives.

National Fisheries Corporation

The National Fisheries Corporation (NFC) is a state-owned enterprise, whose purpose is to develop and promote a profitable and long-term commercial fishery in FSM. Five fishing companies are currently incorporated in FSM. Two of these are relatively small and domestically owned, another two are joint ventures (each with 75% owned by Japanese companies), and one is a Chinese flagged company. NFC employs women in the office as administration and finance staff, with the crew of the fishing vessels being men. Twenty-five per cent of these come from FSM Maritime Training College, which serves as an entry point for training on sexual harassment and domestic violence, etc. This provides an opportunity to reach all future fisheries and marine professionals; they will come through the training college where issues specific to seafarer communities that have a negative impact on women and girls are addressed.

Micronesian Conservation Trust

The Micronesian Conservation Trust (MCT) is a regional organisation established to address climate resilience, improve protected areas management, and support environmental conservation and sustainable livelihoods under what is called the Micronesia Challenge. In FSM, MCT also acts as umbrella organisation supporting various state-based non-governmental organisations (NGOs), such as those listed below.

- Kosrae Conservation and Safety Organization;
- Conservation Society of Pohnpei;
- Chuuk Conservation Society; and
- Yap Community Action Program.

When dealing directly with the community, the NGOs consult both men and women together in one meeting room, rarely separating the women from the men for the purposes of the consultation. Based on informant feedback, there is awareness that women would be more vocal if the men were not present, but there is no conscious commitment to practise this approach in all community consultations.

The Nature Conservancy

The Nature Conservancy is an international NGO that works with governments, local organisations and communities to:

- establish new protected areas and enhance national marine and terrestrial protected area networks;
- develop tools and management approaches to sustain fisheries; and
- address the impacts of climate change, such as sea-level rise and coral bleaching.

Land Grant

Land Grant is a federal programme of the USA government and has close ties with the Universities of Guam and Hawaii. It works in FSM through the College of Micronesia which provides extension services in a large number of

sectors, including aquaculture such as:

- sea cucumber farming in Yap; and
- mangrove crab farming in Pohnpei.

College of Micronesia

The College of Micronesia has its main campus on Pohnpei with smaller campuses in each of the four states. The main fisheries-related course is a two-year Marine Studies programme, which is conducted at the Pohnpei main campus. The programme provides a solid foundation for students interested in pursuing higher degrees at overseas universities.

FSM Fisheries and Maritime Institute

FSM Fisheries and Maritime Institute is located on Yap and offers three majors over a two-year programme. These majors include:

- navigation;
- marine engineering; and
- fishing technology.

FSM state governments' capacity to mainstream gender

Pohnpei

At an institutional level, the commitment to gender mainstreaming in Pohnpei State can be considered medium to high, given the allocation of resources for the position of Women's Interest Officer (WIO) in the Division of Social Services. There are five staff in the division. Two of these are women: the Women's Interest Officer and the Mental Health Officer. The other three positions are held by men: the Youth Coordinator, the Disability Coordinator and the Health Division Director.

Working across sectors, the WIO is invited to attend meetings on climate change, the R2R project, the human trafficking task force and others. She is presently assisted by a woman from the Australian Volunteers International programme.

The WIO works closely with the Pohnpei Women's Council and their associated women's associations. There are several challenges for the WIO in working with the Pohnpei Women's Council. There is a lack of interest in attending meetings considered irrelevant, and the women who do attend meetings expect to be paid. Additional difficulties involve decision-making, as a majority of members is required for this and, unfortunately, this rarely happens.

While the office of the WIO has focused most of its recent attention on domestic violence issues, following the passing of the Pohnpei Family Protection Act in 2017, the WIO is responsible for implementing the commitments reflected in the National Gender Policy at the state level. Technical capacity to implement the policy at this level is limited. The WIO is currently working on the development of a specific Pohnpei State gender policy to mirror the commitments made in the national policy at state level.

At present, there has been no training on gender mainstreaming offered at state level. The WIO attended a 'women

in fisheries' training offered by the Japan International Cooperation Agency (JICA) in Japan, but this programme was focused on post-harvest fisheries activities. The WIO has not been able to implement any related activities since returning from this training, as a major focus of her work has been on the implementation of the Family Protection Act.

At a sector level, the Pohnpei Office for Fisheries and Aquaculture (OFA) works with communities to conduct monitoring, control and surveillance activities and enforcement of fisheries legislation. The OFA conducts regular community visits and engages with local government and chief magistrates at the local government level. Women are often involved but at an informal level, with data gathered relating mainly to fisheries catch and size of species but not disaggregated by sex.

Women are selected to represent their municipalities at national consultations and to serve as members of various committees. At the time of this assessment, a number of women were selected to represent their municipalities at a Ridge-to-Reef workshop. They said they were aware of the National Gender Policy, but had not attended any gender-related training.

