INVESTIGATE AND ANALYZE THE EXISTING GENDER DISPARITIES IN LEADERSHIP POSITIONS WITHIN WATER PROJECT MANAGEMENT IN KAJIADO COUNTY, KENYA

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ABSTRACT

The goal of the study was to investigate and analyze the existing gender disparities in leadership positions within water project management in Kajiado West Sub County, Kajiado County, Kenya. The objectives were: to establish the numbers of both men and women in the management of water projects in Kajiado West Sub County and to examine the influence of water needs for men and women on the management of water resources in Kajiado West Sub County. The study was based on the Patriarchy Theory by Juliet Mitchell which describes the totality of oppressive and exploitative relations which affect women. The study used a descriptive survey research design. The target population was all the residents of Kajiado West Sub County. The sample was made of 47 respondents from 5 villages. The study used two research instruments for data collection namely Focus Group Discussion (FGD) guides and interview schedule. Validity of the research instruments was determined by the researcher in collaboration with the supervisor to make sure that the instruments reflect the objectives. Instrument reliability was determined using the split-half method. The study has two types of data: Qualitative and quantitative data. Quantitative data was analyzed using descriptive statistics for example percentages, means and standard deviations. The qualitative data was analyzed according to themes and patterns formed. The findings revealed that although women are represented in the management committees of the water projects, however, their number is much less compared to that of men. Men and women have different needs for water. Men on one hand typically require water for the productive activities and other related activities while women use water for productive activities as well as household chore related roles. The study recommended that involving both women and men in integrated water resources initiatives can increase project effectiveness and efficiency. Hands-on support to community level work is required to support field staff in enabling women and men to work together in community decision-making.

INTRODUCTION

Water is a crucial resource not just for the sustenance of all life but also to human development; we rely on it to grow food, produce goods and generate energy. Moreover, water is a necessary element for strong ecosystems affecting biodiversity, livelihoods, health and education (UNDP, 2006). Research on women involvement in water resources management has been very extensive in developed countries like United States, Canada, Britain and Brazil (Tedla & Flintan, 2007). In Brazil, women play a very significant role in the management of water resources given that they are the primary beneficiaries; this has been made possible through deliberate legislation and other related measures at the local levels (Kabeer, 2005).

In India and Bangladesh, the factors hampering women's effective commitment in the management of rural water resources and projects have been extensively acknowledged in academic and strategic paper literatures (Singh, 2008). Amongst others, women's challenging domestic chores and the social-cultural hurdles they encounter remain the main limitations to their active participation (Fulong, 2010).

According to Majekodunmi (2006), power imbalances in many African communities places women at a very disadvantaged position. Lack of the capability to access formal power adversely affects their negotiating capacity to get water supply as required. In order to ensure that there is equitable access to basic needs like water, there is need for a gendered approach in the community water projects management which in turn calls for proper gender analysis to understand fully the existing gender relations within the community.

Aspects of gender have the assured positive potential for improving management of water projects and ensuring the competence of water and water resources utilization. Kajiado West Sub-county has a grim problem of water scarcity due to aspects like mismanagement, deforestation, climate change population explosion and less water resources (Keriko, Omoti & Kitetu, 2016). The sub county is served mainly by seasonal rivers, bore holes and wells; some of which are drying up worsening the problem (Morara, MacOpiyo & Kogi-Makau, 2014).

Water resources and projects are the pillar of agriculture which is the backbone of the Kenyan economy and presently signifies about 20 percent of the GDP (Buluku, 2013). Small scale holder agriculturalists contribute over 75 percent of the total agrarian production in Kenya (USAID, 2007). According to Buluku (2013), women were estimated to own and control only one percent of the registered water projects and only 5 percent of the titles are held joint names despite the women being in much more need of the resource. Kajiado county interior Maasai women's access to natural resources especially water is generally controlled by their husbands or male relatives. Despite the recognition of the important role played by women and the efforts that the government has made in enhancing women participation in water resources management, there is an existing gap between written intentions of enhancing women participation in water resources and projects management and the practice in Kenya and more specifically in Kajiado County.

Statement of the problem

The women ought to be more included in management of these resources. The adoption of gender based approach in the management of water resources would help reduce conflicts arising due to usage of the resources because gender sensitive water projects offer opportunities to address the inequalities between women and men in access to resources, services and influence in addition to promoting empowerment among women.

