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**Gender-Based Assessment of the Effects of Adoption of Alternative Livelihood
Strategies on Pastoral Households in West Pokot County, Kenya**

Emmanuel Psongol Kondoliony

Gender-Based Assessment of the Effects of Adoption of Alternative Livelihood Strategies on Pastoral Households in West Pokot County, Kenya



¹Emmanuel Psongol Kondoltiony
Head of Graduate Programmes, National Defence
University-Kenya

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Abstract

Purpose: The purpose of this study was to assess, from a gender perspective, the effects of Alternative Livelihood Strategies (ALSs) on households in the pastoral community of West Pokot County.

Methodology: This study applied both quantitative and qualitative research approaches, and adopted a cross-sectional survey research design. The target population was adult household members in West Pokot County. While multi-stage cluster sampling technique was employed to sample 371 household survey respondents, 15 participants for Key Informant Interviews (KIIs) and nine Focus Group Discussions (FGDs), were purposively selected. Data was collected using questionnaires, KII schedule and FGD guide. Validity and reliability of the data collection instruments were achieved through triangulation method and pilot-testing in Baringo County. Quantitative data was then analyzed using descriptive statistics with the help of Statistical Package for Social Sciences (SPSS) version 23. The analyzed data was presented in tables and charts. Thematic analysis was employed for qualitative data that was presented in narrative and verbatim forms.

Findings: The study results were that, adoption of ALSs had three effects on the pastoral households. First, it blurred the boundaries that separated men and women in terms of household roles and socioeconomic status. Second, ALSs affected the way household members related to each other. The effects were both negative and positive, depending on type and level of ALSs adopted. Third, adoption of ALSs caused improvement in the socioeconomic status of most households. Overall, ALSs had more positive effects on households and had caused general improvement in living standards.

Unique Contribution to Theory, Practice and Policy: Structural Functionalism theory and the Harvard Analytical Framework may be used to emphasize the critical contribution of both men and women in the wellbeing of pastoral households, through equitable and inclusive adoption of ALSs. The findings of this study could enable development agencies to formulate concrete interventions and policies to curb the negative effects of adoption of ALSs on households while leveraging on the positive ones, from a gender perspective. This will enhance adoption of ALSs and the community's wellbeing.

Keywords: *Adoption, Alternative Livelihood Strategies, Households, Pastoralists, West Pokot County*

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INTRODUCTION

Pastoral households have adopted Alternative Livelihood Strategies (ALSs), as a way of coping with the challenges and risks that affect their main source of livelihood, which is livestock production. Indeed, across the globe, pastoralism has increasingly become vulnerable, unsustainable and is declining (Dong et al., 2011). This, as stated, has been attributed to a host of ecological and socio-economic challenges and risks such as adverse climatic changes, rapid population growth, loss of common property livestock resources and violent conflicts (Fratkin et al., 2011). The ALSs are mainly in crop farming, non-farm activities, labor works, mobility, and hired herding. The choice of livelihood strategies depends on various factors such as household characteristics, access to resources, market opportunities, and environmental conditions.

The process of adoption of ALSs has, however, been impeded by several factors, key among them being huge gender differentials, which has caused unequal participation of men and women. The differentials in adoption of ALSs are mainly attributed to patriarchal culture, which is stronger in pastoral communities (O'Neil, 2011; Sherman, 2013). As a result, pastoral communities are extremely male-dominated, and patrilineal. In this condition, wealth is passed down from father to son and women access resources through men, more so, their husbands. Hence, compared to non-pastoral societies, O'Neil and Sherman observe that, the socioeconomic and political power of most pastoral women is very low. This lower status of women in pastoral communities has been amplified by the fact that they (women) operate in the periphery of already marginalized communities (Verma & Khadka, 2016). Eneyew and Mengistu (2013) argue that women in these communities face double marginalization, first because they are pastoralists, and second, for being women. The reason for women's marginalization, is their limited decision-making role and the scanty attention they receive within the national development framework (Rota & Chakrabarti, 2010).

By and large, adoption of ALSs among pastoralists is characterized by gender differentials and this has impacted pastoral households in several ways. Literature reveals that, the positive impacts include, economic stability (Moritz et al., 2011) and narrowing of gender gap (Karmeback et al., 2015; Oumer et al., 2007), improved food security (Manjur et al., 2014), better health and housing (Fratkin et al., 2011), improved education (Asmare et al., 2007), and increased respect and recognition for women (Aregu et al., 2007). On the other hand, the negative impacts include, increased workload among the women leading to poor health (Flintan, 2008) and nutritional decline in poor households due to inadequate supply of meat (Fratkin et al., 2011). The study by Fratkin, also reveal a strained spousal relation among poor households that settled in urban areas and whose women resorted to beer brewing and prostitution to survive.

It is to be noted that, the impacts of livelihoods diversification, are not uniform across all pastoral communities. For instance, whereas diversification of livelihoods soured spousal relation in poor pastoral households that settled in towns as established by Fratkin et al. (2011) among the Rendille and Ariaal pastoral communities in Ethiopia, it resulted in harmonious relations among spouses in the Khumaon Himalayas pastoral community (Farooquee & Rawat, 2001). This confirms study findings that pastoral communities are as highly heterogeneous as their physical and socioeconomic environment (Njoka et al., 2016; Tsegaye, et al., 2013). This necessitates context-focused studies whose findings and recommendations can inform more effective development interventions and policies.

In regard to the pastoral community of West Pokot County, studies show that adoption of ALSs has occurred, especially in agriculture and informal trade (Lolemum et al., 2017; Mutsotso,

2013). Though the community has adopted ALSs, the main source of livelihood remains pastoralism (Nyberg et al., 2015). ALSs and pastoralism are, however, still complementary economies rather than mutually exclusive alternatives (IWGIA, 2012). In all these livelihood strategies, men play a dominant role (Kamerback et al., 2015). Little is, however, known on the effects of the gendered adoption of ALSs on the community's socioeconomic status for lack of gender-focused studies.

Statement of the Problem

As noted in the background, adoption of ALSs in pastoral communities is characterized by gender differentials, a phenomenon that has profound socioeconomic effects on pastoral households, which are important basic units of production and consumption. The effects of the gendered adoption of ALSs on households are, however, context-specific since pastoralists are highly heterogeneous in terms of socioeconomic and cultural factors. Therefore, context-specific effects need to be identified and explained so that policymakers are able to formulate gender-responsive strategies that would enhance adoption of ALSs, an endeavour considered to be the panacea to myriad socioeconomic challenges facing the pastoralists. Yet little is known on the variables concerning the pastoral community of West Pokot County. This necessitated the current study, which offers an opportunity for improved adoption of ALSs hence enhanced well-being of the community.

Objectives of the Study

The general objective of this study was to assess from a gender perspective the effects of ALSs on pastoral households in West Pokot County, Kenya. The specific objectives were:

- a) Establish the effects of adoption of ALSs on household gender roles.
- b) Determine the effects of adoption of ALSs on gender relations in households.
- c) Evaluate the effects of adoption of ALSs on socioeconomic status of households.

