

Influence of Land Tenure on Gender Participation in Management of Water Projects in Njoro Sub-County, Nakuru

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Abstract

Most water projects in Kenya, account for women having fewer opportunities in decision making committees than the men counter parts. In Njoro sub-county there are different ethnic groups who utilize land and water differently as a result of difference in socio-cultural backgrounds which in-turn affect gender participation in management. Kenya as a country has made great efforts to entrench gender issues in management of water projects but have been affected by socio-cultural factors such as land tenure which derail realisation of gender equality and equity in water management. Administration of water users association projects have been decentralised by the government through enactment of water Act 2002, which advocates for gender equity and equality in participation but this, has not been fully translated into practice in water and sanitation projects. In Njoro sub-county there are several water users' association projects in which men and women perform different function in management as a result of different socio-cultural backgrounds. Despite the role played by women and men in management of water as a resource, and the efforts that the government has made in enhancing women's participation in management of water resources, there appears to be an existing gender gap between policy and practice. The main objective of this paper is to highlight the influence of land tenure on gender participation in the management of water projects in Njoro Sub-county.

Keywords: Land tenure, Gender participation, Management, Water projects.

1.0 Background of the Study

Sustainable water resource management can be achieved when women and men's tasks, rights, power relations and responsibilities are taken into account and both genders are equally involved in the management of water resource. When dealing with gender in water users association, the main issues are how; work, control and benefits are divided between women and men (Ong'or, 2005). In order to have improved and a sustainable management of water supply, the involvement of both men and women in decision making process is very critical (Kulkarni, 2011). This is because when men and women in rural areas are provided with an opportunity to highlight their grievances on issues appertaining to daily livelihood, or are involved in water project management and in policy formulation, they can help mobilize the potential of water development and ensure that water is not a challenge for environmental and socio-economic development.

In Africa women play a major role in collecting, managing and maintaining communal water supply, regulating and controlling its social use and maintenance (GWA, 2006). Men have traditionally been responsible for making decisions and have dominated the process which affects the management of the projects as a result of socio-cultural factors such as land ownership which is patriarchal inherited or controlled by men. The type of land tenure (individual, communal, leasehold) may weaken or reinforce unequal participation of women and men in decision making and management positions in the water user's management committees. According to GWA (2003) water rights are mostly related to land tenure and are culturally transferred together in a patriarchal manner. In most communities women may be working on the land, but they often have no right to participate in decision making regarding to its use. This therefore depicts that for water and sanitation project to provide services efficiently, women and men must be empowered to participate actively in management. Also policies on gender participation must be adequately translated into practice, as there exist very little evidence of explicit attempt at increasing or improving participation of both men and women in water management initiatives in Njoro Sub-county Kenya.

Kenyan government has decentralized water management responsibilities to county governments and community level with the aim of promoting local governance and public participation in water projects management. Decentralization strategy facilitates greater social ownership of water resources and hence more sustainable environmental outcomes and proper management (Guslits & Phartiyal, 2010). In addressing gender inequality in the water service sector, both the practical needs and strategic needs of women have to be addressed. In terms of the practical needs, women need to access water as a basic service to ensure the functioning of the

family unit and sustain a minimum quality of life (Ellis & Cutura, 2007). In terms of strategic needs of women, the barriers that prevent women and men from operating at the same level, need to be removed and women need to be empowered to enjoy the same status as men to realize their full potential and contribute to national, social and cultural development (GWA, 2006).

In Njoro sub-county there are several water users' association projects that are aimed at domestic water supply. The water projects are under different management categories (communal, church and Nakuru Rural Water and Sewage Company). In this water projects, gender relations and project procedures account for women having low representation in decision making committees than men counter parts. Although the Kenyan government has initiated one third gender rule in any management position to promote a gender-sensitive approach to development, this has not been fully operationalized in most water and sanitation projects in the sub-county (Kamau, 2010). Besides the roles of women and men as users and managers of water, there are strategic socio-cultural constraints which affect women more than men in participation in management of water projects such as: no equitable division in rights, domestic and public roles, and restrictions in autonomy over access to and control of land resources, and lack of women independence in decision making (Kachika, 2009). This may prevent women from fully participating in management of water user's association projects. In Njoro sub-county majority of the water projects are dominated by men in management positions. This is an indication that women have unequal opportunities to participate fully in management of water projects compared to men. Despite the existence of the policies, legislative reforms, plans and programmes, gender disparities still exists in the levels of participation in decision making, access to and control of resources, opportunities and benefits of water resource management. According to Convention on the Elimination of all forms of Discrimination against Women (CEDAW) (2009) gender differences and inequalities should be taken into account if water projects are to be effective in serving the needs of men and women and achieve a long term goal of gender equality and equity in participation.

