

# Advancing Gender Roles in Fisheries Group Development: A Case Study in Indonesia

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**Keywords:** fisheries extension, fisheries groups, gender roles, Socio-Demographic Index (SDI), national poverty rate, marine capture fisheries, aquaculture, fish processing and marketing

The southern part of Sumatra Island in Indonesia comprises five provinces: South Sumatra, Lampung, Jambi, Bengkulu, and Bangka Belitung. The Research Institute for Inland Fisheries and Extension, hereinafter abbreviated as RIIFE, was established in 1969 to serve as a technical implementation unit of the Ministry of Marine Affairs and Fisheries, Republic of Indonesia, in the field of inland fisheries research and fisheries extension. Under the responsibility of the Chairman of the Marine and Fisheries Research and Human Resources Agency, RIIFE has an important task of carrying out extension activities in these five provinces, performed by the Fisheries Extension Officers targeting the island's leading actors and business actors based on Law Number 16 of 2006 concerning Agricultural, Fisheries, and Forestry Extension Systems. In addition, Law Number 7 of 2016, concerning the Protection and Empowerment of Fishers, Fish Cultivators, and Salt Farmers, extends the role of Fisheries Extension Officers in providing assistance and counseling that empower the leading actors and marine and fisheries business actors. In the five provinces of Southern Sumatra in Indonesia, three major fisheries groups have been established with the assistance of Fisheries Extension Officers. Analysis of gender roles in fisheries has been initiated by the Inland Fishery Development and Management Department of the Southeast Asian Fisheries Development Center (SEAFDEC/IFRDM). This article is therefore aimed at advancing the role of gender in establishing fisheries groups in the five provinces of southern Sumatra Island, Indonesia.

Fisheries extension involves changing the behavior of fisheries actors and their families by increasing their awareness and enhancing their willingness and ability to solve problems in their daily routines, boosting their business efforts, and improving their quality of life. Activities in fisheries extension include education, planning, implementation, evaluation, reporting, development, professional growth, and support. In Indonesia, fisheries extension officers are classified as civil servant fisheries extension workers, independent fisheries extension workers, private fisheries extension workers, or auxiliary fisheries extension workers (Law Number 62 of 2014).

The responsibilities of fisheries extension officers in Indonesia are defined by Law Number 16 of 2006 concerning Agricultural, Fisheries, and Forestry Extension Systems and include: (1) collecting data on the country's fishery sector; (2) establishing fisheries groups; (3) raising the

standard of fishery groups; (4) assisting micro, small, and medium enterprises (MSMEs); (5) supporting cooperatives in the fishery sector; (6) helping fisheries stakeholders access capital, markets, technology, and other resources; (7) conserving environmental resources; (8) facilitating the delivery of government assistance; (9) preparing weekly reports on extension activities; and (10) producing annual reports and fish production reports. Additionally, Law Number 7 of 2016 concerning the Protection and Empowerment of Fishers, Fish Cultivators, and Salt Farmers enhances the role of fisheries extension officers by providing assistance and counseling to empower fishery stakeholders.

One concern in fisheries extension is the formation of fisheries groups that serve as platforms for discussion and catalysts for fisheries development in rural areas. As agents of fisheries development, fisheries groups not only conduct training sessions but also serve as a cooperation platform, production unit, and business entity. In developing the fisheries groups, the role of fisheries extension is vital, as improvements in fisheries development can lead to success in fisheries. This success is measured not only in terms of better fishery resources and facilities but also in the strengthened roles of the fisheries groups.

In Indonesia, fisheries extension plays a strategic role because it benefits from the quality of human resources that support it—those capable of adapting, adopting, and utilizing the developed technologies to manage the fishery resources for sustainable fisheries. A Regulation of the Head of Agency for Marine and Fisheries Research and Human Resources, Number 4/PER-BRSMD/2020, which includes the Guidelines for Management of Marine and Fisheries Group Profiles, states that extension, as a form of non-formal education, encourages people to become aware of and willing to implement new ideas, focusing on improving knowledge, skills, and attitudes.

Fisheries extension in the southern part of Sumatra Island in Indonesia is introduced into nine administrative units across five provinces: Jambi Province, Bangka Belitung Province, Bengkulu Province, Lampung Province, and South Sumatra Province. The distribution of fishery extension workers in this region is shown in **Figure 1**; the same locations are also used as study sites for gender analysis of the fisheries groups.