LITERATURE REVIEW

Pastoralism is a way of life of a people who depend primarily on livestock or livestock products for income and food and typically graze their animals on communally managed or open access pastures, and move with them seasonally (Dyer, 2012). According to Blench (2001) the conditions that support pastoralism such as medium human population densities and extensive rangelands, have deteriorated due to a host of ecological and socioeconomic factors. To adapt and as a matter of survival, pastoralists are increasingly adopting ALSs in farming, agro-pastoralism, trade, craft production, and formal employment (Belay, 2016; Blench, 2001). The impacts of this engagement, which is as gendered as most endeavours in pastoral communities, on their households, has been highlighted by studies as discussed in subsequent paragraphs.

In a comparative study of 20 pastoral societies across the globe, including the Basseri of Iran, Navajo of the USA, and Turkmen of Turkmenistan, Moritz et al. (2011) notes that the pastoralists have undertaken livelihoods outside the livestock sector. In particular, they have ventured into agricultural activities and waged employment. The outcome is that the households with more diversified livelihoods are more stable economically. However, according to the authors, there exist considerable variations in the level of stability between and within the pastoral societies due to variations in the environments in which they operate. This study lacked gender perspective.

Among pastoral nomads in Mongolia, adoption of ALSs has resulted in increased responsibilities and workload for women and widespread poverty in women-headed households (Flintan, 2008).

According to Flintan, women suffer heavy workloads because as men out-migrate in search of ALSs, they take up roles that would ordinarily be performed by men including livestock management, while at the same time undertaking their traditional domestic responsibilities. The increase in responsibilities, limit their time and options for productive activities, relegating them and the households they head to extreme poverty. Similar cases have been reported among Indian and Tibetan pastoralists living in the Trans-Himalayan region (Farooquee & Rawat, 2001; Verma & Khadka, 2016).

In the African Continent, the impacts of adoption of ALSs on pastoral households vary within and across communities. For instance, in the East and Horn of Africa, Nelson et al. (2016) note that ALSs have resulted in increased income and productivity, thereby becoming a pathway out of poverty for households. Nonetheless, depending on socio-ecological conditions, the authors observe that the uptake of ALSs do not necessarily result in improved welfare for many members of pastoral households. Those in drier areas where there are extensive rangelands are, in particular, still better off with pastoralism and not ALSs. Other studies, including Kipuri and Ridgewell (2008), and Watete et al. (2016), also underline that there are conditions that make pastoralism more rewarding to pastoral households, than ALSs. These include contexts where science and modern technology have been applied in livestock production.

In Somalia where pastoralism is the most important agricultural enterprise, a study by Oumer et al. (2007) shows that adoption of ALSs affects households in three ways. First, there are reversals of roles where women who acquire more income because they have adopted more ALSs, including menial and low-paid jobs which men shun, take over the traditional role of men as household providers. Men's reaction to this situation of reversed roles is that of frustration for not being able to support their families as customs prescribe. Second, by earning an income independent of their husbands, women are making many more decisions within the households. Third, petty trading and other businesses among some Somali men and women have assured them of a small but continuous flow of money, hence improvement in household food security.

Among the Rendille and Ariaal pastoral communities in Kenya, a study by Fratkin (2011) reveals that adoption of ALSs has resulted in a more sedentarized lifestyle, especially in urban settings. This has impacted households, both negatively and positively. On the positive side, greater food security, improved health care, and increased participation of children in formal education have been realized. Women have also benefited from new opportunities which are mostly inaccessible in the male dominated livestock economy including petty trade in milk and vegetables that afford them a modest income. On the negative side, an inadequate supply of meat and milk due to reduced livestock production has led to nutritional decline in women and children. Additionally, some women have been forced by poverty to depend on beer brewing and prostitution to survive in an urban economy, thereby increasing their exposure to HIV/AIDS and other sexually transmitted diseases. This, according to Fratkin, strains household resources and spousal relationships.

Aregu et al. (2007) in a study on Afar and Borana pastoral communities in Northern Kenya, show that women have adopted various forms of ALSs and have been able to generate modest income to pay for the expenses of their households including school fees for their children and healthcare. Further, the study demonstrates that adoption of ALSs has promoted gender equality and increased opportunities among women. Men, on their part, are reported to have increasingly accepted that women could play an active and successful role in boosting the economic status of households. The findings of this study indicate that adoption of ALSs has increased recognition and respect for women in households. This is, however, not the case in some pastoral households

where men are reported to have meted violence upon women who have been empowered by ALSs for fear of reversed roles and status (United Nations International Children's Emergency Fund [UNICEF], 2017).

Theoretical Framework

This study was anchored on Structural Functionalism Theory and Harvard Analytical Framework (HAF).

Structural Functionalism Theory

Structural Functionalism Theory, also known as Functionalism, is a theory that enables understanding of society as a complex system whose parts work together to promote solidarity and stability (Macionis & Gerber, 2011). The theory explains how societal structures and systems shape behaviour of individuals and groups (Muchangi, 2014). Further, the theory emphasizes that every pattern of activity makes a positive or negative contribution to society. The tenets of this theory have been used to understand a household in the pastoral community of West Pokot as a complex system with various parts and structures systems that are interdependent and whose functions and interactions determine its (household's) survival and well-being. In particular, the concept that every pattern of activity makes a positive or negative contribution to society, guided this study in the assessment of the effects of adoption of ALSs on households.

Due to the gender perspective of this study, there was need for a gender analysis framework to clearly bring out the gender dimension in the effects of ALSs on households. This need was addressed by HAF as discussed below.

Harvard Analytical Framework

HAF was developed by researchers at the Harvard Institute for International Development in the United States of America (March et al., 1999). The framework was specifically designed for gender analysis and has four main components/tools. The first is an activity profile which helps users to identify all relevant productive and reproductive tasks and answers the question; "who does what?". The second component/tool deals with access and control of resources and benefits. The third tool concerns the influencing factors and allows users to chart factors that determine the differences in the gender division of labour, access, and control as listed in the two profiles above (Tools 1 and 2). The fourth and last tool/component of HAF is the checklist for project cycle analysis which consists of a series of questions. March et al. (1999) state that the questions are designed to assist users to examine a project proposal or an area of intervention from a gender perspective, using gender-disaggregated data and capturing the different effects of social change on men and women.

All the four components/tools of the framework have guided this study to collect gender-disaggregated data. In particular, the fourth component/tool was applied to comprehensively encapsulate, from a gender perspective, the effects of adoption of ALSs on households. In the lens of HAF's fourth component/tool, adoption of ALSs was viewed as a social change phenomenon that is bound to have far reaching ramifications on pastoral households.

Knowledge Gap

The interrogated literature, in the preceding sections, indicate that adoption of ALSs results in both negative and positive effects on pastoral households. The effects, which are mainly socio-economic, occur in the areas of gender roles, relations, and living standards. This information is valuable as it has shaped the focus of the current study.

