



Land tenure, Traditions, and Beliefs are Socio-cultural Factors Influencing Participation of Women in Tree Growing in Siaya County, Kenya

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ARTICLE INFO

Article history:

Received: 6 December 2013;

Received in revised form:

24 January 2014;

Accepted: 7 February 2014;

Keywords

Beliefs,
Influence,
Land-tenure,
Traditions,
Tree growing,
Women.

ABSTRACT

Socio-cultural factors are the facts and experiences that influence an individual's personality, attitudes and lifestyle. In some societies, women's participation in tree growing can be hampered by traditions, beliefs, norms and taboos. The main objective of this study was determination of the socio-cultural factors that influence women's participation in tree growing in Siaya County, Kenya. A cross-sectional survey design was used with 120 household respondents, 40 key informants, 4 women groups and the Luo council of Elders. Instruments used were; structured questionnaire, interview schedule and interview guide. Data was analysed using both descriptive and coefficient of multiple correlations at 0.05 confidence level. 95% of title deeds are in the names of males, 1.8% of females (all of them were widows) and 3.2% had the names. R^2 is 4%, standardized beta coefficient of the same indicates -0.201 and p -value significance is 0.028. On traditions, 48.3% either disagreed or strongly disagreed, 50% of the respondents agreed or strongly agreed, 1.7% could not decide. Key informants, women groups and Luo Council of elders agree that traditions and beliefs influence. R^2 is 3.6%, standardized beta coefficient, -0.191 and p -value is 0.037. In conclusion, land tenure, traditions/customs and beliefs/norms are socio-cultural factors influencing participation of women. More efforts should be put to sensitize the community members the need to have attitudinal change as regards women in tree growing for increased land cover.

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Introduction

Socio-cultural factors are things that can affect our lifestyles as a society. They can have an influence on individual behaviours depending on one's social values. Some of them could be religion, economic status, education, family, politics, cultural values etc. They are the facts and experiences that influence an individual's personality, attitudes and lifestyle. Socio-cultural factors involve both social and cultural elements of the society Kottak (2000) and Ember and Carol (2004). Growing of trees is an exercise that can be done by all regardless of their social status in the society and gender. It is a human right and ensures quality and a healthy environment. Women should be involved in this exercise because they contribute close to 74% of small scale farm managers (Wangari, 2009). Christinah *et al.*, (2002) in the then Siaya and Kisumu districts, established that women's participation in tree planting is seriously hampered by beliefs and taboos. Land tenure has a bearing on tree growing. Farmers would wish to try a new innovation or technology when they are sure of rights to land. Ways of land ownership is either by renting or by holding title Rolling (1990). Land tenure is a vital part of social, political, and economic structures. It is multi-dimensional (FAO, 2012). Kalineza *et al.*, (1999) in Gairo division of Morogoro area in Tanzania on factors influencing farmers in adoption of soil conservation techniques such as tree planting establish that land ownership does not significantly influence the probability of planting of trees. Similarly, land tenure is less important in influencing their decisions to plant trees for soil conservation. Bradley (1991) agrees that the relationship between land tenure and tree growing has far reaching implications for development of agro-forestry for environmental conservation and these trees

could be cut and used as fuel wood and also as building poles. According to Ouma *et al.*, (2004), land tenure insecurity has contributed to low investment in soil conservation measures with in River Njoro watershed. Proper use of land should strive to blend between indigenous knowledge with appropriate technology based on prevailing environmental conditions (Critchely, 1987).

Traditions play an important role in influencing a person's decision-making, including their likelihood of adopting changed practices and vary between or among individuals and regions (Richard *et al.*, 2003). Those who break societal norms risk facing social sanctions like expulsion from the society. People then fear facing conflicts with the society. Married women therefore remain loyal to the customs of their husbands (Richards *et al.*, 2003; Finlay, 2004). Traditions are formed over generations because they are believed to be the best or most appropriate way of doing something (Dunn *et al.*, 2000).