Most municipal councilors are men and represent the villages within their municipalities. In the Kolonia Town Council, there are three female councilors. Other councils have no female councilors, although they may have women in other roles or committees.

In Pohnpei, families work together to generate income from fishing and fisheries-related activities. Fisheries officials interviewed noted the difficulty of separating women and men when it came to marketing and selling fish, as this would depend on each family and the reason for selling the catch. Generally, the men go spear-fishing at night and the women assist in the morning with cleaning the catch and taking the fish to the market. Sometimes men do the cleaning and take the catch to the market as well. Both men and women catch mud crabs that are supplied to restaurants for sale. A restaurant owner interviewed said she deals with one family who supply up to USD 200 worth of crabs to her restaurant every week. The orders are done by phone or through Facebook.

In some municipalities, organised women's groups registered under the Pohnpei Women's Council conduct income-generating activities, with women from specific municipalities recognised for their preparation of specific types of seafood dishes. These are initiatives by the women's groups with no support from the fisheries sector. There is a need for more systematic gathering of data with regard to women's participation and involvement in the sector.

The Pacific Community, through its Social Development Division, has been encouraging women in FSM to participate in a Pacific Women Growing business initiative and put out a call for women who own small business to receive support. The objective of the initiative is to increase revenue from livelihood activities for women. They have conducted training for women who own businesses in Kolonia town but have yet to reach women in the rural areas. The initiative seeks to provide support to women's businesses through maintenance of equipment, such as sewing machines and food preservation equipment for women who sell food.

According to those interviewed, community decisions are made mostly by male heads of households but women have a lot of influence within their individual households. Chiefs' wives may not be able to influence the decisions publicly but they can influence their husbands on a one-on-one basis. In Pohnpei, people tend to make money only when they need to. Families in Pohnpei have recently started conducting family fundraising drives and can raise up to USD 7,000 per drive. This fundraising is circular to some degree, as money is made and then redistributed at the next group's fundraising.

Office of Fisheries and Aquaculture

The Office of Fisheries and Aquaculture (OFA) is responsible for the identification, development and implementation of aquaculture in the state, as well as fisheries development initiatives, including offshore fish aggregating devices. All

state fisheries laws are covered under Division III, Titles 26 and 29 of the Pohnpei State Code. The office gathers weekly data on catch, although no data are gathered on gender roles of fishers.

Table 14: Enabling environment factors in the Office of Fisheries and Aquaculture

Political will	The department does not have a gender policy, plan or strategy
Organisational culture	Predominately men, two women in admin. roles Very little awareness and understanding of gender mainstreaming
Accountability mechanisms	Non-existent
Technical capacity	Limited
Adequate financing	No specific allocation for gender mainstreaming or women-focused activities

Conservation Society of Pohnpei

The Conservation Society of Pohnpei (CSP) provides support for community-based conservation, resource monitoring, and educational awareness. CSP maintains a marine programme that helps to establish and manage marine protected areas and combines elements of traditional marine resource management with modern scientific methods to empower local communities to protect Pohnpei’s marine biodiversity. In December 2016, the Uh Municipal Government, with support from CSP, passed a fisheries management plan. In May 2017, the Kitti Municipal Government passed a similar plan.

Kosrae

Traditional Fishing Practices (Petrosian-Husa, C, 2008)

Historically, in Kosrae State, fishing in the open sea did not have any special meaning, unlike other places in FSM. Fishing outside the reef was done only in the summer, because the seas were calm at this time. On the reef flats, net fishing was practised in many forms. Net fishing has suffered in modern times, just like reef fishing in general, and many kinds of fishing are no longer practised. Both men and women participate in fishing, with men using numerous methods of fishing and fishing tools. The main specific catching tool for women was the hand net. Women did most of the fishing and their catches using these nets was quite considerable, requiring little effort. Historically, men were busy planting and harvesting fruit. Besides these traditional forms of labour division, there was a special class of fisher, who had special knowledge concerning the way of life, the habitat, and the movements of the different kinds of fish and was believed to have had supernatural abilities.

The various fishing methods on Kosrae included:

- fishing using the hands to catch fish and turtles;
- fishing with line and hook; three types of hooks were used on poles or drifting coconuts or drop-stones;
- hand-net fishing – done by women; the nets came in various sizes depending on the fishing activity involved;

- hand-held net fishing done by men – a small net like a bag made from thread or hibiscus strings is basted in a circular wooden frame, from which three arms go up to the long-pole handle; this net is used by a fisher sitting in a tree over the water; fish gather around food attached to the lower, pointed end of the handle.
- using small stonewalls about 1 m long and 50 cm high – these are erected by women on the reef; at one end of the wall, women place their fishing baskets filled with stones with the opening facing the wall; they then remove the wall beginning at the other end, working towards the baskets, all the while throwing the stones behind them; eventually, the fish hide in the stones of the women’s fish baskets, which are quickly pulled up;
- in traps made of flexible wood – a man’s method;
- in weirs – these consist of low coral walls or coral slabs vertically rammed into the ground and were of two types: two long stone walls with an open apex at the angle; and a system of walls that follow the coast in a zigzag line;
- a loop to lasso sharks;
- spear fishing; and
- with poison.

