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AN ASSESSMENT OF WOMEN'S PARTICIPATION IN COMMUNITY-BASED DRINKING WATER SUPPLY SCHEMES RUN BY COMMUNITY BASE ORGANIZATIONS (CBOS) IN RATNAPURA DISTRICT

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ABSTRACT:

This research study reviews and assesses women's participation in community-based organizations (CBOs) that operate and maintain rural water supply schemes in Ratnapura district in Sri Lanka. The article analyzes women's participation at all levels, from the bottom to the top of CBOs, and discusses the socioeconomic and cultural factors that influence women's participation. The study used both qualitative and quantitative data to construct a participation ladder for determining the level of participation of women in CBOs. The research revealed that women were more actively involved in the project implementation stage when it was supported by projects than when it was implemented by the community on its own. Women were actively engaged in the lower and middle levels of the CBOs. However, women's representation in leadership positions, which are significant in decision-making, is still low. Women have been excluded from leadership positions as well as paid job positions offered by CBOs, especially in mega-scale CBOs with over 500 members.

1. Introduction

Safe drinking water is a fundamental need and a human right (UNICEF, 2017) and SDG #6 ensure availability and sustainable management of water for all by 2030. Furthermore, there is a strong link between SDG target 5 (Achieve gender equality and empower all women and girls) and target 6 (Ensure access to water and sanitation for all) (United Nations, 2015). However, over 785 million people still lacked access to even the most basic drinking water facilities (Center for Disease Control and Prevention ,2019). Similarly, when it comes to water and sanitation, men and women have different priorities and requirements. Women are the primary collectors, carriers, consumers, and managers of household water. UNICEF (2018) have reviewed 61 countries, and came up with the conclusion that women were mainly responsible for water collection in nearly three out of four households with water off premises. Every day, women and children all across the world spend 200 million hours fetching water. Furthermore, every day, women and girls spend 266 million hours looking for a location to collect water (Water.org, ,2015). Water is required not just for drinking but also for food production and preparation, animal care, personal hygiene, sick care, cleaning, washing, and trash disposal. Women, in particular, have unique hygiene requirements due to their reproduction role, especially during menstruation, pregnancy, and child bearing. As a result of their daily reliance on water, women have developed extensive knowledge about water resources, including location, quality, and storage methods (UN-water, 2012). Thus, women play an important role in water related decision-making. However, in many socioeconomic contexts, males continue to be the key decision makers in the development and provision of water resources. According to IWA, women make up less than 17% of the water, sanitation, and hygiene workforce in developing economies, as well

as a small percentage of policymakers, regulators, managers, and technical experts (OECD 2019).

In rural areas where the formal sector fails to provide adequate drinking water supply, community-driven drinking water supply systems play a vital role, particularly in developing countries (UN Water, 2019). There are several factors that influence the operation, maintenance, and long-term sustainability of these community driven water supply schemes, including active engagement by all segments of society, especially marginalized groups such as minority ethnic groups, law cast groups, the poor, landless, illiterate, or women (Oakley, 1991; Uphoff et al., 1998). In particular, women's participation in water supply projects can offer a number of advantages for both women and the project, as well as contribute to overall development (Wijek, Christine Van, 1985). However, women's participation in Community Based Organizations (CBOs) that operate and maintain rural water delivery schemes is limited around the world. (Mommen, B., Humphries-Waa, K. and Gwavuya, S. 2017).

In Sri Lanka, 93.5% of people have access to safe drinking water as of December 2020. Of this population, 53.1% have access to piped water provided by the National Water Supply and Drainage Board (NWS&DB)(43.6%) and community-driven water supply schemes (9.5%). Dug wells (36.4 %), tube wells (3.2%), and rainwater collection (0.5%) provide drinking water to the rest of the population (NWS&DB, 2017). However, there is a wide disparity in these statistics between the urban and rural sectors of the country. There are around 4000 rural water supply schemes in Sri Lanka, the majority of which are maintained by CBOs (NWS&DB, 2017; Asia Development Bank, 2020).

According to the Asian Development Bank, women play a significant role in community-based water management in Sri Lanka in bottom level. (ADB, 2016). Nonetheless, women are less likely to hold leadership positions in the rural water supply system, which is managed by community-based organizations, (World Bank blogs, 2020). In practice, since the mid-1990s, when most community-driven water delivery programs began, there has been a high demand for ground-level gender sensitive Water Sanitation and Hygiene (WASH) studies in the country (Atukorala, 1996). In 2018, the Department of National Community Water Supply (DNCWS) of Sri Lanka conducted a census of all community-driven water supply schemes in the country. Based on gender-related indicators, the study has ranked all CBOs as good, moderate, or bad in terms of gender empowerment. According to the census, 48% of CBOs are good, 2% are moderate, and 50% of CBOs are bad in terms of gender empowerment. In the Rathapura district, 56% of CBOs are bad. 1% are moderate, and only 43% are good in terms of gender empowerment (DNCWS, 2019). However, this ranking is based only on the number of female representatives on the CBO executive committee. In fact, these figures indicate the poor gender balance in CBO operations because very a smaller number of “moderate” scores for gender which was assessed by number of males and females engaged in leading roles. However, these facts should be systematically identified and analysed in order to gain a thorough picture of women's participation in Community Base organizations (CBOs).

