# 5.6 Towards gender equality benefits in culture-based fisheries in reservoir communities in Sri Lanka

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## Abstract

CBF play a significant role in Sri Lanka's rural economy, offering employment and food security to communities reliant on inland reservoirs. While both men and women contribute to the sector, gender disparities persist in access to resources, decision-making and economic benefits. Despite the potential contribution of CBF to rural livelihoods, gender differences in participation in CBF and their consequences have not been systematically researched in Sri Lanka. The study focused on addressing this knowledge gap by providing a comprehensive analysis of roles and relations of women and men in participating, and in decision-making, in CBF in reservoir communities to identify ways to increase benefits for women. This research is envisaged as a basis for recommendations to enhance equality within this sector in Sri Lanka. A gender-inclusive, multi-method ethnographic approach was used to collect iterative qualitative and quantitative data from households in CBF communities. The study covered 7 reservoirs, located in 5 districts in Sri Lanka. A purposive sampling method was used to select a total sample of 296 respondents (49.6% female, 50.3% male). This sample comprised 32.7% of total fishing households within reservoir communities and a smaller comparative sample of non-fishing households. The main data collection method was qualitative – in-depth interviews – based on a semi-structured questionnaire. In addition to the individual interviews, primary data were also collected through 12 FGDs with women and men. Quantitative data were analysed descriptively, while qualitative data were analysed using the thematic analysis method. The study demonstrated that there is potential for women to receive equitable benefits from CBF by engaging in more gainful activities along the value chain. There is a substantial gender gap in decision-making within fisheries societies across these reservoirs, with women being significantly under-represented. Both men and women need to receive systematic attention from fisheries authorities and institutions to ensure access to fisheries resources, suitable training and financial support to overcome these obstacles.

***Keywords:*** *culture-based fisheries, gender equality benefits, gender gap, fisheries governance*

## Introduction

The full and equal engagement and benefits for women and men – in other words, gender equality – in the fisheries and aquaculture sector is fundamental for the achievement of sustainability and inclusiveness (FAO 2020). Despite playing crucial roles and making up half of the workforce across fisheries and aquaculture value chains, women make up a disproportionately high share of those working in the lowest-skilled, least stable and informal sectors of the economy (FAO 2020). They make up 28% of the primary sector employment in aquaculture, 18% in fisheries, and an estimated 50% in the pre- and post-harvest value chains apart from serving as the foundation of rural economies (FAO 2020). When focusing on gender-specific roles in CBF, men predominantly engage in fish stocking, harvesting and market-related activities (Nwabeze et al. 2013). They often control decision-making in cooperatives and community-based fisheries organisations while women contribute through post-harvest activities such as processing, drying and marketing. However, women's roles are often undervalued, and they have limited access to financial resources and training (European Commission 2003).

In developing nations like Sri Lanka, CBF as a rural livelihood have the potential to increase income and food security (De Silva 2016). Women play a significant role in the fisheries and aquaculture industry, particularly in the pre- and post-harvest stages of value chains worldwide (FAO 2022a). However, they work primarily informally and are frequently underpaid, invisible and undercounted in the aquaculture and fishing industries. They have little influence over decisions pertaining to fishing. The state of fisheries management in Sri Lanka is not all that dissimilar to the worldwide trend. In the fishing industry, low labour productivity may be a result of the pervasiveness of gender inequality (FAO 2013). In order to address this knowledge gap, systematic research is required. Hence, this study aimed to explore the opportunities and constrains for achieving equitable livelihood benefits for women and men form CBF in reservoir communities in Sri Lanka.

The main objective of the study was:

- To determine opportunities and constraints for achieving equitable livelihood benefits for women and men from CBF in reservoir communities in selected districts in Sri Lanka.

Specific objectives were:

- To identify the differences in women's and men's specific roles and relations within the livelihood system of CBF communities.
- To determine opportunities and constraints for increasing women's benefits from CBF.
- To assess differences in how women and men shape and influence fisheries governance and to explore whether the contribution of women can be increased.

This study is part of the social science component to determine opportunities and constraints to achieving socially equitable livelihood benefits from CBF, as formulated within the ACIAR project on 'Improved productivity, efficiency and sustainability of the CBF for finfish and GFP in Sri Lanka'.