Traditionally, individual sections of the reefs surrounding Kosrae had special names, and only the inhabitants of the region had the right to fish there. Immediate neighbours could supposedly also fish there, but people living further inland could only fish there with permission.

Fishing also stood under the protection of special gods, most of them female. All fishers (men and women) had to follow many regulations including:

- abstinence from taking food from sunset to sunrise before doing any form of fishing;
- no sexual intercourse the night before going fishing;
- not addressing or greeting people as they were going fishing;
- placing a sweet-smelling flower into the ear or the hair when catching flying fish;
- once a fisher has left his/her house, none of the immediate family is allowed to leave the house or drink anything until they can assume that fishing has already started;
- all participants of a fishing trip where poison is used have to urinate before entering the water; and
- fish caught by poison should not be touched by hand but rather be speared or scooped by net into the canoe.

The above reflects the many cultural aspects and taboos of fishing in Kosrae, which influence women’s engagement in the sector. Summaries of interviews with women in the community, conducted during the assessment on Walung Island in Kosrae, are given below. They reflect the motivation behind fishing and how perceptions of change over time.



Sherlunda Nena is a 50-year old fisher woman, originally from Walung, who still fishes twice a week with other women from Walung. According to Sherlunda, women fish according to their needs. So if three women from the community decide they need fish to eat and sell, they will go out together and fish using a gill net. Whatever they catch is shared between them and often their shares are shared again with the community. This is a way of life for them. Sherlunda says that fishing is their main income, it is their way of life and they don't feel fish stocks have depleted over the years. Sherlunda is a single mother with an 18-year old daughter and 12-year old son. Sherlunda has complete control over the money she earns and uses it to buy necessities such as salt, rice, kerosene and other foodstuff. Sherlunda says that buying canned food is essential – although it is not healthy – because it can be stored for a long time.



Seniora Arnold Kalep, 57 was a keen fisherwoman in her younger years but bad knees now keep her out of the water. Her husband, however, is the librarian in the local community school and still fishes during the week. In his younger years he was also a talented spear fisher but today he does net fishing and sells his catch at the marina with his son. According to Seniora, fishing is their main source of income and money gained from fish selling is used to buy rice, kerosene, tinned food and medication. Sea-level rise is the biggest issue for Walung community. According to Seniora, the water has risen to extraordinary levels and has washed away a lot of their beach and mangroves. The community, however, does not feel that their fish stocks are depleting and Seniora recalls that fish stocks appear to be the same as 20 years ago. Decisions on how to use the money they earn from fishing is mostly made by her husband but life is simple and their needs are always the same – food and medication and the maintenance of their boat, which is essential for life in Walung.





Simeon Otis, 67, is known to be one of the most talented fishermen in Walung. On the day he was interviewed, he had earlier caught two huge wahoo, which he sold at the local marina. Simeon and his wife Sepe, 66, have two children and four adopted children. Sepe herself was once an avid fisher but, according to her, age has caught up and she no longer does any line or net fishing. However, she goes out weekly with Simeon on his fishing trips to help him with the lines and keep him company. According to Simeon, more reliable fishing boats is the main reason a lot of women in Walung now accompany their husbands. In the earlier days, the canoes were not that comfortable for long fishing periods and men often went alone or with other men. One of the current issues in Walung is that younger women are not fishing as much as the older women fished when they were young. Sepe says this is a problem because fishing is a way of life in Walung. Whilst the young men do fish, both Sepe and Simeon agree that most of the younger generation (men and women) simply don't fish because they are living in Honolulu or elsewhere. However, the remittances their children send is put to good use – Simeon and Sepe bought their boat with the remittances their children sent them. When asked about how they decide what amount of fish to keep for family consumption and what to sell, their answer was simple. They keep what they can eat, pass some on to whoever else needs it and sell the rest. The money they get is always spent on necessities – tinned food, kerosene and other foodstuff that can be stored. According to Sepe and Simeon, stocks are still plentiful but they do have issues with other villages/communities fishing in the waters of Walung. One of the issues with fishing for deep-sea fish is that it is expensive because they have to go out further. Therefore, inshore fish is the target for most of their fishing trips because they can sell it easily and often eat it at home.



