Gender in tuna value chains: 
Case studies from Indonesia and Solomon Islands

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Introduction

There is a wide range of opportunities for women working in tuna fishery value chains. Not many women fish for tuna, which tend to be caught further offshore than where small-scale fishing women usually go, or from large industrial vessels that employ only men. Women, however, make up large parts of the workforce in tuna value chains once the catch lands on the wharf. Women work in trading and processing tuna, in manual labour, and in technical, financial and managerial roles. This is true for formal, export-oriented tuna value chains, informal value chains and those ending in domestic markets.

Some of the largest tuna employment opportunities for women and men are poorly paid – general crew on fishing vessels (men) and fish processing line workers (women). Beyond that, however, the roles occupied mainly by women are lower paid and have less authority than roles occupied mainly by men. In office work, women cluster around administrative assistance roles, whereas men cluster around managerial roles. The types of trading mainly women do (smaller scale and more local) is less lucrative than the kinds of trading mainly men do (larger scale and including export markets). On the other hand, the most physically risky work on fishing vessels and lifting heavy loads tend to be done by men.

The work women do in tuna value chains is arranged to fit around family caring obligations, and is shaped by “gender norms”, meaning the socio-cultural ideas about what kind of behaviour is appropriate for men and women. In Indonesia, norms about women’s work are that paid work is important in society, but that this should not conflict with women’s “role in fostering a happy family in general and guiding the young generation in particular” (Ford and Parker 2008). In Solomon Islands, the gendered division of labour around livelihoods, including fishing, has been changing over recent decades with the increasing importance of cash incomes, but women remain more responsible than men for domestic work (Lawless et al. 2019). Some women have done well in careers in tuna value chains. For example, some are technical supervisors or managers in canneries, or have built up trading businesses and fleets of fishing vessels. Within processing companies, the values of senior managers regarding gender equity is an important factor affecting women’s working conditions.

This paper is based on research conducted to assess the governance of tuna fisheries in terms of well-being contributions to coastal communities, with case studies of fisheries in Indonesia and Solomon Islands (Fig. 1). The project was mostly based on interviews with people in tuna value chains and fisheries management (86 in Indonesia and 48 in Solomon Islands), with analysis of relevant fisheries policy and technical documents. We found that gender as well as socio-economic status and status as migrants were key social factors affecting what kinds of opportunities were available to which people, and who was best able to grasp opportunities in tuna value chains. In this paper, we present key findings about the gendered division of labour in each tuna value chain case study.

Indonesia

In Indonesian tuna value chains, men tend to occupy roles associated with fishing and heavy physical labour, positions associated with authority, and trading roles associated with higher levels of wealth generation. Women tend to participate in roles associated with lower value trade and processing, and are not usually in positions of authority (USAID Oceans and Fisheries Partnership 2018). Due to women’s generally less powerful position within society, they may be more vulnerable to labour abuse. Tuna fishing and processing in Southeast Asia has been in the spotlight in recent years for labour abuse. For example, the Bumi Menara Internusa (BMI) tuna cannery in Lampung (Sumatra) has been reported as resisting the enrolment of women processing workers in the compulsory government health insurance scheme (International Union of Food 2019).

One of the noteworthy aspects of the gendered division of labour in Indonesia is a pervasive norm in fishing businesses that men do “on the water” work and women do “on the land” work. This means some women build up detailed knowledge and contacts in markets. In some cases, this has led to upward mobility, with some women traders moving from domestic markets to more lucrative roles in export chains. By virtue of their involvement in successful fishing businesses, some women have risen to positions of significant influence. In particular, Susi Pudjiastuti, a fishing businesswoman before she entered politics, was the longest-serving Fisheries Minister since the return of democratic rule in 1998. The Secretary General of the Indonesian Pole and Line and Handline Fisheries Association is fishing businesswoman Janti Djuari.

