Journal of Socioeconomics and Development

https://publishing-widyagama.ac.id/ejournal-v2/index.php/jsed

Gender relations and access to domestic rural water services in Manyoni District, Tanzania

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ARTICLE INFO

►Research Article

Article History
Received 13 February 2024
Accepted 24 March 2024
Published 18 April 2024

Keywords
division of labour; gender stereotype; rural areas; water access

JEL Classification
I26; J16; Q25

ABSTRACT

The study examined the household division of labour, and household power relations in access to domestic water services in rural areas. This study was conducted in Manyoni District in Tanzania, used a cross-sectional research design whereby primary and secondary data were collected using questionnaire from 191 households randomly selected from two wards. In addition, Focus Group Discussion (FGD) method was used to collect qualitative data. Quantitative data were analyzed for descriptive statistics such as frequency and percentages and inferential statistics the chi-square test. Qualitative data were analyzed by using content analysis. The findings show that due to the traditional gender division of labor at the household level, women were the major seekers of domestic water for their households although some indications of equity in the household division of labor were also reported between boys and girls. Furthermore, most of the non-monetary decisions on access to domestic water were assigned to women whereas men were involved in the monetary decisions like paying user fees. It was concluded that gender relations played a role in access to domestic water services in the study area. It was recommended that the government should provide more improved water sources in rural areas to ensure access to many households, hence, reducing women's burden of fetching water from distant sources and improving the welfare of women in rural areas.

To cite this article: Mfinanga, F. A., Masanyiwa, Z. S., Mafwolo, G., & Erick, S. B. (2024). Gender relations and access to domestic rural water services in Manyoni District, Tanzania. Journal of Socioeconomics and Development, 7(1), 104-114. https://doi.org/10.31328/jsed.v7i1.5516

ISSN 2615-6075 online; ISSN 2615-6946 print
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INTRODUCTION

Access to safe and clean water is one of the most basic human needs and rights (Neto and Camkin, 2020). This is because water is important for human health and well-being (Ndiritu et al., 2018). According to the World Bank (2018), water access is measured by the proportion of the population with access to an adequate amount of safe drinking water from improved sources. In 2015, Tanzania adopted the Sustainable Development Goals (SDGs) which aim to reach universal access to safe water and sanitation by 2030, an aspiration that appears even more daunting because 40% of its population; nearly 21 million people lack access to improved drinking water (World Bank, 2018). Coverage of water supply services in rural areas in Tanzania is generally low, despite significant funds allocated over the last two decades by donors and the government (Katomero et al., 2017). Recent national-level data show that 70.1% of rural households have access to an improved water source (URT, 2021). In Tanzania, the identified

problems facing rural water supply are many including the non-functionality of rural water points (Georgiadou et al., 2016) and poor understanding of water rights among water users, in which gender also plays a role (Kessy and Mahali, 2017). These problems limit rural communities' access to water for domestic and other productive uses.

Tanzania has invested in rural water supply over the last two decades through the implementation of the Water Sector Development Programme (WSDP) Phase I (2007-2014) and Phase II (WSDP 2015-2025). Tanzania has also recorded tremendous progress in women's representation in water supply decision bodies due to the implementation of the national water policy that emphasizes women's participation in local water management decision boards (URT, 2002). Despite this progress in delivering domestic water supply in rural areas, studies have revealed the existence of gender inequality in domestic water supply services including women and girls who travel to the water sources spending more than two hours on an average day to collect water (Mandara, 2014; Mkonda, 2015) and travel long distances of more than 400 metres to the water points (Mandara, 2014).

According to Rocheleau et al. (1996), feminist political ecology (FPE) theory suggests that there is a relationship between a household's access to improved drinking water services and ecological, political, social, economic, and gender relations. Feminist political ecology theory (FPE) centers on questions of resource access and control, drawing on political ecology and extending it to consider closer scales in which politics play out, i.e. within households and communities (Elmhirst, 2015). FPE also theory seeks to illuminate "the crucial role of family authority relations and property relations in structuring the gender division of labor and access to rural resources" such as land and labor and water (Elmhirst, 2015).

Domestic water supply is mostly attributed to women who fetch it from natural spring water sources. Similarly, geographic proximity is a context-specific indicator of water accessibility that exacerbates women's workload and physical strain (Shrestha et al., 2019). Thus, the theory is relevant in the context of this study, because domestic water supply is a gender issue influenced by factors within and outside the household.

