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Influence of Closure of Fluorspar Mining Company on Gender Relations among Households in Keiyo South Sub-County, Elgeyo Marakwet County, Kenya

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Abstract Original Research Article

Livelihood assurances and sustainability are key to human survival. However, any destruction of livelihood is likely to lead to serious psychological, social, economic, physical suffering and even death. It becomes even worse when policy intervention is not put in place in time. The establishment and existence of the Fluorspar Mining Company created direct and indirect employment opportunities for the local population. The study objective was effect of closure on gender relations among households in Keiyo South Sub-county Elgeyo Marakwet County Kenya. The study was informed by the theory of Redefinition of situation. Survey research design guided the study. The target population was all the households' heads in the study area. The sample size was 254 respondents. A multistage sampling technique was used. Data collection methods included questionnaires, interviews, and observation and focus group discussions as the main data collection tools. Quantitative data collected was analyzed in form of frequencies and percentages and presented in form of matrix tables, charts and graphs. On the other hand, qualitative data was analyzed thematically based on the specific research objectives. The average income per month after closure was too low since their main source of income was lost leaving them in despair. The study concluded that mining closure gradually depleted the mining community's livelihood assets and resulted in the collapse of their livelihood sources. The closure affected the community's nutrition, health, education, food security, water, shelter, levels of community participation and personal safety.

Keywords: Closure, fluorspar mining company, gender relations, households.

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Introduction

Globally, mining companies have taken giant steps in reducing or mitigating the devastating effects of their activities in the communities and areas of operation by developing comprehensive strategies for dealing with the effects as well as massive investment in infrastructure such as roads, hospitals, schools, electricity, water supplies among others, as a means at least to offset some of the cost of mining activities. Although subterranean minerals are often a source or perpetuator of violence, the potential to lift the country's rural communities out of extreme poverty makes the mining industry an essential part of the nation's development strategies [1].

However, the structure of mining jobs potentially discriminates against female participation [2]. Women still struggle to achieve work-related parity, with responsibility for family and social roles.

The expected traditional roles for women such as family careers or providing support remain an issue that impedes the advancement of women at various levels. For instance, at the operational level, women's jobs tend to be concentrated in administrative positions and provision of clerical or domestic services with a similar division in mine sites [2]. In many circumstances, women participate in the mining industry on a seasonal basis or at times of particular economic difficulty [3].

In Africa, the fairness of the recruitment, promotion, and empowerment of women in the mining industry has long been questioned. This issue was addressed by Laplonge [4] who stated that the creation of "ideal women" in the mining industry is a part of the masculine norms. When women join the mining industry, they agree to participate in the traditional masculine, and neo-liberal practices of mining [5]. They may have to adapt the traditional roles of women as approved by the men in the industry. Their social roles,

as well as professional status, will need practical movement for and by women to sustain themselves [5] and their families in the masculine environment [4]. This point is firmly supported by Ey 2018 that masculine hegemony embeds in the ideology and culture of all aspects in the mining industry globally.

Kenya is one of the leading mining countries of East Africa. The current combined mineral exports from Kenya are valued at \$240 million. The sector boasts a wealth of opportunities that the national and county governments can exploit for wealth creation and the socio-economic transformation of its citizens [6]. Indeed Nguyen [7] claimed that extractive industries do contribute to both poverty reduction and economic growth. Mining has the potential to enrich the resident's livelihood by providing them assurance to employment [8]. Kotsadam, Ostby and Rustad [9] observed that industrial mine openings constitute a mixed blessing for households in Sub-Saharan Africa.

However, mining also has challenges that typically arise due to mine closure. The difficulties associated with such closure revolve mainly around two issues: the rehabilitation or restoration of the environment and the dependency of the surrounding community on mining activities for employment, services, and a market for local businesses [10, 11]. Studies by Balanay et al. [12] explained that the influence of mining on social dimension of households is evident in the type of health facilities and the quality of water sources accruing from income benefits of mining. The dependence on mine-related employment in local communities becomes acutely apparent when mines closure result in widespread unemployment, poor nutrition, and high crime rates and increased dependency [13]. It is thus expected that employees who used to work in these mines should find ways of diversifying their sources of income to keep their socioeconomic status stable [14-16]. It is against this background that the study aimed at examining the effects of the closure of fluorspar mining company on gender relations among households in Keiyo South Sub-County.

METHODOLOGY

The study was carried out in Keiyo South Sub County, Elgeyo Marakwet County, Kenya. This study was informed by the philosophy of pragmatism. This study employed mixed methods. Mixed methodology enabled the study to generate both qualitative and quantitative data from livelihood strategies among households in Keiyo south sub-county Elgeyo Marakwet County, Kenya. However, the study employed more qualitative data from the field.