The government of Kenya and other stakeholders have insisted on the inclusivity in the management of water resources and projects because both men and women use water differently. This is evident in the policy documents from the Kenya Constitution 2010 to the

policy frameworks in the ministry of water and the county departments of water. The inclusivity and attention in reality faces a myriad of concerns and issues. Studies by Gachagu (2013), (Morara, MacOpiyo & Kogi-Makau, 2014) and (Kindiki, 2015) have been conducted on gender responsive management of water resources. This is the reason why the researcher thought that it was important to investigate how women are participating in water resources management.

Objective of the study

i. To determine the numbers of both men and women in the management of water projects in Kajiado West Sub County, Kajiado County, Kenya.
ii. To establish how the water needs for men and women influence of the management of water resources in Kajiado West Sub County, Kajiado County, Kenya.

EMPIRICAL LITERATURE REVIEW

Roles of men and women in the management of water projects

Women and men share different roles and responsibilities with respect to water use and management of water resources or projects. These divergent roles influence relations with water resources and how changes in the water projects affect men and women inversely. According to Wanjala (2009), women are not authorized to partake in water resource and projects management and also there are additional various reasons which include poverty, education, cultural beliefs and gender disparity all of which make females inactive in involvement of water projects and resources management. It is imperative to appreciate the existent gender roles and also cultivate action plans to decrease any harmful effects of these differences. This can be done through critical analysis of the gender roles in the management of water resources as what this study sought to address.

A study conducted by Gathagu (2013) on the challenges and policy options for enhancing women's participation in water resources management in Kajiado County established that gender disparity on access and control of productive resources has been more pronounced in developing countries where men have more control over user rights to productive resources as compared to women and their children. The study established that gender roles were not clear in terms of expectations for both genders in the management of water projects. The inadequate user rights by women limit their water resources management potential. This presents a gap in terms of the lack of clarity on roles as well as information about the roles of each gender in the management of the resources. This presents a gap which the current study sought to fill by understanding the roles in water resources management by gender. In line with women's empowerment in water projects management tasks like control over decision making on land use which according to a study by Agwata, Gathagu and Mulwa (2014) is the main source of livelihoods as well as power and status. This study highlighted the importance of water projects management and control to women's economic empowerment. The study by Agwata, Gathagu and Mulwa (2014) did not assess the actual numbers of women and men who are in control positions in the management of water resources, a gap that this current study seeks to fill.

Water needs for men and women and the management of water projects

According to Lusuva (2009), domestic use of water is not only frequent but also common in all communities. The emphasis access to clean and safe water is pegged on the common and important use of water- drinking (Lusuva, 2009). This means that the need for clean water is unnegotiable no matter which part of the economic scope is focused on. The needs of water by gender however might vary depending on the nature of work done by both men and women. The study by Lusuva (2009) therefore does not address the issue of water needs by gender therefore leaving a gap which the current study sought to answer.

According to a study by Tedla and Flintan (2007), women in Ethiopia have developed precious knowledge, experience and skills of fetching, handling and use of water resources through their daily roles and responsibilities within the household. This means that most women water needs are centered around the household responsibilities. Additionally, Okunade (2008) suggests that it is important to involve the women in assessing and solving their water problems since they are the ones who interact with their own environments and carry out activities that have an impact to the environment. In this context, women know what is in their best interest and therefore for any water project to be accepted and successful is has to welcome women aboard. Their studies however do not distinctly show the water needs assessment by gender, a gap which this current study seeks to address by delving in the different water needs for men and women in Kajiado County.

According to a study by Majekodunmi (2006), at the centre of gender mainstreaming in respect to water resource management is involvement of men and women, taking into account their roles, responsibilities and underlying gender and power balances. It is about gender equality and equity. Consequently, as a condition for inclusive and people-centered development, the Gender and Development (GAD) approach has focused on elimination of socioeconomic inequalities between men and women. Indeed, in respect to water sector, the GAD approach has informed gender inclusivity. The recognition that men and women have different level of participation in water resource management formed the platform for the discourse in mainstreaming gender in water management (GWA and UNDP, 2006).

