

Research Article

The Influence of Gendered Access/ Control of Land and Dairy Products on Household Welfare in Murang'a County, Kenya

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A B S T R A C T

Studies have revealed that there is existing gender inequality in access and control of resources, benefits and opportunities in the society including agricultural resources and benefits. This informed the concern of this study which sought to investigate the influence of the gendered access and control of land and dairy products on household welfare. The study was done in Murang'a County-Kenya. The study was guided by the Marxist feminism theory advanced by Friedrich Engels. It adopted a cross-sectional research design. A purposive sampling technique was used to select Kigumo out of the seven Sub-counties in Murang'a County as the study area. Further, a simple random sampling technique was used to select a total of four hundred and forty-two (442) male and female headed households practicing dairy farming in the Sub-county as the respondents of the study. The community leaders and key county officers were also included as key informants. To collect the data, the study used interview schedules for the selected household heads, guided questionnaires for the key informants and an observation checklist. Qualitative data was analyzed on the basis of themes derived from the study objective while quantitative data was analyzed using SPSS. The household welfare was gauged on the basis of the parameters drawn from the Constitution of Kenya (2010) Article 43 on social and economic rights namely health, housing, food, water and education. The study established that gendered access and control of land and dairy products has a major influence on the provision of household welfare.

Keywords: Gendered, Access, Control, Land, Dairy Products, Household Welfare

Introduction

Household welfare can be defined using different parameters, Mwankemwa defined it through the use of pointers such as income, value of assets, household food provision, quality of health and education at the household level (Mwankemwa, 2004). Provision of quality household

welfare is the responsibility of men and women at the household level. It is mainly dependent on use and control of benefits, opportunities, resources and profits that the society has to offer for both women and men. In this context, it is evident that equal access and control of these resources, benefits and opportunities could have a direct impact on

the household's livelihood and sustenance. Additionally it is also important to note that equal access and control of resources, opportunities and benefits has been a major goal for all or almost all countries although it has not yet been achieved. In this line, Hallman (2003) reported that increasing women's user rights to resources and reducing the gender discrepancies in resource allocation, utilization and distribution would directly enhance household welfare by minimizing their predisposition to starvation and hunger and improving their wellbeing, self-being, and independence. This could result into an advancement in their lives and that of the household as well as promoting sustainable development. This could result into food safety and security, child nourishment and better and quality education for the school going children (Kimani, 2016; Kabeer, 2010; Quisumbing, 2003; World Bank 2001).

At the global level and specifically in India, high quality and easily accessible were noted after there was an increased allocation of resources to women (Hallman 2003). Furthermore, the results of gender inequality and inequity in resources allocation, opportunities and benefits accrued has been closely associated with decreased GNP thereby decreasing the development, and escalating the hunger levels at the community level (Kabeer, 2010). At the regional level and specifically in Tanzania, Bayer et al. (2006) and Lwelamira, et al. (2010) found that the revenues accrued from rearing livestock was used to improve their livelihood by acquiring extra pieces of land, constructing better houses and cowsheds, establishing small businesses, paying school fees for their children in colleges and secondary schools, advancing the dairy production and improving family nutritional requirements. In addition, in Sudan Elniema et al. (2014) found that on average, the households earned approximately 322.5 Sudanese Pound (SDG) a year per cow. The study further revealed that under the existing farming practices, the influence of dairy farming to rural poor based on the general growth and development indicators through revenue generation and creation of job opportunities, food sufficiency, resource amassing and enhancement of people's hygiene and nourishment was adequate. In Kenya the production of milk in 2007 was at 3.8 billion litres, in 2011 the production increased to 5 billion litres. The milk produced was for household consumption and for sale to generate income at the household level (MoLD, 2008). In addition, another study carried out in Mombasa County, Kenya established that increase in the number of cows owned led to increase in the household income by more than 50 % (Nicholson et al, 2004). This shows that dairy farming plays a fundamental role in the advancement of the household livelihood and sustenance for all the stakeholders involved in the undertaking (Muia et al. 2011).