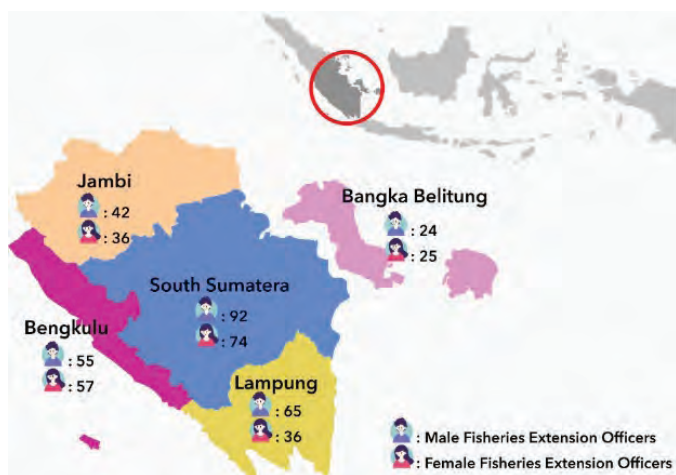


Figure 1. Study sites for the gender analysis of fisheries group development in southern Sumatra Island, Indonesia

As a learning process, extension aims to increase the capacity of fisheries extension targets—the main fishery and business actors—to organize themselves for the development of their fisheries business efforts, increasing their income and welfare, while also paying attention to preserving environmental functions. The main fishery actors include fishers, fish culturists, fish processors, fish marketers, salt farmers, and other water-conservation practitioners. Business actors are individual Indonesian citizens or legal entities organized in accordance with Indonesian Law, responsible for managing part or all of the fishery business activities from upstream to downstream.

Based on the Decree of the Ministry of Marine Affairs and Fisheries Number 28/2024 concerning General Guidelines for the Development and Strengthening of Institutions for Business Actors and Supporting Actors in the Marine and Fisheries Sector, fisheries groups are divided into four (4) classes, as shown in **Box 1**.

Box 1. Four classes of fisheries groups indicated in Indonesian Law	
1.	The beginner class, the lowest class in terms of groups' ability, with an assessment scoring of less than 250
2.	The advance class, where groups have carried out planning activities, although they may still be limited, with a scoring limit of 250 to 500
3.	The intermediate class, the highest class where groups have carried out the activities from planning to implementation, although they may still be limited, with a scoring limit of 500 to 750
4.	The main class, the highest class where groups have carried out the activities from planning to implementation in a more structured and sustainable manner, with a scoring limit of 750 to 1,000

## Establishment of Fisheries Groups

Fisheries groups have been established in five provinces in the southern part of Sumatra Island, specifically in South Sumatra, Bangka Belitung, Jambi, Bengkulu, and Lampung, from January to December 2022. In reality, a fisheries group can be formed at any time, depending on the group's readiness. The steps for establishing the Main Fisheries Actor Groups, known as the fisheries groups, are outlined in **Box 2**.

Box 2. Establishment of the Main Fisheries Actor Groups, the fisheries groups	
a.	Extension officers provide outreach lectures or seminars about group establishment to key fisheries actors and the community
b.	The outreach lecture or seminar, which is carried out in one day, aims to make people understand group growth. The output of this activity is information on regional identification, land area data, and regional maps
c.	Extension officers coordinate with the main actors to discuss group growth plans
d.	The discussion is carried out for a maximum of 3 days, with the information on the identification of the area, data on the land of the main actors, data on group members, and a map of the village area already available, resulting in an output which is a plan for forming a group
e.	Group Establishment Process, which involves the village officials, main fisheries actors, the community, and extension workers, is conducted in one week
f.	Then, a gender analysis is conducted by collecting the available and relevant data, identifying gender differences and the underlying causes of gender inequalities, and developing the policy and program design

## Description of the Study Sites

### South Sumatra Province

The province has a young population, with 2.8 million children representing 35 percent of the Province's total population, which is expected to reach around 9.35 million by 2030. The agricultural sector is the cornerstone of employment in the Province, absorbing about 1.9 million people. The potential of South Sumatra's agricultural resources is promising, with annual rice production of 4.200 million tons, palm oil production of 2.718 million tons, and coffee production of 135.200 thousand tons. The province has a Socio-Demographic Index (SDI) of 0.67, slightly lower than the national average of 0.71.

