

Original Research Article

Challenges in gender mainstreaming in the management of water at the bridge water project in Kakamega County, Kenya

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Abstract

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Water is an important natural resource in the lives of all human beings. Women and men have different roles and experiences affecting perceptions and use of natural resources including water. It is thus important that men and women be equally involved in its management so as to effectively and equitably address their needs, concerns and the distribution of accrued benefits. This study sought to establish water uses and identify challenges in mainstreaming gender in the management of the Bridge Water Supply Project. The mandate of the project was to drill boreholes for domestic and institutional use, through funding from donors and the local community. The study focused on the Bridge Water Project which had drilled 123 boreholes for use in households, learning and religious institutions in Kakamega County. The study was a case study guided by the Gender Planning Framework developed by Caroline Moser in 1980. 10% samples of 13 out of the 123 committees that manage the boreholes were randomly selected as respondents to the study. They include 5 household committees, 6 learning and 2 committees from religious institutions. Key informants were heads of selected institutions and the chief of the location where the study was undertaken. The instruments used to collect data were Questionnaires, Focused Group Discussion, Interview Schedule and Observation. Data collected was cross-tabulated for qualitative analysis. The study established that women were discriminated against in terms of access to water management committee positions in relation to utilization of water as a resource. Water supplied by the Bridge Project is predominantly utilized by women in learning institutions followed by households and lastly by religious institutions. Lack of awareness on the affirmative action policy by members of the project disadvantaged women to ascend into leadership roles. Other determinants were associating women to the gender assigned roles, low level of awareness on gender mainstreaming by the project members, low turnout and inconsistency of participation by women during the project

Keywords: Challenges, Committees, Gender Mainstreaming, Kakamega, Kenya Management, Water

INTRODUCTION

Natural resources are useful naturally occurring materials and components found within the environment (Nancy, 2003). They include air, sunlight and water amongst

others. Some natural resources such as sunlight and air can be found everywhere. However, most resources are localized and only occur in small areas. There is a lot of

debate worldwide over natural resource allocations and its management. This is partly due to their increasing scarcity and depletion. Some of the resources considered to be inexhaustible are air, solar and geothermal energy. The vast of resources are exhaustible in that they have a finite quantity, and can be depleted if managed inappropriately. Among these is water.

Like air, water is an essential resource to human life. The human body cannot survive several days without water. Among the sources of water are oceans, lakes, rivers, dams and boreholes. The resource is utilized for washing, cooking and also as a medium of transport among others. Women and men take up definite responsibilities in using and managing water and water systems. Since women are the main users and managers of water resources, their involvement is imperative in ensuring effective integrated water resources management (Manase, 2003). Manase further emphasizes on the need for gender mainstreaming in water programmes. Various instruments have been put in place from as early as 1970's to ensure women are integrated in water resource management.

When the United Nations declared the period 1975–1985 the Decade for Women, one of the concerns of the declaration was women's equality in all sectors including that of managing water resources. The plan of Action adopted at the UN Conference on Women in Mexico in 1975 specifically stated that improved water management should be provided for in water resource management. Therefore, the role of women in water resource management is unquestionable given the fact that women are mainly responsible for fetching water and utilizing it. According to Manase (2003), The Women in Development Approach (WAD), which was an attempt to mainstream gender in development at that time, emphasized the need to target women in water resource management since they are primary beneficiaries in water projects. It especially highlighted the fact that there would be improved water supply if women are involved in water resource management and thereby use time saved through improved water supply to engage in income generating activities.

After 1985, subsequent international and regional conferences and the resultant declarations reinforced the need for mainstreaming gender in the water sector. The UN Conference on women held in Nairobi, Kenya in 1985 and in Beijing in 1995 continued advocating for women's participation in water programmes through gender mainstreaming. Gender mainstreaming was established as a global strategy for the promotion of gender equality in the Beijing Platform for Action (1995). In particular, Section (K) of the Platform for Action on women and environment declared the crucial role that women play in the growth of sustainable and ecologically sound consumption and approaches to water resource management.