It is also good to note that discussions in enhancing rural livelihoods focuses on access, control, and/or ownership

of property and resources (Valdivia and Gilles, 2001). Unfortunately, members of households lack equal rights to decision making over the available resources, benefits and opportunities. In different countries of the world, resource ownership and control influences the negotiating and bargaining powers of men and women at the household level. In India and South Africa, access and control to resources by women enhanced provision of education, but in Ethiopia, men's resources had a similar effect (Quisumbing and Maluccio, 2003; Fafchamps, et al., 2009). The reviewed literature indicates that dairy farming as well as land is fundamental in the provision of household welfare thus the need for this study that focuses on the influence of gendered access and control of land and dairy products on household welfare specifically in Murang'a County, Kenya.

Statement of the Problem

Studies have confirmed that there is existing gender gaps in access to and control over agricultural resources. Evidently, gendered access and control over agricultural resources, opportunities and utilization of benefits accrued has its prejudice whereby women are overly disadvantaged. This has resulted into an imbalance in access and control of land and dairy products between men and women which is likely to influence their ability to provide household welfare for their families as stipulated in the legal frameworks on gender equity, equality and fulfilment of human rights including the Kenyan constitution (2010). The problem of this study was informed by the observation that despite the remarkable progress in advancement of gender equality and equity in all spheres the imbalances still exist and it is likely to hinder the achievement of sustainable development and the provision of household welfare thus increasing vulnerability to hunger, starvation and poverty. Thus, the concern of this study being the influence of gendered access and control of land and dairy products on welfare at the household level. For this study, the indicators of household welfare was based on Article 43 (a, b, c, d, & f) of Kenya Constitution (2010) on social and economic rights as access to (a) quality health services, (b) decent housing, (c) adequate and quality food, (d) safe water for household use and (f) quality education for school going children. The study was done in Murang'a County, Kenya, where dairy farming is a major agricultural occupation.

Purpose of the Study

The purpose of the study was to investigate the influence of gendered access and control of land and dairy products on household welfare in Murang'a County.

Objectives of the Study

The study was guided by the following objectives:

- To establish the influence of gendered access and

control of land and dairy products on health in households practicing dairy farming in Murang'a County.

- To establish the influence of gendered access and control of land and dairy products on housing in households practicing dairy farming in Murang'a County.
- To establish the influence of gendered access and control of land and dairy products on food in households practicing dairy farming in Murang'a County.
- To establish the influence of gendered access and control of land and dairy products on water in households practicing dairy farming in Murang'a County.
- To establish the influence of gendered access and control of land and dairy products on education in households practicing dairy farming in Murang'a County.

Theoretical Framework

This study was guided by Marxist Feminism Theory (MFT) advanced by Friedrich Engels (1884). The theory focuses on the social institutions including the family in relation to private property and capitalism as a key factor that influences gender inequality and oppression. This is consequently associated with gendered access and control of economic resources. The theorist argues that privatization of property promotes economic disparity in ownership, access and control of resources by gender, and economic status. Additionally, the division of labor into productive and reproductive resources further perpetuate the unequal relationship between men and women. At the household level the unequal relationship results into household conflict and struggle between men and women especially due to scarcity of resources. Additionally, the economic inequality may influence the provision of basic necessities at household level. However, these scenario may be applicable in many agricultural undertaking including livestock farming in terms of provision of labor and access/control of various products. Which would ultimately influence the provision of family welfare at the household level. In this respect, Marxist feminists believe that barring women from decision making has resulted in male supremacy in control of both social and economic spheres thus expanding the gender gaps in agricultural production including land and dairy farming. It is in this respect that the study assumes that gendered access and control of land and dairy products may have a direct impact on the general family welfare especially centered on the provision of basic needs of life as stipulated in Article 43 of Kenya constitution (2010) on Social and economic rights (health, food, education, shelter and water).