### ***Bengkulu Province***

Bengkulu has a population of 2,060,092 according to the mid-2022 estimate. The majority of residents are Rejang, followed by Javanese and other minority indigenous groups such as Lembak, Serawai, Pekal, Enggano, Pasemah, Minangkabau, and Malays. The province has a poverty rate of 12.5 percent, and its economy is mainly based on agriculture, with rubber, coffee, and palm oil being the primary crops. Bengkulu has high tourism potential. The Province has natural attractions, such as beaches, waterfalls, and national parks. The Province's level of education is relatively low, with only 7.5 percent of the population having received a bachelor's degree or higher. The province has a Socio-Demographic Index (SDI) of 0.61, which is lower than the national average of 0.71.

### ***Lampung Province***

The province has a diverse population, with the three main ethnic groups being the Javanese, Lampungese, and Sundanese. The poverty rate in the province stands at 11.6 percent. The economy of Lampung is primarily agricultural, with rubber, coffee, and palm oil as its main crops. The Province has significant tourism potential. It is endowed with natural attractions such as beaches, waterfalls, and national parks. It also has a relatively low level of education, with only 7.5 percent of the population holding bachelor's degrees or higher. The province's Socio-Demographic Index (SDI) is 0.62, which is lower than the national average of 0.71.

### ***Jambi Province***

Located on the east coast of central Sumatra, Indonesia, Jambi has a population of 3,631,136, according to the mid-2022 estimate. The area has a diverse population, with the three main ethnic groups being the Jambi Malays, Javanese, and other Malays. The per capita income of Jambi Province is USD 3,763.89, which is below the national per capita income of USD 4,580.00. The poverty rate in Jambi Province, mainly concentrated in urban areas, is 10.48 percent, higher than the national poverty rate of 7.53 percent. The economy of Jambi is primarily agricultural, with most residents working as laborers or farmers. The province has a Socio-Demographic Index (SDI) of 0.61, lower than the national average of 0.71.

### ***Bangka Belitung Province***

Bangka Belitung consists of two main islands, Bangka and Belitung, along with several smaller ones. The population of Bangka Belitung was 1,494,621 as of mid-2022. The Province is ethnically, culturally, and linguistically diverse, with major ethnic groups including Malays, Chinese, and Javanese. It has a young population, with 34 percent of the

population being children. The poverty rate is 23.5 percent for households with an IWI below 70, 6.64 percent for those below 50, and 1.65 percent for households below 35. The economy is mainly dependent on mining, agriculture, and fisheries. The Province has achieved near-universal access to primary education, but children from the poorest households are much less likely to complete secondary school compared to their wealthier peers. Its Socio-Demographic Index (SDI) is 0.63, lower than the national average of 0.71.

### **The Fisheries Groups in Southern Sumatra**

Three fisheries groups have been established in the five provinces of Southern Sumatra, Indonesia. These are: the Capture Fisheries Group, the Aquaculture Group, and the Fish Processing and Marketing Group.

#### ***Capture Fisheries Group***

The capture fisheries group uses various types of fishing gear and methods to catch fish. The common gear types they use include longlines, spears, demersal trawls or bottom trawls, gillnets, purse seines, hook and line, pots and traps, dredges, fish aggregating devices, midwater trawls, bottom trawls, longline trawls, and turtle exclusion devices in trawl fisheries. Since different gear types have varying impacts on bycatch, habitat, and overfishing rates, and because different fish species stay in different parts of the water column and behave differently, the group ensures that the fishing gear used is specifically designed and suitable for each target species. Additionally, the fishing gear should minimize unwanted impacts on target species and marine ecosystems. Therefore, some gear types with bycatch issues have been modified, such as adding "escape zones" or exclusion devices to nets to allow unwanted animals to escape.