Further, the Rio Agenda 21 conference held in Brazil

(1992) emphasized the need to address gender and manage water as an economic good. The Agenda put together more than 145 references to the precise roles and positions of women in protecting the quality and delivery of fresh water resources over and above protecting rational use and sustainable development. Five years later at the Millennium Summit in New York, the Millennium Development Goals (MDGs) also emphasized on a significant reduction in the rate loss of proportion of total water resource used when women are empowered. As such MDG (7) stresses on gender mainstreaming in water resource management as an effective way to fight poverty, hunger, disease and to accelerate growth that is truly sustainable.

In Kenya as early as 1965, the government produced sessional paper number 10 which instigated an era of development in the water sector through providing water to its citizen founded on the principle that water is a social good to be either provided free of charge or at a subsidized price. However, in 1983, a study done by the Swedish International Development Co-operation Agency (SIDA) substantiated that the concept was unsustainable. The study emphasized the need for decent water resource management in order to ensure its sustainable use. Since then, various legislations have been developed to address the problem of water resource depletion through effective water resource management.

The current legal framework for water management in Kenya is based on the Water Act (2002). The Act establishes the Water Resource Management Authority (WRMA) as the lead agency in the management of water resources in the country. The authority operates with other government institutions, the general public and private partners in managing water resources through water management boards and committees. Rule 2 of the First Schedule of the Act deals with appointment of individuals to water management boards and committees. The issue of gender mainstreaming in these committees is not provided for in the Act. WRMA focuses on ensuring all citizens have access to water for domestic use, preparation of water development plans and determine priorities in issuance of water permits, with no reference to gender mainstreaming in management of water resources (Manase, 2003).

The role of communal water projects in both the management of water resource and provision of water services is clearly recognized in the Water Act (Ngetich, 2013). However, according to a study by Dirasse (1991), Kenya has a poor record of women in decision making positions in community projects especially in rural areas. She noted that women only attend meetings and provide labour. In addition, according to a study by Kuria (2012) social, political and institutional resistance to gender mainstreaming (GM) has been witnessed in Kenyan institutions. Given the role women play in the utilization of water and its management at the household level, there is need to investigate on the challenges encountered on

mainstreaming gender in the management of water resources, taking cognizance of the differential participation of women and men in this essential commodity. The study focused on the Bridge Water Supply Project in Kakamega County. This is a community project established in 2009 to drill and rehabilitate boreholes for use by schools, churches and households in Kakamega County.

Statement of the Problem

Women and men have different roles and experiences which affect their perception and use of natural resources, including water. This creates a need to uphold the principle of gender mainstreaming in the management of resources in order to effectively and equitably address their needs and concerns. The principle of gender mainstreaming ensures effective management and utilization of resources. It is this appreciation that underscores the problem of this study, which focuses on gender mainstreaming challenges in the management and utilization of water resources.

Objective of the Study

The study was guided by the following objectives:

- i. To establish the utilization of water supplied by the Bridge Water Project.
- ii. To identify the challenges encountered in mainstreaming gender in water resource management.

Theoretical Framework

The study was guided by the Gender Planning Framework (GPF), developed by Caroline Moser in 1980. The Moser Gender Planning Framework is a tool for gender analysis in development planning. The goal is to free women from subordination and allow them to achieve high levels of equity and empowerment.

The framework is on Moser's concepts of gender roles and gender needs, and her views on the ways policies should approach gender in development planning. The framework emphasizes the importance of gender relations comprising gender division of labor, gender needs assessment, access/control of resources and decision making within the household. The focus is on balancing the triple role of women productive, reproductive and community roles in the context of both practical and strategic gender needs.

The framework is relevant to this study in that the project has met the practical gender needs for women and men making water accessible and hence enabling effective performance especially at the households. It is also anticipated that achievement of gender main-

streaming in the management of the project would transform the balance of power between men and women and therefore improve on the existing gender relations between men and women. In the context of Moser's Gender Planning Framework, this to some extent addresses women's insubordinate position.