As far as researchers’ knowledge, there is no comprehensive study on women's participation in community driven water supply schemes in the country. In addition, the United Nations mentioned that gender focus in large worldwide surveys is limited and declining in 2005-2015 *(*Fletcher, A. and Schonewille, R. 2015). As a consequence, incorporating a gender lens is vital for WASH, and researchers are encouraged to study the gender impact of WASH activities (Caruso, Bethany, & Sinharoy, Sheela, 2019). Accordingly, there is a serious gap in women engagement as well as working men and women together in CBOs. Meanwhile there is a gap to be bridge in available scientific knowledge in women participation for CBOs. With the aim of bridging this gap we targeted out study to level of women participation in CBOs.

2. Objectives

I. Determine the structure of CBOs.
II. Analyse the gender distribution across the membership and leadership positions in CBOs
III. Analyse the women's participation in the decision-making process in the CBOs
IV. Discuss the socio-cultural factors affected to the women participation in CBOs

3. Methods

3.1 Study Area-Ratnapura district

Ratnapura district is in Sabaragamuwa province in Sri Lanka with a population of 1.1 million. Of this population, 49.3% are male and 50.7% are female. The total land area of the district is 3,275 km^2. (Department of Census and Statistics, 2018). Around 11% of the population in the district lives in poverty (Department of Divineguma, 2015). Access to pipe-borne water was 46%, with rural water supply schemes accounting for 28% and NWS&DB accounting for only 18% as at December 2020 in the district (NWS&DB, 2020). Around 83,500 families (28%) in the Rathnapura district have access to safe drinking water through community-driven water supply schemes (NWS&DB, 2019).

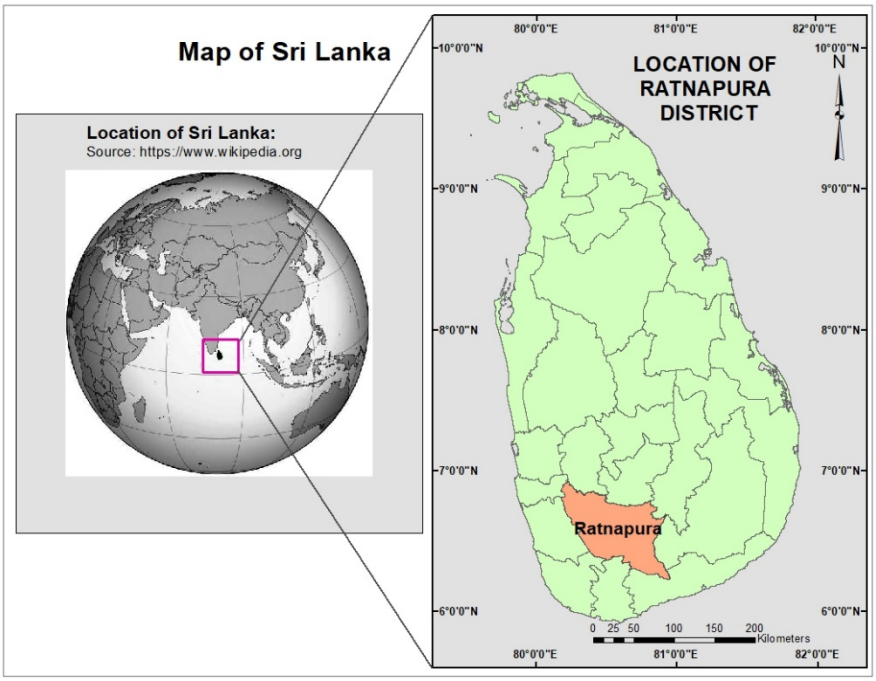

Figure 1 Location of the Study area

3.2 Sample selection and data collection tools

Both qualitative and quantitative data are used in the study. Data was gathered via a questionnaire, focus group discussions (FGD), and key informant interviews (KII). A total of 145 CBOs were chosen for the questioner survey using a simple random sampling method from a total of 416 CBOs in Ratnapura district. Secretaries of CBOs were chosen to respond to the questionnaire since they are well-versed in all of the CBO's information. Focus group discussion conducted with 15 number of women groups. For a better understanding of women's participation in CBOs and related socio-economic factors, key informant interviews were conducted with 12 key officials from the Department of National Community Water Supply (DNCWS) and the Water Supply and Sanitation Improvement Project (WaSSIP). Secondary data such as meeting minutes and desk reviews with officers from each CBO were also gathered. The data were evaluated using the descriptive analytic approach after the questionnaires were analysed with Microsoft Excel program (2016).

