



No Sources of Fuelwood, All Vegetation Cover is Done: Women Livelihoods and Oil-induced Displacement in Albertine Graben, Uganda

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Abstract

Previous studies have treated oil-induced displacement, women's livelihood, and the environment at separate issue. No major study has paid full attention to the relationship between oil-induced displacement, the livelihoods of women, and the impact of resettlement compensation environment in Albertine graben, Uganda. This article examines the appropriateness and effectiveness of resettlement compensation, women's sources of livelihood before and after resettlement, and the effects of women's livelihoods on the environment. Adopting a phenomenological research design to acquire lived experiences of participants before and after resettlement, the data was collected over a three-year period between 2016 and 2019. Data collection methods included in-depth interviews with twenty-seven affected women, two focus group discussions (FGD), documentary review, and an observation method. The findings indicate that failure to effectively implement resettlement programs with a focus on environmental protection has an interminable and adverse effect on most women and future generations' environs. Results further indicate that resettlement activities resulted into the loss of women's former livelihoods. This loss of livelihoods forced women to exploit and degrade the environment in their newly resettled communities. The paper concludes that severe signs of environmental degradation caused by resettlement programs may be avoidable especially when women custodians of the environment are provided with the emergence means to sustain their daily livelihoods. It is recommended that compensation and resettlement programs should consider immediate and emergence assistance for the post resettlement phase of those affected by oil-induced displacement in Albertine Graben.

Keywords

Oil-induced displacement, women livelihoods, Uganda, compensation, resettlement, and environmental degradation

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Introduction

For many decades, research interest in the linkages between natural resource development and exploitation and people's livelihoods has been growing in Africa. The development and exploitation of natural resources in Africa have been mainly driven by two major factors. First, the African continent is generously endowed with productive land and valuable natural renewable and non-renewable resources (AFDB, 2007; Hafner et al., 2018). Secondly, the majority of poor people in rural areas depend largely on natural resources and the environment for their livelihood (Aubell & Mensah, 2007; Robinson, 2016; Mabhaudhi et al., 2019). Millions of people in Africa directly depend on the land, minerals, wildlife, water, and forests for their livelihood and survival (AFDB, 2007; Aubell, 2007; Omambia & Gu, 2010; Nixon, 2011). Therefore, the deterioration of these resources has implications on the social and economic livelihood of many people particularly rural women and children (Aubell, 2007; Wassie, 2020). The increasing number of unsuccessful resettlement programs in developing countries such as South Sudan (Turyamureeba, 2012) has necessitated an inquiry into the effects of development-induced displacement and resettlement on the affected people (Owen & Kemp, 2015). In particular, oil or natural resource-induced displacement and resettlements have been disruptive and associated with extensive livelihood impacts (Terminski, 2014; Van clay, 2017; Wilson, 2019). These impacts are particularly prevalent in areas of high population, poorly defined land tenure, and amongst the perceived weaker categories of society such as women but on the other hand the backbone of African Agriculture (Singirankabo & Ertsen, 2020).

In socially and historically gendered societies such as in Uganda, men traditionally own land and dominate the professional job market, while women depend on subsistence and sometimes commercial farming as a source of employment (Asthana, 2012; FAO, 2015). Hence, the impacts of resource development induced displacement and resettlement are expected to be severe to women as opposed to men (Viña & Notess, 2018). It has been further revealed that women disproportionately bear the negative impacts of large-scale land investments (see Viña & Notess, 2018). This is due to women's lack of formal land rights and their subordinate role at the household and community level thus marginalization in decision-making processes, and their subsequent omission in the distribution of compensation, planning, and implementation of resettlement. Therefore, when women do not receive compensation payments, and they lose access to resources (water, firewood, wild plants, and fruits), they are left with little means to rebuild their productive systems and social networks (Viña & Notess, 2018).