There are traditional beliefs/norms or taboos about cutting or planting tree species among the Luo (Diamond, 1992). Cohen and Atieno-Adhiambo (1989) assert that in Luo community, it is a taboo for a woman to plant finger euphorbia. Korir (2002) similarly notes that in Kakamega district of western Kenya, lack of women's participation in tree growing is perpetuated through various taboos and beliefs. Harris (1940) argues that cultural values influence not only the original adoption or rejection of an innovation but also how the new idea is to be inter-grated into the existing way of life. The District Forest Officer's, report for Bondo and Siaya districts portray that cultural practices prohibit women from actively participating in environmental conservation measures like tree growing is common (DFO, 2009). Chavangi (1984), argues that there is a belief that if a

woman plants a tree, she will become barren and her husband will die. Ekisa (2010) in his research on socio-economic and cultural aspects for community participation in a forestation and agro-forestry programs in Teso district, Kenya, notes that the culture of people has a lot to do with making important decisions. He concludes that existence of beliefs and taboos have prevented women from planting certain species of trees. Nyasimi *et al.* (2008) at Sauri Millennium Village document that development in Africa are bound to fail due to the strongly embedded and practiced socio-cultural beliefs, rites, and norms.

The specific objective of this study was to identify socio-cultural factors that influence women's participation in tree growing in Bondo and Siaya sub-counties, Siaya County. According to the 2009 Human and Household Census in Kenya, Bondo district had 76,468 males and 81,054 females while Siaya districts had 87,502 males and 99,741 females (GOK, 2009). It means that their participation in tree growing can result in a significant push of land cover based on their number

Land tenure theory suggests that security of tenure is linked to higher productivity and better land management (Panayotou, 1993). This is due to the fact that whoever is investing is sure of usage of resources from his or her land. According to Mehra (1997), secure tenure of land make farmers become more inclined to invest in slow growing investments like trees or labor intensive land conservation practices. Where tenure is based on communal right, it requires communal decisions which may not be easy to obtain (Ngigi, 2003). According to IFAD (1992), those who have obtained individual title deeds to their farms are more likely to invest in soil and water conservation than those than those farmers without the tenure

Luo Nyanza is one of the places in Kenya where cultural structures are fairly strong and well defined with a strong Council of Elders and functioning to some degree (KNCHR, 2007). Traditions and customs of most Africans gave male members of their communities much power based on trust. At present, the same African cultural practices are at cross roads. At times they are deliberately being ignored, abused, distorted, misinterpreted and twisted for personal gains (KNCHR, 2007). Luo traditions are clear on the role of clans, family members, men, women, boys and girls, in any livelihood circumstances, in household and community based activities (Ochola *et al.*, 2000). The various roles of boys are: defending the clan members against any external aggression, herding of animals, ploughing with animals, clearing of farm lands and compounds, building of various home structures, thatching of roofs, weeding, planting of trees and any other duty which the elders would assign from time to time. The duties of girls are: collecting water, collecting fire wood, cooking, washing clothes, weeding and any other duty they may be assigned by elderly women while for women, they are charged with weeding of farms, collecting of water, collecting fire wood, cooking and washing of clothes and men with the duties of engaging in herding of animals, building and thatching of houses, planting trees, making decisions of traditional issues, overall decision makers concerning all resources of the home Ochola *et al.*, (2004). The Luo are religious and believe in God the creator whom they referred to as *Nyasaye* (Ochola *et al.*, 2004). Sacred shrines and trees exist for sacrificial purposes. Huge trees are associated with the supernatural powers. Example of such tree is *Ober* (*Albizia coriaria*). The ancestral spirits are particularly honoured in the community and for that reason; children are named after the dead in order to appease their spirits.

Materials and methods

Description of Study Area

Siaya County lies between latitude 0° 26' to 0° 28' north and longitude 33° 58' east and 34° 33' west with total surface area of the county is 1520 km². It has six sub-counties namely; Ugunja, Yala, Ugenya, Siaya, Bondo and Rarieda. The county borders Busia county to the north, Kakamega county to the north eastern, Vihiga county to the east, Kisumu county to the south east, with Lake Victoria to the south and west. The study location was Bondo and Siaya sub-counties. Bondo sub-county was divided into eleven locations found in three administrative divisions namely; Nyangoma, Usigu and Maranda with land surface area of 593km² (DLPO, 2010) while Siaya sub-county was divided into ten locations contained in three administrative divisions namely; Karemo, Boro and Township with land surface area of 605.8km². Altitudinally, the sub-counties ranges from 1140 m.asl to 1200m.asl with equatorial type of climate. Fertility of soils here range from moderate to low resulting in most soils being unable to produce without the use of either organic, inorganic, or in most cases both types of fertilizers. Most of the areas have underlying murram with poor moisture retention (DAO, 2010).