Further, the interrogated studies reveal various methodological, conceptual and theoretical gaps that have been addressed by this study. First, most of the studies lack gender perspective, yet gender has far-reaching ramifications in pastoral communities, which are highly traditional, patriarchal and misogynistic. Second, most studies are too general and wide in scope, focusing on a wide range of pastoral societies. This is a complex problem, a fact that has been acknowledged by some of the researchers such as Moritz et al. (2011) who recommend that the standard approach for teasing out complex causality in social research is an in-depth examination of one or two cases. Third, most studies treat pastoral communities as homogenous, yet they are diverse in terms of location, culture, economy, and social life. Their views and recommendations, which are commonly “one size fits all” are, therefore, too general and may be misleading. Last, reviewed studies are mostly qualitative hence missing out on the more generalizable and externally valid insights of quantitative data. The current study has filled the gaps by adopting a gender perspective, mixed method approach (both quantitative and qualitative) and focusing on one pastoral community.

METHODOLOGY

Research Design

This study used cross-sectional survey research design. This design is best suited to studies aimed at finding out the prevalence of a phenomenon, situation, attitude or problem by taking a cross section of the population at one time (Kumar, 2011). Thus, the study sought to find out the effects of ALSs on households in the pastoral community of West Pokot County at the time of research. Both quantitative and qualitative approaches were adopted. The quantitative approach helped to generate statistical (numerical) data that was easy to be systematically aggregated. On the other hand, the qualitative approach helped in gaining in-depth understanding of the phenomena under study especially by generating data that was not easily translatable into numbers such as opinions, attitudes, beliefs and perceptions are recommended by scholars including Mugenda (2008).

Study Area

This study was conducted in West Pokot County which is one of the 47 counties in Kenya. It is situated in the North rift along Kenya’s Western boundary with Uganda as shown in Figure 1.

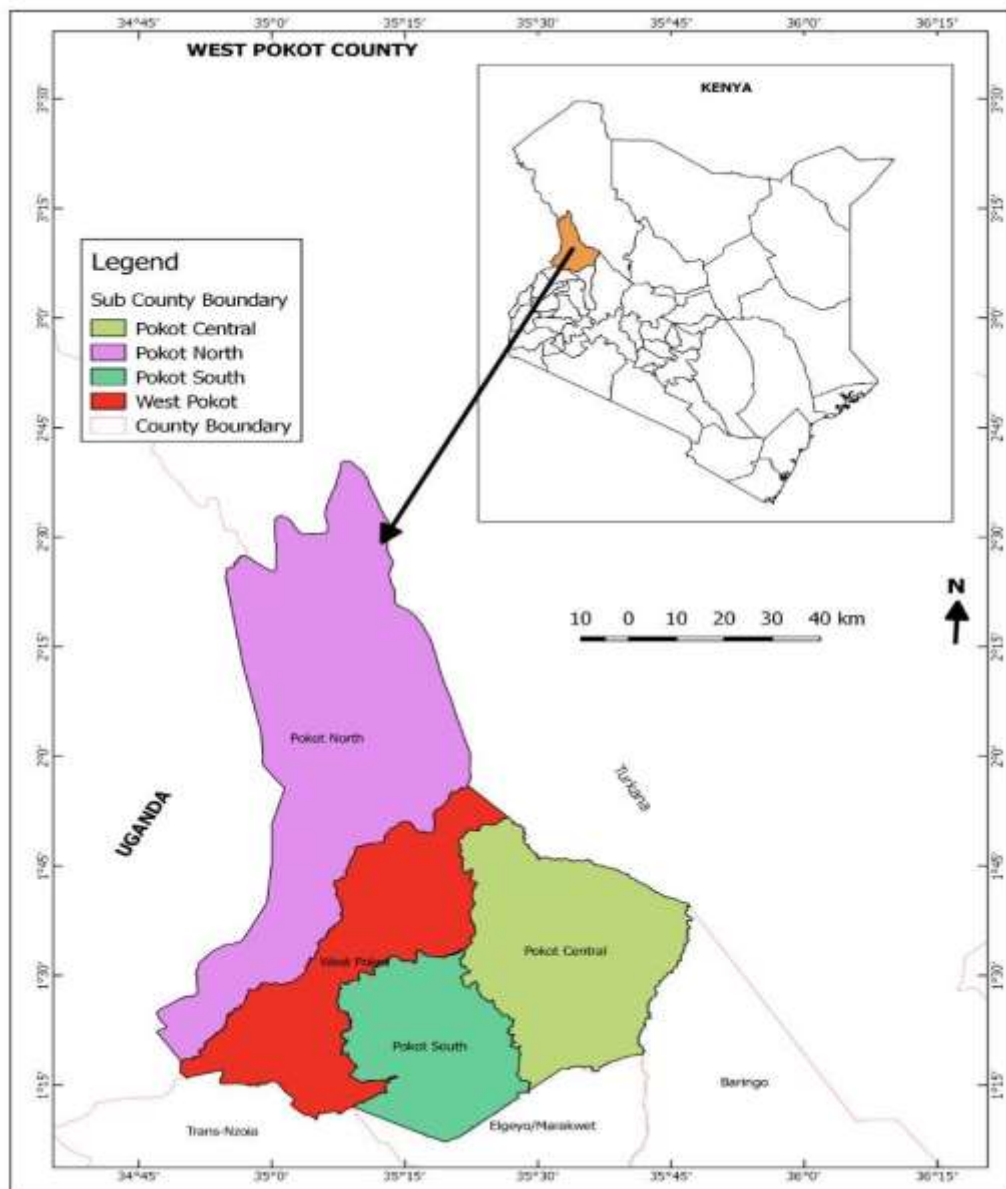


Figure 1: Map of West Pokot County

Source: Author, 2019

According to the West Pokot County Government (2013), the county has four sub-counties which are North Pokot, Pokot Central, South Pokot, and West Pokot. The county covers an area of approximately 9,169.4 km² with a population estimated at 621,241 persons as per 2019 census (Kenya Bureau of Statistics [KNBS], 2019). This population consists of 307, 013 men, 314, 213 women and 15 intersex persons. The county has very varied altitudes and thereby large variation in climate and agro-ecological zones (Nyberg et al., 2015). Besides pastoralism, which is the dominant livelihood system in the County, agro-pastoralism and mixed farming are practiced especially in higher altitudes areas (National Drought Management Authority [NDMA], 2014). In all these livelihood strategies, the West Pokot County Government, reports that, men play a dominant role and the proportion of individuals below the poverty line is 68.7% (West Pokot County Government, 2013). The County is predominantly inhabited by the pastoral Pokots ethnic group who are known for the love of the cattle and adherence to strict

gender roles and patriarchal culture (Lolemum, et al., 2017; Mutsotso, 2013). Therefore, the County is rich in pastoral culture and the associated problems of gender inequality, high poverty incidences, insecurity and conflicts (Kamerback et al., 2015).