The bargaining power model from a feminist perspective comprises a wide range of factors, some quantifiable, such as individual economic assets, others less so, such as communal/external support systems or social norms and institutions or perceptions about contributions and needs (Agarwal, 1997). Agarwal (1997) further states that a rural person's bargaining strength within the family vis-à-vis subsistence needs depends on eight factors: ownership of and control over assets, access to employment and other income-earning means, access to communal resources, access to traditional support systems such as kinship, support from NGOs, support from the state, social perceptions about needs contributions and other determinants of deservedness and social norms. Therefore, bargaining power can be measured by a person's resources: their labor and non-labour income, transfer payments, (paid) labor supply, and assets. In the context of rural water supply, bargaining power is reflected through the division of labor and decision-making processes on domestic water access related subjects, which in turn affect the provision of water services within the household.

The importance of gender inclusion in access to domestic water services is premised on the underlying conceptual rationale that men and women have different gender roles and needs at the household and community levels (Moser, 1989). Partly because of the reproductive and productive gender roles defined by social norms, women and girls in many rural households and communities are the main drawers of domestic water (Wallace and Porter, 2010; Masanyiwa et al., 2014). Literature shows that gender-related policies have not produced yet the intended outcomes because of modest success in gender integration in domestic water supply services in rural areas (Mandara, 2014; Masanyiwa et al., 2014). Furthermore, gender inclusion progress made in water supply projects in previous decades is not universal in practice because still there is a distinguished water project where women have no role, no capacity, and say at any stage of the project (Sülün, 2018). Similarly, at the decision-making level, women do not occupy equal roles at all levels of domestic water supply management institutions especially in high-profile and influential roles (Grant, 2017). Thus, there is scant information as to how rural households' intra- and extra-household gender divisions of labour and power relations affect domestic water access. Therefore, this study investigated gender relations on access to domestic water services in Manyoni District, Tanzania.

RESEARCH METHOD

Manyoni district is located between latitude: -5° 44' 59.99" South and longitude 34° 49' 59.99" East. The study was conducted in two selected wards of Chikuyu and Kintinku in Manyoni District. The district is bordered to the north by the Ikungi and Kondoa Districts, to the east by Bahi District, to the south by the Iringa District, to the southwest by Chunya District, and by the Sikonge District to the west. The district was selected because its experiences a shortage of water for domestic use due to the impact of climate change (IPCC, 2014: Jackson et al., 2018: Shirima et al., 2018).

Research design is "a plan or blueprint for performing research" (Babbie and Mouton (2008). Bostley (2019) contends that research design helps a researcher to make coherent and justifiable decisions about the kind of data to collect and how to analyze it. It is the logic that connects the data to be collected with the conclusions to be drawn (Masanyiwa, 2014). This study employed a cross sectional research design which allows the collection of data at one point in time. This design was used because it is rapid and inexpensive, demonstrates prevalence, proposes future research directions, and can determine causality (Johnson, 2010). The study employed mixed methods of data collection which focus on gathering both quantitative and qualitative data in a single study (Creswell et al., 2011). Mixed methods are premised on the fact that both qualitative and quantitative designs have weaknesses, and that combining the two helps to mitigate the weaknesses of the other (Johnson, 2010). In turn, this method gathers both types of data at roughly the same time and then incorporates the information into the overall results interpretation (Creswell, 2014).

The study employed a multistage sampling procedure. In the first stage one district, Manyoni District was purposively selected for the study because it is among the semi-arid areas in Tanzania which experience critical shortages of domestic water supply. In the second stage, two wards, namely, Kintinku and Chikuyu were randomly selected from a list of 30 wards in the district. The third stage involved random selection of five villages, including Kintinku and Lusilile villages selected from Kintinku ward and Mtiwe, Chikuyu, and Mwiboo from Chikuyu ward. At the village level, the plan was to randomly sample 200, at least 40 households from each study village. However, it turned out that 192 households were surveyed including 29 from Lusilile, 46 from Kintiku, 49 from Chikuyu, 43 from Mwiboo, and 25 from Mtiwe. Overall, the sample size of sub-groups used ranged from 29 to 49 which falls within the sufficient sample size range of 20 to 50 sub-groups.