2.0 Literature Review

2.1 Gender Participation in Water Resource Management

In most communities women play a major role in the management of water supply and sanitation (Keen, 2007). Water is important for agricultural production, domestic use, personal hygiene and sanitation. Because of dependence on water resources, women have acquired considerable know how in management of water resource including location, quality and storage methods (Harvey & Reed, 2007). However when measures are put in place to ensure improved water resource management and extending access to safe drinking water, women strategic and practical needs are mostly overlooks in the management of this key resource (World Bank, 2009). Gender relations are hierarchal and patriarchal in nature in most African societies, and tend to disadvantage women than men (Hulsebosch, 2003). Gender relations are subject to change and are characterised by conflict and cooperation and regulated by other factors such as social class, gender and economic status of the family. At the policy level, the importance of gender aspects in rural water supply is often emphasized, yet its implementation has become elusive. Policy makers and project managers do not yet properly perceive gender aspects as potential contributors to sustainable water supplies (Joshi, 2011). However, the dynamics of power relations between women and men committee members, women's involvement in real decision making and the structural factors that perpetuate the subordinate position of women in community affairs are given little attention. In addition, the participation and involvement of women and men in most community water management committees is not based on equality. According to CEDAW (2009), men dominate decisions making positions such as chairpersonship and office of treasurer and, while women are almost always kept as ordinary members with no defined tasks.

Women are increasingly being seen as active agents of change and the dynamic promoters of social transformations that can alter the life of all members in society (Ghosh, 2007). In many cases, gender relations and project procedures undermines women chances to participate in discussions and decisions, in spite of their roles as users and managers of water (Katui-Katua, 2004). Underlying these are the strategic constraints: no equitable division in autonomy over access to and control over resources and independent choices in decision making by women in domestic and public domains. This may prevent participation of women and men at all levels of project planning. According to UN women (2011), the exclusion of women in decision making not only delays delivery of benefits but also affects equity and institutional efficiency. Gender sensitivity which involves women participation in water management is, therefore, important.

2.2 Land Tenure and Water Management

Access, control and management of water by both women and men is commonly influenced by access to land; the two are often linked (Watson, 2006). Securing access to land among women and men can lead to securing water rights. In most African communities women access and control over land is limited, this is because land tenure systems in many parts of Africa grant rights to own and dispose of land to adult males (Kabane, 2010).

Land tenure systems determine who can use what resources for how long, and under what conditions. Land tenure is multi-dimensional and ought to bring into play social, technical, economic and institutional aspects into account. In Kenya there are tremendous societal differences on issues concerning land tenure. Most of the land rights are bestowed to men in most patriarchal societies in Kenya. Even in matrilineal societies such as in western Ghana, women do not possess inheritance rights (Kachika, 2009). Land is transferred from a deceased man to his brother or nephew (sister's son) in accordance with decision of the matrilineal clan (Onyango, 2012).

In Kenya most communities have customary laws that hinder women to access and control land independently of their husbands or male relatives. In Kenyan communities women provide labour for agricultural production but do not make major decision concerning land use (Kulkarni, 2011). In many communities, land defines social status and leadership position in decision-making in the village and structures relationships within and outside the household (Lachapelle, 2008). Yet for most women, effective rights in land remain elusive, even as their marital and kin support erodes and female-headed households multiply. Management of water resources is linked with land tenure and this affects gender participation and often women are excluded from decision-making processes in water management and hence women have no choice in the kind of policies formulated or services they receive (Kabane, 2010). Land tenure in Kenya encompasses individual, private property, group property, state property and land held in trust by the state. Land rights do not discriminate against women. The registered land act does not exclude women from possible title holders and uses gender neutral words like proprietor (Lelo, Chiuri & Jenkins, 2006). However the land tenure reform has affected women's land rights. These reforms intervened in a context where customary law was evolving towards increasing individualization with an erosion of women's customary land rights.