Methodology

The study adopted a cross-sectional research design

which employed mixed methodologies based on the study variables namely gendered access to and control of land and dairy products and their influence on household welfare. The study was carried out in Murang'a County, Kenya. The unit of investigation was all households practicing dairy farming in Murang'a County, Kenya. The study population comprised all the seven sub counties in Murang'a County. The study population also comprised of the male and female headed households that have engaged in dairy farming for more than three years prior to the study period and those who had two or more dairy cows. The study also targeted the following key informants: the Chiefs, the Sub-county livestock production officers, the Sub-county agricultural officers, and the milk collection managers. Multi stage sampling procedure was used to select the study respondents. First, a simple random sampling was used to select Kigumo Sub-County in Murang'a County. Secondly, the three locations in Kigumo Sub County were selected for this study that is Kinyona, Kigumo and Muthithi. Further a total of four hundred and forty two (442) respondents who met the study criterion were selected from the list of dairy farmers obtained from the County Department of Livestock Production. The key informants of the study comprised of all the chiefs' from the three locations of the study, one Sub-County Livestock production officer, one agricultural officer and one Milk Collection Manager. The study findings were generated through the use of secondary and primary data, the primary data was generated through the use of three instruments namely: an interview schedule for the household heads, guided questionnaire for the key informants and an observation checklist while the secondary data was collected from County reports and other documents. The study used mixed methodologies and therefore both qualitative and quantitative data was generated leading to use of mixed methods of analysis. Qualitative data was analyzed through the use of major themes derived from the study objectives while the quantitative data was analyzed using SPSS and later presented using tables, frequencies and percentages. Ethical and logistical consideration and requirements were adhered to during data collection.

Findings and Discussion

To establish the influence of gendered access and control of land and dairy products on household welfare in Murang'a County, the household heads were requested to give their opinion on the influence of gendered access and control of land and dairy products on household welfare. As indicated earlier in this study the welfare was analyzed based on the five parameters adopted from the economic and social rights in Article 43 (a, b, c, d & f) of the Constitution of Kenya (2010) as follows: ability to access health services, acceptable housing; freedom from hunger; clean and safe water in adequate quantities; and access to education at

primary, secondary and tertiary level as discussed in the subsequent sections.

Influence of Gendered Access and Control of Land and Dairy Products on Access to Health Services

To analyze accessibility to health services, the Likert scale of five levels was used with the lowest being total inability and the highest being total ability to access health services. Table 1 shows the analysis of the male and female households' ability to access health services. According to the table, only 35.0% of the male households and 25.5% of the female households selected for the study from the three locations were able to access health services.

Table 1. Accessibility to health services per household

Level of Health Care Services	Male Headed Household		Female Headed Household		Total	
	Freq.	%	Freq.	%	Freq.	%
Total ability	52	18.0	10	6.7	62	14.2
Able	49	17.0	28	18.8	77	17.6
Some what able	82	28.3	47	31.5	129	29.5
Inability	61	21.1	45	30.2	106	24.2
Total inability	45	15.6	19	12.7	64	14.6
Total	289	100	149	100	438	100

The respondents were able to access health services from both Government and private owned health facilities located at different local shopping centers and towns in the study area. In addition, 31.8% of male and female household heads were able to access health services from health facilities outside the sub-county such as Murang'a, Maragua and Thika general hospitals while a few others sourced for health services from Nairobi. Further, the study established those household heads who reported that they are totally able to access health services majority had attained tertiary and university level of education. In addition, majority of them earned above KSH 20,000 per month from dairy farming thus they could afford medical services from private hospitals within and outside Murang'a County. Further the data analysis revealed that majority of the household heads both male and female felt that they were not sure on their ability to access health services. Further analysis revealed that 36.7% of male households and 42.9% of the female households from the three locations were not able to access health services. This is because they reported that they have either inability or total inability to access health services. The above sentiments are in line with the KHRC (2003) report which provides that availability, affordability, suitability and quality of health services are some of the

requirements to determine the achievement of the right to health of which these standards are yet to be achieved.