Quantitative data were collected from 192 households through a household survey using a structured questionnaire with both closed-ended and open-ended questions. The questionnaire was prepared in English, and translated into Swahili; a language is which is spoken by the majority of the people in the study area. The translation was done first by the researchers, and then cross checked by two experts whereby one expert was a linguistic to minimize errors (Kalfoss, 2019). To avoid the possibility of poor response that can be attributed to low levels of literacy as is mostly the case with self-administered questionnaires; face-to-face interviews were carried out verbally with individual respondents.

In-depth interviews were used to gather qualitative data from key informants. A total of ten key informants were interviewed, including two village executive officers, two water committee members, two traditional leaders, two water user association chairpersons, and two livestock extension officers.

Focus group discussion (FGD) is a method of gathering data through discussions with some selected respondents (Mwalukasa, 2020). According to Mishra (2016) elaborates that FGD is a good way to gather people from similar backgrounds or experiences to discuss a specific topic of interest. FGDs aim to acquire data from a deliberately selected group of individuals rather than from a statistically representative sample (Nyumba et al., 2018). In this study, five FGDs were conducted (one per village), each with ten participants (five men and five women). One of the criteria for the selection of FGD participants was being a resident in the study village for more than five years to ensure that the participants were well informed about the issues under study. Other criteria were gender balance and other socio-economic characteristics. The FGD participants were guided by moderators who presented the topics for discussion and assisted the groups to contribute actively among themselves. The checklist was used to guide discussions on different aspects regarding the role of household gender relations on access to domestic water services.

Secondary data were gathered by reviewing important documents related to this study including

National Water Policy 2002, Water Sector Development Programme Phase I (2007-2014), and Phase II (2014/2015-2018/2019). Other secondary data were collected from the Chikuyu Community Based Water Supply Organization Office, the Manyoni District Water Engineer, and the RUWASA district office.

Quantitative data from the questionnaire were entered into a spreadsheet and analyzed using the Statistical Package for Social Sciences (SPSS) version 20 using descriptive statistics such as frequency and percentages, chi-square test to show the association between variables, and independent samples t-test to compare means. Qualitative data collected through in-depth interviews and focus group discussions were analyzed by using content analysis. The interpretative phenomenological approach was used to better understand the topic under inquiry, which was the role of gender relations in domestic water supply access.

RESULT AND DISCUSSION

Characteristics of Respondents

The socio-demographic characteristics of respondents and household heads examined in this study included sex, household headship, occupation, age, household size, education level, religion, and tribe. These factors were considered important because gender intersects with other socio-cultural variables such as age, ethnicity, and religion that promote or hinder men's and women's access to public services such as domestic water supply (Masanyiwa et al., 2014). Mahama (2014), for example, shows that access to improved water was influenced by education, income, and location of the household while Mulenga et al. (2017) revealed that household access to improved water services among households was positively related to the sex of the household head.

Table 1. Characteristics of Respondents in Chikuyu and Kintinku Ward, Manyoni District

Variable	Responses	Chikuyu	Kintinku	Total	x^2 ; p value
Sex of respondents	Male	46(39.3)	26(34.7)	72(37.5)	x^2=0.422; p=0.516
	Female	71(60.7)	49(65.3)	120(62.5)	
Sex of household head	Male headed	85(72.6)	55(73.3)	140(72.9)	x^2=0.011; p=0.917
	Female headed	32(27.4)	20(26.7)	52(27.1)	
Age of household head	18-35 years	16(13.8)	13(17.6)	29(15.1)	x^2=2.610; p=0.456
	36-45 years	30(25.6)	16(21.6)	46(23.9)	
	46-60 years	30(25.9)	25(33.8)	55(28.7)	
	Above 60 years	40(34.5)	22(27.0)	62(32.3)	
	Mean age	53.0	50.0	51.8	
Household size	1-3	26(22.2)	21(28.0)	47(24.5)	x^2=4.877; p=0.087
	4-6	54(46.2)	41(54.7)	95(49.5)	
	>7	37(31.6)	13(17.3)	50(26.0)	
	Mean	6.4	4.9	5.8	
Education level	No formal education	31(26.5)	23(30.7)	54(28.1)	x^2=3.270; p=3.270
	Primary education	65(55.6)	42(56.0)	107(55.7)	
	Secondary education	13(11.1)	9(12.0)	22(11.5)	
	Tertiary education	8(6.8)	1(1.3)	9(4.7)	
Occupation	Farming	81(69.8)	51(68.5)	133(69.3)	x^2=3.919; p=0.561
	Livestock keeping	17(14.7)	13(17.8)	30(15.9)	
	Wage employment	3(1.7)	0(0.0)	3(1.5)	
	Business	6(5.2)	1(1.4)	7(3.7)	
	Petty vending	9(7.8)	8(11.0)	17(8.8)	
	Fishing	1(0.9)	1(1.4)	2(1.0)	
Religion	Traditional	6(5.1)	3(4.1)	9(4.7)	x^2=10.725; p=0.030**
	Catholic	44(37.6)	27(36.5)	71(37.2)	
	Protestant	36(30.8)	20(27.0)	56(29.3)	
	Pentecostal	22(18.8)	7(9.5)	29(15.2)	
	Muslim	9(7.7)	18(23)	27(13.6)	
Tribe	Gogo	83(71.6)	48(64.9)	131(68.9)	x^2=6.715; p=0.082
	Nyaturu	5(4.3)	0(0.0)	5(2.6)	
	Nyiramba	1(0.9)	3(4.1)	4(2.1)	
	Other	27(23.3)	25(31.1)	2(26.3)	