Institutional analysis – Kosrae

The State of Kosrae is committed to the equal protection of women and men through the state constitution, which guarantees fundamental rights and freedoms conferred upon all citizens regardless of sex, race, ancestry, national origin, language, religion or social status. There is, however, no specific state gender policy to support women, children, youth and the aged. Kosrae instituted the Family Protection Act in 2014, which makes specific provision for the protection of women and girls against domestic violence. In the absence of a state office for women, the Kosrae Women's Association (KWA) receives support from the state to carry out activities in the interest of women.

KWA is the umbrella organisation of women from all the municipalities of Kosrae State. KWA was registered in 2007 and is managed by a board consisting of women from the municipalities who are generally appointed by the mayor of that municipality. The KWA is funded by the Kosrae State Government each year. The President of the KWA and all the members of the Kosrae Women's Association provide voluntary services to the organisation. They coordinate through a monthly meeting to discuss the work they are doing in communities to assist women socially and economically. While the FSM Government's CEDAW report makes reference to an office space in the Governor's office, representatives of KWA stated that this was not the case and that they had no office base; a building had been allocated for them next to the Kosrae Tourism Office but it had never been completed.

The Kosrae State Government funded the construction of a day-care centre managed by KWA to support women working in the government, with the Australian Agency for International Development matching funds provided by the government.

Because of the consistency of the work done by KWA, it is recognised as representing the voices of the women of Kosrae and are often called upon to negotiate and advocate for the needs of women. The KWA does not have a specific group looking at ‘women in fisheries’ but is considering this, given the large numbers of women involved in fishing activities. One municipality in Kosrae recognised women’s participation at an organised fishing tournament by providing awards for women fishers.

The Kosrae Division of Fisheries and Marine Resources (DFMR), despite having no clearly articulated activities for gender equality and women’s empowerment, does engage with KWA to conduct training initiatives on value-adding to marine resources, although the extent of the work they are able to do with KWA is dependent on funding. A recent initiative involved women in KWA producing recipes using marine resources and a competition where the women who produced the most innovative recipes won prizes. This initiative has encouraged the women to consider ways to value-add to their marine resources and to potentially earn additional income.

DFMR, the Kosrae Island Resource Management Authority (KIRMA) and the Kosrae Conservation and Safety Organization (KCSO) all work directly with communities. Women are usually part of the consultative process and their role in communities is acknowledged but engagement processes are generally done in an adhoc manner.

Division of Fisheries and Marine Resources

The Division of Fisheries and Marine Resources (DFMR) works in partnership with the KIRMA in overseeing the management and sustainable development of Kosrae’s marine resources in state waters. The primary focus of DFMR is the management and development of Kosrae’s coastal fisheries and working directly with the fishers and communities to improve livelihoods and food security derived from their coastal fisheries. The recently adopted Consolidation Bill defines the different agencies’ roles and responsibilities but continued dialogue is required to further enhance the partnership between these two agencies. DFMR has nine staff, eight men and one woman who is the project assistant.

Kosrae has three fish markets built by the Japanese Overseas Fishery Cooperation Foundation. Located in Utwe, Lelu and Tanfunsak municipalities, the markets are owned by the state but leased out to market operators. All three markets provide ice for sale to fishers and purchase fish directly from fishers and then sell them to consumers.

Table 15: Enabling environment factors in the Division of Fisheries and Marine Resources

Political will	Strong commitment to gender equality through active engagement with Kosrae Women’s Association No gender policy, plan or strategy
Organisational culture	Only one female staff member out of nine staff
Accountability mechanisms	None exist, apart from an ongoing commitment to KWA
Technical capacity	One female staff attended gender and fisheries course in Japan and has been actively working with KWA to develop recipes to add value to the fish women catch
Adequate financing	Work with KWA has stopped due to a lack of financing

Kosrae Island Resource Management Authority

The Kosrae Island Resource Management Authority (KIRMA) is a semi-autonomous government agency responsible for the sustainable economic development of Kosrae. KIRMA is mandated under Title 19 (Environmental Protection and Management) of the Kosrae State code and the additional clarifications in the Consolidation Bill. Essentially, KIRMA aims to protect the environment, human health, welfare and safety and to abate, control and prevent pollution or contamination of air, land and water. KIRMA subsequently has the leading agency role in Kosrae for enforcing fisheries regulations; issuing resource permits for fishing, aquaculture, and coastal extraction activities; managing the state's protected area network, and providing education and awareness activities.

Kosrae Conservation and Safety Organisation

The mission of the Kosrae Conservation and Safety Organisation (KCSO) is to sustainably manage and protect Kosrae's biodiversity and natural heritage through community engagement and partnerships for the benefit of present and future generations. KCSO implements various environmental projects under two main programmes, the Marine Conservation Program and the Community Outreach and Awareness Program, targeting schools in Kosrae. They are not required to separate women, men and youth when they conduct community activities, although they have trialed this approach in some communities, especially when conducting awareness on water and sanitation and hygiene practices. The organisation has a total of seven staff, five men and two women.