## Methodology

### *Conceptual approach*

Gender equality both empowers women and contributes to the sustainability of fishery resources. Hence, a gender-equal approach in CBF is as much about justice as it is about utilising fisheries to their fullest

potential for sustainable development, healthy food systems and resilient livelihoods. By addressing gender dynamics in fisheries such as breaking stereotypes, sharing responsibilities and promoting inclusive governance, communities can foster sustainable development outcomes, such as improved food security and reduced poverty. The following conceptual approach (Figure 5.6.1), informed by the social relations approach and the theoretical perspective of Kabeer (1999), was formulated to understand how gender dynamics influence participation, decision-making and benefit sharing in the fisheries sector. The diagram presents a structural pathway to achieving gender-equal benefits, ultimately contributing to enhanced food security and poverty reduction. Gender equality in fisheries leads to achieving food security, as women prioritise household nutrition and community wellbeing; empowering them improves food availability and distribution. In terms of poverty reduction, both men and women contribute to and benefit from economic growth, with equitable access to income and decision-making.

The approach begins with recognising both men and women as key participants in fisheries. Although both gender groups participate, this inclusive perspective recognises that their roles, relations, opportunities, constraints and contribution to decision-making may differ within the 3 dimensions delineated. As mechanisms to achieve gender equality, the following intermediary factors can transform current disparities within the 3 dimensions into tangible gender-equal outcomes:

- challenging norms and stereotypes
- promoting equal responsibility
- ensuring access and control over resources
- equitable control over income and benefits
- encouraging extended participation
- inclusive decision-making processes.

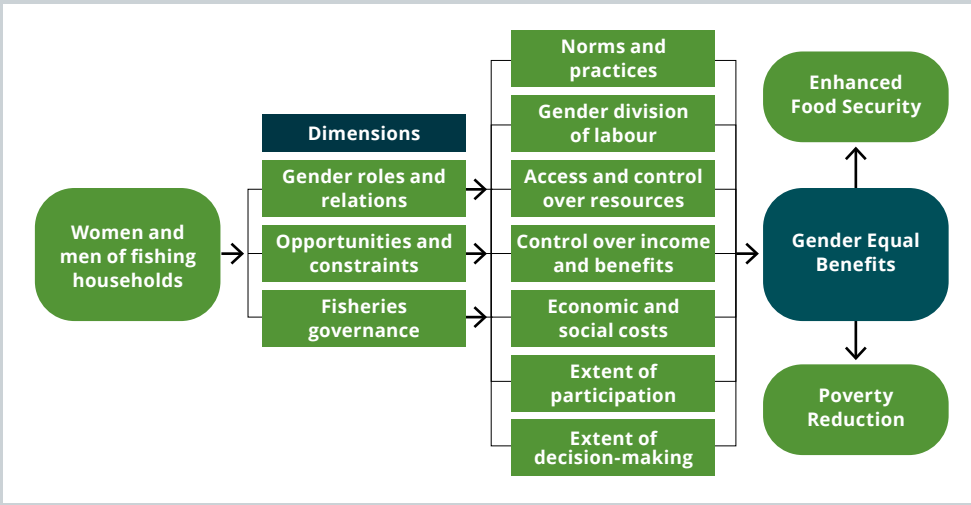


**Figure 5.6.1:** Conceptual framework of the study

This conceptual framework guides the core analysis presented below, centred on gender roles and relations, gendered opportunities and constraints, as well as gendered fisheries governance within the selected study communities in the CBF sector.

## Methods

The ACIAR project initially selected 48 reservoirs for study, based primarily on size categories (large-scale, medium-scale and minor-scale) and geographical location to cover a range of districts within the island. Through a preliminary investigation, 7 reservoirs covering 5 districts were selected for this study, based on criteria such as reservoir size, geographical location, ethno-religious diversity and the extent of involvement (direct/indirect) of women in CBF. Of the 7 reservoirs, 2 were major, 3 were medium and 2 were minor (Table 5.6.1). The reservoirs were located in Mullaitivu, Hambantota, Monaragala, Puttalam and Trincomalee districts. While 5 of the 7 reservoir communities comprised Sinhala households, the major reservoir community in Iranamadu included Tamil households, while the medium reservoir community in Mahadivulwewa included Muslim households.