Figures in brackets are percent (%); Obs (n) 192; ** and *** denote significant at 5% and 1%.

The findings in Table 1 show that nearly two thirds of the respondents were women (62.5%) and about three quarters of the surveyed households were male headed (72.9%). Close to one third of the household heads were aged above 60 years (32.3%) and the mean age was 52 years, with no significant variation between male- and female-household heads. Half of the households had between four to six members (49.5%), with an average household size of 5.8, although male-headed households (6.4 members) were significantly (p=0.002) larger than their female-headed counterparts (4.3 members).

The level of education attainment did not differ significantly between the wards and between male and female-household heads. More than half of the respondents had primary education (55.7%), although more than a quarter had no formal education (28.1%). Farming was the main occupation for the majority of household heads (69.3%). In contrast, a substantially larger proportion of male headed households were involved in livestock keeping (20.9%) than their female counterparts (2%). Less than one in ten households were involved in petty business (9%), particularly female-headed households 12% Table 1.

In terms of religious and ethnic composition, the results in Table 1 show eight in ten respondents were Christians (80.1%), mostly Catholic (37.2%) and Protestants (29.3%). Muslims accounted for only 13.6%, mainly in Kintinku (23%) than in Kikuyu ward (7.7%). More than two thirds of the respondents belonged to the Gogo ethnic group (68.9%). This allowed for a generally homogenous cultural society with no significant variations in traditional values, beliefs, and practices, including access to domestic water supply.

Household Division of Labor

Traditionally, the gendered division of labor is a key factor that shapes the provision of services within the household including domestic water supply. Gender differences in decision making are attributed to unequal access to resources, which result from gendered roles and responsibilities (Shibata et al., 2020). In this study, intra- and extra-household division of labor was conceptualized in terms of who does what water related activities within and outside the household. It was found that significantly higher proportions of women than men were involved in the preparation of utensils for fetching water (89.6%), fetching water (80.7%), treating water (65.1%), and water storage 91.7% (Table 2).