The target population for this study was all households' heads in Keiyo South Sub-county Elgeyo Marakwet County who were close proximity to the

mining company and were mostly affected by its closure. Therefore, the study targeted two wards (479 households in Soy North and 367 household heads Soy South) with a total population of 846 households sparsely populated. This was contributed by the fact that the area is ASAL region.

The target population of this study consisted of 846 households. Therefore, the study used 30% of the target population to derive the sample size of 254. A multistage sampling technique was used in this study. The data collection methods used by the study include; interview schedules, focus group discussions and key informant interviews and direct observations.

The research tools were subjected to critical evaluation by the supervisors and academic staff in School of Arts and Social Sciences followed by researcher's pilot study which was to determine if the schedules yielded the expected information.

This study tested internal consistency reliability. The reliability of the instrument was tested through use of Crobanch Alpha value. The Crobanch Alpha value for this study was 0.853.

Quantitative analysis entailed the use of descriptive statistics such percentages and frequency distribution tables. Qualitative analysis involved the use of narrations and descriptions of data collected from the interview guides, key informant interviews and focus group discussions. Qualitative data was presented by use of themes denoted by narrations and tabulations on responses in verbal form and pictures found in the area of study.

Confidentiality of participants in the study was strictly adhered to at all times throughout the course of study and following the study and finally publication of the findings. The researcher also sought permission from the respondents and the key informants just before embarking on the interview. This was achieved through informed consent to participants. Consent for household members participating in the study was sought verbally during the course of data collection. The results of the study were provided to relevant authorities and to the interested participants.

FINDINGS

Findings on influence of closure of fluorspar mining company on gender relations among households are presented below;

Different Roles for Men and Women

The study sought to determine whether the closure of fluorspar mining company led to different roles for men and women. The study results are presented in Table 1.

Table-1: Different Roles for Men and Women

	Frequency	Percentage
Yes	174	84.9
No	31	15.1
Total	205	100

The study results in Table 1 show that majority of the respondents 174(84.9%) felt that after the closure of mining company led to emergence of different roles carried out by men and women. Both men and women started paying school fees and meeting health needs, ceremonies, farming together, which was initially the role of men. After the closure of mining company, the role of men underwent societal changes whereby, they started engaging in horticultural produce, milking of cows, formation of merry go-rounds which were traditionally performed by women. This shows that with the closure of the mining company there was low source of income and some lost jobs hence carrying their responsibilities become a problem. Therefore, the role of patriarchy in the society underwent a transformative nature due occurrence of this phenomena. Men had to perform household's duties initially a preserve of their women in the quest to control over household resources to maintain over power.

Gender decision making

A 61-year-old man stated that:

"Since I was terminated from the mining company my income level changed and looked for other ways of survival which called the support of my spouse. This changed the way I used to make decision in my house and now involve my spouse on many household decisions making to foster alternative source of livelihood."

This means that decision making concerning the different ways in which men and women respond to sudden loss of livelihood can lead to emergence of alternative means of meeting the household's daily needs. Owing to the economic downfall in the study area, many households increasingly make decision on how they can use the land in order increase household's income. This implied that gender is one of several key elements that affect decision making and practical choices in relation to sustainable household livelihood.

Stability of relationships between men and women A 45-year- women reported that:

"The closure of fluorspar mining company brought about change of mind set to my spouse in terms of households roles. He is able to listen to me in same decisions as oppose when he used to be the sole provider to this company. Therefore, we can live in harmony despite the current low living standard."

The study findings indicate that men's ability to listen to his spouse during decision making can moderates the relationship between women's problem

solving and couple stability, such that an increase in men's listening and understanding is associated with a more positive relationship between problem solving and couple stability. The relationship between men's problem solving and couple stability is significant when women's income level is lower than that of the spouse. The found women's study also out that conscientiousness and extraversion, and men's agreeableness all play a moderator role in the relationship between communication behaviors of their partners and couple stability. Men's neuroticism moderates the relationship between women's problem solving and couple stability.

The study findings also reveal that women would tend to force their preferred solution of alternative source of income that conflict upon their partner. It thus seems that the combination of a man who tries to solve sudden loss of livelihood by finding compromises and a woman who is victory-oriented in her problem-solving interactions with her spouse is associated with low couple stability.

A 47-year-old man reported:

"After I lost my job due to closure of fluorspar mining company my long-married spouse left me because I couldn't maintain the living standards we had before the closure. We used to have monthly outing and entertainment with my family, nd now after the closure I couldn't afford such lifestyle and led to her leaving me and look for another rich man. Therefore, my marriage life was destroyed."

This demonstrates that with closure of the mining company, many family's lifestyles were interfered and in extreme situation break- up of families. Many families separated divorces and remarried so as to maintain their social status after the closure of mining company. This was due loss of source of livelihood which brought about low-income levels which many households couldn't maintain the lifestyle and therefore the emergence of remarrying to one who can cope up with current low lifestyle.