Conceptual Framework

The study was interested in identifying challenges on gender mainstreaming in the management of the Bridge Water Project. Gender mainstreaming in the management of water resources is seen to be encountering various challenges. As illustrated in figure 1, these include low level of awareness, socialization process and low level of education. On the other hand, given the important role of gender mainstreaming whether in the utilization or management of water resources as reviewed in the literature, it is important that challenges that hinder gender mainstreaming in the management of water resources are identified to enhance gender mainstreaming in the management of resources in order to enhance equity.

STUDY METHODOLOGY

This research was a case study focusing on the Bridge Water Supply Project. The research relied on both quantitative and qualitative data analysis to show water uses and challenges in mainstreaming gender in the management of the Bridge Water Supply Project. The case study approach enabled investigations to be in-depth and thereby collect a lot more information on water uses and challenges on gender mainstreaming in the management of the Bridge Water Supply Project.

The study population was based on the 123 boreholes drilled and rehabilitated by the Bridge Water Supply Project in Kakamega County. The water supplied was utilized by institutions and households in the categories of learning institutions (57 boreholes), religious institutions (19 boreholes) and households (47 boreholes). Each borehole drilled had a Borehole Management Committee (BMC) that managed it hence resulting to 57 BMC in learning institutions, 19 BMC in religious institutions and 47 BMC in households. Further analysis of the committees' membership lists revealed the total population of BMC members under study as being learning institution (399), religious institution (162) and household (376). In addition to the BMC's, there was a Management Board (MB) whose role was to oversee the effective management of all the 123 boreholes, comprising 5 members based in Kakamega town.

A 10% sample was randomly taken from each of the three BMC categories which according to Orodho and Kombo (2002) are adequate as a representative in