#### ***Target fish species***

The capture fisheries group targets various fish species depending on the location, fishing gear, and fishing mode. The most commonly targeted species include Peruvian anchoveta, Alaska pollock, skipjack tuna, various sardine species, Atlantic herring, chub mackerel, scads, yellowfin tuna, Japanese anchovy, and large-head hairtail. However, the specific fish species targeted can vary greatly based on the area and fishing practices. Fisheries management policies and population ecology are used to assess the sustainability of harvesting these species in marine fisheries. Fish abundance in each population is monitored and estimated using sonar acoustic methods and fishing activities to identify specific species within the ecosystem. The catch shares of traditionally targeted demersal fish and species with trophic levels above 3.5 reflect the biological aspects of marine capture fisheries.

## Aquaculture Group

The aquaculture group practices fish culture in freshwater, brackish, and saltwater environments, cultivating a variety of species and utilizing multiple production facilities and methods.

### Aquaculture methods

After freshwater aquaculture had started in Sumatra in the late 1970s, fish production increased significantly due to the introduction of new fish farming technologies, which led to the availability of hatchery-produced seeds and the development of compound fish feeds. The aquaculture methods used in South Sumatra are shown in **Box 3**.

Box 3. Aquaculture methods practiced in South Sumatra	
Freshwater aquaculture	Involves the farming of fish in freshwater ponds, tanks, or cages, with the most common farmed species including tilapia, catfish, and carps
Brackishwater aquaculture	Involves the farming of fish in brackishwater ponds, tanks, or cages, with the most common farmed species including milkfish, shrimps, and crabs
Marine aquaculture	Involves the farming of fish in marine water ponds, tanks, or cages, with the most common farmed species including seaweeds, groupers, and snappers
Polyculture	Involves the culture of multiple species in the same pond or tank to increase productivity and reduce the risk of disease outbreaks
Monoculture	Involves the culture of a single species in a pond or tank to maximize the growth and yield of a particular species

Aquaculture plays a vital role in Indonesia's fisheries development by supporting national food security, creating income and jobs, and earning foreign exchange. This makes aquaculture development a potential driver for the country's economic recovery. The aquaculture group ensures that growth in this sector is guided by sound environmental planning to reduce adverse effects on the ecosystem and promote sustainable expansion.

### Common species cultured

Aquaculture in the five provinces is carried out in freshwater, brackish, and marine waters using various species, facilities, and methods. Common species include common carp (*Cyprinus carpio*), catfish (*Clarias* spp., *Pangasius* spp.), Nile tilapia (*Oreochromis niloticus*), milkfish, white-leg shrimp, pangasius catfish, Asian tiger shrimp, grouper, and snapper. These species are farmed across different water types employing practices such as freshwater culture, brackishwater culture, and marine culture. Both polyculture and monoculture are used to boost productivity, reduce disease risks, or maximize growth and yields for specific species.

Recognizing that the ecological impacts of aquaculture depend on the fish species chosen for aquaculture, management, and location of facilities, the aquaculture group emphasized that in planning for sustainable development, serious consideration should be made on how the different fish species and production systems relate to available resources and ecosystems at the national and local levels. **Figure 2** shows the various capacity-building activities conducted under the aquaculture group.



Figure 2. Participants attend capacity-building activities under the aquaculture group conducted in Merangin Regency (top) and in Batanghari, Jambi, Indonesia (bottom)

## Fish Processing and Marketing Group

Several fish preparations are produced by the Fish Processing and Marketing Group in Southern Sumatra. The most common are salted, smoked, and shredded fish.

Processing salted fish involves curing it with dry salt and preserving it for later use. Salting and drying are among the oldest methods for preserving fish and meat. Before the fish is salted, water is drawn out, allowing the salt to penetrate the flesh. After maturing in salt for about a month, the salted fish should have a water content of roughly 55 percent. The water becomes saturated with salt, making it difficult for most microorganisms to survive. Once several enzymes are broken down, the fish is already preserved. Usually, the salted fish is left in the sun for several days to dry completely, enhance the flavor, and help extend its shelf life.

In smoked fish, the process involves curing and preserving the fish through smoking. After smoking, the flesh becomes tender and takes on a distinct smoky flavor that enhances the taste. Additionally, smoking helps preserve the fish by reducing its moisture content, which inhibits the growth of harmful bacteria and extends its shelf life without creating a “fishy” odor. Smoking also gives the fish product a desirable texture, making it tender and flaky. It is a healthier cooking method than frying or grilling because it doesn’t require fats or oils. However, smoking fish requires choosing the appropriate smoking wood for specific fish species during curing and smoking. The process can take several hours, depending on the type of fish and the desired level of smokiness.