In Uganda, most women depend on land as a source of livelihood. Eighty percent (80%) of women participate in crop production and related activities for household livelihoods, but only eight percent (8%) of landowners are women (Ellis et al., 2006; Anderson et al., 2016; Mukasa et al., 2019). Gildseth (2013) reported that since 2012, compensation and resettlement strategies have affected women and the entire community in Uganda majorly in Albertine Graben. For example, in the process of acquiring land for oil development projects, approximately 8,000 people, 3,707 were women, who were evicted from land and homes, where out of those 94 households were resettled (Global Rights Alert, 2015). Therefore, since land is a source of livelihoods and acquisition is entirely patriarchal, this means that the effects of land compensation and resettlement for almost half of the displaced population; the women in particular are not known.

Context and operationalization of key concepts

In Uganda, the discovery of oil in 2006, estimated at 6.5 billion barrels, has required large-scale infrastructure developments to pave way for commercial exploration and exploitation of oil and gas resources. In Albertine Graben, land was required for gazetting oil wells, oil refinery areas, airports, and other supporting infrastructure to facilitate oil exploitation. The fact that oil development and exploitation activities require large tracts of land, land acquisition and consequent displacement, disruption, and resettlement have been the inevitable outcome in the Albertine region of Uganda. The oil-rich deposits of Albertine Graben cover two districts, Buliisa and Hoima. Buliisa district, located in the Mid-western part of Uganda, covers an area of 3200 Km² and oil exploration occupies about 102,500 hectares in the Lake Albert Rift Basin. The explored oil areas affected around 400 households, and, as a result, 1, 276 people have been displaced from the land for oil exploitation activities (RAP 1, 2018). Hoima district, in turn, stretches over 5,735.3 Km², in which the Lake Albert water body occupies 2,123.13 Km². It is in lake Albert that oil reserves were discovered. The estimated number of forced displaced due to oil development activities is 8000 people.

Interestingly, Uganda's 1995 constitution recognizes the necessity for women to be "accorded full and equal dignity of the person with men", and accords women equal rights and opportunities in political, economic, and social activities. This is reinforced by Uganda's National Gender Policy of 1997(revised 2007) which provides a framework for gender-sensitive development through promoting equality and empowerment (International alert, 2014; Acosta et al.,2019), However, debates around oil development displacement and compensation by resettlement remain ungendered, particularly for oil development projects and compensation processes. The focus rotates on oil exploitation, taking into account the interests of the individual landowners who are majorly men, local, and the central government, with limited inclusion of women who solely use the land for livelihood, in the decision-making process (Kizito,2016). Whereas evidence on the impact of development projects such as mining and dam constructions, on women is extensive (De Wet, 2000; Chakroborty & Narayan, 2014; Randell, 2016), those that focus on oil-related development projects and their impact on resettled compensated women that trickle down to influencing their reliance on the environment is scanty.

Therefore, this article provides an empirical-based contribution to the understanding of the environmental vulnerabilities caused by the oil-related resettlement compensation process. More specifically, the article explores the extent to which women's sources of livelihoods can lead to environmental degradation if compensation and resettlement are not properly managed. The environmental vulnerability has been looked at in terms of the degree to which loss to each element of a hazard of a given severity of the occurrence such as landslides, tsunami, earthquakes, and extended droughts. In most cases, it is measured in terms of three elements for instance systems to the exposure to the risks, shocks, stress, inability to the capacity and capability to cope with the slow systems and, the most vulnerable being groups of individuals, regions, and communities (Hans Günter Brauch et al., 2011).

Consequently, this article contextualizes environmental vulnerabilities based on the internal degradation process instigated by lack of capacity and capabilities to cope with socio-economic challenges of induced compensation resettlement. On the other hand, compensation resettlement being a reward for service or making up for someone's loss, damage and injury by paying an appropriate benefit, the repayment for the losses, if not based on the principles of equity and equivalence, the livelihoods of the affected persons may affect other many resources in need for survival. Therefore, land compensation by resettlement is meant to improve the position of those affected wherever compensation is done after negotiating with the landowner. More specifically, resettlement compensation is taken as in-kind rewards given by the government to replace what was deprived of people particularly land, houses, crops, trees, and

social services. The focus is on the compensation resettlement rewards for the lost land to an oil refinery in Albertine Graben and factors in the ailment of the environment reflection. The onus of the government to put into consideration means of sustaining the environment in the process of designing resettlement policies may be a prerequisite of guarding against the way the affected persons respond towards the degradation activities. The article offers suggestions on compensation and resettlement policy improvements that could be applied to address the underlying causes of livelihood insecurity that results into environmental degradation.