The study employed a sociological survey design which allows collection of information from a population with the purpose of making inference about the targeted group in a more objective way (Kombo and Tromp, 2006). The design provides self reported facts about respondents, and their inner feelings, attitudes, opinions and habits. This design took a sample of the targeted group and allows basing of overall findings on their views of those targeted assuming them to be typical of the whole group. It gives a snapshot of information, quickly in a cost effective (Kothari, 2007). The study area is dominated by indigenous trees like *Balanites spp*, *Acacia spp*, *Grewia vilosa*, *Albizia coriaria*, *Diospiros abyssinica*, *Euphorbia triculli*, *Markhamia lutea*, *Cassia siamea*, *Candelibrum spp*, etc while common exotic trees are *Eucalyptus spp*, *Thevetia peruviana*, *Casuarina equistifolia*, *Croton spp*, *Leuceana leucocephala*, *Jacaranda mimosifolia* and *Grevillea robusta* (ZFM, 2011). The abundance and diversity of trees increased towards the upper parts of the study area and this is attributed to the fact the upper parts experience more reliable rainfall, soils are relatively fertile and less interference from termites compared to the lower parts of the study area. The various plant species have also adapted to local environmental conditions prevailing. Ecologically, the sub-counties spread across agro-ecological zone LM₁ to LM₃ (DAO, 2009). Women are the ones who often tend the farms when men either do off-farm work or do fishing or in towns seeking formal employment (CBS, 2009). Faced with unreliable farming conditions, many people especially women look for alternative source of livelihood such as charcoal burning and selling firewood leading to environmental degradation (NEMA, 2011). Secondary data was obtained from Government of Kenya technical reports, non-governmental report Journals, and Internet. Primary data was collected from 120 household heads, 40 key informants, 4 women groups, and the Luo council of elders. The study area is dominated by indigenous trees like *Balanites spp*, *Acacia spp*, *Grewia vilosa*, *Albizia coriaria*, *Diospiros abyssinica*, *Euphorbia triculli*, *Markhamia lutea*, *Cassia siamea*, *Candelibrum spp.*, while common exotic trees are *Eucalyptus spp*, *Thevetia peruviana*, *Casuarina equistifolia*, *Croton spp.*, *Leuceana leucocephala*, *Jacaranda mimosifolia* and *Grevillea robusta* (ZFM, 2011). The abundance and diversity of trees increased towards the upper parts of the study area and this is attributed to the fact the

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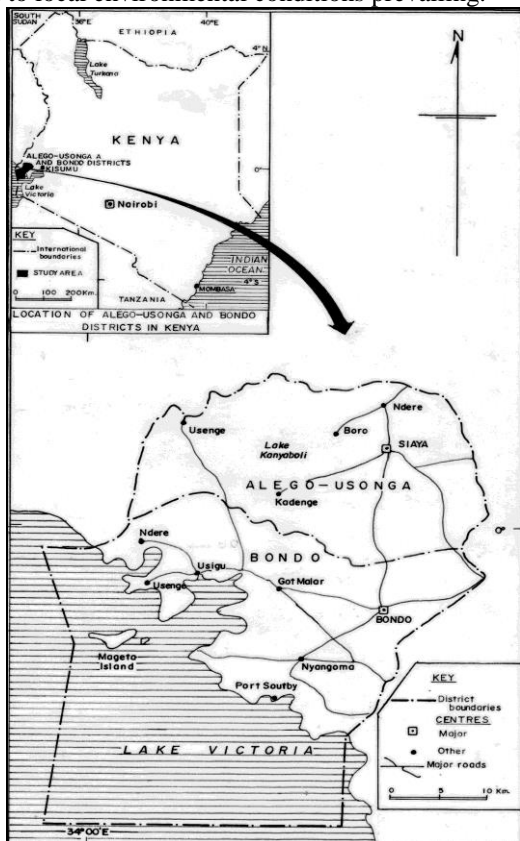


Figure 1: Map of Bondo and Siaya Sub- Counties, Source: Bondo / Siaya Districts Development Plan 2010

Data Analysis

Both quantitative and qualitative data were generated. Statistical Package for Social Science (SPSS) soft ware was used in data analysis. For quantitative data, coefficient of multiple correlation analysis was used. The independent variable tradition will include (customs, beliefs and norms), and land tenure.