In processing shredded fish, the fish is cooked and then shredded into small pieces. It is a popular dish in many cultures and regions, including India and the Caribbean. Shredded fish can be prepared in various ways, such as stir-frying, grilling, or smoking. Shredded fish is a versatile ingredient in various recipes, such as tacos, salads, and sandwiches. It is a healthy source of protein and can be prepared in various ways to suit different tastes and diet preferences.

## Results and Discussion

### Sex-disaggregated Data

To analyze the gender perspective of the fisheries groups in South Sumatra, data on the participation of females and males in each group were compiled. The data revealed a disparity in the involvement of men and women in the fisheries groups, as shown in **Table 1**. This gap is particularly evident in women’s

representation in aquaculture, fishing, and supervisory roles, whereas men’s engagement is low in fish processing and marketing groups.

As shown in **Table 1**, five provinces of South Sumatra have 733 fisheries groups with 8,356 members. Among them, 6,942 are males and 1,414 are females, comprising only 16 percent. Specifically, in aquaculture, fishing, and monitoring groups, most members are males, but females are more prevalent in fish processing and marketing groups.

From a gender perspective, there is a gap between men and women in the fisheries groups. Women’s representation is low in aquaculture, fishing, and management and monitoring groups; men’s representation in processing/marketing groups is low, but women’s representation in the implementation stage is higher than men’s. Based on interviews with stakeholders, men consider fish processing and marketing as women’s territory, so men tend to leave this area to women.

During interviews with fishery stakeholders, the planning and decision-making parameters are limited in the fisheries groups. This is because most fishers cannot take advantage of the opportunities provided by extension workers, who have previously encouraged fishers to participate actively in group discussions by asking questions, sharing opinions, developing solutions to problems, and engaging in planning and decision-making across various fishery activities. Many fishers tend to depend on group administrators and extension workers for planning and decision-making when implementing fishery programs. Consequently, Mulyaningsih *et al.* (2017) noted that, overall, most programs carried out by fishery groups have not been evaluated after completion.

Table 1. The involvement of men and women in the fisheries groups, as established in 2022

Province	Fisheries Group	Number of fisheries groups	Average number of members per group	Female	Male
Lampung	Aquaculture	97	13	115 (9 %)	1,172 (91 %)
	Capture	28	15	14 (3 %)	417 (97 %)
	Fish processing/marketing	14	11	115 (77 %)	35 (23 %)
Jambi	Aquaculture	82	13	189 (18 %)	849 (82 %)
	Capture	6	15	15 (16 %)	77 (84 %)
	Fish processing/marketing	10	9	75 (82 %)	17 (18 %)
Bengkulu	Aquaculture	49	11	111 (21 %)	419 (79 %)
	Capture	49	8	0 (0 %)	370 (100 %)
	Fish processing/marketing	12	11	116 (86 %)	19 (14 %)
Sumatera Selatan	Aquaculture	208	11	208 (9 %)	2019 (91 %)
	Capture	42	11	42 (9 %)	431 (91 %)
	Fish processing/marketing	34	10	296 (89 %)	36 (11 %)
	Fisheries management	1	34	1 (3 %)	33 (97 %)
Bangka Belitung	Aquaculture	27	10	35 (13 %)	244 (87 %)
	Capture	64	12	1 (0.1 %)	783 (99.8 %)
	Fish processing/marketing	10	10	81 (79 %)	21 (21 %)
<b>Total</b>		<b>733</b>	<b>8,356</b>	<b>1,414</b>	<b>6,942</b>

## Gender Role

The role of women in fisheries is heavily shaped by social and cultural traditions, discrimination, stereotypes, and the marginalization of women in society, as well as their dual responsibilities in public and domestic spheres (Nasution, 2007). According to sociocultural traditions, women are

unlikely to go out to sea to fish; consequently, in certain ethnic groups, women's access to productive assets and sources of capital is limited. Additionally, opportunities for women to enhance their knowledge and technical skills are quite restricted. A gender perspective was employed to conduct the gender analysis, and the results are presented in **Table 2**.