Chuuk

Traditional fishing practices (Goodenough 1972)

Each high island within the Chuuk lagoonal system is surrounded by a fringing reef. Reefs and shallows provide important fishing resources, traditionally exploited by women, or by men and women together. Fishing outside the fringing reef was largely reserved for men. Men also engaged in hook-and-line fishing, spear fishing, and such other fishing as took them beyond the fringing reef. Women fished with hand-nets in the shallows behind the fringing reef and gathered shellfish on the reef. Boys spent a great deal of time playing in the shallows of the sea, learning from one another how to swim and developing their swimming and diving skills. Girls, too, played in the sea but, as they grew older, they joined their mothers and their older sisters in fishing with hand-nets and in gathering marine resources on the reefs.

Before the introduction of nylon lines and nets, rope was made by men, who twisted coconut or hibiscus fibres to make strands that were then twisted together into cordage. Fishing lines and hand-nets were made from this rope. Men also fashioned fishhooks from shells, breadfruit pounders from hard coral, beads from shells, adze blades from stone and shell, and multi-pronged wooden fish spears. All work in wood was done by men, from carving huge ceremonial masks to constructing houses and canoes to making weapons and combs and kindling fire. Women wove on the loom, using thread they prepared from hibiscus and the banana palm. They processed pandanus leaves for mat-making and wove the mats. In the overall division of labour, men did the gardening, planted and tended trees, cultivated taro, and also gathered and prepared the staple vegetable food in bulk. On Chuuk itself, this division of labour differed from the surrounding atolls, where women did taro gardening and prepared the staple vegetable food. Although men prepared the vegetable food in bulk, with the help of women, it was women who set out the evening meal, the main meal of the day, and who cooked the fish to accompany it.

Kinship provided access to the basic necessities of life. It gave one the right to reside, to fish, and to grow food. A person who had no rights locally, such as an immigrant from another community, had to find a sponsor who did have

such rights. Sponsor-client relationships of this kind produced important political distinctions. Locally, people were independent corporations, but they were also part of extended clan lineages that provided opportunities on occasion to engage in cooperative endeavors, such as fish drives and feast giving. When a man made a good catch of fish, he sent shares of it to his parents, his parents-in-law, the male and female heads of his lineage, and to anyone who had given him a share of a catch in the recent past.

Fishing was of major importance to Chuuk's people and was immersed in myths, taboos and rituals. Fish for which there were sorcery spells included parrotfish, groupers, puffer and porcupine fish, octopus, moray eels and sharks. Of major importance was the fish summoning ritual. Both men and women could practise fish summoning. The fish summoner selected an area of fringing reef on which he placed a no-trespassing sign. No one was permitted to fish there during the period the summoner was in the meeting house calling the fish. A fish summoner had the ability to call fish such as herrings, which would appear in large schools in the shallow waters, and women would catch them in hand-nets.

Mythologically, humans could give birth to gods, demons, whales and fish. One being called Naanuken was the patron of fishing with hook and line. A sea goddess named Nichuuchuumataw fished in the open seas with hand-nets and men passing her on canoes had to be polite and ask her permission to pass. She would then lift her nets and thus spare them misfortune. She cursed and brought to harm those who were arrogant and tore her net by sailing through it. Another benevolent female spirit was Niteenupwin, her name referring to the use of torches made of coconut fronds in night-fishing on the reef. Other female deities were malevolent. Nipeepe caused famine from a lack of fish and food.

An important class of local spirits were reef spirits, who were known to favour portions of beach rock as their dwelling places and to come ashore through surge channels and narrow passes in the reef. They might linger on the beach or in small caves along a rocky shore, but they never penetrated any distance inland. They are said to have a lumpy-faced, scraggly-haired, human appearance, and could appear decorated with seaweed, antler corals, and so forth, but often appeared also in the guise of certain sea or shore creatures, such as octopuses or crabs. There were two main activities that were particularly offensive to these spirits. One was having sexual intercourse the night preceding or shortly before going into the reef waters for any purpose. Another offence was the eating of seafood beforehand. Reef spirits are said to be able to single out guilty persons by smelling them and detecting the odours characteristic of these activities.

In addition, people took note of natural phenomena and physiological reactions as omens. For example, the jumping of a long-tom on one's departure on a trip foretold warfare at sea. If a turtle approached a canoe, people knew there would be no food. If a leaf fell with its upper side up, people would fare badly but, if it fell bottom side up, they would have fish to eat.

These cultural beliefs affect women's engagement in fishing today, with a need for a more in-depth study required to quantify their involvement.