To identify and assess the level women's participation in the CBOs, a women's participation ladder was developed as a part of the study. The Conceptual Framework to Inform National and Global Monitoring of Gender Equality in WASH, which was developed by Joint Monitoring Program (JMP) (Bethany et al., 2021) and a gender participation ladder, which was developed in a learning section in Uganda (Knowledge Management fund, 2019), were taken into account to develop this framework.

Table 1 **Women participation ladder**

Level	Classification	Description
1	Manipulation	Women do not participate in any level of committees. Their views are not sought and their needs are not even assessed.
2	Tokenism	Women are members of the lower and middle levels of the CBO, but only because it is a requirement of the donor agencies. They may be informed of their role and what is expected of them, but they do not have the opportunity or the influence to share their views or shape their own roles.
3	Consultation	Women are members at the lower and middle levels, and they were informed about their role and asked for their input. Their views are listened to and may help to shape decisions and plans, but exactly how their input is considered may not be clear and they are not included in the actual decision-making.
4	Engagement	Women achieve equality at lower and middle levels. such as small groups, CBO membership, and in the executive committee. Their voice is powerful and they can have an influence on middle level decision making. But high-position leadership

		and well-paid positions remain low.
5	Partnership	Complete equality of men and women at the small group level and the highest levels, such as the chairman and well-paid positions. Women and men who are committee members jointly plan and make decisions. Either may instigate a project, and the input of both is valued equally.

4. Result and Discussion

4.1 Community Base organizations (CBOs) in Ratnapura district

Ratnapura district is located in the country's wet zone and, due to the geographical and climate conditions, there was no substantial water scarcity except in the south-eastern edge of district. However, in the early 1990s, there was a huge demand for safe drinking water because most people were getting drinking water from unprotected sources such as streams and dug wells. As a result, in 1990, the Sri Lankan government, with the help of donor agencies, launched community water supply schemes throughout the district. There are around 416 community-driven water schemes that are currently in operation, and the majority of these schemes began between 5 and 30 years ago. The age of community-driven water supply schemes is shown in the figure below. More than half of the schemes (55%) started between 21 and 30 years ago, 27% started between 11 and 20 years ago, and 6% started more than 30 years ago, 5% started between 6 and 10 years ago, and 7% of the schemes started recently.

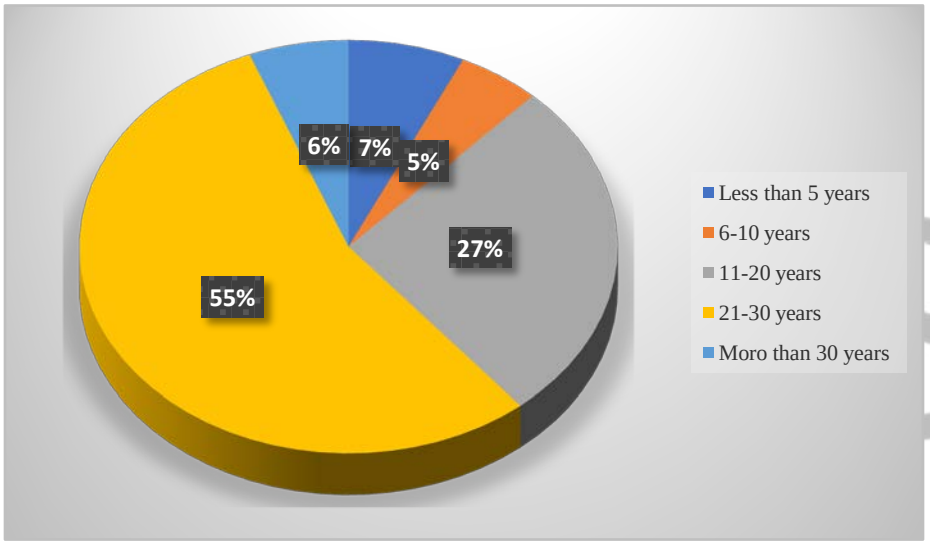

Figure 2 Age of the community-driven water supply schemes in Ratnapura district

The CBOs operate and maintain all of these community water schemes (416). CBO can be identified as a community-based organization that primarily focuses on providing piped drinking water to its members' households. The main goal of every CBOs in the district is to provide piped drinking water to their members' households. The majority of these CBOs were registered with the Department of National Community Water Supply (DNCWS), which is administered by Ministry of Water Supply. Basically, every member of the CBO was a water consumer. The size and function of the CBOs were often determined by the number of members. Thus, based on the number of consumers, the study divided the CBOs into four categories, namely small (less than 99 members), medium (100 to 299 members), large (300–499 members) and mega (more than 500 members), as shown in figure 3.