In this context the implementation of the land registration programmes carried out in a period in which gender was not in the development agenda accelerated the individualization process and further curtailed women's land rights. Moreover although all land rights including under customary law, had to be recorded during adjudication (land adjudication act sect 23) adjudication committee lacked skills and time to do so (Fitzgerald, 2010). Registration was usually made to male households heads thereby undermining women's unregistered secondary rights. On the other hand some women gained from registration for instance, widows sometimes registered land in their name instead of returning it to the dead husband's family under customary law (FAO, 2010). In addition, the establishment of a gender neutral land market has enabled women to purchase land on a formally equal position to men abolishing customary limits to women lands rights. Indeed there are reports of women who have purchased land, both as individuals and in groups and registered it in their name (IFAD, 2014). However women's constrained access to capital (credit, employment in the formal sector) limited their ability to gain access to land through purchases (Muiru, 2012).

The land rights of many rural women in Kenya are limited. The extent of these rights is determined by the interplay of customary and statutory law. Customary rules are invoked by women to challenge registration benefiting exclusively men, and by men to limit the rights acquired by women under statutory succession law (FAO, 2010). Watson (2006) reported numerous examples of violation of women's rights in access to land including inheritance practices discriminating against daughters constraints in women access to land after separation or divorce and customary practices such as wife inheritance and cleansing the longer-term union and the one-time sexual encounter respectively between a widow and a male relative of the deceased as a condition for the widows continued access to land. Water rights are linked to land tenure. Under section 27(a) of the registered land act registration vests in the titleholder not only absolute ownership of the land but also rights appurtenant thereto, includes water rights (Onyango, 2012). Under the water act, water ownership is vested in the state, and individuals can only have usufruct rights obtained through a permit issued by the competent ministry. However it is usually landowners that apply for permits for irrigation purposes and some domestic uses by riparian landowners do not require a permit. Therefore the gender biased land distribution entails unequal water rights.

In some cases, discrimination is directly or indirectly entrenched in statutory norms. This is particularly the case in the area of family and succession law. For instance direct discrimination in inheritance rights has been documented as many land redistribution programmes have mainly benefited men, by including requirements discriminating against women either directly or indirectly and by issuing land titles in the name of the household head only (Kabane, 2010). In some cases women's rights are curtailed by the interaction between norms of different cultures that coexist in a context of legal pluralism (customary and statutory law) for instance the Kenyan land registration programme strengthened the land rights of male's household heads and weakened women's customary land rights (Sihanya, 2012).

The communities living in Njoro sub-county have diverse cultural practices land use and water utilization. They also have different histories of settlement along the water shed. On the upper side of the Njoro watershed, the Ogiek are settled in the indigenous forested zone and are traditionally hunters and gatherers but have recently begun to settle in the Mau forest (Jenkins, 2008). According to Jenkins and Riegels (2006) the newly arrived and settled Kalenjin groups are mixing with Ogiek. These give way to mixture of older Kikuyu,

Ogiek and Kalenjin residents in the upper zone. Mixed groups of people from different parts of Kenya, some living in urban centers and owning farms along the River Njoro occupy the lower zone of the watershed (Daniels & Bassett, 2002). Changes in women's legal rights (for example, to hold title to land, to inherit, to be represented in land transactions) do not necessarily yield the desired results unless linked with strong advocacy for positive and sustained results on land ownership. The current study provided the link between land tenure and participation in management of water user's association projects in Njoro sub-county.

3.0 Research Design

The study employed *Ex post facto* correlation research design. The research design is appropriate to behavioral science as independent variable cannot be manipulated. It attempts to investigate the causes or consequences of differences that exist between or among groups of individuals (Orodho, 2003). This is to say independent variable has already occurred (socio-cultural factors) and the study examined the existing state of affairs (level of gender participation in management of water projects in Njoro sub-county).

3.1 Study Location

The study will be carried out in Njoro sub-county which has four administrative divisions (Njoro, Lare, Kihingo and Mau-Narok) in Nakuru County. The sub-county is selected because there is widespread scarcity and gradual destruction of water resource in the region. According to Jenkins (2008) the current water crisis is not only due to degradation of the environment but also as a result of increase in population and competition of household water with agricultural production.