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4 For further information about the larger project, see https://www.uts.edu.au/about/faculty-arts-and-social-sciences/research/fass-research-projects/assessing-governance-tuna. There are also opportunities for women in the pre-fishing end of the value chain – in supplying goods and services for fishing, such as food for fishing crews, gardening and cleaning for factories, repairing nets and other fishing gear and equipment. These inputs to tuna value chains were, however, outside the scope of our project so are not considered in this paper.
Maluku

In Maluku Province, there are two kinds of handline fisheries that supply local markets as well as markets in the provincial capital city Ambon and export markets (see Fig. 2, Fig. 3). One handline fishery is from very small vessels of less than two gross tonnages (GT; a measure of the size of boats) that target free-swimming schools of yellowfin tuna, some of which is exported, including as a fair trade product to the USA. The other fishery consists of slightly larger vessels of 5–8 GT that target skipjack, mainly around fish aggregating devices (FADs), which is mostly destined to be sold fresh or smoked in Ambon.

In both of these handline fishery value chains, men occupy most roles associated with fishing, with lifting heavy loads, with the most lucrative export-oriented trade and with positions associated with authority, such as managerial and executive roles in export companies.

In exporting companies, women make up the majority of workers in processing and administrative roles, and are also involved in middle management. In one exporting company in Maluku, women were reported as being 60% of the workforce on the floor, where their skill in cleaning and grading fish loins was seen as particularly valuable. Men tended to undertake heavy lifting and transporting roles, as well as some processing roles. However, in the management side of the business, women made up only 30% of the workforce, and were engaged in mostly administrative and middle management roles.

The gendered division of labour varies somewhat between larger businesses in the main city market in Ambon and village markets, and family businesses in village areas. In the larger businesses, men do most of the unloading, transporting and preparing larger fish for sale as fresh, and the processing for smoked fish. In village-based family businesses in trading and processing, women play a larger role (see Table 1 and Fig. 3).
No clear gendered division of labour is evident in selling and processing fish in the Ambon Market – men and women are involved. Gender differences are more visible in the roles of unloaders (all men) and the larger-scale traders who own vessels (mostly men). Women involved in retailing and trading roles may be employed by a trader or sell smoked fish their husbands have processed as part of a family business. If they are part of a family business, women retailers exercise a degree of independence by not being under a “boss”, and tend to manage the business, including finances, payment for services and supplies. Women who need to balance family obligations with their paid work appreciate the flexibility that comes with casual work in Ambon Market, although the work is insecure. Some of the larger traders in the Ambon Market, who employ networks of processors and retailers, are women. These entrepreneurs have substantial influence and are actively involved in financing fishing trips and negotiating prices at the dock.

Interviewees in Maluku described the gendered division of labour in the family businesses in handline tuna in terms of the husband doing “all the activities on water” and the wife doing “all the activities on land”:

Table 1. Trading relations in handline yellowfin value chains in Maluku.

<table>
<thead>
<tr>
<th>Type of trader</th>
<th>Markets</th>
<th>Acts as a patron to fishers providing credit and supplies?</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exporting companies based in Ambon</td>
<td>Exports higher-quality large fish. Some direct sale of fish in Ambon.</td>
<td>No, but does provide some cold storage for collector traders and fishers</td>
<td>Mixed: men and women, depending on roles (see gender analysis below)</td>
</tr>
<tr>
<td>Village-based traders focused on export, known as “suppliers”, “middlemen” or “collectors”</td>
<td>Aggregates tuna from fishers, sale to exporting company in Ambon for high-quality fish, and some sale in local markets for lower-quality fish.</td>
<td>Yes, but also buys from independent fishers</td>
<td>Mostly men</td>
</tr>
<tr>
<td>Village-based traders selling primarily into local markets</td>
<td>Sale of smaller and lower-quality fish in local markets in Ambon, Buru and Seram, sometimes some processing (e.g. salted/dried fish).</td>
<td>No</td>
<td>Mixed: men and women</td>
</tr>
<tr>
<td>Fishing family traders</td>
<td>Sale of small and low-quality fish in village or markets in Ambon, Buru and Seram.</td>
<td>No</td>
<td>Mostly women</td>
</tr>
</tbody>
</table>

Sources: Primary interviews, Bailey et al. (2016).
Figure 3. The Maluku tuna value chain.