Target Population

The target population of the study was adult members of households in West Pokot County. According to the 2019 census, there were 116,182 households in West Pokot County (KNBS, 2009). Other research participants were key informants and opinion leaders in the county.

Sampling Techniques and Sample Size

The study used multi-stage cluster sampling technique. This technique is appropriate in big inquiries that cover large geographical areas (Kothari & Garg, 2014). In this study the sub-counties, divisions, locations, sub-locations and villages of the vast County, constituted the clusters. Therefore, a five-stage cluster sampling was adopted to arrive at 371 households which participated in the study. Each of the households produced a participant. To achieve gender balance, selection of participants was done in a manner that men and women alternated from household to household.

This study further purposively selected participants of FGDs and KIIs. In total, nine groups for FGDs and 15 participants for KIIs, were selected. In the selection, the study ensured balanced representation of both genders.

Data Collection Instruments

In this study, both primary and secondary data was collected. Whereas secondary data was obtained from libraries and e-resources, primary data was collected using semi-structured questionnaires, KII schedule and FGD guide.

Validity and Reliability of Research Instruments

To achieve validity, the research instruments were constructed to capture information as per the specific objectives of the study. Triangulation method was also employed with three data collection instruments (questionnaires, KII schedule and FGD guide). To achieve reliability, the instruments were pilot-tested in Baringo East Sub-County where pastoralists bore similar attributes and characteristics with the study population in West Pokot County. The pilot data was analyzed to aid adjustment of unclear questions.

Data Analysis

Quantitative data was edited, gleaned, coded and entered in the Statistical Package for Social Sciences (SPSS) version 23. The SPSS analysis generated descriptive statistics in form of means, standard deviations and percentages. The analyzed data was then presented in tables and charts. Qualitative data on the other hand, was typed verbatim in the MS Word Computer software. This data was then transcribed and subjected to thematic analysis and presented in narrative and verbatim forms.

RESULTS

Structural Functionalism Theory on which this study was anchored, postulates that every pattern of activity in society makes a positive or negative contribution to it (Muchangi, 2014). Therefore, this study assessed the effects of adoption of ALSs on households in the pastoral community of West Pokot County. This assessment was given a gender perspective because reviewed literature indicated that the effects of the shift to ALSs in pastoral societies were gendered. Accordingly, the effects of adoption of ALSs on gender roles, relationships, and

overall living standards of households were considered. The findings are presented in subsequent sections under these sub-themes.

Effects of Adoption of ALSs on Gender Roles in Households

Gender roles are tasks or functions assigned to men and women by society (Reeves & Baden, 2000). These are adhered to very strictly in pastoral societies such that, while men perform most of the productive and community roles, the women do the reproductive ones (O’Neil, 2011; Sherman, 2013). With adoption of ALSs gaining roots, this study sought to evaluate how the strict gender roles in the pastoral community of West Pokot County were affected. This was achieved by asking the respondents to indicate their level of agreement on six statements related to the effects of adoption of ALSs on gender roles in households. The responses were rated on a five-point Likert Scale where: 1=Strongly Disagree (SD), 2= Disagree (D), 3= Undecided (U), 4= Agree (A) and 5= Strongly Agree (SA). The mean and Standard Deviations (SDs) were generated from SPSS version 23 and are presented in Table1. Further probing was done through KIIs and FGDs to generate additional information in terms of views and opinions.

Table 1: Views on Effects of Adoption of ALSs on Household Gender Roles

Shift in Household Gender Roles	Mean	SD
Domestic chores, no longer the preserve of woman	3.57	1.08
Household leadership role no longer the preserve of man	2.98	1.16
Decision making in the household no longer the preserve of man	3.27	1.15
Role of household provider no longer the preserve of man	3.48	1.21
Adoption of ALSs results in increased workload for women	3.67	1.24
Mean	3.40	1.17

Source: Field Survey Data (2019)

From the illustrations in Table 1, a high mean of 3.57, implies majority of the respondents agreed that with adoption of ALSs gaining roots in the pastoral community, domestic chores are no longer exclusively performed by the women. KIIs and FGD participants expressed similar views as underlined by the following excerpts:

Many of the ALSs occasion absence of men and women from home for quite a long time. Therefore, whoever remains in the household will have to perform all tasks (KII 15).

Adoption of ALSs has led to increase in people with good education and exposure hence changes in attitudes. As a result, many of us here cook for our families. We even care for the children and wash clothes (Discussant 2, FGD 7).

These statements show that there was an increase in the number of men performing household chores that were traditionally exclusive to women. Similarly, a study by Farooquee and Rawat (2001) reveals that livelihood diversification in pastoral communities has blurred the boundaries that separate men and women in terms of household chores. Therefore, adoption of ALSs has brought about a change in the performance of gender roles in a community that is known for strict adherence to gender roles as observed by Mutsotso (2013) and Karneback, et al., (2015). This is progress in the attainment of gender equality.

The mean rating of 2.98 on household leadership, shown in Table 1, also means that most of the respondents believed the household leadership role was no longer performed exclusively by the man. KIIs and FGD participants expressed similar views. Since pastoral men are

traditionally the undisputed leaders of their households, these findings indicate that adoption of ALSs has brought enormous changes in the pastoral community. Participation of women in leadership is one of the positive developments that scholars including Kasomo (2012) affirm as the pathway to the achievement of gender equality and sustainable development. The pastoral women's increased participation in leadership would help narrow down the gender gap in adoption of ALSs.

The view that decision-making in the household was no longer the preserve of man was shared by the majority of the respondents as indicated by a high mean rating of 3.27 in Table 1. This means that the chances of any other household member other than the man to make decisions had increased with adoption of ALSs. This view was supported during KIIs and FGDs as evidenced by the feedback from the following participants:

I am one of the few lucky women to have achieved good education and a well-paying job. My siblings, parents, children and husband entirely depend on me to the extent that they seek my opinion on many issues, even private ones. They tell me that, I am their 'eye', 'ear' and 'mouth' meaning I must see, hear and talk on their behalf. In short, I make or influence many decisions in my own household, that of my parents and those of my siblings who are not well resourced. The number of girls and women doing this is increasing with decrease in pastoralism where men held sway (KII 9).

We are in an environment where most of us are very ignorant of many things. Because of no formal education and exposure, we cannot purport to be making decisions on modern issues such as cementing a house or buying the new gadgets they use today in cooking. Definitely, the person with the money and the education, woman or man, decides and we just watch and comply (Discussant 6, FGD 7).

Thus, adoption of ALSs has increasingly brought women on board when it comes to household decision-making. In this regard, Karmebäck et al. (2015) have also established that, through income earned from entrepreneurship, women in West Pokot are enjoying a higher degree of financial independence, more decision-making power, and a louder voice than before in household and public matters. The same has happened among Somali pastoralists in Ethiopia where Asmare et al. (2007) note that women have made joint decisions with their husbands, a move that was rare before adoption of petty trade. Attainment of gender equality in adoption of ALSs, therefore, increases gender equality in household decision-making.