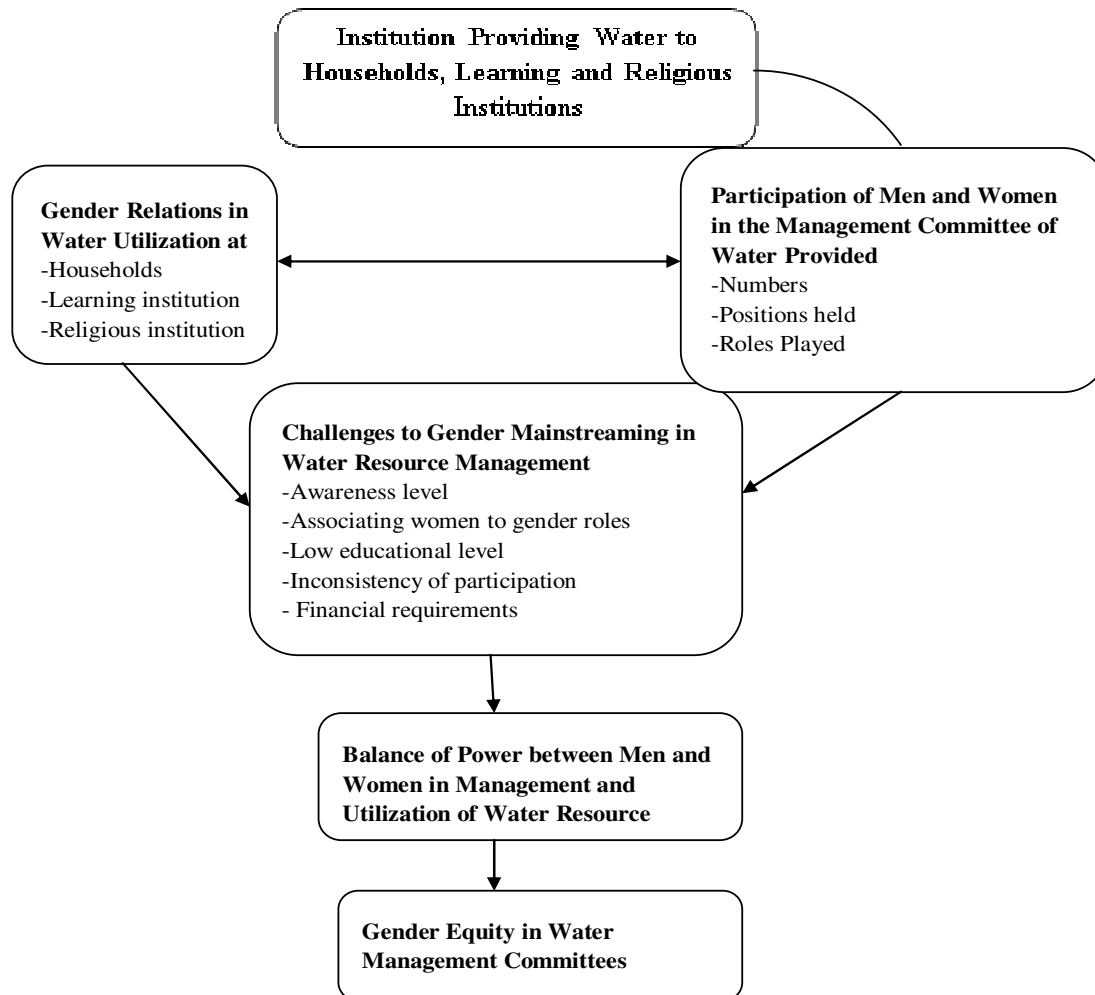


Figure 1. Framework of the study

research. The 10% study sample therefore was (10% of 57) to include 6 committees in the learning institutions, (10% of 19) to include 2 religious committees and (10% of 47) to include 5 household committees hence the BMC members from the sampled learning institutions, religious institutions and households were 35, 20 and 39 respectively to give a grand total of 94 members.

All the 5 members of the MB were included in the study as respondents.

One category of water users were purposively selected as respondents from each of the randomly sampled BMC's of learning institutions, religious institutions and households. The total population of the water users sampled was 105 members. Also included were key informants comprising of 5 chiefs in the sampled area where the project supplies water to households, 6 heads of learning institutions and 2 heads of religious institutions. Table 1 illustrates the sample size of the study.

The study utilized four instruments for data collection, namely Questionnaires for Borehole Management

Committee members, Interview schedule for key informants, Focus Group Discussion (FGD) guide for men and women utilizing the Bridge Water and the Observation checklist. Data collected was cross-tabulated for qualitative analysis.

STUDY FINDINGS

The presentation of the findings is on the basis of the study objectives which were to establish the utilization of water supplied by the Bridge Water Project and to identify the challenges encountered in mainstreaming gender in water resource management.

Utilization of Water Supplied by the Bridge Water project

In line with objective one of the study which was set to identify the utilization of water provided by the Bridge

Table 1. Utilization of water supplied by the Bridge Water Project

Uses	Bridge Project Water Supply		
	Households	Learning Institutions	Religious Institutions
Household uses	yes	yes	Yes
Agricultural uses	yes	yes	Yes
Selling	yes	no	No

Water Project, data analysis revealed various uses of water supplied by the project across the households, learning as well as the religious institutions. As shown in table 1, there were varied utilizations across the three categories of boreholes.

The utilization was found to have been in three main uses as demonstrated in the table 1.

Household uses

The results presented in table 1 which were confirmed through observation along with focused group discussions showed that water from the Bridge Project was utilized for household uses in all the three categories. Analysis of data revealed that households, learning and religious institutions had different household uses of water. Water supplied to households and learning institutions was utilized for washing, cooking and drinking whereas religious institutions utilized their water for washing and drinking. Further analysis of data revealed dissimilar quantities of water utilization for household uses by men and women in all the three categories.

On affirming water uses during the focused group discussions at one of the groups that supplies water to households, some members said that water supplied by the Bridge Water Project was utilized while performing household chores especially by women. This water was utilized for washing clothes, houses, utensils, cooking and washing some household equipment such as jembes and bicycles. On the other hand, some members of learning institutions utilized water for washing classrooms, offices, staff room, laboratories, the library, toilets and dormitories. Some respondents said that when the school is in session, some students of the school utilized it for washing clothes. The head teacher of one of the learning institutions expressed that;

“Duties, roles and responsibilities of water interaction in schools vary. Students’ teachers and non-teaching staff both male and female utilize water without prescribing specific roles to either gender in schools.”