Note: Solid black arrows represent where most of the volume from the fishery goes; dotted lines represent where lesser amounts of fish are sold.
Men and women usually make an agreement on how to decide how much is the price. If the fish is below twenty kilos [and therefore not able to be sold to a trader in the export chain], the woman will decide. So the man just catches the fish and leaves it for the woman. And after that woman will slice the fish and make salted fish or cook or sell, all over around the place. In some cases, the woman will also provide for the boat in buying food, preparing food for husband to go for fishing. Even buying the oil, petroleum, and preparing everything for the business. The husband usually just gets ready to go fishing and come back. Here, in Ambon usually the wife also brings to the market to sell it or going around try to find market for their fish.

Gender specialist in a civil society organisation, Ambon

This way of approaching family fishing businesses in village areas means that women may develop proficiency with finances and small business management. In Ambon, some women traders who started in the domestic part of the value chain have been able to upscale and trade in the export chain, where returns can be much more lucrative. One woman we interviewed had 62 fishers in her operation. This is large scale for Maluku, where interviewees indicated that traders usually work with between 20 and 70 fishers.

Bitung

Bitung is one of Indonesia’s major industrial tuna fishing and processing hubs. Purse seine and pole-and-line fishing vessels supply fish for canneries targeting export markets and also supply domestic markets for fresh, smoked and canned fish (see Fig. 4).

According to Bitung processing-company managers and worker interviewees, fishing crew are all men, while 70% or more of the workforce in cannery processing plants are women. Although some processing plant managers interviewed reported that they had women in managerial roles, and that policies for the advancement of women existed and were a priority for further action, a survey of the fisheries sector in Bitung overall found that as few as 2% of management roles were filled by women (USAID Oceans and Fisheries Partnership 2018).

As in Ambon, in Bitung women’s roles in fishing families lead to them running small-scale processing and trading businesses. We interviewed one family where the wife ran a fish smoking business, which had started alongside her husband’s fish trading business. Informal traders in Bitung called tibo-tibo are almost entirely made up of women. Some of these have moved on from small-scale trading to substantial integrated fishing and trading operations. Some tibo-tibo own small purse seine vessels, hire fishing crew and trade a range of small pelagics, coastal and skipjack tunas into local markets and into canneries. Tibo-tibo also hire networks of women retailers who distribute and sell both smoked and fresh fish in rural markets throughout North Sulawesi and Gorontalo, providing an important source of income for rural women. (see Tab. 2).

Table 2. Trading relations in the Bitung skipjack cannery and associated local market value chains.

<table>
<thead>
<tr>
<th>Type of trader</th>
<th>Markets</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canneries</td>
<td>Focused on export markets but also domestic urban markets, including Bitung. Supply some raw material to other tuna processing hubs in Jakarta, Bali and Ambon.</td>
<td>Managers: 98% male, 2% female (USAID Oceans and Fisheries Partnership, 2018). Cannery workers: majority female; precise % unclear</td>
</tr>
<tr>
<td>Trading firms</td>
<td>Supply raw material to canneries and other processing plants</td>
<td>No data</td>
</tr>
<tr>
<td>Tibo-tibo</td>
<td>Supply raw material to canneries and trading firms. Also supply fresh and smoked tuna, and fresh small pelagics to markets in Bitung, Manado and rural North Sulawesi</td>
<td>Majority women, some men</td>
</tr>
<tr>
<td>Family smoked-fish businesses</td>
<td>Supply smoked fish to markets in Bitung, Manado and North Sulawesi</td>
<td>Mixed</td>
</tr>
<tr>
<td>Businesses aggregating offcuts, frames, heads</td>
<td>Supply local restaurants in Bitung, possibly Manado</td>
<td>Unclear, likely mixed</td>
</tr>
<tr>
<td>Retailers in Bitung markets</td>
<td>Bitung</td>
<td>Mixed</td>
</tr>
<tr>
<td>Retailers attached to tibo-tibo</td>
<td>Bitung, Manado and rural North Sulawesi</td>
<td>Women</td>
</tr>
</tbody>
</table>
One *tibo-tibo* who owns seven purse seine boats, and trades in small pelagics and tunas in the domestic chain as well as to canneries for the export chain, described the gender dynamics of the business as follows:

> Women, they are not shy to sell. But men, it is the nature of ignorance, they don’t want to get involved in money. They are shy about this, right. But women in the way they work for a living are not so shy ... So, we are good negotiators. So sometimes in the company, if there are a lot of fish or something ... we must still make money, right ... So if others have come first, if our ship is left behind and we don’t go to the factory then where to go? So we must force [the sale] anyway ... You know that the company ... sometimes if their factory is not full yet, they will just say it’s full, then lower the price. Then like it or not, I must negotiate [to make a sale].

**Solomon Islands**

The gendered division of labour in tuna value chains in Solomon Islands is similar to that in Indonesia and reflects wider gender dynamics in Pacific tuna industries (Barclay et al. 2015; Sullivan and Ram-Bidesi 2008). Men tend to occupy roles associated with fishing, heavy physical labour, and positions with authority and high remuneration. Women participate more in roles associated with processing, informal cooking, retail for domestic markets and business administration, and are less well represented in positions of high remuneration and authority (Barclay et al. 2015).

One notable difference between Indonesian and Solomon Islands tuna industries is that the value chains are much shorter. That is, the fish pass through fewer businesses in the journey from ocean to plate. In Solomon Islands, both industrially caught fish and the fish from small-scale fishing vessels are often sold direct from the fishing company or fishing family to consumers, or involve only one more step, where a trader buys the fish from the fishing company and sells it to consumers (Brewer 2011; Pomeroy and Yang 2014). The complex trading networks in Indonesia, where the fish may go through three or four steps between the wharf and the

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**Figure 4.** Bitung tuna value chain.

Note: PS is the purse seine fishing method; PL is the pole-and-line fishing method.
consumer, and where many women have become successful business operators, thus do not exist in Solomon Islands. The tuna selling businesses Solomon Islander women run or participate in are all small, involving only family members or at most a couple of casual employees. We found no larger businesses such as we saw owned or run by women in Indonesia.

On the industrial fishing and processing side, the opportunities for women to work in offices and processing plants are similar between the two countries. There is one main tuna loining and canning plant in Solomon Islands, SolTuna, which is associated with the National Fisheries Development (NFD) fishing fleet. In recent years, SolTuna, working with the International Finance Corporation (IFC), has focused on improving opportunities and conditions for women. The results of these efforts show that where senior management actively works to improve gender equality, the benefits for women in formal industrial tuna value chains can increase.

Another feature of industrial tuna value chains in Solomon Islands is the presence of “salt fish” in domestic markets. This is fish that has been caught by industrial vessels and stored in brine onboard, but is of the wrong species or is damaged so will not be accepted by processing plants. It is sold, bartered or given away by fishing crew from industrial vessels transshipping in the main tuna ports of Honiara and Noro (Fig. 5). Salt fish buyers sell it as is in wet markets, or take it home and cook it, often as fried battered fish with sweet potato chips, and then sell it in markets or food bars. Women are prominent in salt fish small businesses.

Noro

Women make up two thirds of the SolTuna workforce, with most of these being the women cleaning and preparing fish loins for canning. As is usual in seafood processing globally, these processing line workers are almost all women. Other manual labour roles in the factory involving heavy lifting or machinery have been filled mainly by men. Women work in quality control technical roles and are prominent in low- to mid-level administrative roles. Until 2019, only men have been employed on the NFD fishing vessels, as is usual on industrial tuna fishing vessels worldwide, but in 2019 three women started as cadets in the fishing fleet (IFC 2019). Some women are involved in the onshore servicing and managing of fishing vessels. Most senior managers have been men, but there have also been women senior managers.