3.2 Sampling Procedures and Sample Size

Purposive and stratified random sampling procedures were used. Purposive sampling procedure was used to select 3,556 registered members who were currently connected with water supply in their households/plot out of the 7,230 registered members in all the 38 registered water projects in the sub-county. To ensure equal representation of each category of water management (communal. Church and Nakuru Rural Water and Sewerage Company) stratified random sampling using the lottery technique was used to select 212 respondents for the study. From the 212 respondents only 203 respondents complied with the study and gave their responses.

3.3 Instrumentation

Data was collected using interview schedule for the divisional water officers and questionnaires for the respondents which were developed by the researcher. Data was analyzed using statistical package for social science.

4.0 Results and Discussions

4.1 Respondents' Gender

From the study findings both genders were involved in the study and their representation summarized in Figure 4.1. About 78.8% of the respondents were males while 21.2% were females.

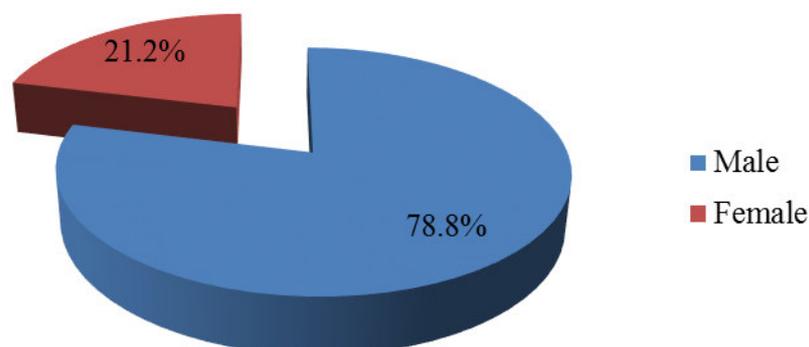


Figure 4.1. Gender Representation

Source: Field Data, 2016

From the study results more males participated in the study than females. This is an indication that males participated more in management of water resource projects than females. This may have been contributed by the fact that most households are dominated by male household's heads than female household's heads. According to Anonymous (2012) community water projects have a mandate to ensure that more women participate in water management projects because women have a major responsibility of drawing water and yet they are usually not fully involved in management of water projects. This may contribute to failure of the water supply system. According to Global Water Partnership (2010) the best managed water projects are those in

which women play a leading role in management.

4.1.1 Gender Representation in Leadership Positions

From the study results both genders held different positions in the management of the water projects as indicated in table 4.1. About 62.18% males and 10.08% females were ordinary membership, while about 5.46% males and 0.42% females held the position of chairperson. About 2.52% males and 2.52% females held the position of vice-chairperson, while about 4.2% males and 4.62% females held the position of treasurer. For the position of organizing secretary about 1.68% males and 4.20% females held the position, while in the position of vice organizing secretary 1.26% males and 0.84% females held the position. This is an indication of engagement of both genders in management in the water projects in Njoro-sub-county.

Table 4.1

Gender Representations in Leadership Positions

Position	Male		Female		Totals	
	Freq	Percent	Freq	Percent	Freq	Percent
Chairperson	12	92.3%	1	7.7%	13	100.0%
Vice-chairperson	5	55.6%	4	44.4%	9	100.0%
Treasurer	15	75.0%	5	25.0%	20	100.0%
Organizing secretary	9	69.2%	4	30.8%	13	100.0%
Vice-organizing secretary	2	50.0%	2	50.0%	4	100.0%
General membership	117	81.3%	27	18.8%	144	100.0%
	160	78.8%	43	21.2%	203	100.0%

Source: Field Data, 2016

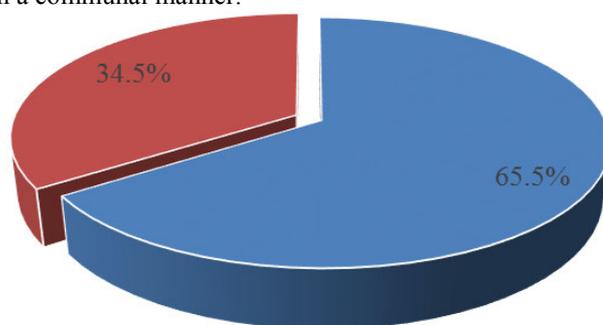
The number of women in management positions in water resource management projects is very small compared to that of men. Despite these progressive policies on gender equality, women are still concentrated in low management positions and in general membership positions. Despite the fact that the constitution of Kenya (2010), stipulates equality for all citizens, women are still few in number in management positions in water resource management projects (GoK, 2010). Most of the cultures in the rural communities have a very strong correlation between type of work and gender (Ravinder & Narayana, 2007). The division between the roles of men and women is such that decision making and technical positions are occupied mainly by men. Women do the clerical jobs which have very low degree of decision making power (Muiru, 2012). Even though the women perform the same tasks as the men and sometimes do so better than the men they do not always feel they are doing the right thing. According to UN women (2011) women play very small roles in the implementation of the water projects as well as in the design implementation, training and maintenance of water resource projects.