According to a study by Kindiki (2015), producing certain crops such as rice requires regular use of water as exemplified in basin irrigation in Mwea irrigation in Kenya. Men and women also use water for agricultural purposes in two major ways: crop and animal husbandry. On one hand, in areas with poor rainfall or when crop production is not limited to rainfall, water is used for irrigation. In arid and semi-arid areas across the globe, crop production has been boosted through irrigation where water has found considerable use. Across Kenya there are several irrigation schemes that sustain crop production in the event of rainfall shortage. Smallholder rice production in the Kano Plains in Kenya has shown similar water use for both men and women (Kindiki, 2015). The study acknowledges that water needs by gender should be investigated. This is based on the findings that men and women were at variance in terms of responses concerning their needs for water. This study however does not account for the needs of water by both men and women which govern the management and access to the

resource, a gap that the current study seeks to fill by a depth analysis of the water needs by gender in the county. In Kajiado County, the main areas for irrigated cropping are along the Ngong Hills, along the Lolturesh River in the Kimana area, in the Kilimanjaro foothills and around Namanga (Mukuna, Kamuru & Bebe, 2015). On the other hand, livestock keeping involves considerable water use. Men and women have found water useful for livestock. Nomads and pastoralists such as the Maasai move from one place to another in such of water for their animals, illustrating the importance and use of water in animal husbandry. The findings of the study by Mukuna, Kamuru and Bebe (2015).

Theoretical Framework

This study was based on Patriarchy Theory as proposed by Juliet Mitchell in 1975. The patriarchy theory is a set of social associations between men and women, which have a substantial base and which nevertheless graded, establish or create interconnection or harmony between men which enable them to dominate women. It is system of male authority which subjugates women through its social, political and economic foundations. The substantial base on which patriarchy is based lies most essentially on men's authority above women. This authority or control is sustained by disallowing women access to essential economically productive resources and by limiting women's sexuality.

The theory describes the totality of oppressive and exploitative relations which affect women. The patriarchy theory aims in addressing the reasons behind the gender disparities that exist in the management of resources. The patriarchy theory was found relevant to this study because the study is based on gender role stereotypes in access to and control of water projects and resources as well as critical information expressively affect female's progression in water projects and resources management. Women in Africa and specifically in Kenya do not have a say over land and water resources as a factor of production despite the fact that they are farm caretakers, men are the majority land holders. The focus on the gender relations is instrumental in understanding the factors that influence access to and role of men and women in water resource management. This is because gender relations between men and women yield differential power relations and this may influence water resource management. The gender roles explained in the framework situates men and women in different positions which influence management of key resources such as water. In this regard, the theory helped explore the roles of men and women in water resource management in Kajiado West Sub County.

RESEARCH METHODOLOGY

Research Design

The study adopted a descriptive survey research design to undertake a gender assessment of water resources management in Kajiado West Sub County. The study employed a descriptive survey design which was deemed appropriate because analysis of data from the people's perspective permitted the researcher to recognize their insights about gender and water projects management.

Study Area

The study site was in Kajiado West Sub County in Kajiado County. Kajiado West Sub County borders Kajiado East and Kajiado Central. The researcher chose Kajiado West Sub County because the location faces water challenges as the place is in areas classified as ASALs and most of the dwellers are the Maasai community. The issue of gender and water project management has not been pronounced because of the different roles that men and women of Kajiado West perform (GoK, 2009).

Target Population

The target population comprised of all the residents of Kajiado West Sub County and the 54 water projects in the five villages of the sub county. The unit of analysis was the individual woman or man in households.

Sample Size Determination

According to Mugenda and Mugenda (2003), 20 percent to 30 percent of the targeted population is sufficient to make a generalization. For this study, 30% of the target population was sufficient enough to make a generalization because it was representative of the target population.

Table 2.1: Sample size and sampling techniques

The sample size and sampling procedures is presented in Table 2.1.

Category	Target population	Sample size	Percentage	Sampling technique
Borehole managers	17	17	100.0%	Purposive sampling
Respondents (villagers)	270	30 (6*5)	30.0%	Simple random sampling
Total	**287**	**47**		

Source: Author, (2022)

Research Instruments

Two sets of research instruments were used to collect data, namely: Focus Group Discussion (FGD) guide and interview guide. The FGD guide had two sections whereby section A collected the demographic characteristics of the respondents while section B had questions designed to give details on issues of gender disparities in management of water projects in Kajiado West Sub County. The interview guide of the key informants had questions regarding gender issues and management of water resources in the sub county. The interview also provided a triangulation angle to overcome challenges that may arise from solitary reliance on one instrument for collection of data.