Table 2. Role of women and men in marine capture fisheries, aquaculture, fish processing and marketing, and fisheries management in the southern part of Sumatra Island, Indonesia

Sub-sector	Activity Profile	Access and Control Profile	Factors and Trends
<b>Marine Capture Fisheries</b>	<ul style="list-style-type: none"> <li>The role of women in capture fishing as a whole is less valued because it requires muscle work</li> <li>Men dominate in capture fishing, which uses fishing gear such as gillnet, trap, hook and line, <i>etc.</i>; the average fishing period is 4-5 hours/day, and the fishing grounds are in the sea, lake, or river</li> </ul>	<ul style="list-style-type: none"> <li>Wives play important roles as fishing partners of their husbands, but because of women's physical characteristics, they are more active in reproductive roles</li> <li>Women do the cleaning, trading, and processing unsold fish for household consumption</li> <li>Wives also sell the catch to collectors or middlemen when their husbands are busy</li> </ul>	<ul style="list-style-type: none"> <li>The number of women involved in the fishery value chain has slightly increased</li> <li>Men go fishing without women because it requires physical work and is constantly dangerous</li> <li>Women's perspective in terms of production is not expected to expand unless fisheries extension interventions are available</li> </ul>
<b>Aquaculture</b>	<ul style="list-style-type: none"> <li>Usually, men plan their aquaculture activities</li> <li>Mostly, men dominate in making decisions on culture facilities, like ponds, and the fish species to be cultured</li> <li>Mostly, men are engaged in seed rearing, nursery, fingerling releasing, and harvesting</li> <li>Mostly, women are involved in feed preparation and maintaining the water quality</li> </ul>	<ul style="list-style-type: none"> <li>Men had more access to and control of the resources</li> <li>Women prefer to be more involved in aquaculture activities</li> <li>Women have low participation in decision-making in fisheries management</li> </ul>	<ul style="list-style-type: none"> <li>Men are engaged in aquaculture activities without women because it requires hard work and is often time-consuming</li> <li>Women dominate in feeding fish and maintaining the ponds' water quality</li> </ul>
<b>Fish processing and marketing</b>	<ul style="list-style-type: none"> <li>Women dominate in fish processing and trading</li> <li>Women know how to process fish into valuable products</li> <li>Women see the value of fish better than men because they are more aware of the situation in the fish market</li> <li>Both men and women are involved in decision-making in processing, selling, and buying</li> <li>Women and children work together, but they have greater responsibility for preparing ingredients, cleaning and drying fish, and marketing</li> </ul>	<ul style="list-style-type: none"> <li>Women are more responsible for fish processing and marketing, including deciding on buying and selling fishery products</li> <li>Women prefer to work in fish processing; nonetheless, both women and men worked together</li> </ul>	<ul style="list-style-type: none"> <li>Women dominate fish processing, marketing, and trading activities rather than fishing</li> </ul>
<b>Monitoring, control, and surveillance</b>	<ul style="list-style-type: none"> <li>Women's supervisory role is undervalued overall, as this activity requires muscular and dangerous labor</li> <li>Men dominate surveillance activities</li> <li>Supervision includes illegal fishing activities, use of dangerous fishing gear, <i>etc.</i></li> </ul>	<ul style="list-style-type: none"> <li>Women play fewer roles in fisheries monitoring/patrol</li> </ul>	<ul style="list-style-type: none"> <li>The number of women involved in monitoring activities is minimal</li> <li>Men conduct surveillance without women because it is a dangerous task</li> </ul>

Men predominantly hold productive roles, while women are mainly involved in reproductive and household activities. Gender issues, the socially constructed differences between men and women, are key factors influencing sustainable livelihoods. Both men and women state that their participation in sociocultural activities is closely linked to biology, with men taking on more strenuous labor associated with masculinity and women engaging in lighter tasks. Recognizing and understanding women's practical and strategic needs is essential for improving development efforts and expanding benefits. However, the roles of wives are increasingly vital as they support their husbands in stabilizing fishery business operations. Both men and women contribute valuable labor to the use of marine and fishery resources. Through counseling, training, and empowerment, the engagement of both genders in the fishery industry is strengthened, leading to higher family income and improved welfare.