4.2 Land Tenure and Gender Participation in Management of Water Projects

Land and water rights should always be taken into account and addressed simultaneously; including gender issues in order to avoid poor management of water resource projects. Land tenure plays a significant role in attainment of equity and equality in management of water resource projects. Land rights are transferred from one generation to another in different ways and this study seeks to establish the relationship between land tenure, gender and management.

4.2.1 Type of Land Ownership among Project Members

The study sought to examine the type of land ownership in the study area where the results were summarized in figure 4.2. About 65.5% of the respondents reported that land is individually owned while 34.5% reported that they owned the land in a communal manner.



■ Individual ownership ■ Communal ownership

Figure 4.2. Type of Land Ownership

Source: Field Data, 2016

Land ownership has been identified as the main precondition for membership in water projects. Land is commonly held by house-heads who are predominantly a male affair in most societies in the study area. Study results revealed that the predominant form of land ownership in Njoro sub-county is through individual ownership and communal ownership. The study area is inhabited by several ethnic groups who have different cultural customs that dictate how land is owned by men and women. Most of the upper parts of the study area are kikuyu's, Ongiek and Kalenjins native reserve lands where people are more tightly connected by customary norms and laws and land is owned communally and on the lower part where land buying companies have divided into smaller plots which are individually owned by different ethnic groups (Jenkins, 2008). In the study area land adjudication is carried out a long ethnic line in the upper region hence homogenous ethnicity and in the lower regions the land is bought by land buying companies and subdivided into small portions and bought by different ethnic communities' hence heterogeneous ethnicity.

According to IFAD (2014) land tenure plays one of the vital roles in shaping water project members position in decisions making, membership in the project and utilization of water. In Kenya's historical processes of settlement and land tenure differentiation have created a plurality of land and water property rights (Nyanjom, 2011). According to World Bank (2010) there are seven ways in which land is currently held by the citizens in the country; trust land which have no title deed, government land with no title deed, adjudicated land with freehold title deed on completion of adjudication, settlement schemes with freehold title on discharge from the Settlement Fund Trustee(SFT), large scale farms with leasehold titles, land buying companies with freehold title on subdivision into small units and forest land reserved on gazettelement. According to Kariuki (2013) riparian reserves are under state authority and lack of effective enforcement means that the open access do not led to better service and often leads to degradation of the water sources through pollution or depletion because one takes responsibility to protect the water source.

4.2.2 Ways of Transferring of Land Rights

From the study results land rights are transferred to the members of the society in Njoro-sub-county in two major ways; customary and legal procedures and the results summarized in figure 4.3. About 73.3% of the respondents reported that land rights were transferred through legal procedure where land is surveyed and title deed issued, while 26.7% of the respondents reported that the rights of land are customary transferred where the head of households identifies a piece of land for his/her children on consensus of all family members.