$Y = a + b_1 * X_1 + a + b_2 * X_2$, Where Y=Dependent variable (Tree growing), a = constant or intercept, b_1 = slope or regression coefficient, X_1 = Tradition (customs, beliefs and norms), b_2 =slope or regression coefficient, X_2 =Land tenure.

Results

Land tenure generally refers to possession or holding of the rights associated with each parcel of land. Figure 2 shows the response from respondents

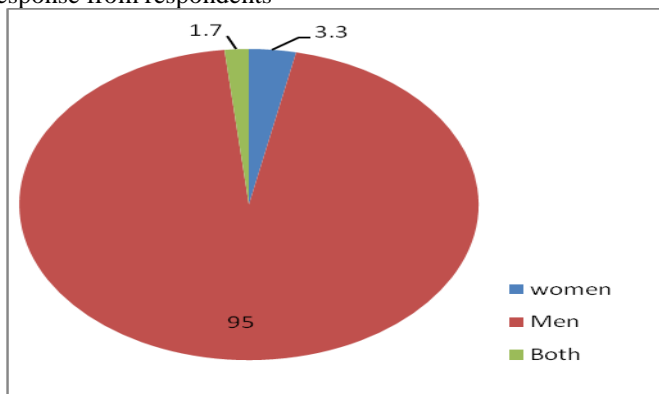


Figure 2: Response of household heads on land title deeds (Source: Author’s survey, 2012)

Traditions are inherited, established or customary pattern of thoughts, actions, or behaviour. Figure 3 shows the results

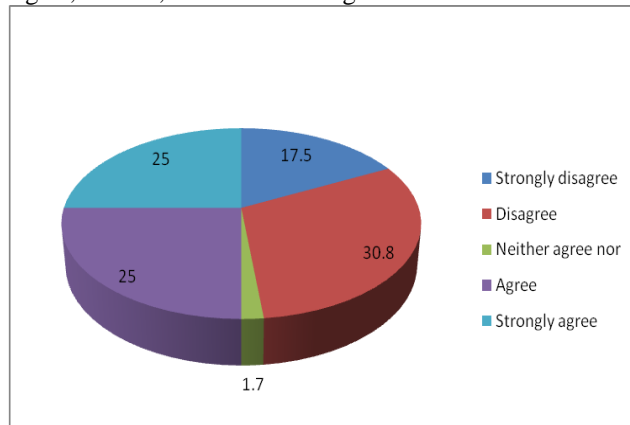


Figure 3: Response of respondents on traditions/customs Source: Author’s survey, 2012

Belief/norm is a psychological state in which an individual holds a proposition or a premise to be true. Results is shown in Table 1

Table 1: Response from respondents on beliefs/norms

Response	Frequency	Percentage
strongly disagree	23	19.2
Disagree	47	39.2
neither agree nor disagree	2	1.7
Agree	25	20.8
strongly agree	23	19.2
Total	120	100.0

n=120

Source: Author’s survey, 2012

Discussions

The land ownership in the study area showed that, 95% of title deeds are in the names of males, 1.8% of the titles in the names of females (all of them were widows) and 3.2% had the names of both wife and husband. Given the known fact that tree growing is a long term investment that requires surety of land ownership and majority (95%) were males only, it means that men have a more say in how land is utilized including tree growing. Thus, low land ownership by women discouraged them from tree planting. This implies that ownership of land is a factor influencing participation of women in the field of tree growing. This finding agrees with Ouma *et al.*, (2004) who concluded that lack of tenure significantly influences long term investments like environmental conservation which encompasses tree growing. It is also in agreement with Ngiigi (2003) who pointed out that land tenure hamper promotion and adoption of rain water harvesting technologies which are long term investments.

The regression analysis on tradition (customs, norms and beliefs) and land tenure on tree growing used stepwise method. Tables 2 and 3 show the results

Table 2: Model Summary of Land Tenure

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.201 ^a	.040	.032	1.25770

The model summary on land tenure analysis shows that the R^2 is 4%. This is the contribution of land tenure towards tree growing from the model. The standardized beta coefficient of the same independent variable (Table 3) indicates -0.201. This means that the independent variable has a negative relationship with tree growing and as land titles become exclusive rights of men, it

influences participation of women by preventing them from participating.