However, some members said that women back at home utilized water more than men as the society had socialized them to perform household domestic chores such as washing and cooking which involved more contact for women with water as compared to men. In learning institutions where students were boarders, large quantities of water supplied by the Bridge Water Project

were utilized in the kitchen and dining halls for cooking meals for the boarding students. In religious institutions, some members informed the study that they utilized water for washing the church, offices and toilets.

Agricultural uses

As presented in table 1, water supplied by the Bridge Water Project was also utilized for distinct agricultural practices by household, learning and religious institution in varied quantities by both men and women.

As observed and confirmed during the focused group discussion, women were seen watering flowerbeds and lawns at some of the religious institutions. In learning institutions, members said that they utilized the water for watering tree nurseries, lawns and school gardens by both men and women in almost equal ratio. Members of the household stated that they utilized the water for small scale kitchen gardens where it was observed that women planted kales, flowers, indigenous vegetables and fruits. Excess water was fed to livestock for drinking or used for watering lawns.

Selling

The study established that some members of the household category sold the water supplied by the Bridge Project to neighboring residences and estates in Kakamega town. As per observations, men were seen fetching water from the boreholes and loading them on bicycles before transporting them to Kakamega town where they sold the water to residents.

Disparities in water utilization at household, learning and religious institutions

According to the findings of this study, men and women in households, learning and religious institutions utilized water supplied by the bridge project for household uses and agricultural practices. However, in addition to the said uses, some members of the household category sold the water.

Disparities in water uses by men and women were evident in water supplied by the Bridge Project to households and religious institutions. During the focused

Table 2. Challenges to gender mainstreaming in the water management committees and board

No	Challenge	Frequency of Response
1	Lack of awareness on the affirmative action policy	74%
2	Associating women to the gender assigned roles	70%
3	Low level of awareness on gender mainstreaming by the project managers	63%
4	Low level of education amongst women	51%
5	Low turnout and inconsistency of participation by women during the project meetings	45%
6	Financial requirement of the Bridge Water Project hindered the participation of women into the management of the project.	30%

group discussions, it was revealed that women interacted and utilized water more than men for the reason that women in Kakamega County performed household chores which involved more contact with water. Moreover, water from the Bridge Water Project was also utilized in kitchen gardens which were owned by women. On the other hand, men were mostly involved in water vending as observed and confirmed during the focused group discussions.

The disparities in water usage between men and women as revealed in this study concur with a study done in Zimbabwe. The study by (Manase, 2003) established that women were the main water users and managers of water resources at household level hence the need to recognize this crucial role of women in management and utilization of water at household level when selecting members into management positions in various water provision programmes. According to the study, this will be imperative in ensuring effective integrated water resource management. The study by Manase went further and recommended that in order to address gender issues in the integrated water resource management, appointments to Zimbabwe National Water Authority and Catchment Councils should be gender sensitive.

Challenges encountered in mainstreaming gender in water resource management at the bridge water supply project

Objective two of the study was to establish the challenges encountered in mainstreaming of gender in the management of the Bridge Water Supply Project. Data analysis revealed several challenges from the perspective of committee and board members as well as water users from the three categories of the Bridge Project beneficiaries as shown in table 2. The information was generated from the 75 committee members and 5 members of the overall management board where multiple responses were allowed.

Lack of awareness on the affirmative action policy

The study established that women were under-represented in the management committees due to insufficient execution of the affirmative action policy that would have ensured equal representation of men and women in the water management committees.