The purposive sampling method (Patton 2002) was used to select individual respondents for interviews. As the main purpose of reservoirs is irrigated agriculture, with the livelihood system revolving around both farming and fishing, a larger sample (80%) of respondents from fishing households and a smaller, comparative sample (20%) from farming/non-fishing households were selected for a more detailed analysis of gender roles and relations encompassing different livelihoods. Respondents selected from fishing households comprised a 32.7% sample of the total fishing households in the selected communities (Table 5.6.1). As a gender-focused study, 49.6% of the total individual respondents were women to ensure that women's views and perceptions were adequately captured, despite fisheries being generally considered a male sphere of activity. Data collection was primarily based on qualitative methods – in-depth

**Table 5.6.1:** Study sample

| Type of reservoir | District | Name of the reservoir | Women's involvement (direct/indirect) | Total number of fishing households | Respondent sample size | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Fishing | | Non-fishing (8:2) | |
| | | | | | F | M | F | M |
| Major | Mullaitivu | Iranamadu | Direct | 197 | 20 | 21 | 5 | 5 |
| | Hambantota | Ridiyagama | Indirect | 156 | 16 | 17 | 4 | 4 |
| Medium | Monaragala | Urusitawewa | Indirect | 43 | 10 | 10 | 3 | 2 |
| | Puttalam | Tabbowa | Direct | 135 | 31 | 31 | 7 | 8 |
| | Trincomalee | Mahadivulwewa | Direct | 130 | 30 | 30 | 7 | 8 |
| Minor | Monaragala | Balaharuwa | Indirect | 33 | 5 | 6 | 2 | 1 |
| | Puttalam | Kottukachchiya | Direct | 30 | 5 | 5 | 2 | 1 |
| **Total** | | | | **724** | **237** | | **59** | |

interviews based on semi-structured questionnaires and FGDs. A total of 296 individual respondents were interviewed and 12 separate FGDs with women and men were conducted. The thematic analysis method was used to analyse qualitative data. Descriptive statistics and analysis were used to calculate patterns and trends from the quantitative data generated by the study. Key concepts and themes that require further investigation were identified based on the research questions.

## Results and discussion

The socioeconomic data of CBF communities have been initially analysed to provide the context for the main findings of the study. Social relations, centred on gender relations and roles, including the gender division of labour, gendered opportunities and constraints in engaging in fisheries, as well as gender gaps in fisheries governance are discussed in this section. This paper is based mostly on the qualitative interview data from the 237 fishing households and FGDs conducted for this study, as well as the literature review.

### *Socioeconomic profile*

As indicated in Figure 5.6.2, the ethnic composition of the sample was predominantly Sinhalese, accounting for approximately 79% of households in the selected CBF communities. Around 16% of households were Muslim, while 5% were Tamil. While this sample captured some aspects of cultural diversity, it is not representative of the ethnic composition of the Sri Lankan population as a whole, and the number of households, especially of Tamils, were too small for comparative social analysis, based of ethnicity.

Fisheries are the core of all minor, medium and major reservoir fisheries communities, as seen in Table 5.6.2. As would be

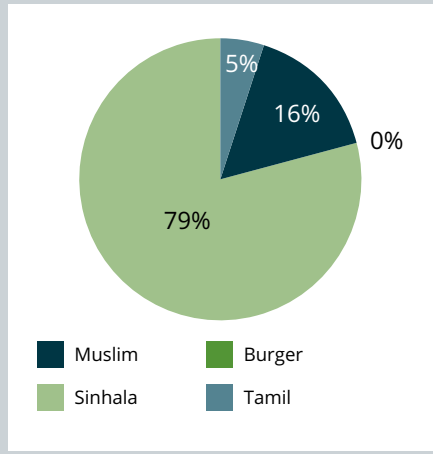


**Figure 5.6.2:** Ethnicity of the study sample

**Source:** Field survey data 2023/24.

expected from a study sample that focuses on fishing households, about 85% of the income of households in reservoir villages within the study sample is derived from fishing. This is particularly significant in small reservoir settlements, where 95.24% of income comes from fishing, highlighting the respondents' strong reliance on fishing and lack of alternate sources of income.