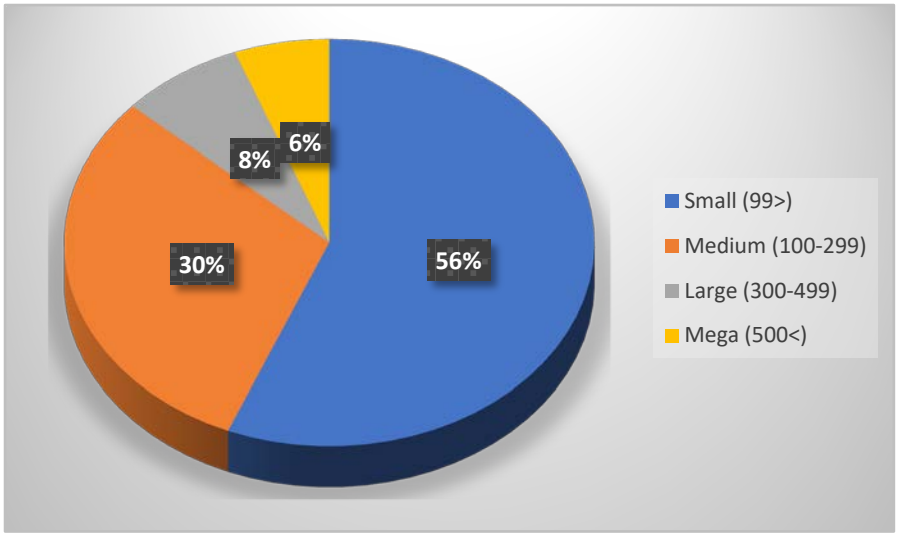

Figure 3 Size of the CBOs base on the number of consumers

The CBO is mostly structured like a community-based organization that serves a variety of purposes around the country. However, the majority of CBOs, especially medium-sized, large, and mega scale CBOs, recruited employees such as system operators, clerks, and meter readers to operate and maintain water schemes. At Mega Scale CBO, they employ a team of 6 to 10 people, including a manager and a water quality tester.

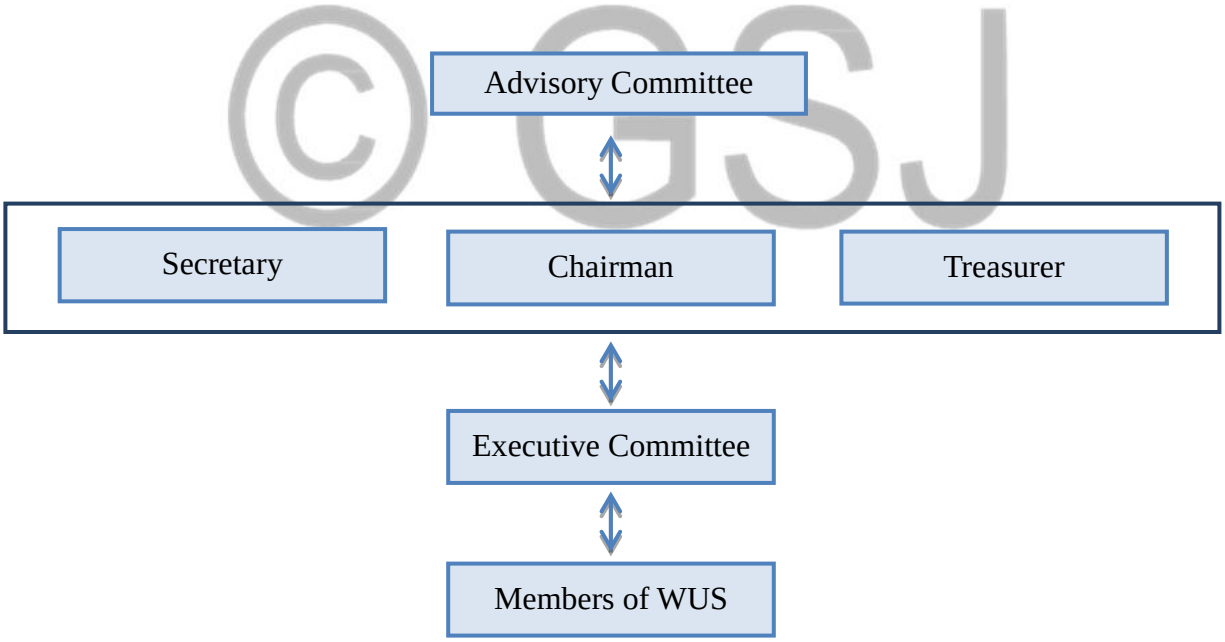

Figure 4 Administrative structure of CBOs

4.2 Women participation in design and implementation stage

As previously stated, the majority of community water supply schemes in the district were implemented by foreign-funded government projects. Accordingly, 85% of water schemes and related CBOs have been established with the help of those projects. The remaining 15% of the water schemes have built the communities without any support or guidance, and all of these water systems belong to the small-scale category. However, later government projects and non-governmental organizations assisted these CBOs for improvement and rehabilitation. Thus, women's engagement is comparatively low, in these schemes, which are initiated by the community on their own. During the implementation stage, just around 10% of the women were involved in the labour contribution. The men were also in charge of leadership and decision-making in most cases.