Table 2. Household Division of Labour in Domestic Water Supply Activities

Activities	Category	Men	Women	Boys	Girls	x^2 ; p value
Preparation of utensils	MHH	12(8.6)	124(88.6)	1(0.7)	3(2.1)	x^2=8.090; p=0.044**
	FHH	0(0.0)	48(92.3)	0(0.0)	4(7.7)	
	Total	12(6.3)	172(89.6)	1(0.5)	7(3.6)	
Fetching water	MHH	16(11.3)	110(79.1)	8(5.8)	5(3.6)	x^2=6.713; p=0.082
	FHH	0(0.0)	45(88.2)	3(5.9)	3(5.9)	
	Total	16 (8.3)	155(80.7)	11(5.7)	8(4.2)	
Treating water	MHH	8(8.2)	89(90.8)	1(1.0)	0(0.0)	x^2=13.476; p=0.004***
	FHH	0(0.0)	36(90.0)	0(0.0)	4(10.0)	
	Total	8(4.2)	125(65.1)	1(0.5)	4(2.1)	
Water storage	MHH	7(5.1)	127(92.7)	1(0.7)	2(1.5)	x^2=5.692; p=0.128
	FHH	(0.0)	49(94.2)	0(0.0)	3(3.8)	
	Total	7(3.6)	176(91.7)	1(0.5)	5(2.6)	
Payment of water fees	MHH	64(62.1)	38(36.9)	1(1.0)	0(0.0)	x^2=44.836; p=0.000***
	FHH	2(4.5)	40(90.9)	0(0.0)	2(4.5)	
	Total	66(44.6)	78(53.1)	1(0.7)	2(1.4)	
Attending village water meetings	MHH	40(41.2)	56(57.7)	1(1.0)	0(0.0)	x^2=23.596; p=0.000***
	FHH	2(5.0)	35(87.5)	0(0.0)	3(7.5)	
	Total	42(21.9)	91(47.4)	1(0.5)	3(1.6)	
Membership in village water committee	MHH	1(0.9)	2(1.7)	1(0.9)	0(0.0)	x^2=0.086; p=0.086
	FHH	1(2.2)	4(8.9)	0(0.0)	1(2.2)	
	Total	2(1.3)	6(3.6)	1(0.6)	1(0.6)	

Figures in brackets are percent (%); Obs (n) 192; ** and *** denote significant at 5% and 1%; MHH=Male Headed Household, FHH=Female Headed Household

Water related activities fall within the 'domestic domain' or sphere (intra-household) which is usually considered as the women's domain. More girls than boys were also reported to be involved in these activities, especially in female-headed than in male-headed households. In contrast, men were mostly engaged in paying for water charges (44.6%) and attending village meetings (21.9%), activities which belong to the 'public' domain or sphere, which is also referred to as the extra-household or the men's domain. This shows that women and girls disproportionally carried a big burden of domestic water fetching activities within the household compared to men.

It was also found during FGD at Kintinku village that mainly women were responsible for the preparation and cleaning of water storage facilities specifically buckets and water tanks and fetching water while men in some scenario were responsible for paying water charges. One woman participant at Lusilile village in Kintinku ward said that: "We are the ones responsible for fetching water. You have to engage in small business to earn money for buying water. Every day, I have to buy two buckets of water. A bucket of water with a capacity of 20 litres costs Tshs. 500. In a few occasions especially in dry season my husband helps us to fetch water using his bicycle". However, the findings from FGD at Chikuyu village revealed that changes in traditions within the society affected household gender division of labor in activities related to access to domestic water. It was reported that both boys and girls were involved in domestic water supply activities. One member (a man) at Chikuyu village reported that: "All of my children help each other in preparation of utensils for storage of water and in fetching water. Every day they walk up at 5a.m. On occasions, the boys are in charge of fetching water while the girls prepare breakfast and clean the home compound. The following day, the females fetch water while the boys prepare breakfast and clean the house.

This implies that women in rural areas serve as the main suppliers of domestic water due to the socially constructed division of labor despite slight changes in the household division of labor between boys and girls. This reflects earlier observations elsewhere that men and women have different roles and responsibilities regarding water provision and management due to the social norms which guide intra-household divisions of labour and use of time (Ilahi, 2000; Costa et al., 2009), and the gender power relations at household and community levels (Wallace and Porter, 2010). In many rural households and communities, women and girls are the main drawers of domestic water mostly carrying it on their heads, and where no household connections or standpipes are available, they spend hours on this task (Wallace and Porter, 2010; Masanyiwa et al., 2014). In rural areas in Pakistan, Ilahi (2000) found that deterioration in access to water was positively related to the total time women have allocated to water collection but also that it is negatively associated with time allocated to earning activities. Studies by Budlender (2012) on time use and unpaid work show that women tend to spend substantially more time than men on both household maintenance and care of persons across all countries.

Viewed from the feminist political ecology theory, the findings reveal the crucial role played by 'family authority relations' and property relations in structuring the gender division of labor within the household, which in turn influences access to household resources such as the utilization of household labor (Elmhirst, 2015). Whereas the household's geographic proximity to the water source is a context-specific indicator of water accessibility, it is also likely to that exacerbate women's and girls' workload because of the gendered division of labor within the household (Shrestha et al., 2019).