The view that, with adoption of ALSs, the role of household provider was no longer the preserve of man, received a high mean rating of 3.48 as indicated in Table 1. Clearly, the majority of the respondents subscribed to the view as stated. Analysis of information obtained through KIIs and FGDs revealed the same. For instance, a man whose observation was agreed upon by all other discussants during one FGD stated:

When livestock was everything, men being the owners, were undisputed household providers. But today, there are better sources of livelihoods that have surpassed livestock. For example, moving around, you see several grocery stalls and food kiosks. Many of them are owned by our women. When drought, diseases and cattle rustlers hit, we lose livestock and we come home or remain at home to depend on our women's other sources of income and food. Further, with a lot of support that women get from NGOs, they do many businesses. At the end of the day, they provide for the household. Though men are still dominating role as providers, the situation is changing and very fast (Discussant 5, FGD 1).

From the above, it is evident that the person who accessed resources utilized as the main household livelihood was the breadwinner. Thus, unlike the traditional livestock sector, where men exercised absolute control and were the undisputed breadwinners, adoption of ALSs opened opportunities for women, who also became breadwinners in households. Aregu et al. (2007) have similar findings among the Afar and Borana pastoralists in Ethiopia. They report that men in these communities, are increasingly accepting that the women in their households could play an active and successful role in income generation. This is an indicator that the boundaries that separate men and women in terms of gender roles in pastoral households are getting blurred and, in some households, completely dismantled as a result of livelihoods diversifications.

The notion that adoption of ALSs increased the workload for women was shared by the majority of the respondents as indicated by a high mean score of 3.67 as shown in Table 1. Participants of KIIs and FGDs argued that adoption of ALSs gave women an added burden because of reasons which were clearly captured by a key informant as follows:

Adoption of ALSs has increased women's burden in households. Take for example, the one who owns a grocery or food kiosks. You know, she has to do most of the preparations at home. She has to select and bundle up the vegetables and cook most of the foodstuffs such as tea before taking them to the selling points. Yet, she still performs most of the household's domestic chores. Adoption of ALSs has also occasioned long absence of men from the home. Women, therefore, step into men's shoes and perform their customary duties (KII 3).

Therefore, adoption of ALSs resulted in increased participation of women in productive roles, yet they still performed most of the reproductive roles. Clearly, this indicates an increase in workload for the women. These findings concur with those of de Jones and Flintan (2020) that, with the diversification of livelihoods, pastoral women are left in a position of having to do more and more of the work traditionally done by men. UN statistics show that overworking of women is a global phenomenon. UN (2015) indicates that when both paid and unpaid work are considered, women work longer hours than men, an average of 30 minutes a day longer in developed countries and 50 minutes in developing countries. An increase in workload for women implies poor health and reduced capacity in adoption of ALSs.

The overall mean rating in Table 1, is 3.49. This is above average, meaning that adoption of ALSs has profound effects on gender roles in households. More importantly, the gender gap in roles is generally narrowing in the community such that the dominance of men in productive roles and that of women in reproductive ones, is decreasing. Consequently, the findings of this study agree with those of Karmebäck et al. (2015) that, in Chepareria Division of West Pokot County, despite men and women still having different spheres of responsibilities and positions within the household economy as well as with regard to public life, the boundaries are becoming less defined. This is a positive development for the adoption of ALSs because it utilizes the capacities inherent in both men and women.

Effects of Adoption of ALSs on Gender Relations in Households

Gender relations are hierarchical relations of power between women and men (Reeves & Baden, 2000). In households, these relations show who, between man and woman, has more access to and control over resources and decision-making. This study sought to evaluate the effects of adoption ALSs on gender relations in pastoral households. To achieve this, the respondents were to indicate their level of agreement on four statements. The responses were rated on a five-point Likert Scale where: 1=SD, 2=D, 3=U, 4=A, and 5=SA. The mean and

Standard Deviations (SDs) were generated from SPSS version 23 and are presented in Table 2. Further probing was done through KIIs and FGDs to generate additional information in terms of views and opinions.

Table 2: Views on Effects of Adoption of ALSs on Gender Relations in Households

Effects of Adoption of ALSs on Gender Relations	Mean	SD
Men are not comfortable with women adopting ALSs	3.30	1.11
Adoption of ALSs has caused increase in adultery/separation/divorce	2.78	1.00
Adoption of ALSs has led to decrease in domestic violence	3.32	0.84
Adoption of ALSs has resulted in shift in center of power and respect	3.50	0.92
Adoption of ALSs has increased respect/recognition for Women	3.40	1.01
Mean	3.26	0.98

Source: Field Survey Data (2019)

In Table 2, the mean rating for the statement that men were not comfortable with women adopting ALSs is 3.30. This rating is above average, denoting that most respondents believed that men in the community are not happy with women adopting ALSs. KIIs and FGD participants outlined how the discomfort among the men brewed disharmony in households. For instance:

In this community most men are uncomfortable with women adopting ALSs. This is common among men who did not get good education and have not travelled well to see the changes in the world. They think locally and strongly follow their cultures which in most cases discriminate against women. They believe they are everything in the household, everybody else is subordinate. More importantly, they fear that women may overturn the tables and become household heads (KII 13).

Majority of the men in this community cannot stand a woman who has progressed more than them. In fact, they do not marry them. Those who got married before they developed, experience endless suspicions and accusations of infidelity and insubordination. They sometimes become victims of divorce, separation or domestic violence (Discussant 4, FGD 2).

Evidently, for the majority of the men in pastoral households, women's progress in adopting ALSs did not go well with them. They feared the reversal of roles and status which were associated with adoption of ALSs. This resulted in acrimonious relations which mostly ended in divorce, separation, and Gender-based domestic violence. Oumer et al. (2007) have also found out that among the Somali pastoralists, men are not comfortable with women moving out beyond the domain of the home in which their main functions are to cook, launder clothes, nurture, and be "wives" to their husbands. These perceptions and attitudes, deny the community the benefits accrued from the full exploitation of the potential in women.

Table 2 also indicates that adoption of ALSs resulted in an increase in adultery, separation, and divorce. This had a mean of 2.78, which was slightly above average. This implies that, though many supported the view, a significant number dissented. These different viewpoints among the respondents were supported by KIIs and FGD participants, such as:

With increase in disposable income as a result of adoption of ALSs, some people especially the men, develop twisted sense of good life and end up in promiscuity and infidelity. Some work far away and are mostly absent in their matrimonial homes, hence increased susceptibility to infidelity. The ensuing suspicion and disapproval from the

spouse, further strains the relationship between couples. This results in increased cases of adultery, separation, and divorce. These cases as we have all agreed here are, however, not very common in this community (Discussant 8, FGD 4).