Influence of Gendered Access and Control of Land and Dairy Products on Acceptable Housing

To establish the nature of the household shelter, the researcher used observation method to gather the information. The nature of the household shelter was categorized into three: temporary shelter (mud walled and grass thatched); semi permanent shelter (brick/timber/iroonsheet walled and iron sheet roof) and permanent shelter (stone walled and iron sheet/tiled roof). The findings revealed that 64.6% of the households lived in semi-permanent houses, 29.9% in permanent houses and 5.5% in temporary houses as shown in Table 2.

Table 2. Nature of the household shelter per gender

Nature of the Shelter	Male		Female		Total	
	Freq.	%	Freq.	%	Freq.	%
Temporary	2	0.7	22	14.8	24	5.5
Semi-Permanent	191	66.1	92	61.7	283	64.6
Permanent	96	33.2	35	23.5	131	29.9
Total	289	66.0	149	34.0	438	100.0

In comparison, more male headed households than female headed households lived in permanent and semi-permanent houses. The vice versa was true with more women than men living in temporary houses as shown in Table 2. This could be interpreted as evidence of poverty and by extension low status of household welfare. This means that female headed households are deprived compared to their male counterparts which could be associated with the differential access and control of land and dairy products. Further, the study established that majority of the female headed households selected for the study who lived in permanent houses were those who earned KSh. 11,000 and above per month while majority of those living in temporary houses earned below KSh. 5,000 per month.

Further analysis revealed that majority of the selected households selected lived in temporary and semi-permanent shelter, an indication that majority of the households has not been able to access adequate household shelter as stipulated in the Constitution of Kenya (2010). This study concurs with the Economic and Social Rights Centre (2012) report that access to affordable and habitable housing is still a challenge in Kenya. This has been associated with the fact that there are no major changes in the housing sector that are directed towards improving access to adequate housing for the low income earners in Kenya.

Table 3. Number of household meals per day by gender

Availability of Adequate Food Per Gender														
No. of meals per day	Male				Female				Total				Sum Total	
	Yes	%	No	%	Yes	%	No	%	Yes	%	No	%	Freq.	%
Once	0	0	2	0.7	0	0	0	0	0	0	2	0.5	2	0.5
Twice	0	0	20	6.9	0	0	24	16.1	0	0	44	10.0	44	10
Thrice	267	93.4	0	0	125	83.9	0	0	392	89.5	0	0	392	89.5
Total	267	93.4	22	7.6	125	83.9	24	16.1	392	89.5	46	10.5	438	100

Influence of Gendered Access and Control of Land and Dairy Products on Adequate Food Per-household

To measure the food adequacy the household heads were requested to state how many meals their families took per day. The finding revealed that 93.4% of the male household heads and 83.9% of the female household heads had three meals per day which was considered as adequate food for the household. While only 0.5% of the households' exclusively male household heads had one meal per day as shown in Table 3. This could be interpreted as not having adequate food for the household per day. It could also be associated with lack or limited access and control of land and dairy products by female partners of the male household heads.

Further analysis revealed that 16.1% of the female headed households and 6.9% of male headed households selected for the study from the three locations had two (2) meals and below per day. This could also be interpreted to mean that they were not able to provide adequate food for the household which is a sign of low economic status and thus inability to provide household welfare. This was found to be associated with having less than five dairy cows which produced less than 10 litres per day thus less income. In addition, manure produced from these dairy cows was also less thus not enough to be shared between fodder and food crop production for the household. Interestingly, majority of the households selected for the study from the three locations had three meals per day which is a standard measure of food adequacy at the household level. This outcome contradicts with the study findings by Lwelamira et al. (2010) in Tanzania which noted that 90% of the sampled families had two meals in a day. This could be associated with the fact that Murang'a County is in an agro-ecological zone suitable for dairy farming and other agricultural production thus enhanced food provision.

In addition, the study established that majority of those who had two meals and below and thus considered as not having sufficient food, were those who were earning an income below KS 5,000 per month from dairy farming

and majority of them did not have any formal education. Therefore, the study established that dairy farming is a major economic activity that influences the status of household food provision. This supports the FAO (2013) report that dairy farming plays a very important role in food security as well as boosting the nutritional value for the household meals. Thus to enhance food security at the family level, there is necessity to advocate for gender equality in control of resources including land and dairy products.