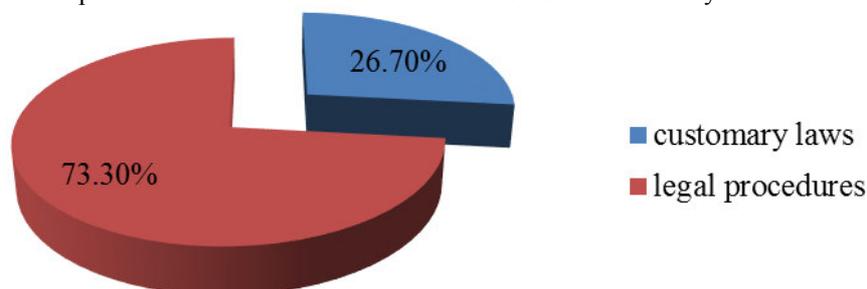


Figure 4.3. Transfer of Land Rights

Source: Field Data, 2016

Study results revealed that the predominant form of transfer of land tenure in Njoro sub-county was through legal rights and through customary laws. Most women do not own land due to underlying strategic constraints caused by culture: where women have no equitable division in autonomy over access to and control over land resources which in turn affects independence in participation in project activities and decision making by women in public domains. This may prevent participation of women and young men who do not own land to participate in project planning, operation and maintenance. According to FAO (2011) the exclusion of women and young men who do not own land in decision making not only delays delivery of benefits but also affects equity and institutional efficiency. While women can legally inherit land under the 2010 constitution, in practice it is rare (UN women, 2011). There are large variations in local support for women inheriting land, only a handful of Kenya's who view women inheriting property as socially acceptable. The general argument against women inhering land is that a woman will have access to land in her place of marriage and that for her to inherit land in her place of birth means she has access to a double portion which would be unfair to her male siblings (FAO, 2012).

In customary laws culture dictates that only sons and not daughters should inherit from their parents. This study results are in line with what UNEP (2009) noted that legal procedures and customary are the most common tenure system in Kenya whereby access to land is "governed by the customs, rules, and regulations of the community. Patriarchal relations also express themselves in control over land rights. Water rights are often closely tied to land tenure arrangements and are often transferred with land. In many communities land rights are usually passed from father to son (IFAD, 2014). Thus, though women may be working on the land, they often

have no right to participate in organizations that take decisions regarding its use.

4.2.3 Gender Most Affected by Land Tenure in Participating in Project Activities

The respondents reported the most affected gender by land tenure in participating in management of water projects and the results summarized by figure 4.4. About 57.6% females, 6.9% males and 35.5% of both males and females were affected by land tenure in participation in project activities. Land ownership remains male dominated issue affecting gender participation in water resource management projects even with the increase in female headed households.

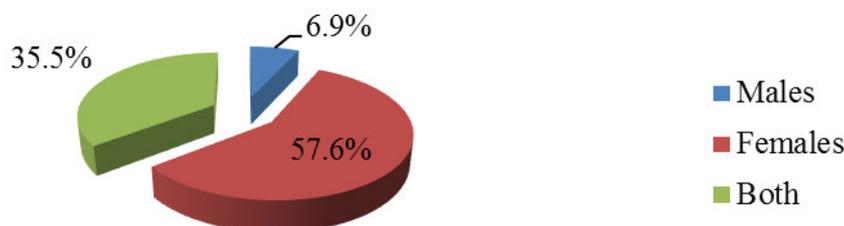


Figure 4.4. Gender Most Affected by Land Tenure

Source: Field Data, 2016

One of the greatest factors working against women in participating in water management is land tenure system. In many cultures, land is passed on to men and not women. In most rural areas of Njoro sub-county land is mostly registered to men than women. Even though women are the ones who deal with utilization of water and provision of labour, the fate of land and water entirely is dominated males. Women are involved mostly in provision of water in most farms and they have little influence on land rights. Therefore land tenure systems and legal structures actually marginalize women when in-fact they are the most affected and real invisible land managers in Kenya. From the study results the question of water management is closely intertwined with land rights and it is obtained through land ownership. All genders were affected by land tenure in management of water projects but mostly affected more females than males.

The low status of women as compared to men is primarily reflected in their lack of rights and ownership of land. Although the participation of women in management of water users association projects have increased, one third gender rule can only be attained when restriction to land ownership is removed as in most of the ethnic communities in the study area land rights were dominated by men. In legal term women have struggled to win fairly extensive rights to inherit and control land (International Land Coalition, 2011). Few women own land and exercise effective control over it. According to IFAD (2014) state bureaucracy on land adjudication and distribution plays a significant role in rural land administration, with traditional leaders being provided with limited responsibilities over land management and people in areas where usufruct rights to the land are still practised. The household and individual plots and commons found on customary lands provide rights to be members of a water project. Nonetheless, the implementation of market liberalization and democratization policies has had an indirect if not direct impact on customary management of land tenure (FAO, 2012).