I have been here for a while now and I can say, adultery, divorce and separation are not very common. Okay, ALSs may make people vulnerable, but this is a conservative community where there is strict adherence to traditions and customs (KII 2).

Thus, adoption of ALSs negatively changed the lifestyle of some of the pastoralists to the extent that they became more vulnerable to adultery, separation, and divorce. This ended in a strained spousal relationship in households. The social vices and their effects were, however, minimal because of the deterrent effects of the community's strict traditions and customs which strongly disapproved of them. Kioko (2009) has found similar causes of infidelity among married couples in Kitui County, Kenya. These include changing tastes and preferences as a result of the increase in income and working away from home.

The mean rating of 3.32 in Table 2 indicates that the majority of the respondents felt that adoption of ALSs had caused a decline in domestic violence in pastoral households. Analysis of information obtained from KIIs and FGD participants, revealed concurrence with this view. For example, a key informant observed:

Domestic violence is common in this community. However, this has reduced tremendously with adoption of ALSs. This is because ALSs have generally improved education standards and enlightenment among members of the community, hence more respect and value for each other. Educated and enlightened people are also more aware of the consequences of harming another person and this serves as a deterrent. Further, women who are mostly the victims of violence in households have made commendable progress in adopting ALSs. Their ability to cater for both individual and household needs have increased, thereby reducing their dependency on men. They are, therefore, less vulnerable to abuses by men who misuse their cultural and socioeconomic power (KII 14).

From the foregoing statement, it is apparent that adoption of ALSs improved education levels, enlightenment, and socioeconomic status among members of the pastoral community. All these reduced vulnerabilities to domestic violence especially among women who were mostly at a higher risk due to patriarchal dominance. A study by Frosina and Mwaura (2016) also establishes that adoption of ALSs has significantly reduced gender-based domestic violence in Pokot households. Generally, access to sustainable livelihood and attainment of women's empowerment alleviate gender-based domestic violence (UNICEF, 2018). Therefore, adoption of ALSs encourages a harmonious co-existence of household members. This has the potential to spur adoption of ALSs in the pastoral community.

The view that adoption of ALSs had led to a shift in centre of power and respect, was supported by the majority of the respondents as shown by the high rating score of 3.50 in Table 6.2. KIIs and FGDs revealed that, in traditional pastoral households, the head (in most cases, the man) was the centre of power and respect. However, with adoption of ALSs, the elevated position had shifted to whoever was the household's breadwinner- child, woman, or man. On this, one KIIs participant stated:

Today, you find a person who is engaged in a well rewarding ALS, being respected regardless of age and gender. As a result, girls and women nowadays can be more respected than an elderly man. I have seen them being fronted by their households to

present their views in community meetings, where they are given seats beside men. Traditionally, women rarely attended community meetings and when they did, they sat on the ground, separate and distant from men. Indeed, we have changed (KII 13).

This statement underscores the view that respect and centre of power were accorded to whoever was successful in the adoption of ALSs, regardless of age or gender. ALSs are, therefore, becoming the new symbol of power and authority in pastoral community households. More importantly, the findings imply that the efforts and success of every household member, in terms of adoption of ALSs are being recognized and appreciated by the community. This is indicative of a community that is beginning to embrace due respect and value to all, irrespective of gender and age. This is a positive development toward gender equality and could further spur adoption of ALSs in the community.

Also, the majority of the respondents subscribed to the belief that adoption of ALSs had resulted in more respect and recognition accorded to women in households, as evidenced by the above-average mean score of 3.40 in Table 6.2. This viewpoint was supported by data obtained through interviews and FGDs. For example, according to a discussant of one of the FGDs:

Women have proved to be very resilient and have progressed in venturing outside the livestock sector and to be honest, they have done more things than us. Through their hard work, we have met our basic needs and sometimes we afford to pay fees for our children and some luxuries. For this, we now appreciate and count them as very important in the survival of our households (Discussant 3, FGD 9).

This reveals that most households enjoyed the fruits of women's resilience in adoption of ALSs, hence an increase in respect and recognition accorded to them. They were notably recognized as important partners in the survival of pastoralist households. Aregu et al., (2007) have also established that through adoption of ALSs, women have generated their own additional household incomes and have been able to pay for expenses such as schooling and healthcare. As a result, Aregu et al., note that men are increasingly accepting that women could play active and successful roles in boosting the economic status of the households. According to IWGIA (2012), the pastoral community of West Pokot County is known to subordinate women. Gender-based violence is also common in the community (UNICEF, 2018). Recognition and respect for women is, therefore, a milestone in improving gender relations in households, gender equality, and adoption of ALSs.

The overall mean score on the effects of adoption of ALSs on gender relations in households in Table 2, is 3.26. This means that adoption of ALSs has effects (negative and positive) on gender relations in households. In the Capacities and Vulnerabilities (CVA) matrix, gender relations in households are among the social issues that could either increase or decrease people's vulnerabilities and capacities (March et al., 1999). Whereas harmonious gender relations increase capacities among household members, discord exacerbates their vulnerabilities. Therefore, the negative effects of adoption of ALSs on gender relations, as noted by this study, could increase the vulnerabilities of household members and, thereby undermine adoption of ALSs. But the positive effects could be turned into opportunities for enhanced adoption of ALSs because they grow the capacities of household members.

Effects of Adoption ALSs on Socioeconomic Status of Households

Due to many years of under-development, pastoralist areas of Kenya have high incidences of poverty (Kirkbride, 2006; Kipuri & Ridgewell, 2008). With the increased diversification of

livelihoods among pastoralists as noted by researchers and authors, it was the aim of this study to establish the contribution of this development to poverty alleviation and improvement of access to basic services in pastoral households. Thus, under this section, the study specifically endeavoured to evaluate the effects of adoption of ALSs on household socioeconomic status. In doing this, emphasis was placed on generating gender-disaggregated data to determine whether the effects were also gendered. To achieve this, the respondents were asked to indicate their level of agreement on five statements related to household socioeconomic status. The responses were rated on a five-point Likert Scale where: 1=SD, 2=D, 3=U, 4=A, and 5=SA. The mean and Standard Deviations (SDs) were generated from SPSS version 23 and are presented in Table 3. Further probing was done through KIIs and FGDs to generate additional information in terms of views and opinions.

Table 3: Views on Effects of ALSs on Socioeconomic Status of Households

Effects of ALSs on Socioeconomic Status of Households	Mean	SD
Adoption of ALSs has helped minimize risks in households	3.72	1.03
Adoption of ALSs has improved food security in households	4.20	0.61
Adoption of ALSs has improved health among household members	4.30	0.88
Adoption of ALSs has improved education of household members	4.13	0.79
Adoption of ALSs has led to general improvement in housing	4.02	0.67
Mean	4.07	0.80

Source: Field Survey Data (2019)

In this study, a risk is a situation or combination of events that endanger the survival of pastoral households. According to Moritz et al., (2011), pastoral households constantly run the risk of losing their herds (livelihood) to droughts, diseases, and other disasters. In West Pokot County, there is an additional danger of losing part or entire herd to cattle rustlers. As such, study participants were asked to indicate how adoption of ALSs had helped to minimize such risks. According to Table 6.3, the high mean rating of 3.72 indicates that majority of the respondents believed that adoption of ALSs helped to minimize risks in households. This was also strengthened by KIIs and FGD participants, such as:

Nowadays, it is easy to survive because we have alternatives. We all remember, in 1984, when a deadly livestock disease wiped more than half of cattle in most parts of this County, and households suffered hunger and malnutrition. Many of us dropped out of school. But, today, this is rare to happen, because those who still love the cattle can easily restock using money earned from ALSs (Discussant 9, FGD 1).