Monica Kanas is a common sight on the narrow main street of Weno Island in Chuuk, where she operates one of the five fish markets. Her family has been renting space along the main street since 2005 and she is supported by her husband and children. The business she helps to run belonged to her father-in-law and it has now been taken over by his children. The profit they make from the fish market goes into the family bank account, which they draw from for funeral expenses or for community commitments. A portion of the funds goes into the business and a portion to their family. Her husband makes all the decisions on how the finances are spent.



Institutional level

There is little evidence of the Chuuk state government's commitment to gender equality in the ongoing work to support women's empowerment and development conducted by the Chuuk Women's Council (CWC), the umbrella organisation for over 40 women's groups across the state. CWC works to empower women within their own communities. Their approach is informed by a comprehensive assessment of the priorities of women in communities. The four priorities are social services, income opportunities, education and infrastructure. CWC promotes and encourages small business opportunities for women and facilitates a market day each month for women to sell their produce. Women sell salted fish and cooked fish at this market. Over the years, CWC has been involved in a number of projects directly engaging with communities through their network. These include community education and awareness of sexually transmitted diseases. CWC also provides small grants for an Environment Conservation Program, which includes coral reef monitoring and agro-forestry activities. CWC has also been advocates of environmental and conservation stewardship and it facilitates the United Nations Development Program Small Grants Scheme. CWC was involved in raising awareness on the dangers of dynamite fishing, which has now been significantly reduced across the Chuuk Lagoon.

In recent years, CWC has seen an increase in the demand for their involvement in matters that they consider to be state responsibility, with a need for improved collaboration with various government sectors. At the time of this assessment, CWC was preparing a petition to be presented to Chuuk state government to demand the re-instatement of a women's issues officer to drive state level commitment to gender equality. CWC is currently involved in advocacy against trafficking and was instrumental in having the age of consent for young women to be raised from 13 to 18 years of age. CWC runs a centre that provides capacity building skills to promote Chuukese women in leadership and business, and offers education on health and gender issues, as well as environment, culture and tradition.

At the government level, there appears to be little awareness of the National Gender Policy by the Chuuk Department of Marine Resources (CDMR), and the Environmental Protection Agency (EPA) had very little engagement with the Chuuk Women's Council. They were however aware that a lot more women in Chuuk are now involved in marketing and selling of fish and attribute this to women being better at sales and the management of resources. CDMR does have a daily monitoring programme on markets selling seafood in Weno and it also monitor eskies (ice boxes) of fish being shipped to Guam. Beyond that, there is no awareness of seafood handling or hygiene issues.

In contrast, the Chuuk Conservation Society conducts a lot of monitoring with communities using participatory approaches. When conducting focus group discussions, they separate women from the men so that women can speak freely. They work closely with CWC and the CWC Director is also a member of the CCS Board.

Table 16: Enabling environment factors in the Department of Marine Resources, Chuuk

Political will	The department does not have a gender policy, plan or strategy
Organisational culture	The lack of funding for the department is reflected in the low morale so a commitment to gender mainstreaming is not a priority
Accountability mechanisms	There are no accountability mechanisms
Technical capacity	There is no technical capacity for gender mainstreaming
Adequate financing	There is a shortage of funding for the departments core role

Department of Marine Resources

The Department of Marine Resources (DMR) is responsible for monitoring and enforcement the marine waters controlled by the state out to the 12-mile zone, as well monitoring the many fish markets and the export of fisheries

products through the airport. At the time of this assessment, the department was going through a transitional period of moving offices and was without funding for their activities. They have an all men staff with one woman project officer engaged on a Ridge-to-Reef project and a female secretary.

Environmental Protection Agency

The Environmental Protection Agency (EPA) is a quasi-government, autonomous agency and is responsible for water-testing, dredging permission, seawall construction oversight and waste management. On a staffing level, EPA employs an equal number of women and men in technical positions.

Chuuk Conservation Society

The Chuuk Conservation Society's (CCS) marine activities involve coral reef monitoring and assistance with developing community-based marine protected areas. CCS conducts a lot of monitoring in communities, using a participatory approach. When conducting focus group discussions, they separate the women from the men, as women speak more freely when they are on their own; men dominate discussions when the two groups are combined. CCS works closely with the Chuuk Women's Centre, whose director is also a member of the CCS Board.

Yap

Traditional Fishing Practices (Falanruw 1994)

Traditional fishing methods used on Yap in the past included:

- fishing with curved sticks to extract fish from holes;
- using poisons and nooses;
- spear-fishing;
- using rafts as fish aggregating devices;
- hook and line, including using poles, the stone and leaf method, and trolling;
- using butterfly hand-nets, hand-nets on a pole, push-nets, set-nets and pulled-nets, and sometimes leaf sweeps in combination;
- using bamboo or stone-fish weirs; and
- gleaning.