**Table 5.6.2:** Main income source distribution

| Income source | Minor (%) | Medium (%) | Major (%) |
|---|---|---|---|
| Agriculture | - | 9.15 | 9.45 |
| Fisheries | 95.23 | 84.50 | 85.13 |
| Casual labour | - | 0.70 | 1.35 |
| Self-employment | - | 0.70 | - |
| Government employee | 4.7 | 3.52 | - |
| Other | - | 1.40 | 4.05 |

**Source:** Field survey data 2023/24.

Agriculture, as part of a mixed livelihood system, provides a lesser income for

respondents in medium reservoir communities (9.15%) and major reservoir communities (9.45%). The government employment income is low across all the reservoirs while minor reservoirs records slightly higher value (4.7%) compared to the medium reservoirs (3.52%), implying that fisheries related livelihoods in all the fisheries communities are predominantly dependent on non-government income sources with only marginal financial engagement from the government sector. Casual labour and self-employment contribute very little, with less than 2% of income of respondents. Other income sources exist but were minimal with 1.4% within the sample of households in medium reservoirs and 4.05% in major reservoirs. As most study participants were chosen from fishing households, even if there are a number of livelihood possibilities, they are not economically significant. As a result, this group's livelihood diversification was low. These households are economically vulnerable to changes in ecosystems, weather patterns and markets since they are predominantly dependent on fishing.

Table 5.6.3 indicates the household income and expense categories, ranging from under LKR10,000 to over LKR50,000, distributed across major, medium and minor reservoir communities. The biggest proportion of households across all 3 types of reservoirs reported incomes between LKR20,000–30,000, except for those, which indicated a similar proportion in the LKR30,000–50,000 category, in minor reservoir communities. The majority (64.7%) of households in major reservoirs reported lower incomes between LKR10,000–30,000, while the majority of households in medium (80%) and minor (100%) reservoir communities indicated higher incomes between LKR20,000–50,000. Around 21.2% of households in medium reservoir communities had incomes above LKR50,000, whereas only 10–12% of households belonged to this category in minor and major reservoirs, respectively. In terms of expenses, there were more similarities among households in major and medium reservoir communities, in contrast to those in minor reservoir communities. The majority (95%) in minor reservoir communities indicated expenses between LKR20,000–50,000, in keeping with their income levels. However, the majority of households in major (54.8%) and medium (62%) reservoir communities reported expenses from LKR30,000 to above LKR50,000, above their reported income levels. As there can be under-reporting of income in surveys, reported expenditure levels might be a more accurate assessment of income. However, it is

**Table 5.6.3:** Income and expenses in fishing households in the study sample

| Reservoir type | Income/ expenses categories | Income and expenses (%) | | | | | Total (%) HHs | Total # HHs |
|---|---|---|---|---|---|---|---|---|
| | | <LKR 10,000 | LKR 10,001 –20,000 | LKR 20,001 –30,000 | LKR 31,000 –50,000 | >LKR 50,000 | | |
| Major | Income | 4.2 | 23.9 | 40.8 | 18.3 | 12.6 | 100 | 74 |
| | Expenses | 1.4 | 18.3 | 25.3 | 32.3 | 22.5 | 100 | 74 |
| Medium | Income | 2.1 | 17.6 | 30.9 | 28.1 | 21.2 | 100 | 142 |
| | Expenses | 1.4 | 14.7 | 21.8 | 29.5 | 32.3 | 100 | 142 |
| Minor | Income | 0 | 0 | 45 | 45 | 10 | 100 | 21 |
| | Expenses | 0 | 5 | 55 | 30 | 10 | 100 | 21 |

**Source:** Field survey data 2023/24; HH=Households.

also possible that the discrepancy between income and expenditure is indicative of higher debt levels in major and medium reservoir communities.

### *Gender roles and relations within CBF communities*

Gender roles and relations within the livelihood system of CBF communities reveal how men and women share responsibilities, access resources and engage in economic activities within households, which constitute the community. These roles and relations can differ across communities and societies due to cultural, social, economic and environmental factors. Gender roles define the expectations for men and women in economic, social and domestic spheres. These roles often dictate:

- Division of labour: Men often work in formal jobs, commercial farming and fishing, or other income-generating endeavours, while women handle childcare, housework and subsistence farming or fishing-related activities.
- Access to resources: Generally, men tend to have greater control over land, credit and technology, while women may have limited decision-making power in household and community matters.
- Income generation: In most societies, men dominate formal employment and entrepreneurial activities, while women engage in informal or unpaid labour.
- Decision-making power: Men often engage in household and community decision-making, while women's voices may be marginalised.