The study by Tabassum and Nayak (2021) explained that social and cultural norms are key factors that determine how much women can participate in decision-making, control productive assets, and have balanced power relations. They underpin inequalities that place women at a disadvantage within the household and society. Promoting better power dynamics, increasing women's involvement in decision-making, and ensuring equal control over assets can help women contribute to food, nutrition, and income security for their households and wider communities.

Marine Trends (2020) reported that in Indonesia's fisheries sector, women make up more than 42 percent of the workforce engaged in fishing activities. However, there is limited gender-specific data and information on fishing activities. Despite women's significant labor and economic contributions, statistics tend to focus on male-dominated activities. The roles of women and men in different fishery activities were described based on the gender analysis framework, which includes an activity profile, an access and control profile, and factors and trends.

In anguillid eel fisheries in Indonesia, Muthmainnah *et al.* (2022) reported that women's participation is significant, especially in marketing. However, this should be strengthened by improving their abilities, such as selling skills, how to access markets, promoting equal access and rights in utilizing eel fish resources, and incorporating local wisdom that views men (leading actors) as partners

rather than competitors with women. Women are not seen as supplementary actors in the management and use of eel resources.

Growing the number of women with knowledge and skills in fisheries is essential because it can boost women's participation in extension and empowerment activities. It offers an understanding of gender-responsive materials that highlight the need for a balanced role between men and women in marine and fisheries development.

Three subsectors are developed into fisheries groups in each province of southern Sumatra: capture fisheries, aquaculture, and fish processing and marketing. Meanwhile, in South Sumatra Province, one subsector has begun to develop, specifically monitoring, control, and surveillance. However, its implementation faced several challenges. The key factors limiting the effectiveness of fisheries monitoring, control, and surveillance include: a) weak enforcement of fisheries laws and regulations; b) lack of adequate equipment and patrol vessels to monitor fisheries activities; c) shortage of skilled personnel to enforce fisheries regulations; d) fishermen's lack of awareness of fisheries regulations.

## Conclusion and Way Forward

Fisheries extension is essential to support fishers who have trouble accessing information. Fisheries extension workers are government representatives responsible for sharing knowledge, skills, and insights with women, especially those living in remote areas of southern Sumatra.

Gender roles in fishing communities in the southern part of Sumatra, Indonesia, have a significant impact on household dynamics. Some of the ways that gender roles affect household dynamics are indicated in **Box 4**.

Box 4. Ways in which gender roles can affect fishing household dynamics
<ul style="list-style-type: none"> <li>• Women's roles in fisheries can be limited to collection, post-harvest processing, and sales, which can restrict their income and economic power within the household</li> </ul>
<ul style="list-style-type: none"> <li>• In fishing families, women are often responsible for household chores and childcare, while men take the lead role in fishing and other income-generating activities</li> </ul>
<ul style="list-style-type: none"> <li>• Women's participation in the fisheries sector is often limited due to cultural and social norms, which can restrict their decision-making power and status within the household</li> </ul>

Several policies and initiatives aimed at reducing gender disparities in fishing communities have been established and implemented in the southern part of Sumatra, Indonesia, as shown in **Box 5**.

Box 5. Policies and initiatives to reduce gender disparities in fishing communities in the southern part of Sumatra, Indonesia	
Policies and Initiatives	Objective
Good practice policy to eliminate gender inequality in the fish value chain	For the promotion of gender equality in the fish value chain by addressing gender-based barriers and encouraging women's participation in the sector
Reducing barriers to women's involvement in small-scale aquaculture	For the promotion of gender equality in aquaculture by reducing barriers to women's participation and increasing their productivity and income
Mainstreaming gender in fisheries and aquaculture	For the promotion of gender equality in fisheries and aquaculture by encouraging women's participation in decision-making and leadership roles, enhancing their access to information, counseling, and financial services, and working to reduce gender-based violence
Understanding and addressing gender inequalities in small-scale fisheries	For combatting gender inequalities by promoting women's involvement in decision-making, enhancing access to resources and services, and reducing gender-based violence
The importance of gender in fisheries	For the promotion of gender equality by encouraging women's participation in decision-making, improving access to resources and services, and reducing gender-based violence
Exploring gender inclusion in small-scale fisheries management and development	For the promotion of gender inclusion in small-scale fisheries by identifying and addressing gender-based barriers and encouraging women's participation in decision-making and leadership roles

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