Table 3: Coefficient of Land Tenure Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.718	.240		15.519	.000
land tenure	-.177	.080	-.201	-2.227	.028

a. Dependent Variable: index of tree growing

It further confirms the influence of land title because the *p-value* significance is high (0.028). The finding of this study agrees with findings of Bradley (1991) that the relationship between land tenure and tree growing has far reaching implications for development of agro-forestry for environmental conservation and these trees could be cut and used as fuel wood and also as building poles. According to Ouma *et al.* (2004), land tenure insecurity has contributed to low investment in soil conservation measures with in River Njoro watershed.

Out of 120 household heads interviewed, 48.3% either disagreed or strongly disagreed and were of the opinion that tradition/culture does not influence participation of women in tree growing, but 50% of the respondents agreed or strongly agreed that tradition/culture does influence whereas only 1.7% could not decide. Using interview schedule with key informants and guided discussions with four women groups and Luo Council of Elders, it came out clearly that traditions/customs influence participation of women for it is a taboo in the society for women to grow *Euphorbia triculli*, *Agave sisalana*, *Albizia coriaria*, and *Tamarindus indica*. The above responses from respondents, key informants and women groups agree with the findings of According to Rocheleau (1992), that certain tree species may have culturally defined gender specific and ownership restrictions. It is alleged that if a woman plants a tree, she will become barren and her husband will die Chavangi (1984).

Human beings tend to internalize the beliefs of people around them especially during childhood and cling to the minds for long periods to come. Normally, beliefs/norms influence human beings behaviour/attitude. Some beliefs may be true while may not be true but because not many people can risk to confirm otherwise, the belief stays. 40% of household heads agreed or strongly agreed that it does influence, 58.4% disagreed, while 1.7% could not decide. Although the percentage disagreeing was big, the percentage agreeing was equally high and this is a pointer to how the beliefs/norms can influence participation of women. Some of the beliefs when women defied beliefs/norms include deaths of their children and husbands and because death is feared, no woman is ready to experiment. A belief is located in the brain of a person and can greatly influence decisions. At triangulation stage, it came out clearly that key informants, women groups and Luo council of elders concurred with the 40% household heads that beliefs/norms negatively influence participation of women in tree growing. This outcome agrees with Chavangi (1984) that if a woman plants a tree, she will become barren and her husband and children will die. Beliefs and norms make people to fear the consequences especially if associated with negative consequences. The finding further agrees with that of Makindi (2002) that certain taboos and beliefs bar women and female children from planting trees.

Tables 4 and 5 for norms/beliefs/ traditions with respect to model and beta coefficients are shown below:

Table 4: Model Summary of Traditions (customs, norms and beliefs)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.191 ^a	.036	.028	1.26025

a. Predictors: (Constant), tradition

Table 5. Coefficients of Traditions (customs, norms and beliefs)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.751	.264		14.232	.000
tradition	-.162	.077	-.191	-2.113	.037

a. Dependent Variable: index of tree growing

R^2 is 3.6% (Table 4) indicating what the in dependent variable is contributing to tree growing while for the standardized beta coefficient, the value is -0.191 showing a negative relationship with tree growing. It means that as the community holds customs, beliefs and norms, this discourages participation of women in participating in the area of tree growing. The *p-value* is highly significant 0.037 (Table 5). In terms of strength, the contribution of land tenure is higher (4%) then followed by traditions (3.6%). The two independent variables influence participation of women negatively in the field of tree growing. The finding of the study agree with the findings of Richard *et al.*, (2003) that tradition plays an important role in influencing a person's decision-making, including their likelihood of adopting changed practices and vary between or among individuals and regions

Conclusion

Socio-cultural factors that influence participation of women in tree growing in Siaya County are; land tenure, traditions/customs, and beliefs/norms for they discourage women

Recommendation

More efforts should be put to sensitize the community members the need to have attitudinal change as regards some of the traditions/customs, beliefs/norms and land tenure for full participation of all members of the society towards the realization of increased tree cover

Acknowledgements

We thank Egerton University and National Council for Science and Technology in Kenya for funding the research.

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