Table 4. Sources of water for the household

Sources of Water	Male HHS		Female HHS		Total	
	Freq.	%	Freq.	%	Freq.	%
Piped	183	63.3	115	77.2	298	68.0
Rivers	98	33.9	40	26.8	138	31.5
Borehole	56	19.4	24	16.1	80	18.3
Harvested water	177	61.2	102	68.5	279	63.7

*Multiple responses was allowed because there was a possibility of one household having more than one source of water

Influence of Gendered Access and Control of Land and Dairy Products on Accessibility to Clean and Safe Water in Adequate Quantities

To measure the adequacy, clean and safety of the drinking water for the household, the household heads were requested to indicate their sources of water for determination of whether it was safe and sufficient for their daily consumption. For this study, clean, safety and sufficiency of water was measured by the availability of regular and stable source of water at the household level. The study established the sources of water for the household were piped, borehole, rivers and harvested water. In comparison, a bigger percentage of female headed households selected for the study had piped water compared to male headed households as shown in Table 4. The only deviation was the percentage of households with boreholes where the male headed households were more compared to female household heads. The findings

revealed that more than 50% of the households selected for the study had piped water which was considered sufficient and safe for drinking for the household.

Further analysis revealed that 32% of the households selected for the study from across the three locations did not have access to piped water and thus considered as having inadequate and unsafe water for household consumption. Availability or unavailability of adequate and safe drinking water was found to have direct influence on dairy production which in turn influenced the household welfare. It was clear that households with no stable sources of water was not able to have more dairy cows because they could not be able to fetch enough water for them. In addition, access to safe and adequate drinking water was found to be influenced by the level of income per month of the household heads, whereby majority of the households with piped water were found to have been earning above ash 11,000 per month from dairy farming. This implies that dairy production was key for accessibility and affordability of adequate and safe drinking water thus enhanced household welfare.

either located far away from the nearest schools in terms of the geographical location. Thus, children were required to walk very long distances or they were not able to afford the nearest school thus forced to walk long distances to access the school they could afford.

The study established that majority of the households who were able to pay the fee requirements for their children were earning above KS 11,000 per month from sale of various dairy products. The study finding concurs with the results of a study carried out by Muia et al. (2011) that dairy farming as an economic activity plays a significant role in the provision of adequate food, education, job creation, revenue collection and advancement of life for the households involved in dairy production. This implies that dairy farming plays an important role in ensuring accessibility of education to majority of the households. Through the use of income accrued from the dairy products, household heads are able to assure their school going children of accessible education thus enhancing household welfare.

Table 5. Accessibility to education

Gender	Yes		No		Total	
	Freq.	%	Freq.	%	Freq.	%
Male Household Heads	208	72.0	81	28.0	289	66.0
Female Household Heads	93	62.4	56	37.6	149	34.0
Total	301	68.7	137	31.3	438	100.0

Influence of Gendered Access and Control of Land and Dairy Products on Access to Quality Education

To measure accessibility to education in the study area, the household heads were requested to state whether their children were able to access basic and higher education as desired. Table 5 reveals that children from male headed households that accessed education at all levels as desired were slightly higher compared to those from female headed households.

Table 5 shows that majority of the household heads selected for the study reported that education was easily accessible through free educational programs introduced by the Kenya Government since 2002 for primary school level and day secondary Schools in 2008. The education institutions available in the three locations included private and public ECDE and primary schools, public day and boarding secondary schools. For this study accessibility to education entailed geographical location of the schools and affordability of the household head to pay for their children in cases where payment was a requirement. The findings revealed that few of the selected households who reported that they could not access education were

Conclusion

Based on the findings and discussions in the preceding chapter, the study concludes that gendered access and control to land and dairy products influences the provision of welfare at the household level as espoused by the Marxist Feminism theory. The influence however was found to be positive where both men and women in the households had equal access and control of land and the existing dairy products.

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