The water supply systems that were implemented by the government projects were created with community participation in mind, and the projects were particularly sensitive to gender issues and women's involvement. The community contribution was required to be included at the design stage. Before the CBO was established, as a specific approach to empower women, small groups were formed during the mobilization stage. These small groups were active in the design and implementation stages, and for a small group, there were 6–9 members (one member from each household in the group) and one leader. The project's community mobilizer employed unique tactics such as a raffle system known as "*seettu*" in the local language, through which women could save money and basic foodstuffs such as rice. Small groups used to meet once or twice a month, and women played a key role in those small groups. In practice, small groups were a type of technique used by implementation agencies to increase community contribution as well as women's engagement. Women made up to about 85% of the members and 90% of the small group leaders. Women were also engaged to construct individual latrines for group members who lacked adequate sanitary facilities. Women supplied roughly 65% of the overall labour input for the latrine building sub project. However, the majority of these inputs were for unskilled labour work, such as carrying materials and assisting with masonry work. A major reason for this situation is that skilled labour work is dominated by men, with women rarely entering the construction field in the country.

During the implementation of the water supply project, the community contributed 10% to 30% of the overall cost, while the project implementation agency paid 70% to 90% of the total cost. Some CBOs have accepted lobar contributions, while others have raised funds from members and hired contractors to finish their portion of the project. For an example, in WaSSIP projects, the communities have carried out the trench excavation work for pipe laying. Around 60% of women participated in the implementation stage for the labour contribution. The majority of the women were pleased to recall the project's implementation stage and were proud to say that it was accomplished by them.

CBO, which collected money from the community in exchange for contributions, received the same amount from all households. The sum collected ranged from LKR 1000 to LKR 8000. According to the CBOs, 90% of women-headed households have paid their payment on time. According to CBO offices, regardless of economic conditions, women heads are very concerned and responsible for contributing to the collective welfare.

4.3 Women participation in CBOs in Operation and maintenance

After the rural water supply scheme construction is completed, the implementing agency handovers the entire system to CBO for operation and maintenance. The CBO then operates the water supply scheme, and CBOs are monitored by the Department of National Community Water Supply. CBO should supply water to members, who should pay their water bills, and the system should be self-sufficient. Despite the fact that there are numerous challenges to sustainability, most of these CBOs are able to continue their service in the district.

4.4 Women as Members of CBOs

CBO membership and participation is a good start toward giving women a voice in the water supply sector. Of the total members of all CBOs, males account for 76% of the membership, while females account for only 24% in the district. However, this is not the real picture of women's participation in the CBOs. Actually, in most cases, wife was the CBO' active member, but she has enrolled her husband's name as the member, and this is related to the country's patriarchal culture. Despite the fact that the adult female has a substantial amount of domestic authority, the adult male is often seen as the household's head in Sri Lankan society, and only those who live in families without an adult male, such as widows and divorced women, register their names as CBO' members. Literally, women's participation in the CBOs is significantly higher than men's, particularly in general assemblies and other common activities such as labour contribution. Generally, *Mahasaba* (general assemble) should be held once every three months and a minimum of 70% of the members should participate in these meetings. The study calculated women's participation in general assemblies based on the last three general meetings. Women made up more than half of all attendance, according to almost all of the CBOs.

The study takes into account women's voices in meetings to determine active participation. According to the meeting minutes, women accounted for 60% of the total number of voices raised during the time allocated for further thoughts and proposals. Women were responsible for around 70% of the total confirmation of ideas and proposals. Furthermore, women made up over 60% of all the members who came up to speak and take action on their individual or common water-related issues at the meeting.

4.5 Women as leaders of CBOs

The executive committee is the CBO's next level, where many financial and technical decisions are made. During the early stages of the CBO, the implementation agencies used certain tactics to increase the number of women on the executive committee. The most significant approaches are mobilizing and empowering women early on, selecting executive members from small groups and introducing a mandatory quota.

The number of executive members varies from one CBO to another. Most of the time, the number of executive committee members

was based on the number of members of the CBO, with a minimum of 5 and a maximum of 15. Out of all the CBOs executive members, 59% of them are male and only 41% of them are female in the district.

The following figure demonstrates the proportion of male and female executive committee members in each category of water user societies. When compared to the other three categories, the proportion of women on executive committees in mega CBOs was the lowest (28%). Furthermore, when compared to medium-scale (45%) and large-scale (44%), the number of female executive members in small-scale CBOs was lower (39%).