Data Analysis

The primary data obtained from the field was cleaned and edited to minimize or do away with errors made by respondents. Data was coded to put responses of questions into specific categories reducing it into manageable summaries. The quantitative data was analyzed using descriptive statistics like percentages, means and standard deviations. They were presented in tables, charts and graphs. The qualitative data from the key informant interviews and focus groups discussion was analyzed according to themes and patterns formed. They were presented in the form of narratives and verbative quotations.

RESULTS AND DISCUSSIONS

The numbers of men and women on management of water projects in Kajiado west Sub County

The research aimed to determine the numbers of both men and women in the management of water projects in Kajiado West Sub County, Kajiado County, Kenya. The question under this objective was covered using 8 items in the 3 sets of questionnaires which were subsequently analysed through frequencies under the following discussion. The findings showed that there were more men involved in the management of water resources compared to women. This was indicated in the responses by the key informants on the item "who manages water in the village". The findings are presented in Figure 1.

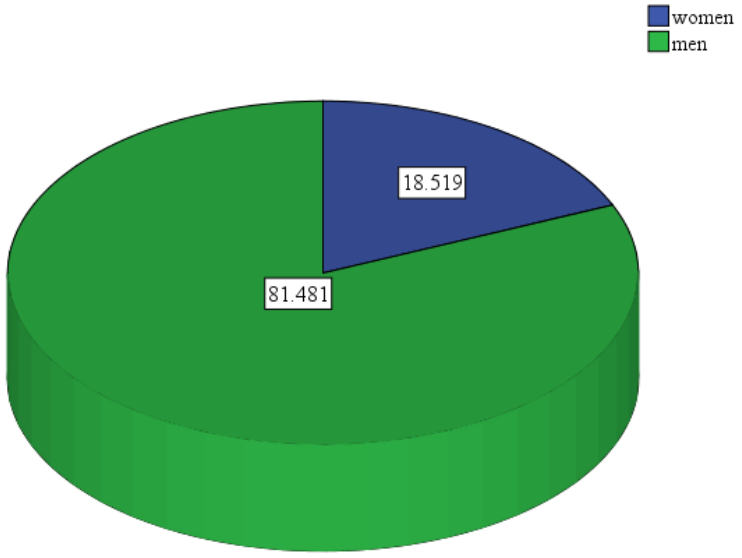

Figure 1: Managers of water projects by numbers

The findings in Figure 1 show that majority (81%) of the managers of water projects were men. Only 19% of the project managers were female. This finding implies a major disparity in terms of gender between the managers of the water projects in the sub county. This perhaps could be attributed to the fact that the area is inhabited by the patriarchal Maasai community which assumes that all leadership roles should be taken up by men. This finding agrees with that of Lusuva (2009) whose study in Tanzania established that most managers of water projects were men. The findings imply that societal norms and traditions have a prime place when it comes

to the management roles in certain communities like the Maasai community. The finding disagrees with that by Harris, (2015) who established in his study that there was a 50 % gender parity in the management of natural resources. This implies that problems in management of water resources could be hampered by societal norms and practices.

The study also sought to find out who manages the water projects in the sub county from the residents themselves. The findings are presented in Figure 2.