The findings from focus group discussion on closure of Fluorspar Mining Company and Its Influence on Gender Relations showed that after closure of mining company gender roles and responsibilities changed.

A group of respondents stated that:

A group of community members revealed that: "Men have in recent past committed themselves to household tasks that were initially performed by

women. However, men's participation is not exclusively a matter of personal preference but the outcome of women's nearly complete domination of the contemporary space of production and social reproduction. As men we did not use to milk cows for sale of milk or vegetables, this was traditionally done by women but we had to do it because of the prevailing situation at least to increase household income by managing it better than our women."

The above observations imply that in order to survive after loss of livelihood, men have been forced to participate in activities which were traditionally performed by women. Therefore, livelihoods strategies are a key area for understanding how gender operates in limiting or expanding men and women's access, options and choices regarding the use of resources and their material conditions, and ultimately their ability to voice concerns and influence their positions in life.

After the sudden loss of livelihood in Keiyo South Sub-County the households have resorted to other livelihood options. Now many of the households work as agricultural laborer's in KVDA scheme. Not only men but also many women perform these labour tasks for wages to manage the finances of their households. Before the closure of fluorspar mining company, majority of men did these hard labour jobs in the mining company. However, after the closure many women also work as wage laborer's and this decision was taken out of compulsion rather than by choice.

Focus group discussions revealed that there also exists a variation in labour wages based on gender. The discussion with community members in Keiyo South Sub-County revealed that the daily wage rate varies from Kenya shillings`100 to`150 for women and from `150 to `250 for men. This means that women's contribution to the total family income has registered a significant decline in sudden loss livelihood among households after the closure of mining company. The study findings moreover revealed that every woman contributed at least some part in the family income.

A group of community residents noted that:

"Since the mining closed some men have joined the women merry go rounds as a way of making savings and to cushion them on matters like school fees and to add another income generating activities. These scenarios were never there and when the company stopped its operations, they had to find other ways to vent for their families. Life is miserable here so to speak and we hope the government will rescue us economically by re-opening our mining company."

This clearly shows that women have joined self-help activities to enhance livelihood sources for their households. The respondents further noted that more women have entered agriculture labor markets

and take up non-agriculture-based work or diversify their livelihood strategies. It is also evident that new forms of gender asymmetries have emerged. For example, more women compared to men are taking up vulnerable forms of employment, such as sand harvesting, agricultural farming management, keeping of goats and sheep and charcoal business which increased their ability to cope with economic shocks and crisis. It also means many of them are without social protection such as enrollment in medical scheme like NHIF, financial subsidies designed for women entrepreneurial activities. However, demand for female labor for these kinds of work indicates that women face challenges that will limit their ability to negotiate in the market. The increase in the number of women participating in agriculture and the diversification of livelihoods does not necessarily translate into being able to participate and take equal advantage of these opportunities compared with men. Moreover, in many cases these developments may have increased empowerment in one institutional site, for example increased bargaining power within the household. However, these placed women in a disadvantageous position in other sites, such as the market, ownership of household property and even disposal of these properties.

The study findings further noted that women's engagement in the agriculture labor markets and informal sector, and women's labor force participation has increased in the in Keiyo South Sub-County which indicates women have established a support system within households to support their spouses on diminishing sources of livelihoods. The women's labor force participation has increased in Keiyo South Sub-County, the number of women in vulnerable forms of employment, for example, self-employment, own account work, contributing family worker, has also increased. The number of women in these vulnerable forms of employment is higher compared to men in the study area.

The respondents further revealed that the women's supplementary income from agriculture labor markets and informal sector women a sense of pride and also a voice in the household's decision-making. Moreover, in the absence of this supplementary income, even the men feel financially tight and insecure.

CONCLUSIONS AND RECOMMENDATIONS

The study finally concludes that closure of the mining company increased the unemployment levels. The rate of drugs increased after the closure of mines. This implies that unemployment or otherwise those who are out of the labor force may face financial hardship or simply have more unstructured time, either of which can result in a higher propensity to consume drugs.

The cultural values have a great impact on household decision making on matters of alternative income generating activities. Majority being patriarchal in nature has a great impact on day to day running of societal roles that involves the specific responsibilities given to women and men. Most of this household embrace this mode of societal prescribed roles thus limiting some members to engage in other modes of income generating activities, for example horticultural farming for men and commercialization of animal produce. Community members must be able to voice their concerns and represent themselves and their marginalized groups on equal grounds with existing mining companies and the local stakeholders on a range of productive or income generating activities around these mines including those at community level, men and women who are fully dependent on mineworkers for businesses form the proverbial most affected.

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