In most CBOs, women and men have the same influence when it comes to financial decisions (90%). However, in most CBOs (about 85%), men had a significant influence on operation and maintenance decisions, particularly in technical matters.

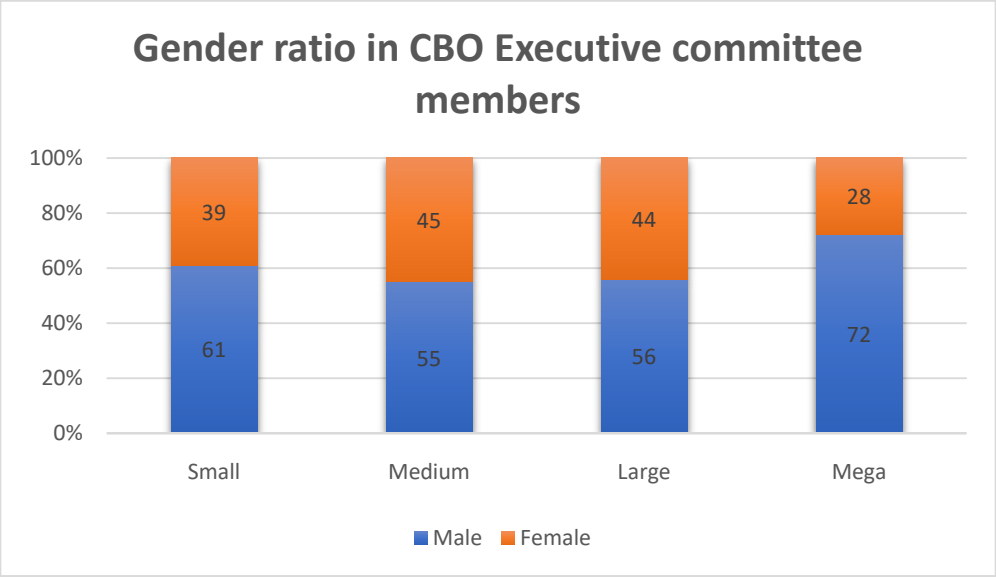

Figure 5 Gender Ratio of CBO executive committee members

The executive committee usually meets once a month. In those executive committee meetings, 40% of CBOs stated that males are dominant in decision-making, 31% of CBOs stated that females are dominant, and 29% stated that both contribute equally to decision-making and voicing their opinions.

The Chairman, Secretary, and Treasurer are the CBO's most important and highest-ranking executives, with primary responsibility for the CBO's operation, maintenance, and development. Of all the CBO treasurers, 65% of them were men, while 45% were women. When compared to the other categories, the number of female treasurers in CBOs was lowest (24% in mega-scale CBOs), as shown in the figure below.

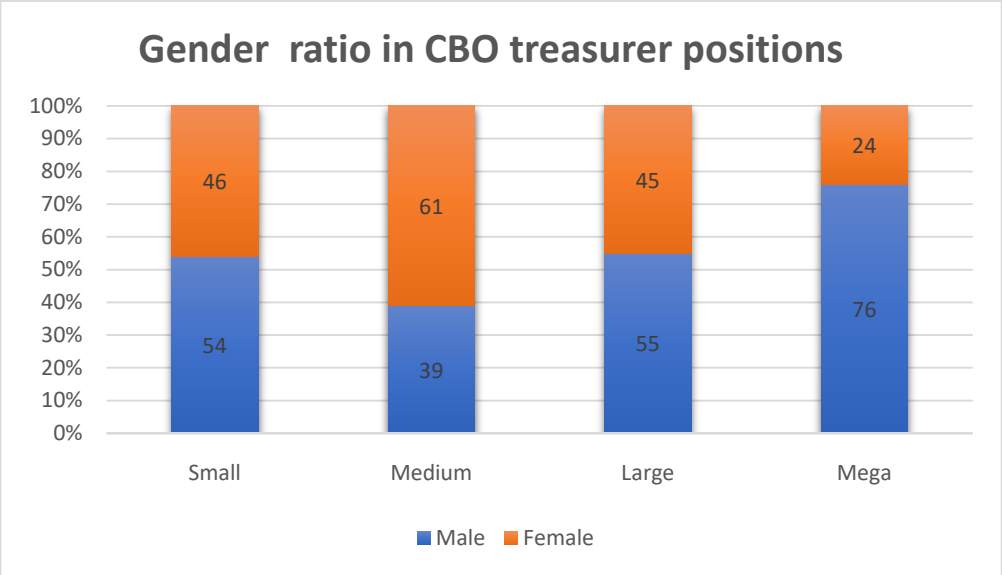

Figure 6 Gender ratio in CBO treasurer positions

In Sri Lanka, women are considered as good financial mangers specially in the household financing. On the other hand, most of the women do not spend money on smoking or drinking alcohol when compare to the men in the country. Considering all these reasons, people believe that women do not waste or mismanage the money belonging to CBO, and so community members were willing to appoint women as treasures. However, when the CBOs grew to a mega-scale, it became a well-known organization, and males began to take up leadership roles, while women appeared to be excluded from all the high ranked positions.