Design and methodology

We adopted a phenomenological research design in acquiring the lived experiences of displaced and resettled women. Data collection was done in three phases: the first phase of rapid assessment was in 2016, the second phase in 2018 and the follow and last phase was in 2019. The primary participants were women who were affected by land displacement and resettlement. These include women who were displaced and resettled with houses and land, women who were resettled without houses but with land and other resettlement benefits, and women who were not resettled at all. Other key stakeholders in the compensation and resettlement process, such as men heads of the families, Project Affected Persons (PAPs) and, local women leaders in the resettlement were interviewed to obtain their opinions and information about land compensation dispossession and resettlement, environmental-related livelihoods, and protection issues in a broad sense. The data collection site was Kyakaboga resettlement area, Nyamasoga, Buseruka Sub County in Hoima district. A purposive sampling procedure was used to select respondents while snowballing was applied on hard-to-reach respondents through their social networks, especially women who were partially resettled without houses.

Data collection methods included in-depth interviews with twenty-seven (27) women; nine (9) women from the category of those that were resettled with land but not houses and, ten from the group that was not officially resettled at all, and nine (9) from the category that was fully compensated and resettled. Two focus group discussions; One Focus Group Discussion (FGD) from each group of women, for example, women whose households were resettled with both land and houses and, those that were resettled without houses but with the land. The documentary review was also done; annual reports, policy review reports, and journal articles were reviewed to supplement the empirical data. The observation method was used to collect rich data about the situation of women in the resettlement area, the physical outlook of the landscape in terms of vegetation cover, and the common activities that women do. Other different situations observed were food distribution, seeds, and seedlings distribution, and conclusions based on what was on the ground were drawn (Kumar, 2005). Data collection tools such as interview guides, observation, and documentary review checklists were used.

Reflection and Reflexivity during data collection were mainly guided by the constructivism research philosophy which focuses on providing answers to the following questions: what is known? How do we know what we know? And, what counts as knowledge? As soon as preparations for data collection started, the reflection on fieldwork limitations began. The researchers were mindful of the limitations such as being born in Uganda and well aware of women's land rights as well, made it necessary to bracket off the self from that and, be able to maintain the ethics and guard against personal bias of becoming judgemental (Polit & Beck, 2010; Berger, 2016). Ethical procedures were followed during data collection. The approved consent form by the Mbarara University of Science and Technology University Research Ethics Committee (MUST REC), cleared by the Uganda National Council for Science and Technology (UNCST), was the main tool to seek consent for participation in the study before the commencement of any interview. This was important in enabling respondents to give informed choices of information.

Development induced displacement in Africa

Globally thousands of millions of people are forcibly or voluntarily displaced in different categories including refugees, Internally Displaced Peoples (IDPs), and economically displaced populations, among others (Cernea, 2000; Bookman, 2002; Dawning, 2002; Saleh et al., 2018). In Africa mainly, internal displacement is often associated with natural calamities such as earthquakes and floods (Robinson, 2003). In addition, displacements can be caused by development projects such as dams, as well as oil, gas, and mining projects. In these cases, vast tracts of land are acquired not only for actual exploitation, but also for different auxiliary purposes such as constructing reservoirs, roads, railways, townships, and ports in case of oil exploitation (Mender, 2014).