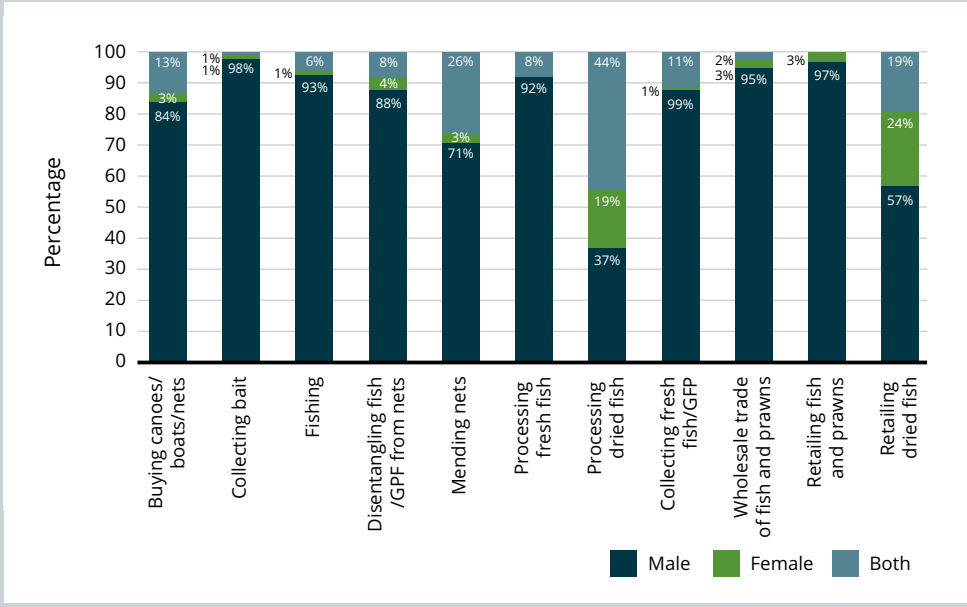


**Figure 5.6.3:** Gender division of labour in CBF activities in fishing households in the study sample

**Source:** Field survey data 2023/24.

These patterns are evident along finfish and GFP value chains within CBF communities in Sri Lanka as well. Figure 5.6.3 indicates the gender division of labour in fishing households in the reservoir communities selected for study. A traditional division, with women participating to some extent in pre- and post-harvest activities (such as net mending, dry fish processing and dry fish retailing), and men typically engaging in all pre-harvesting, harvesting and post-harvesting activities (such as collecting bait, fishing, processing fresh fish, trading), is evident. Dried fish processing and retailing are the only 2 activities in which both parties were involved together to a greater extent relative to other activities.

The majority of activities associated with fishing are dominated by men. Households indicated collecting bait (98%), fishing (93%), disentangling fish from nets (88%), mending nets (77%), processing fresh fish (92%), collecting fresh fish/GFP (88%), wholesaling (95%) and retailing (97%) fresh fish/GFP as male activities. In 19% of households, dried fish processing was indicated mainly as a female activity, while in 44% of households it was indicated as a joint activity by women and men. In 24% of households, retailing of dried fish was indicated as a women's activity, while in 19% of households it was indicated as a shared activity between women and men. Thus, women were engaged in dried fish processing in 63% of households and in dried fish retailing in 43% of households (Figure 5.6.4). Fishing as a women's activity was only reported in 1% of households, while it was reported as a joint activity of men and women in 6% of households – revealing that women fished in 7% of households surveyed. Overall, women were more engaged in household chores and domestic tasks, such as cooking, cleaning and childcare than in CBF-related activities. Thus, underlying social norms or cultural practices, which shape men's roles within the public sphere and women's roles within the private sphere, are evident in this study of CBF communities in Sri Lanka.