Only 47% of the CBO in the district secretaries were male, while 53% were female. However, the number of female secretaries remains low (24%) in mega-scale CBOs, and only in the medium-scale CBOs, percentage of female secretaries (61%) higher than the percentage of male secretaries

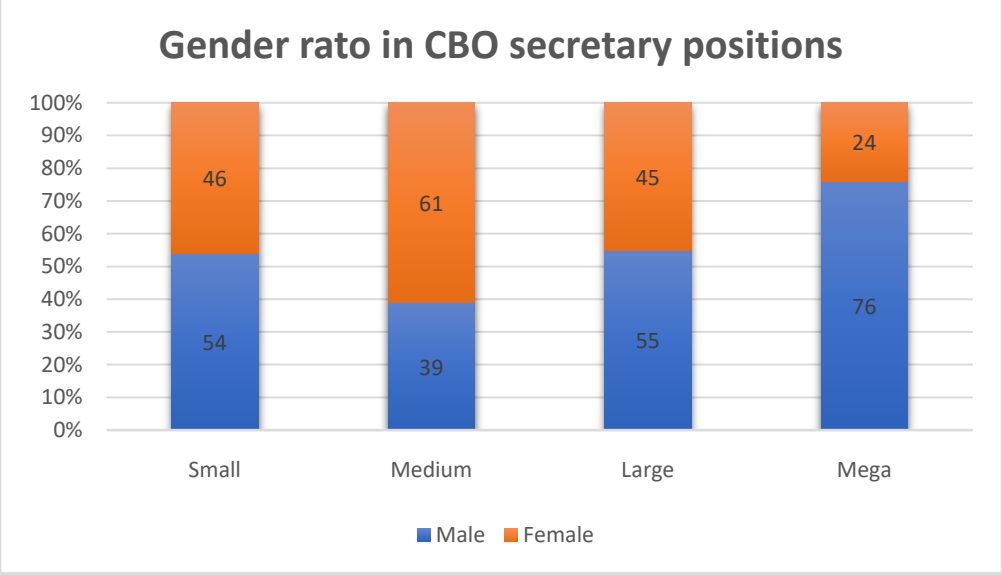

Figure 7 Gender ratio in CBO Secretary positions

Many record keeping and document related tasks are associated with the position of secretary, and most men dislike taking this position because it requires desk labor. The community also thinks that women are capable of performing this type of work, which requires order and neatness.

The chairman position is the most powerful leadership position in the CBO. In CBOs, there is a significant gender disparity in the po-

sition of chairman. Only 4% of the chairman positions have gone to women, while 96% of the positions have gone to men. The following figure shows that almost all of the chairmen in the CBOs, which goes on a mega-scale, are men.

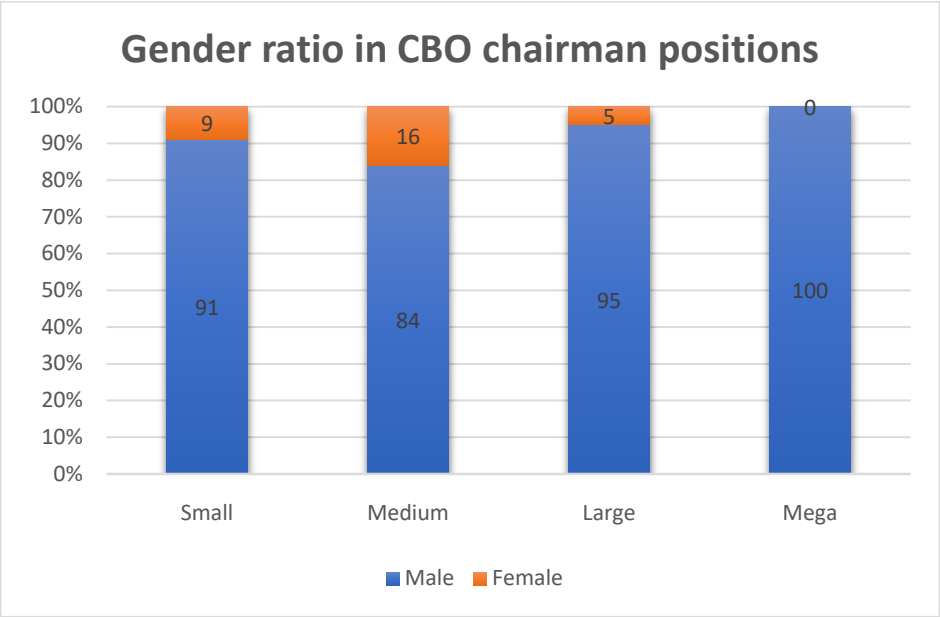

Figure 8 Gender ratio in CBO Chairman positions

Men's dominance of chairmanship is a gender stereotype in many sorts of community-based organizations across the country, not only in the CBOs which run drinking water suppy schemes. While men are ready to hold this role, women lack confidence in their ability to hold the post of chairman. With the popularity as chairman of the CBO, some men were even able to be appointed as candidates for local level political leadership positions. This is also a motivating factor for men to become CBO chairman, while women's political representation in the country also remains low in the country.