Power Relations

Power relations in access to domestic water access were examined in this study by asking who makes decisions for different domestic water related activities at the household level. The findings in Table 3 show that women were mostly involved in decisions for activities within the 'domestic sphere' including when to fetch water (84.7%), type of water source (81.3%), containers to be used (75%), amount of water to collect (82.2%), uses of fetched water (88%) and water treatment methods (67.7%). These activities cut across traditionally female-dominated activities. Contrastingly, men held decisions on issues that were considered as belonging the public sphere or the men's domain such as paying for water charges (31.8%) and who to attend village meetings (52.1%), which are traditionally male-dominated activities (Table 3).

Table 3. Household Decisions Making on Domestic Water Access Related Activities

Decisions on	Category	Men	Women	Boys	Girls	x^2 ; p value
When to fetch water	MHH	20(14.4)	115(82.7)	1(0.7)	3(2.2)	x^2=5.708; p=0.127
	FHH	2(4.0)	45(90.0)	0(0.0)	3(6.0)	
	Total	22(11.6)	162(84.7)	1(0.5)	6(3.2)	
Water source to be used	MHH	26(18.7)	109(78.4)	2(1.4)	2(1.4)	x^2=16.628; p=0.005***
	FHH	0(0.0)	47(92.2)	1(2.0)	395.9)	
	Total	26(13.5)	156(81.3)	3(1.6)	5(2.6)	
Container used in fetching water	MHH	32(24.4)	97(74.0)	1(0.8)	1(0.8)	x^2=18.897; p=0.000***
	FHH	0(0.0)	47(94.0)	0(0.0)	3(6.0)	
	Total	32(17.7)	144(75.0)	1(0.6)	4(2.1)	
Amount of water collect	MHH	21(15.1)	114(82.0)	1(0.2)	3(2.2)	x^2=6.159; p=0.104
	FHH	2(3.9)	46(90.2)	0(0.0)	3(5.9)	
	Total	23(12.1)	160(82.2)	1(0.5)	6(3.2)	
Uses of fetched water	MHH	14(10.0)	121(86.4)	1(0.7)	0(0.0)	x^2=17.975; p=0.003***
	FHH	0(0.0)	48(92.3)	0(0.0)	2(3.8)	
	Total	14(7.3)	169(88.0)	1(0.5)	2(1.0)	
Payment of water charges	MHH	44(35.0)	73(52.1)	2(1.4)	0(0.0)	x^2=32.338; p=0.000***
	FHH	0(0.0)	42(80.8)	0(0.0)	2(3.8)	
	Total	61(31.8)	120(62.5)	2(1.0)	2(1.0)	
Water treatment method	MHH	14(10.0)	80(57.1)	1(0.7)	0(0.0)	x^2=14.214; p=0.014***
	FHH	0(0.0)	34(65.0)	0(0.0)	2(3.8)	
	Total	19(9.9)	130(67.7)	1(0.5)	2(1.0)	
Who to attend village meetings	MHH	48(34.3)	65(46.4)	1(0.7)	0(0.0)	x^2=17.975; p=0.003***
	FHH	4(7.7)	35(56.7)	0(0.0)	2(3.8)	
	Total	52(52.1)	100(52.1)	1(0.5)	2(1.0)	

Figures in brackets are percent (%); Obs (n) 192; ** and *** denote significant at 5% and 1%; MHH=Male Headed Household, FHH=Female Headed Household

It was also further established from the FGDs that men were the ones who mainly paid for water charges for domestic supply. One woman FGD participant said that: "The money for paying for water from the tap is provided by my husband. When he doesn't have any money, I fetch water from the river and shallow wells".

This implies that a household power relation in access to domestic water within and outside the household is linked to traditionally assigned roles in a particular society. The findings of this study show that non-monetary decisions on access to domestic water are assigned to women while monetary decisions are assigned to men. A recent study by Bisung and Dickin (2021) in Ghana found that more women reported making sole decisions in water collection compared to men whereas more men reported making sole decisions regarding sanitation expenditure and community participation. This was attributed to the social norms which prescribe that women oversee water issues. In such circumstances, women's sole decision-making, or men's lack of input into decision-making, is not autonomous but regulated by external forces cultural norms or extra-household norms. In another study in Uganda, Shibata et al. (2020) observed that men's decision-making powers in the household increase by the level of importance to household income as opposed to women whose decision-making power is more related to household management activities. This bargaining process is influenced by a wide range of factors including the extra-household social norms and institutions (Agarwal, 1997; Kavene, 2000).