A member of the category of the household stated that, *“Equal representation of men as well as women does not threaten the sustainability of the project but instead address the problem of discrimination against the minority gender. What needs to be done is full implementation of the policy on affirmative action. This will ensure that more women are represented in the borehole management committees as stipulated in the affirmative action policy.”*

Moreover, the head teacher of one of the learning institutions on reaffirming the sentiments of the member of the household category informed the study that inadequate implementation of the affirmative action was the main reason for underrepresentation of women in the borehole management committees. The study established that women were few in the water management committees whereas they were the ones who utilized the water more due to inadequate implementation of the policy on affirmative action. This finding concurs with (Patricia, 2012) in her review of the effect of affirmative action in advancing the rights of women to occupy management positions in some non-governmental organizations in South America showed the policy being effective from 1990 – 2000. In spite of this, the positive effect of the affirmative action vanished entirely in the late 2000s. This was due to inadequate implementation of the policy on affirmative action hence the low representation of women in the management positions from the end of 2000 - 2007.

Associating women to the gender assigned roles

The study established that associating certain roles to men and women in the project were the main barriers that hindered gender mainstreaming in the borehole

management committees of the Bridge Water Supply Project. During the FGDs, the study established that there were different roles women and men played in the society that hindered women from being members of the borehole management committees.

As illustrated in table 2, the secretarial positions in the borehole management committees were taken up by women. One of the borehole management committee members informed the study that, *"Some of the men in our group prevailed on women not to contest any other position in the committees. They told us that the position for women is that of the secretary. Men who are heads of the households should automatically head the borehole management committees."*

The study established that this stereotyping of roles resulted to women shying away and not taking up superior management committee positions in the Bridge Water Supply Project.

One of the members of the borehole management committee who was the head of a religious institution informed the study that most of the management committee members chosen were people who already had leadership roles in the society such as chairpersons of the church or parish and opinion leaders. He further said that most of the people with leadership positions in the society were men hence resulting to underrepresentation of women in the borehole water management committees. Furthermore, one of the local chiefs interviewed revealed that, *"The roles and responsibilities of women in the household especially their domestic workload was an inhibiting factor to their full and effective inclusion in management committees of the Bridge Water Project."*

The study established that there was stereotyping of roles for men and women in the project which resulted in underrepresentation of men and women in the borehole management committees and the overall management board. Moreover, the women who took up leadership positions were propelled to take up inferior positions. The findings of this study concur with Jinghua (2011) whose study on gender equality and participation in political leadership established that women in comparison to men were generally shy to take up leadership positions in political structures due to labeling of leadership positions in political structures as a reserve for men in the Chinese village community.

Low level of awareness on gender mainstreaming by the project

The study established that majority of the project beneficiaries and 65% of borehole management committee and the overall board members as illustrated in table 2 were not aware of the concept of gender mainstreaming in the management of the Bridge Water Project. The study was informed by members of the

household category that they were unaware of the pattern of men domination in the borehole management committees. The perception of some of the members was that men and women were fairly represented in the borehole water management committees. A member of the household category informed the study that, *"We have no problem with how men and women are represented in our committee. Most of the leadership positions in our community are a reserve for men and that is our norm. There is nothing different with the Bridge Water Project."*

The sentiments by members of the household category were echoed by members of both the learning and religious categories. This subjective idea from the community was now implanted in the project.

Nonetheless, 35% of the borehole management committee members and the overall management board were aware of the concept of gender mainstreaming. One of the members of the borehole management committees informed the study that there was need for both men and women to be included in all levels of utilization and management of the water supplied by the Bridge Water Project. During the FGDs, some members of the project seemed to understand the need for including both men and women in all level of utilization and management of the project. This implied that there was some level of consciousness amongst the members of the project on the concept of gender mainstreaming.

One of the directors of the Bridge Water Project who was somehow aware of the need for gender mainstreaming in the management of the project informed the study that,

"Representation of men and women in the borehole management committees and the overall management board is dominated by men. Little is being done to ensure that both men and women are included in the management of the project due to low level of awareness on the need to include men as much as women in the management of the project."

Low level of education amongst women

One of the head teachers in the learning institutions informed the study that the gross enrolment for her secondary school in the year 2011 was 56% for female and 73% for males. On reaffirming the gender disparity in education, analysis of reviewed literature from the United Nations Children Fund Report of 2013 revealed that Kakamega County was a low development area with respect to equality in educational accessibility. One of the local chiefs interviewed stated that,

"The low level of education amongst women lowered their self-esteem making them inferior hence they don't want to take up leadership and decision making roles in

the borehole management committees and the overall management board.”