In exploring social relations within CBF communities, social networks linking male and female household members to their communities emerge as significant. Both women and men rely heavily on their

**Figure 5.6.4:** Dry fish processing by women

**Source:** Field survey data 2023/24.

immediate family (spouses, children, in-laws) for emotional, financial and practical support. Financial support was frequently mentioned, especially in emergencies. Women emphasised cooperation and reciprocity helping with food, labour and caregiving in return for similar support. Some respondents highlighted neighbourly support, particularly in times of crisis (such as sickness, financial difficulties). In terms of livelihood support, family members play a central role in sustaining fishing-related work. Wives assist with mending nets and household finances, while husbands help with farming or household chores. Some respondents mentioned trust in buyers and traders, who provide fair prices or essential supplies at concessional rates. Except for a few instances where financial aid or subsidies were received, for example, the government had given subsidies to a small number of fishers to buy boats and fishing gear, there was little evidence of external support from NGOs or the government.

### *Gendered opportunities and constraints*

Fieldwork data revealed a gendered division of opportunities and constraints within CBF communities. For male fishers, the opportunities are concentrated in the fishing activity itself and economic benefits derived from it as a primary income source, and potential for diversifying and/or increasing fish production. Thus, the expansion of GFP, as a high-value export product increases their prospects for higher incomes from CBF. Meanwhile, the prevailing opportunities for women of fishing households are mainly associated with post-harvest activities, such as dried fish processing and trading, and household financial management, rather than direct engagement in fishing. Women have some potential to increase incomes from dried fish processing and retailing. Even though women are considered skilled at primary post-harvest handling of GFP, which needs to be treated carefully to prevent damage to the claws and carapace, and therefore potential to increase incomes from this product, current levels of GFP production do not appear to be sufficient to provide adequate employment opportunities for women.

Women face significant constraints related to societal expectations, sociocultural norms and practices, religious beliefs, and a lack of historical involvement and training in fishing itself. These constraints can limit their engagement in CBF-related economic activities and full participation in the fisheries sector. Women are expected to prioritise housework and childcare, which are consistent with their roles as housewives and mothers, according to underlying gender norms. Hence, fisheries activities are perceived as secondary to their domestic responsibilities. Religious perspectives, especially the prescription among Buddhists to refrain from taking life, influence women more than men, as women tend to be more involved in religious activities. Lack of knowledge and experience in fishing are other constraints that prevent them from receiving higher economic benefits from CBF activities.

The constrains for male fishers are not related to their gender role as fishers and income-earners of households. Access to fisheries resources due to tenure issues, negative impacts of illegal fishing, as well as environmental uncertainties, which affect fishing and fish stock directly, are some of the constraints faced by male fishers. These constraints can affect their fish catch, and thereby have an impact on the wellbeing of their families in terms of food security and incomes of the household.

In order for CBF communities to prosper equitably and sustainably, it is critical

to address the limitations that women encounter by:

- promoting women's involvement in more stages of the fisheries value chain, by addressing restrictive gender norms and practices in a constructive manner
- providing financial assistance, appropriate training and access to the fisheries resource to women
- taking religious and cultural sensitivity into account while looking for greater gender inclusion
- addressing environmental uncertainties that affect both men and women to ensure wellbeing of fishing households.

### *Gendered fisheries governance*

Effective governance is critical to ensuring the sustainability and productivity of CBF, requiring a multifaceted approach that integrates ecological, social and economic considerations (Linke and Bruckmeier 2014). The governance of fisheries in inland reservoir communities in Sri Lanka comes under community-based fisheries societies linked to these reservoirs, established within the purview of NAQDA. The levels of activity, efficiency, leadership and access to different groups, including participation by men and women, differ widely across fisheries societies. Table 5.6.4 provides disaggregated data on male and female members of fisheries societies associated with the reservoirs selected for this study, categorised by their size (major, medium and minor).

Data analysis reveals predominance in male membership in all fisheries societies, with 4 of the 7 reservoir communities indicating a total lack of female membership. Male membership is substantially higher than female membership in fisheries societies in the other 3 reservoir communities as well. This includes Iranamdu (major) with the highest female representation of 28%, followed by Thabbowa (medium) with 25% and Urusita (medium) with 16.6% female membership. There is no necessary link between female involvement in fisheries societies and reservoir size. While fisheries societies associated with 2 two minor reservoirs selected for the study had no female members, those linked to one major reservoir and 2 minor reservoirs included some representation by women.