Research Implication

The findings of the investigation demonstrate how gender relations, in particular the division of labor and power relations between genders both within and outside the home, affect the accessibility of domestic water in rural areas of Manyoni District, Tanzania. The research implications are as follows: This study draws attention to the customary gender roles and discriminatory gender norms that preferentially place women in charge of fetching household water in rural areas of Manyoni District in Tanzania. This affects women's time poverty and their capacity to work on other worthwhile projects. Agreed with similar findings the unequal gender division of labor in domestic water accessibility whereby women had more burden as compared to their counterparts has been reported in various regions of Africa and other

developing countries including Ethiopia, Kenya, and Tanzania (Assefa et al., 2021; Odeny, 2020; Dickin and Caretta, 2022; Sarkar, 2023). Previous studies (Silva et al., 2020; Nordström & Widman, 2022) have shown that the unequal division of labor in access to domestic water remains a challenge because of the patriarchal system in many communities, in developing countries. This implies that the availability of domestic water supplies among households in the study areas is an output of unequal gender division of labor.

Furthermore, capturing the fair distribution of work in domestic water accessibility between boys and girls, in a household the research illuminates the process by which gender stereotypes are socially formed and perpetuated among young people. According to Seri (2023), social and cultural values play a significant role in shaping the strong cultural bonds that exist within these communities and have an impact on how water resources are managed. Additionally, Sesabo (2024) disclosed that women and female children have a major role in the family's search for water, and that access to water has historically been based on gender. For many years, the majority of women, young girls, and boys in Sub-Saharan Africa had to fetch water from rivers, ponds, and dams, as well as piped water sources, for domestic use (Sesabo, 2024; Geere and Cortobius, 2017; Mulopo et al., 2020). This fact suggests that there is still an uneven gender division of labor in the process of obtaining water for domestic water supply, even in the face of advancements in water access.

Moreover, non-financial water decisions are made by women but financial ones by men imply that women's needs and priorities may not be fully represented in water management and investment decisions. According to Azcona et al. (2023), an analysis of data from 22 countries reveals that women are more likely than men to report that they have difficulty affording to pay their utility bills, including the water bill (13% of women compared to 11% of men). This suggests that women carried a larger share of the labor burden due to this economic hardship than did men in domestic water supply (Tomberge et al., 2021; Sedai, 2021). As a result, this research suggests that women in Sub-Saharan Africa have fewer options when it comes to selecting domestic water sources. This calls for greater participation of women in intra-household and extra-household decision-making on household domestic water accessibility.

In addition, the Rural Water Supply and Sanitation Authorities (RUWASA) in Monduli District, as well as other international and non-governmental organizations operating in the area, can use the empirical data from this study to help develop and execute more gender-sensitive and fair water and sanitation policies and programs. Previous studies suggest that gender relations and domestic water accessibility in Sub-Saharan Africa were not given much consideration in the policies that were in place (Dogoli et al., 2023; Tallman, 2023; Nkiaka et al., 2021). However, the Tanzania National Water Policy of 2002 has a clear statement about gender and calls for recognition of women's role in the management of rural water resources (Kironde et al., 2022).

CONCLUSION AND SUGGESTION

The following conclusions were drawn from the findings of this study: The traditional gender division of labor in rural areas, women are the major suppliers of domestic water for their households, although some indications of equity in the household division of labor concerning access to water for domestic use were also emerging between boys and girls. Moreover, in terms of decision making and bargaining power, it is evident from the findings that non-monetary decisions on access to domestic water are assigned to women, whereas monetary decisions remain in the hands of men.

Based on the findings and conclusions of the study, the study suggests the following to improve household gender relations for optimal domestic water access and the improvement of household welfare. Manyoni district council and other actors, such as Non-Governmental Organizations such as Water Aids, World Vision Tanzania, and others in the water sector, should establish community-wide educational and awareness programs to combat gender stereotypes and promote equal involvement of men and women in activities related to domestic water accessibility. Furthermore, water governance institutions, particularly Rural Water Supply and Sanitation Authorities, should prioritize gender mainstreaming and provide sufficient resources and support for water development projects.

ACKNOWLEDGEMENT

The research is fully funded by the Institute of Rural Development Planning, Tanzania.

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