Many methods of fishing involved obligations to contribute the first catch to the overseer of the fishing area or method. Specific marine resources were used for 'tribute'. These included green turtles, long-toms, marlin, wahoo, tuna and hump-head Maori wrasse.

Rights to use specific types of fishing gear, methods and areas were controlled. Yap had in the past stricter distinctions between social groups. Social organisation on Yap involved extended family units with named platforms and an elder (a man) speaking for that group's estate. Inheritance of land and marine rights is patrilineal, although matrilineal descendants retain important trustee rights. Some social groups had no fishing rights at all. In general, fishing further from land was the more prestigious, with the general pattern of access relegating so-called lower class groups to rivers and tide pools, where they could use only the simplest of fishing equipment, such as sticks and poison. Women and children foraged in near-shore and mangrove areas, using poison and hand lines inside the reef. Men and communal groups fished in the lagoon, sea-grass beds, lagoonal holes and the open ocean.

In Yap, girls are recognised as custodians of land, but inheritance is passed on through the male line. Men are responsible for the ocean and all its resources; women work on the land. Most villages have a men's house, which is out of bounds for women, and a women's house, where women meet, and also a house where women go during menstruation. Social group organisation on Yap influences the level of engagement of women from different communities in various activities. Yap has four sections of government: executive, legislative, judicial and the traditional chiefs section. This is made up of the Council of Pilung (Yap main island) and the Council of Tamol (outer islands). The hierarchical nature of Yap's society influences a lot of ways things are done. There are 10 municipalities in Yap, each consisting of a number of villages. While each village has a chief, there is a chief representing each municipality on the council, which makes decisions on the governance of the state.

Those consulted during the assessment noted that there have been some shifts, with women now joining their husbands, especially in net fishing and trolling (on Yap Island and the outer islands). They noted, however, that women who do go out fishing often hide from community members because of the common understanding that only men go out fishing. Women on Yap Island mainly collect invertebrates, seasonal fishing for scads/mackerel. Women catch freshwater prawns, mangrove crabs and mud shells. Fish markets in Yap are mainly privately operated and locally owned.

Institutional level

The Women's Interest Office (WIO) sits within the Division of Social Affairs in Yap State. The current WIO is assisted by a woman from the Australian Volunteers International programme, who assists with the strategic alignment of the National Gender Policy, while also working towards the development of a Gender Equality Policy at the state level. The WIO also intends to draft domestic violence legislation with the support of SPC's Regional Rights Resource Team and other partners. In the past, the WIO has been instrumental in providing support to the Yap Women's Association towards the construction of a women's shelter, which has been ongoing for 15 years now due to problems with coordination and funding. It is expected that once the building has been completed and opened the Yap Women's Association will become active again.

The WIO receives funding from the state through the Yap Congress and has a number of small-scale projects in food security that they run in partnership with the College of Micronesia and various women's groups. The WIO is the implementing agency for small-scale funding and is supporting 10 projects that involve home gardening, nurseries and food preservation. Active women's associations include the Tomil Women's Association (TWA) which is a recipient of one of these small grants. The Tomil Resource Conservation Trust (TRCT) is managed by women and is working with the YAP Community Action Project for the maintenance of the Tomil Marine Protected Area. There is potential to support women's groups in other municipalities to follow the example that TRCT and TWA are modeling.

At a state level, the Council of Chiefs still plays a key role in the governance of the state as one of the systems of political governance. As a result, YAP maintains traditional systems that favour male leadership and male decision-making, which is a challenge for the work of the Women's Interest Office. Social group organisation on Yap influences the level of engagement of women from different communities in various activities. The hierarchical nature of Yap's society influences every aspect of engagement in Yap and needs to be navigated with caution.

Marine Resources Management Division

The Marine Resources Management Division (MRMD) is responsible for the management and development of watershed, coastal and marine resources to 12-miles, although the customary chiefs have paramount powers in this area. Within the Yap State Constitution, the basic laws governing coastal fisheries are contained in Titles 18, 26, and 29 of the Yap State Code. The MRMD has no direct engagement with the WIO in Yap. Given the cultural beliefs and expectations of Yapese women, this is clearly a sensitive discussion that needs to be navigated well.

Table 17: Enabling environment factors in the Marine Resources Management Division

Political will	Due to cultural factors, the political will for gender mainstreaming is low
Organisational culture	Influenced by cultural systems, fisheries is seen as a predominately male occupation and this is reflected in the work of the division
Accountability mechanisms	None in place for gender mainstreaming
Technical capacity	Low
Adequate financing	No financing for gender mainstreaming

YAP Women's Association

The YAP Women's Association is a membership-based association that has been inactive for a while. A major project implemented by the YWA is the construction of a women's shelter/building, which will also house a handicraft shop and an office for YWA. The project has been ongoing for the past 15 years, due to delays in funding, etc. It is expected that once the building has been completed and opened, the YWA will become active again.