Solomon Islands is a small island country where the majority of livelihoods have been based on the food people grow or catch themselves. The cash economy has been small, most people have not relied on cash incomes as their main economic foundation, and formal employment has not been available for much of the population. Men disproportionately occupy positions of authority and higher-paid jobs (ADB 2015; Barclay et al. 2015; World Bank 2015). Since the cannery first started in Noro in the early 1990s, it has been an important opportunity for rural women with low levels of schooling to enter the formal economy. The importance of these opportunities is heightened by the fact that rural employment sits at only 13% on average, with rural women’s employment rates much lower than this, and while

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5 Mini purse seiners also catch some skipjack and small pelagics as well as tunas.
employment opportunities are rising across the economy, opportunities for women remain “particularly scarce” (World Bank 2018).

The opportunities for women in the formal industrial tuna value chain in Solomon Islands (see Fig. 6) have been improved through the IFC gender specialists working with SolTuna since 2015 in association with an IFC loan for upgrading the processing factory. They identified areas where women’s working conditions affected productivity and implemented several changes.

One issue was absenteeism among women factory workers. The wages for tuna processing line workers are very low, and many women were struggling to make it through the fortnightly pay cycle, so were taking days off to sell things in the market to earn cash. Part of the problem was a lack of financial planning skills, as many workers are the first generation in their family living on cash incomes. Furthermore, many have not finished school and have minimal mathematics education. A financial literacy programme devised by IFC enabled women on low incomes to better manage their wages so as to make it through the full pay cycle and then be able to receive the bonuses the company offers to staff with good attendance records. This resulted in a 6% reduction in absenteeism and has also reportedly led to reduced levels of family conflict, with a reduction in disputes arising from financial pressures that families were experiencing (IFC 2016, 2018).

Another strategy was to encourage more women to work in non-traditional roles as electricians, mechanics and forklift drivers. Forklift accident rates were quite high, and the company found that having more women drivers resulted in more careful driving and lower rates of accidents (IFC 2016). A focus group with six women SolTuna workers revealed that having the opportunity to undertake these new roles built their confidence and self-esteem. They said their experience opened new social dynamics and possibilities for men and women that did not exist in village lifestyles, and provided a positive example to their children.

Other issues have remained difficult. The wages are lower than what women can earn by selling farm produce or cooked food in markets. The women who stay working long term in the factory are those who climb the ladder to higher paying jobs, or those who do not have access to land for growing food or for other reasons are limited in their economic choices. Affordable childcare is another problem for women factory workers, also contributing to high turnover and absenteeism (Barclay et al. 2015).

Fresh and salt fish from industrial vessels that end up in local food markets are another important part of the tuna industry value chain. NFD has formalised the trade from its vessels, selling fish through a shop in Noro. Other industrial fishing companies, however, have not formalised the trade. Buyers of salt fish travel in canoes or dinghies powered by outboard motor or paddle by hand out to fishing vessels and obtain bags of fish, bringing them back to shore to sell immediately, or to cook and then sell. Much of it is used for fish and chips, which is a very popular street food in Solomon Islands. Salt fish may also be used in curries or other popular meals in food bars. The majority of salt fish traders in Noro and Honiara are women, and having access to fish from industrial vessels enables women who are not from fishing families to buy affordable raw materials (Barclay et al. 2015; McLean et al. 2019).
Gizo

People catch tuna by handline and troll line to sell in urban markets in Solomon Islands, alongside reef fish, crabs and shellfish. In the town of Gizo in Western Province (see Fig. 5) the tuna fishers come from two villages outside Gizo called Titiana and Babanga, which are populated mainly by ethnic Kiribati people, many of whom were relocated from the former British territories of the Gilbert and Ellis Islands, now the independent countries of Kiribati and Tuvalu. In Solomon Islands, these communities and their language are called Gilbertese. Being from atolls, people from Kiribati tend to have very high fishing skills, including in the open ocean, compared to the more agriculture- and forestry-focused cultures of the people indigenous to the islands around Gizo. In addition, being non-Indigenous, Gilbertese people have very limited access to the majority of land suitable for farming, which is held under customary tenure. These factors combined mean that Gilbertese villages in Solomon Islands are often fishing villages, and focus on fishing for food and sale and using cash to buy most of their other food. Although most Gilbertese are Solomon Islands citizens and many have lived all of their lives in Solomon Islands, they experience marginalisation as a migrant group.