As illustrated in table 2, 36% of women members of the borehole management committees and the overall management board had no formal education as compared to 18% of men.

Borehole management committee members of the household category informed the study that the low level of education amongst women led to higher levels of ignorance. This enhanced the exclusion of women when selecting members into the borehole management committees and the overall management board as women tended to coy away from leadership positions. The study therefore established that the low level of education amongst women was a challenge to mainstreaming of gender in the management committees and the overall management board of the Bridge Water Project.

Low turnout and inconsistency of participation by women during the project meetings

From the study findings, women were not consistent when it came to attending committee meetings. Analysis of attendance lists obtained from minutes of committee meetings on one of the household group revealed a low turnout of women during committee meetings in addition to inconsistency by women who attended the meetings. On affirming the low turnout and inconsistency of women during committee meetings, one of the members of the borehole management committees informed the study that,

“The multiple roles that women play in the households inhibited them from participating actively in the activities of the Bridge Water Project.”

This hindered them from selection into management positions in the committees as most voters were aware of the women limitations to this end. His assertions were echoed by members of the borehole management committees in the learning and religious institutions during the focused group discussions. The finding of this study corresponds to (Peter, 2006) Gender Roles and Relationships Implications for Water Management for Crop Production whose findings indicated that there were no significant differences in the roles of men and women as heads of households. Women as heads of households assume the same roles as those of men heads suggesting relative gender-neutrality. However, all women also played “double-day” roles distinct from men hence they would not fully participate in crop production resulting to men domination in management and decisions on crops to be grown, inputs to be used, disposal of the products and use of income obtained.

Financial requirement of the Bridge Water Project hindered participation of women into management of the project

The study from the reviewed literature established that before drilling of the borehole commenced, local leaders had to mobilize the water beneficiaries who raised money amongst themselves for the cost of borehole drilling permits and geological surveys which ranged from ksh 300,000 to ksh 500,000. Members of the borehole management committee informed the study that after the money had been raised, the project beneficiaries then formed a borehole management committee with priority given to members who have contributed financially towards the project.

In this regard, the study was informed by the respondents that women headed households were disadvantaged in that they were usually the last to pay. On the other hand, the men headed households paid and fronted themselves for the committee membership. Confirming the same, borehole management committee members informed the study that majority of women were too poor to contribute for the borehole drilling permits as they had no means to borrow money from financial institutions

During the FGDs with the borehole water users in household category, most of the women confessed having no access to information on financial services that were available to them to enable them access finances.

CONCLUSION

The study concludes that there are various challenges that hinder gender mainstreaming in the management of the Bridge Water Project in Kakamega County. Key among the challenges encountered in mainstreaming gender in management of the project were low level of awareness on the affirmative action policy, associating women to the gender assigned roles, low level of education and the low economic status of female headed household. The study noted that the financial requirement of the bridge water project was a hindrance to ensuring more women as much as men participate fully in the project.

RECOMMENDATIONS

Based on the study findings and conclusions, the study recommends that;

a) The overall Management Board should contract a training and research firm to train the overall management board, borehole management committee members and the project beneficiaries on the need for

gender mainstreaming in the management of the project.

b) The requirement that beneficiaries of the project contribute financially towards the drilling of the boreholes should be reviewed by the board in order to ensure more participation of women in the project. The board should source for more donor funding or partner with financial institutions in order to address the financial requirement.

c) In line with Caroline Moser's Gender Planning Framework that aims achieving gender equity and empowerment through a gender mainstreaming process, Global Management Networks Limited should engage the existing community based organizations and faith based organizations in Kakamega County to enhance activities on gender mainstreaming and women empowerment to encourage women to participate more in community decision making structures.

d) The study established that the community in Kakamega County benefiting from the project was purely patriarchal hence making it almost impossible for women to be elected to the borehole management committees. The project should therefore do away with election and embrace appointments of members to borehole management committees in order to ensure that women as much as men are represented in the borehole management committees.

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