Participation in decision-making is crucial for promoting equitable and sustainable fisheries. Women also have accumulated knowledge, experiences and perspectives related to fisheries; these are vital to develop effective policies and sustainable strategies. As indicated in Figure 5.6.5, there is very low female participation in

**Table 5.6.4:** Membership in fisheries society by reservoir and gender in the study sample

| Type of reservoir | Name of reservoir | Male % | Female % |
|---|---|---|---|
| Major | Ridiyagama | 100 | 0 |
| | Iranamadu | 71 | 28 |
| Medium | Mahadivulwewa | 100 | 0 |
| | Tabbowa | 75 | 25 |
| | Urusita | 83 | 16.6 |
| Minor | Kottukachchiya | 100 | 0 |
| | Balaharuwa | 100 | 0 |

**Source:** Field survey data 2023/2024.

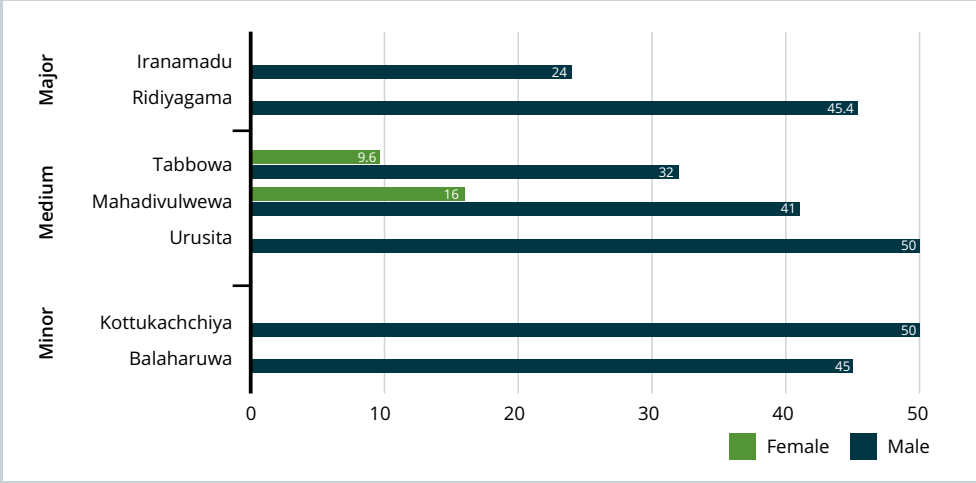


**Figure 5.6.5:** Participation in decision-making in fisheries societies

**Source:** Field survey data 2023/2024.

fisheries governance, as expressed in decision-making within community-based fisheries societies. Ridiyagama, Urusita, Kottukachchiya, Balaharuwa and Iranamadu reservoir communities reported no participation of women in decision-making within their fisheries societies. The highest female participation in decision-making was indicated in Mahadivulwewa (16%), despite not being members, it was said that the women of the Mahadivulwewa fishers' association attend meetings on behalf of their husbands and therefore express their thoughts. Even when women join fisheries societies as members, their participation in and contribution to decision-making, especially in terms of expressing their opinions, is minimal. They mostly attend society meetings to represent their husbands in cases where the latter are unable to participate, or to replace their deceased husbands. Therefore, women's voices within fisheries societies are very limited. While women reported that they expressed their views at meetings in Iranamadu, they perceived that they did not contribute to decision-making. Thus, this analysis reveals a clear gender imbalance in leadership and influence. Limited voice of women reveals a lack of consideration of their perspectives, needs and priorities. The potential barriers to female participation are linked to sociocultural norms that result in lack of family support and opportunities for women to express their perspectives.

## Conclusion

According to this analysis, CBF have the potential to benefit both men and women. However, the economic benefits currently accrued to men are greater than that received by women, due to the predominance of men in most nodes of CBF value chains. The CBF sector can maximise the productive potential of both male and female members and their wellbeing by fostering an inclusive atmosphere, which will increase sustainability, economic

development and food security. It is necessary to remove the fundamental constraints that exist in the CBF industry for both women and men to have better opportunities and to obtain equal benefits. In order to achieve such benefits, both men and women need to be involved in fisheries-related activities, and space has to be created for them to produce and process products that will bring higher returns. It is especially important to address gender disparities so that women are located in value-chain nodes which will bring them greater benefits. For women to have a greater voice in the operation and development of CBF, their contribution to the governance of the fisheries sector is critical. Thus, achieving equitable representation and more efficient, sustainable CBF management entails greater efforts to advance gender equality and inclusion along the value chain, as well as in fisheries governance.

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