Neighbouring Islands Women's Association

The Neighbouring Islands Women's Association (NIWA) represents the interests of women's associations on the outer islands of YAP: over 50 women's groups. While a representative from NIWA attended the gender and fisheries consultations, she mentioned that the group was no longer active.

Yap Community Action Program

The mission of the Yap Community Action Program (YapCap) is to operate and support marine and terrestrial programmes aimed at environmental and cultural preservation, sustainable development and social development. YapCap works to assist communities in marine protected area development, awareness raising in communities and schools, and acting as a bridge between government and donors. The environment division of Yap Cap has oversight of projects in marine and terrestrial resources. It hires additional consultants on a need basis.

In the marine area, YapCap mostly concentrates on working with communities on marine protected areas (MPAs). To engage with communities, YapCAP hires community representatives, mainly men, nominated by the chiefs of each community and or municipality to run the MPA's on behalf of the communities. A plan is developed and this becomes the entry point. According to YapCAP, women are involved in all aspects of the community consultations but are rarely involved in the decision-making. YapCAP was involved in the state consultations for the development of the gender policy, although as an organisation, there are no clear commitments to gender mainstreaming.

The former Environmental Director for YapCAP, a woman, noted the complexities of carrying out the role as a woman, providing oversight to many men at both an organisation and community level. She noted that this was considered not appropriate for a Yapese woman and she had to be mindful of the implications of her role on her family. This partly contributed to her decision to resign from the role and is a reflection of the many complex cultural norms that Yapese women have to negotiate.

Yap Fishing Authority

The Yap Fishing Authority (YFA) is a tax-exempt, quasi-government agency established under the Yap State Code (Division 1, Chapter 1: Yap Fishing Authority) in 1979. Under this chapter, YFA is empowered to establish a marine resource development policy, including programmes to promote, support and guide fishing cooperative agencies and conduct pilot operations for large-scale commercial fishing.

Discussion

In general, gender mainstreaming activities are built into various project documents that are implemented by various government agencies and non-governmental organisations. Capacity for implementation of gender-related activities is, however, generally low and is dependent on the capacity of the person responsible for implementation. There is widespread recognition that the engagement with women and women's groups is beneficial to successful outcomes of various projects. For example, fisheries management activities and the establishment and enforcement of marine protected areas require the involvement of everyone in the community, including women. It is noted that there is space for women to be involved in advocating for sustainable fishing practices within communities. The involvement of women in decision-making and management would also ensure a stronger likelihood of sustainability. There is also a need to improve the gathering of sex disaggregated data when conducting community meetings and also when gathering baseline data for projects. There is awareness that women would be more vocal if the men were not present, but there is no conscious commitment to practise this approach in all community consultations. Further investigation is also required to determine the extent of women's involvement in these activities.

With the endorsement of the National Gender Policy it should become mandatory for all government agencies and non-governmental organisations to implement better gender mainstreaming activities, including the introduction of appropriate budgeting and technical support. According to the SPC gender stocktake, budgets for the national and state programmes cover only operational costs, including salary, travel and office supplies, with no funds allocated for development programmes.

Recommendations

This assessment identified weaknesses for gender mainstreaming at various levels. While there is some commitment to gender mainstreaming, it is not being done systematically and consistently across government agencies, and capacity is weak. The assessment found that there are active women's groups in each state with opportunities for stronger engagement between women and the fisheries sector in existence at a national and state level. Overall, the assessment found that it is difficult to quantify women's engagement in the fisheries sector as no specific data are being gathered to reflect the specific roles of women in each of the four states.

Recommendation 1: Using the newly endorsed National Gender Policy for FSM as a guide and SPC's Gender and Fisheries Handbook, conduct training in gender mainstreaming for the appropriate government agencies involved in fisheries management, development and enforcement at national and state levels, in collaboration with a women's interests 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 socio-economic studies to better understand the dynamics of fishing communities, particularly the roles of both men and women in all four states.

Recommendation 4: Agencies in states that have active data collection programmes on market sales should also begin collecting sex-disaggregated data on a regular basis 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 their women's interests offices and women's associations at both national and state level to support community outreach activities that ensure the active participation, engagement and involvement of women, especially in 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 Chuuk and Kosrae, both of which have substantial volumes of personal marine resources exported by air to Guam and Hawaii respectively.

Recommendation 7: Promote community-based, locally-managed marine protection 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 also Recommendation 5). Such activities could include monitoring of fisheries and enforcing size limits within their household and community, as well as supporting existing or developing committees to assist in management activities.

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