Around 200 tonnes of fresh tuna passes through Gizo market each year (Albert et al. 2014). As well as the fish sold in Gizo, some is eaten by fishing families, and some is used for gifting or sale within fishing villages (Fig. 7). Large yellowfin tuna is sold to restaurants in Gizo or tourist resorts around Gizo, where it is used for sashimi or tuna steaks. Fish that is not sold within a day or so may be smoked to preserve it for later consumption in the village, sold around Gizo, or occasionally smoked fish may be sent to fill orders from Honiara. In Gizo, fresh tuna is a popular option to take home to cook, and it is also sold in paper packets of fish and chips as street food. In Gizo, around 100 fish and chip vendors, almost exclusively women, buy tuna from the Titiana and Babanga fishers as a raw material for their trade. The fish and chip businesswomen are not Gilbertese but are primarily from the local indigenous groups.

All of the fishing in Gizo is very small scale, with usually two people working together on outboard motor–powered open fibreglass canoes. The gendered division of labour in the Gizo handline fishery is similar to that of the family business handline fisheries in Indonesia, as discussed previously. Most of the fishing is done by men. We heard of only one woman who fished for tuna in our interviews. Trading is done by both men and women. In some families, men regularly sell fish in Gizo market, whereas in other families wives take care of the trading activities once their husband returns with the day’s catch. One of our interview families employed a man from outside the village to retail their catch in the market.

Previous studies of fisheries in the Pacific have highlighted that divisions of labour and the control of finances have been proposed as important aspects of women’s and men’s control over decisions affecting livelihood outcomes (Barclay et al. 2018; Kruisjes et al. 2013). However, when asked about the influence of gender relations related to the fishery, Gizo

Note: NFD = National Fisheries Development; DWFN = distant water fishing nation.

Figure 6. Noro tuna value chain.
We, Gilbertese, understand from when we are small, that we are the last people, for government, for companies to consider our needs. That’s our concern, that we have been left out for so long. So now we have to push not just for help, but also for representation in our parliament. We are asking for a Gilbertese representative in parliament, so our voice can be heard. This is the only way we feel we will be listened to and we can have the support that we need to improve our lives. But whatever happens, we are not going to give up. If there is an option for us to improve our fishery, we will take it. Because you see, most tuna fishermen in the Solomon Islands, we are Gilbertese.

Note: Solid black arrows represent where most of the volume from the fishery goes; dotted lines represent where lesser amounts of fish are sold.

Figure 7. The Gizo tuna value chain.

Joint statement by seven fishermen from Babanga, presented to researchers in the project culmination workshop

Interviewees generally said it was not an important influence. Both male and female interviewees said the division of labour and the control of money earned is not predetermined around social norms regarding prescribed roles for women and men, but simply that the family worked together in whatever way was required to ensure that work was done. Gilbertese fishing family interviewees were more concerned about highlighting the disadvantage they experienced as an ethnic community:
Conclusion

Some parts of tuna value chains have strongly gendered divisions of labour, such as fishing (men) and fish processing lines (women), while other parts of the chain, such as trading and middle management roles in processing factories, are quite mixed. In general, women are clustered around the lower-paid and lower-authority jobs, although the predominantly male roles of fishing crew and heavy lifting are also low paid and can be physically dangerous. Industrial tuna processing businesses offer a range of different types of opportunities for women, from entry-level manual work, to technical/scientific, financial, administrative and management roles. Depending on the management of particular companies, women, as a relatively marginalised group in society, can be subject to labour abuse, or their needs and concerns may be addressed by management in improved working conditions. The informal parts of value chains around industrial fisheries and from small-scale fisheries also provide opportunities for women in trading, processing and retailing. In Indonesia, extensive trading networks and social norms that leave the land-based side of family fishing businesses to wives mean some women have developed thriving, large businesses in trading and financing. Trading networks are much less complex in Solomon Islands, and thus far the tuna trading businesses are all very small. In both countries, women have extensive family responsibilities, and the casual roles available in tuna trading and marketing, although insecure and lacking income protection, are flexible, which is important for mixing caring responsibilities with paid work.

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References