The advisory committee is the CBOs' next set up. However, members of the advisory committee may not participate in CBO' operations directly. Thus, some sort of authority provides counsel to the CBO when it is required or when they believe anything is going wrong in the CBO. The advisory committee is made up of community leaders such as village level religious leaders and the head master of the village school, as well as local level political and administrative authorities such as Grama Niladari (the government's village level administrative officer). Men make up 95% of the advisory committee memberships, while women make up only 5% of all CBOs in the district. Traditional village leaders are frequently men in the country. Therefore, all of the women who have been appointed to advisory committees were administrative officers.

4.6 Women as paid workers of CBO

The middle, upper middle, and large-scale CBOs have recruited paid personnel, even though the smallest CBOs were usually maintained by the CBO' leaders since in such schemes operation and maintenance work are comparatively low. However, in some cases, an officer of a CBO serves as both a CBO officer and a paid employee. Men hold the vast bulk of paid positions (85%), while women hold only 15% of paid positions. Almost all of the system operators and meter readers were men, with women only being hired as clerks to do office duties.

The lack of women in paid CBO employment is primarily due to gender stereotypes in the whole country's labour market. On the other hand, both CBO leaders and the community believed that women were unable to perform these tasks due to various cultural biases. Most of the CBO male executives also believe that women were unable to perform field level maintenance. For an example, according to them, if a breakdown occurs late at night, women are unable to attend it due to security concerns. Many women also share this belief, but some claim that they are better equipped to perform this role than men since they understand the value of water and familiar with their own community.

4.7 Women participation in awareness Training programs

CBOs have benefited from a variety of awareness and training programs provided by both governmental and non-governmental organizations, all of which have assisted in the participant's self-improvement as well as the development of CBOs. Normally, awareness programs are held in the relevant village. However, because participants came from some of the other CBOs, technical and financial training sessions were organized in a training center outside of the village. Due to the COVID-19 pandemic, many awareness and training programs were cancelled in 2020 and 2021. As a result, the study considers the awareness and training programs that were conducted in 2019. Women made up 76% of all participants in all water sanitation and hygiene awareness programs. In leadership training programs, 46% of participants were women. Only 5% of women participated in technical training programs such as water treatment and pump operations. Women made up 60% of the participants in finance and administration training programs such as record keeping and office management training programs, as well as accounting.

5. Conclusion

CBOs operates and maintains around 416 rural water supply schemes which provide pipe borne water supply to the households in Ratnapura district. The structure and function of the CBOs which run drinking water supply schemes are similar to other CBOs that serve a variety of objectives across the country. Based on the number of members, the study divided CBOs into four categories, namely small, medium, large, and mega. The majority of these community water schemes began between 5 and 30 years ago, with the help of a government-funded water supply improvement project. However, some small-scale water schemes were started by the community without any official help, although they later got funding for improvements and rehabilitation. During the implementation stage of water supply schemes that were funded by government projects, women were actively involved in the small group and community contribution activities. Gender-sensitive project implementation approaches, which these projects were adapted with the assistance of funding agencies, have assisted in increasing women's participation in the implementation stage as well as the operation and maintenance stages. In CBOs, women actively participate mostly at ground and middle levels. Even though women were registered in their husbands' names as members of the CBOs, women were the active members of the CBOs. Two thirds of the participants in the general assembles of the CBOs were women, and they actively participated in those meetings. However, women's participation in the upper middle and top levels of management was limited. This situation is seen in small-scale CBOs and has worsened in mega-scale CBOs. In particular, the chairmanships of the CBOs, were dominated by men. Women in paid CBO positions were also low, and they were limited to traditional occupations like clerk. Women's participation in CBOs has been positively impacted by gender sensitive implementation approaches adopted by the water supply implementation project, while gender stereotypy sociocultural norms of patriarchal society have had a negative impact on women's participation in CBOs in stages of the schemes including design, implementation operation and maintenance stages. Finally, women's participation in small, medium-scale, and large-scale CBOs can be placed in the 4th level (engagement) of the women's participatory framework developed by this study (Table 1). However, women's participation in mega scale CBOs was still hovering between the 3rd and 4th levels, as women have been excluded from top level leadership positions.

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