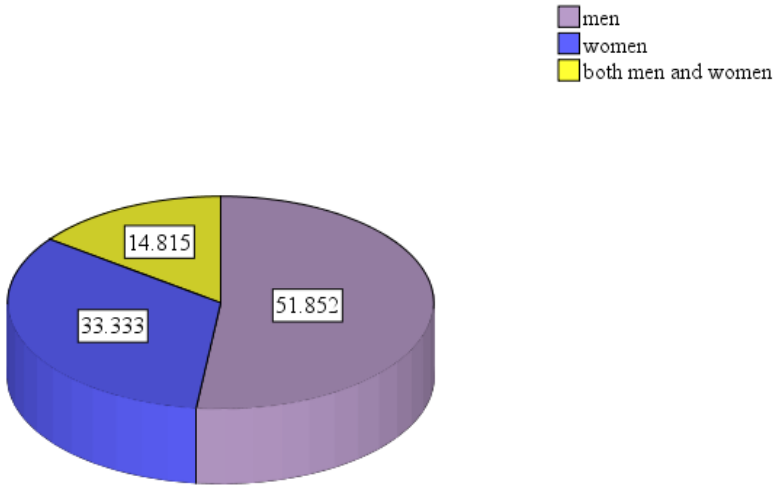

Figure 2: Involvement of men and women in management

The findings in Figure 2 show that majority (52%) residents indicated that men are more involved in the management of water projects in the sub county. Fifteen percent indicated that both men and women are involved in the management of water projects. The finding implies that the society recognizes the role of everyone in fostering development in their localities. This finding concurs with that by Kithome (2012) and Gathagu (2013) whose study in Mbiuni location of Machakos County established that men are mostly involved in the management of water projects in the area. Involvement of women in the management of water resources and projects is important in order to ensure effectiveness in the whole management.

The findings showed that women had the major obligation of managing domestic water supply, cleanliness and hygiene. In our focused group discussion, Alice 45 years old and Sanaipei 36 years old, (not their real name) said:

"In this sub county, women have customarily been involved in carrying and fetching water to the homes frequently since men are out with animals or other duties."
"All women in the society are concerned with the availability of water in the house. When the water is polluted, the woman usually lets other family members know."

The findings show that women are more involved in the uses of water and water resources in the sub county especially for the domestic uses. However the women are not very much engaged in the management of water projects as evident in the numbers of men which surpass that of women in management by all proportions. The women have a role in establishing the

suitability of water sources in terms of replacing clean water. It is similarly apparent that women are in close interaction with water sources because men are often out with animals. Because of the role of ensuring availability of water in the homes, women often go to the water resources for fetching water. This experience and role makes the women to have amassed substantial knowledge about water resources and projects such as location, quality of water and storage methods as demonstrated in these quotes by John (34 years old) and Linnet, 54 years old (not their real name):

"Because we women go to fetch water daily, we get to understand the best sources of water in the sub county."
"Men manage the water projects as per the requirements of our culture but it is us women who fetch the water and use it in our homes. This means that we are the main consumers of the resource."

This finding therefore places women at a suitable position to be included in water management based on their awareness of major issues around the management of water and water projects. They are holders of vital knowledge on water resource and consequently essential participants in water projects management. Furthermore, the results showed that women and girls are the primary users and fetchers of water as well as the caretakers of household cleanliness. In Kajiado West Sub County, the fetching of water includes women and girls sacrificing their valuable time and efforts. This was brought out by a quote by Saidimu (not his real name), one of the Focus Group Discussants below.

"Girls in this part of the country do not have a good chance of studying and advancing in their studies given that they have to fetch water and transport the water home, tasks which consume much of their time and expose them to back aches."

The underrepresentation of women numbers in the management of water resources in the sub county is entrenched in the traditional and cultural tenets that limit women participation in key decision-making processes. According to the FGD response by 37 years old Brenda (not her real name) women are expected to be obedient to their husbands not managers. They are therefore expected to be more passive than active.

"In our community, women have no say in most matters, they are expected to be submissive to their husbands and do household duties. Men assume all leadership roles."

From the outcomes, the researcher discovered that men and women played different roles in water resource management. This was so because men are traditionally inclined to make the key community related decisions. For instance, Abel (not his real name) one of the key informants brought this to perspective.

"The women fetch and ensure that there is water in the household for the domestic related duties while the men ensure there is security in the water sources and take care of all management duties".

The findings revealed that women have customary roles with key decisions being made by the men. Likewise, women seemed to be more operational in sharing information within their families and through informal networks and the men in sharing information outside of their families and also through formal networks. Consequently, gender disparities affect shared responsibilities to the aspects of water resources and projects management. Both genders tend to consolidate in different ways, for instance women repeatedly face precise hurdles to partaking in the projects or providing contribution in a discussion assembly. Additionally, the study established that women are often the ones most interested in establishing and maintaining a good water supply, yet they do not essentially take part in main decisions and in the management of water projects. In contrast, men controlled the management of water project because they made important decisions on when and where to start and locate the projects like boreholes and the time to supply water. Furthermore, men controlled most of the water points and therefore had the powers to regulate when and at how much to sell the water. The study sought to establish the numbers of men and women in water resource management and from the findings of the study, it was established that both men and women participate in water resource management. However, the men were having more roles owing to the patriarchal nature of Kajiado West Sub County. This finding agrees with that by Mwangi (2015) whose study in Kajiado County also established that the roles of men and women are different and thus their numbers in management also vary with the diverse roles.