In 1999, all our cows were taken by cattle rustlers. Fortunately, I completed my education and then ventured into politics and business. I live in town and do other things. Apart from few family cows in our rural home, I do not have other cows, but I am able to meet all the needs of my household very comfortably. We are becoming many in this lifestyle, because we have experienced the risk of depending on livestock alone (KII 10).

Evidently, pastoral households mitigated risks occasioned by a loss of livestock to drought and cattle theft by restocking using the income earned from ALSs. Other households abandoned livestock keeping completely and survived on ALSs. Consequently, adoption of ALSs built resilience, and reduced vulnerability and most households were no longer at the mercy of adverse environmental changes. These findings are in line with those of Moritz et al., (2011)

that economic diversification of households effectively reduces the risks and uncertainties of the pastoral economy in two ways. First, diversification leads to stability in sources of wealth and livelihood strategies and lessens the need for insurance. Second, when livestock production makes up a smaller percentage of household income, the risk associated with livestock husbandry decrease, and this reduces the need for insurance. Also, data obtained from KIIs and FGDs, indicate that resilience against risks through adoption of ALSs was stronger in households headed by men than those that were headed by women. Notably, a key informant outlined:

In this community, women rarely head households when the men are there. This means that women mostly head households where they are widows, separated or single. In terms of adoption of ALSs, such households are disadvantaged because contribution and support from men who are better resourced is either missing or minimal. Also, childbearing, caregiving and domestic chores consume many resources from the women, including time. Ownership of livestock which could be sold, and money used to adopt ALSs such as businesses, is low and mostly nonexistent. These households are, therefore, very poor and survival in and out of livestock sector is very low (KII 15).

Therefore, adoption of ALSs in households headed by women was very low because they lacked the resources to do so. They were also pinned down by reproductive roles. Further, the benefits accrued from complementary efforts of both men and women were low or missing in the majority of such households. As a result, adoption of ALSs in women-headed households was not enough to mitigate risks. The fact that poverty and vulnerability are high in women-headed households has been underscored by other researchers. For example, Kipuri and Ridgewell (2008) argue that women-headed households succumb more quickly to crises and take longer to recover than those headed by men.

Food security exists when all people are assured of continuous physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for active and healthy life (Food and Agricultural Organization [FAO], 2002). UNICEF (2018) reckons that West Pokot is among the most food insecure Counties in Kenya. In this regard, this study sought to establish whether adoption of ALSs had brought an improvement to food security in households. In Table 3, an overwhelming majority of respondents acknowledged that adoption of ALSs had improved food security in the community's households (mean=4.2). This view was also held by KII and FGD participants. However, they observed that not all households had experienced improved food security because child-headed and woman-headed households were still acutely insecure. For example, participants in one FGD stated:

Sometimes famine was real and West Pokot was synonymous with hunger and relief food. But today, because of education, almost all households grow crops. We have also started keeping more productive livestock especially in terms of milk. And because of improved pasture management and livestock breeds, nomadism has reduced, meaning, milk is always available at home especially for the women and children who were mostly left behind when men migrated with the animals. Also, businesses such as the one we are now engaged in as a group, earns us some income, meaning we can buy foodstuffs when our own is not enough. There is an increased number of people in salaried employment who can afford balanced diet. In short, food situation in majority of our households has improved greatly. However, there are households that do not have livestock and adoption of ALSs is either minimal or has never happened. These are very poor households and are mostly headed by children and women. While the

children are mostly orphans, the women are mostly widows, singles and elderly (Discussant 7, FGD 5).

The above statement gives clear evidence of how adoption of ALSs has enabled pastoral households to change for the better in terms of food security. Notably, ALSs resulted in an increase in agropastoralism, mixed farming, and the number of people in income-generating activities such as businesses and salaried/waged employment. All these had contributed to improved food security in pastoral households, except some of those headed by children and women because ownership of livestock and adoption of ALSs were either minimal or non-existent. These findings imply that orphaned children and women are still marginalized in the community to the extent that they find it hard to access productive resources. A Report by UNICEF (2018) that food security in West Pokot County is very low means that the alleviating effects of adoption of ALSs, as established by this study, are at a bare minimum. Nonetheless, adoption of ALSs in the community has positive effects on food security.

The mean rating of 4.30 illustrated in Table 3, indicate that, with adoption of ALSs, households in the pastoral community registered improved standards of health. Expressing concurrence, FGD participants also outlined how this had been achieved:

For us women, getting money for medical services through sale of livestock which are controlled by men is a bit hard. But now, our other sources of income have made it easier for us and the children to access medical services. Also, through the new livelihoods that we have adopted, like businesses, we have traveled widely, and interacted a lot with people from other communities and different backgrounds. We also formed groups such as the current one and NGOs usually come around to educate us on health issues. Through all these, our eyes have been opened on matters of family planning, good hygiene and good diet. Many of us have also been able to acquire health insurance covers especially the NHIF. When we relied heavily on livestock, we couldn't get all these. We can therefore say our health and that of the children has improved a lot (Discussant 3, FGD 5).

Nomadism has had a toll on our health. It is very strenuous and physically exhausting because of a lot of trekking in search of pasture and water. It is also risky, because, we always found ourselves in unfamiliar territories and sometimes in violent confrontation with other rival nomads. Further, when drought sets in, we climb trees to cut branches and leaves for the animals. This has occasioned very serious injuries and sometimes deaths. Now, nomadism has reduced with reduction in livestock keeping and we are better off in terms of health (Discussant 2, FGD 7).

Majority of households keep livestock, meaning milk and meat are still available, albeit in lower quantities because of lack of animal feeds and sometimes water. Now, with ALSs, they can afford a wider variety of diet hence improved health. Diseases such as Kwashiokor, for example are very rare now, because households can easily get maize meals and other sources of carbohydrates (Discussant 10, FGD 3).

Therefore, through adoption of ALSs, women became enlightened on health matters. The nomadic lifestyle, which was physically demanding and susceptible to risks, was reduced. More importantly, the affordability of good healthcare and a balanced diet increased. This is a milestone in a community where maternal and child health is one of the worst in the country due to early forced marriages and poor nutrition as has been reported by UNICEF (2017). These findings are consistent with those of Karin (2012) that increased household income, as a result of diversification of livelihoods has been used to improve health in pastoral households.