4.2.4 Land tenure on Gender Participation in Management of Water Projects

To test the hypothesis which state that land tenure has no statistical significant influence on gender participation in management of water projects in Njoro Sub-county and was tested using ordered logistic regression and the results summarized in table 4.2. The log likelihood for the fitted model of 151.11 and the log likelihood chi-squared value of 4.7 indicate that the two parameters are jointly significant at 5%. Pseudo R² of 0.253 meet the statistical threshold of 20% confirming that the gender participation in management of water projects was well attributed to type of land tenure among the sampled projects where individuals with individual land tenure had more rights to participate in management than those who had communal land rights. The results further reveal that the coefficient for land tenure was positive and statistically significant at 5%. Based on these results, the null hypothesis was rejected. Thus land tenure has a statistical significant influence on gender participation in management of water projects in Njoro Sub-county.

Table 4.2

Ordered Logistic Regression for the Influence of land tenure on gender participation in management of water projects

Gender inequality	Coef.	Std. Err.	Z	P> z
Land tenure	0.7316	0.348	2.10	0.036

N = 203, Log Likelihood = 151.11, LR χ^2 (1) = 4.7, Prob> χ^2 =0.030, Pseudo R²=0.253

The study results indicate that the lower the rights to own land among the water projects members, the greater the gender inequalities in participating in management of the water projects. According to FAO (2012) women's control over natural resources is limited because of societal values and practices determining men as

the 'guardians' of property, the 'heads of the household' and the decision makers in the public sphere. The patrilineal inheritance traditions mean that men own the larger portion of land a small portion of the land is owned by women. In 2010, it became legal for women to have their name on a land deed, but women's access to land is controlled by men (Onyango, 2012). Control over resources further depends on factors such as ethnicity and socio-economic class, despite realizing that control over natural resources is limited for basically all women worldwide. According to FAO (2012) globally, women own less than 20% of agricultural land. According to IFAD (2011) in most of the developing countries, a woman's use of land is restricted to temporary cultivation rights, allocated to her by her husband, and in exchange, she provides food and other goods for the household. According to Onyango (2012) women are not able to pass the land on to her heirs nor she will be entrusted with the land if her husband dies; the land is automatically granted to her husband's family or any male children the couple may have produced. The single most important factor affecting women's situation is the gender gap in command over property. According to IFAD (2012) as land privatization is increasing among the Kenyans leading to the end of communal lands, women find themselves unable to use any land not bestowed upon them by their families, rendering unmarried women and widows vulnerable. Many women still face legal hurdles when attempting to acquire land through inheritance or the marketplace.

5.0 Conclusions

Type of land tenure influences the magnitude of gender participation in the water projects. Individuals who own land individual have greater chance to participate, and influence project activities than individual who own land in a communal way. Land has been highlighted as the key criteria for membership in the water project affecting more women than men since it is commonly transferred to men during inheritance as a result of patriarchal and customary laws. The position held in management by women and men is influenced by the type of land tenure where individual who own land on individual ownership held more positions on decision making while those that held communal ownership held fewer decision making positions in management of the water projects. Hence land tenure influenced participation and representation of women and men in management affecting realization of one third gender rule in management of water projects in Njoro sub-county.

5.1 Implications of the Study

Gender equity and equality in management of the water projects in Njoro sub-county have not been fully realized as a result of failure to put into consideration the influence of type of land tenure during the implementation of one third gender rule by project stakeholders and project leaders in realization of one third rule in leadership position in project management. The findings of the study have indicated that the membership criteria in the water projects are pegged on land tenure. This seems to be one of the main factors affecting gender participation and especially women in management of water project. Land ownership should not be pegged as the main criteria for membership but membership should be pegged on access and control and ability to pay membership and connection fee which most women and young men are able rather than ownership which sidelines them since ownership is mostly dominated by males. This would attract more project members and especially more women and young men who do not commonly own land especially in individual and communal land tenure system hence increasing access to water and participation in management of the water projects by all members of a given community.

5.2 Recommendation

Therefore the following are the recommendations:

The policy on land rights transfer should be enhanced in the rural areas in order to encourage parents distribute land to both boys and girls during inheritance hence increase more women who own land thus increase women participation and membership in water projects. The ministry of water and irrigation and all stakeholders involved in initiating water projects should ensure that land tenure issues which affect gender participation should be put into consideration during water project initiation and commencement in order to address gender inequality in project management. A membership criterion which is based on land ownership in the water projects should be reviewed with the aim of increasing women and young men membership and participation in management of the water projects.

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