Water needs for men and women and management of the water projects

The aimed to examine the influence of water needs for men and women on the management of water resources in Kajiado West Sub County, Kajiado County, Kenya. The question asked under this objective was answered using 5 items across the 2 sets of instruments for the key informants and the Focus Group Discussions. The items were summarized using frequencies and discussed as follows.

The study established that even though water in Kajiado west Sub County is scarce, men and women have water needs and use it for different purposes such as household and livestock uses. All the same, one of the main topics deliberated in the FGDs was the water needs of both men and women. The discoveries show that both men and women use water for unlike functions. Women use water mainly for domestic purposes like laundry and cooking. Men's needs for water include for irrigation and livestock purposes. This is shown in comments by Cosmas, 45 years old and Anna, 51 years old (not their real names), during the focus group discussions.

"Water in this area is used for different things like irrigation and it is also given to the livestock. These water uses are mostly for the men. Women mainly use water for cooking and washing the clothes."

"The women are the primary care takers of the homes and thus have more needs of water compared to the men, they cook, wash and do all cleaning chores."

Besides the uses of water, water needs in Kajiado West are understood based on the accessibility facet. The severe water scarcity in the area has led to construction of boreholes since the area is arid and lacks flowing rivers. This therefore shows a substantial water need. Water from the boreholes is pumped and stored and in water tanks as a response to regular water shortages, even though this is not always the case. From the analysis of the study findings, majority of the respondents said that they have to walk for long distances as the boreholes, water points are at far distances, and these force women and girls to wake up very early in the morning to look for water. The following were comments by Moses, 53 years old and Nancy, 32 years old (not their real names), on the same.

"Men have to travel many kilometers away in search for water for their livestock like cows, goats and sheep."
"Girls and mothers have to be up very early in the morning to fetch water before the sun becomes unbearable."

The perennial water shortage in the area which is among the Arid and Semi-Arid Areas (ASALs) of the country is attributable to the low rainfall received in the area. The area thus suffers from many drought conditions throughout the year.

Water needs for men

The key informants and the residents were required to give the water needs for both the men and women in the sub county. The findings for this were presented in Table 1.

Table 1: water needs by gender

Respondent	**Male**		**Female**	
	F	**%**	**F**	**%**
Domestic chores	3	11.0%	16	59.0%
Irrigation	7	26.0%	0	0.0%
Drinking	4	15.0%	2	7.0%
Livestock	11	41.0%	1	4.0%
Cooking	2	7.0%	8	30.0%
Total	**27**	**100.0%**	**27**	**100.0%**

The findings in Table 1 show that many (41%) respondents in the FGDs indicated that men mainly required water for livestock needs. Only 11 % and 7 % of the respondents indicated that men require water for domestic chores and cooking respectively. This is because the work of livestock keeping is mainly men's job. Women most times will be the caretakers of the homesteads and thus will require water for domestic chores which are usually very many. This finding agrees with that by Gathagu (2013) whose study established that men and women have different needs for water and this influences their active participation in water projects management.

Further findings show that majority (59%) of the residents indicated that women require the water for domestic uses. Only 1 % of the residents indicated that women required water for livestock needs. This shows the distinct and water needs for both men and women in the sub county. This finding however disagrees with that by Kithome (2012) whose study in Machakos County established that there are no distinct water needs for men and women by gender. The finding agrees to that by Mwangi (2015) whose study in Kisamis District found that men and women have different water needs.

Conclusions

The numbers of women in the management of water resources versus those of men is very wanting in the sense that most people still view management as a man's job hence limiting the participation of women in management of the projects. The number inequalities have served to maintain and justify not only socioeconomic inequalities but also exclusion of women in decision-making. The management of water resources negates gender equality fundamentally and the gender assessment in Kajiado west demonstrates this well. The needs of water for men and women are different because they are dictated by the responsibilities of these genders which are different.

Recommendations

Hands-on support to community level work is required to support field staff in enabling women and men to work together in water resources management. The numbers should be harmonized in line with the recommendations of policy documents.

The differences and inequalities between women and men influence how individuals respond to changes in water resources management. Understanding gender roles, relations, and inequalities can help explain the choices people make and their different options. Involving both women and men in integrated water resources initiatives can increase project effectiveness and efficiency.

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