However, health in a few households headed by women and children was reported to have worsened with adoption of ALSs. Participants of one FGD unanimously concurred with a discussant who observed:

In this community, households headed by women and children are poorer. Some are so poor, to the extent, they do not have livestock and only depend on leasing out their labour to people's farms and construction sites. In most cases they do not get the work and when they get, they are not paid well. As a result, their health is deplorable because they do not get adequate food and cannot afford medical services (Discussant 4, FGD 5).

This statement indicates that health standards were poor in households headed by women and children because their members were not involved in any gainful ALSs. Yet, they did not have livestock to supplement their meager and sometimes inconsistent wages. This notwithstanding, the bigger picture is that adoption of ALSs leads to improved health in most households of the pastoral community, and this serves as an incentive for enhanced adoption of ALSs.

Table 3 also shows that majority of the respondents were of the view that adoption of ALSs had resulted in a general improvement in the education of all household members (mean=4.13). Responses from KIs and participants of FGDs demonstrated that there were three ways in which adoption of ALSs had caused improvement in the education of household members in the pastoral community. First, income earned from ALSs enabled parents to educate their children and further their own education. Second, adoption of many ALSs led to wide travel and interactions with people from other communities and diverse socioeconomic backgrounds. This exposed and enlightened the pastoralists to the extent that they invested in education. As a result, education levels among exposed pastoralists and their children improved immensely. Third, adoption of ALSs caused sedentarization, meaning, children and parents had the time to attend school and further their education respectively. This was hard in the nomadic pastoral lifestyle. This came out clearly from a key informant who stated:

ALSs have increased sources of income in households. This has been used to enable children's completion of education. Some parents have also gone back to school and colleges for further studies. Also, adoption of ALSs such as trade and formal employment, requires that one travels a lot. In the process, they get to meet and interact with other people from different places and communities who have different experiences in life. Through these travels pastoralists have learnt that education is very important. In fact, if you observe keenly, you will notice that, pastoralists in ALSs are more educated and their children complete school. On the other hand, members of households, which still rely heavily on traditional way of livestock keeping, are less educated for they are unexposed. They even do not get the time to attend school and further their education, because of nomadic lifestyle which still characterize livestock keeping in this community (KII 12).

Further, analyzed data reveal that girl-child education was the biggest beneficiary of adoption of ALSs because what used to happen before adoption of ALSs, denied girls the opportunity to pursue a good education. This was well articulated by a woman discussant in one of the FGDs:

In the traditional set up, girls never went to school because they were married off even at tender age to earn the family the prized dowry and bring riches, esteem and status to the parents. But today, because of our income generating activities, we have own

resources and we can enroll our daughters in school even when their fathers oppose (Discussant 4, FGD 8).

Thus, before adoption of ALSs, the community saw girls as potential sources of wealth in the form of dowry and never allowed them to go to school. Further, with adoption of ALSs across gender, women were also empowered to take up the challenge of educating the girls. Apart from affording to educate them, adoption of ALSs had empowered women to the extent that they made independent decisions. The positive correlation between adoption of ALSs and education has also been noted by other researchers. For instance, Asmare et al. (2007) observe that among the Somali pastoralists of Ethiopia, an increase in income from small businesses in handicraft products enables households to send their children to school. Based on the findings of this study, adoption of ALSs is, by and large, the panacea for the low literacy levels currently experienced in West Pokot County.

The mean rating of 4.02 in Table 6.3, indicates that the majority of the respondents believed that adoption of ALSs had led to a general improvement in the quality of households' housing. This was confirmed and elaborated during KIIs and FGDs. For example, one interviewee indicated:

As a result of adoption of ALSs, the numbers of households residing in permanent buildings are on the rise especially in urban areas. Roofing materials are no longer twigs and grass, but iron sheets; some of very high quality, coloured and beautiful. Comparatively, women are still poorer than men in this community and can therefore hardly afford to put up a good house. They also lack the experience and expertise on construction matters. Therefore, households headed by women reside in houses of lower quality many of which are semi-permanent and makeshift structures (KII 1).

The data show that adoption of ALSs contributed to better housing in the pastoral community such that the semi-permanent makeshift structures were replaced by permanent ones. This is corroborated by government records which show that the percentage of the residents of West Pokot who have corrugated iron sheet roofs has increased from 27% in 2012 (KNBS, 2013) to 54% by 2019 (West Pokot County Government, 2018). Similarly, Luyali et al. (2015) report that the pastoral community is shifting from living in "manyattas" (huts made of mud, cow dung, and wood) to semi-permanent and permanent houses. However, just like in the other areas that have been evaluated and presented in the preceding paragraphs, women-headed households are also performing poorly in the housing parameter. The reasons given are lack of affordability and expertise. This means that women are disadvantaged in the pastoral community in most aspects.

The overall mean rating of 4.07 in Table 3 implies that adoption of ALSs has greatly improved the socioeconomic statuses of pastoral households. Researchers with similar findings are Saranta (2013) and Kirkbride (2006). They discovered that diversification of livelihoods improved living standards among the Isiria Maasai and Turkana pastoralists, respectively. Outside the African continent, Moritz et al. (2009) have established that diversified pastoralists in Khanasser Valley in Syria, are better off socioeconomically, than those who have not. Ahearn (2010), Eneyew, and Mengistu (2013) also concur but add that, households that are headed by women, are worse off in overall well-being than those headed by men. Statistics from the Republic of Kenya [RoK] (2011), too, show there is a significant gap in poverty levels between female-headed and male-headed households.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study concludes that adoption of ALSs has both positive and negative effects on households in the pastoral community. Whereas the positive effects include narrowed gender gap and improved standards of living, the negative ones are increased workload for women and cases of spouses accusing each other of adultery, among others. In line with the CVA, the positive effects could increase the capacities of both men and women, thereby promoting adoption of ALSs. Conversely, the negative effects have the potential to exacerbate vulnerabilities, especially among the women who face double marginalization for being pastoralists (who are mostly marginalized) and women in a men-dominated society. Notwithstanding the negative effects, this study underlines that adoption of ALSs results in improved living standards in households. It is, therefore, the best pathway out of overreliance on the diminishing pastoral economy, pervasive gender inequality, violent conflicts, and the high poverty incidences in the pastoral community of West Pokot County.

Recommendations

This study recommends that, development agencies ought to curb the negative effects of adoption of ALSs on households, while leveraging on the positive ones. Specifically, the County Government needs to address the problem of increased workload and time constraints among the women to enhance their participation in adoption of ALSs. This can be achieved by investing in affordable, reliable, and sustainable labour-saving technologies such as piped water, and efficient cooking and transport technologies. To address the problem of strained gender relations in households, the elites can influence the community towards adapting to the inevitable changes in gender roles and social order. This can be achieved through role modeling, robust community sensitization, and mentorship programmes. They could also support other development agencies (state and nonstate) in their efforts to eradicate harmful customs and traditions.

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