For some indigenous communities where women have their plots of land in the forest, where they grow vegetables and spices; they often make all the cropping decisions and control the use of these crops, often largely for subsistence purposes. This further enhances their level of autonomy in controlling the environment and household's production system (Metha, 2011). Nonetheless, during resettlement operations, landlessness may entail insecurity for women than for men since the policy 'officially' makes men the beneficiaries and robs women of informal rights over land and forest resources. This increases the vulnerability of widows, divorced women, and female-headed households who are not awarded any land (Mehta, 2011; Downing et al., 2002) yet land is a home of all livelihoods including forest materials. This is further motivated by the occurrences in the resettlement process when land for resettlement is awarded limited livelihood alternatives (Mahalingam & Vyas, 2011). Thus, conservation of the existing water sources, vegetation, and forests become complex because their economic role serves as alternative sources of survival for women majorly.

Our analysis is under the lens of the Impoverishment Risks and Reconstruction (IRR) model. For many researchers that have employed the IRR model for many decades, it is an effective tool used to analyze, identify, and evaluate the social and economic impacts of involuntary resettlement. The IRR model also was initially used for research projects of the IUCN Commission on Environmental, Economic, and Social Policy, which was meant to assess the social impact of protected areas on a global scale (Schmidt-Soltau & Brockington, 2004). The IRR model in this paper serves as both empirical and theoretical as per its origin. Empirically, the model is condensed from the enormous increase of research findings by anthropologists, geographers, sociologists, environmentalists from, many developing countries. Theoretically, it builds upon the existing induced –displacement and resettlement research.

According to an extensive displacement and resettlement case study by Stanley (2004), the IRR model uncovered the inherent relationship between displacement, resettlement, and impoverishment. These are distinguishingly outlined in eight common fundamental risks embedded in the very nature of forced population displacements: landlessness; joblessness; homelessness; marginalization; food insecurity; increased morbidity and mortality; loss of access to common property; and social disarticulation. The model further details that resettlement contains development potentials and benefits like improved infrastructure, new income-generating opportunities, and benefits of inconveniences. Notwithstanding the above, research has documented that when displacements are not accompanied by alternative proper strategies, as shown in the reconstruction part of the IRR model, the impoverishment risks become reality, and in most cases reduces and compromises the project's sources of livelihoods and development potentials (Cernea & Schmidt-Soltau, 2006). The model, therefore, serves as a guide in the analysis of this paper's results through underlying causes of environmental degradation in an oil-induced resettlement area.

Over the years, evidence reveals that inadequately managed development-induced projects have had serious resettlement risks to societal sustainability and impoverishment

(Cernea, 2000; Downing, 2002; Smithen, 2014). For example, many development projects intended to alleviate poverty have ended up increasing poverty by displacing large numbers of people without re-establishing them viably, despite the use of compensation payments for assets lost (Cernea, 2002; Smithen, 2014). This fact has been echoed by scholars such as De Wet (2002) and Midgley (1995) who argue that DIDR greatly distorts development in many ways. For instance, literature shows that conditions of living often deteriorate after being resettled (Behrman et al., 2011; Bennett & McDowell, 2012; Asthana, 2012; Harvey, 2017; Reddy et al., 2015; Vanclay, 2017; Smyth & Vanclay, 2017; Ogwang et al., 2018). This is because, the architects of development-induced displacement and resettlement programs, usually provide monetary compensation to affected communities without paying adequate attention to other dimensions of the life of the resettled persons (Vanclay, 2017). Much concern is normally put to addressing the need for proving a house, replace land and give inadequate attention to all the other scopes of life that improve or affect the resettled persons (Cernea, 2008; Human Rights Watch, 2013). This further explains the potential of land acquisition projects, consequently, displacement and disruption that can cause much hardship on other un-considered dimensions that include environmental protection (Reddy et al., 2015; Smyth & Vanclay, 2017a).

Women and resettlement compensation on Albertine Graben

Resettlement practice appropriateness specifically for women in Albertine graben has been a complex matter, in a sense that, resettlement practice has only been concerned with addressing the need to replace the specific property (Cearnea, 2008). For instance, replacement of housing and land, without giving adequate attention to all the other dimensions of life thus increased risks on the affected persons for being resettled (Human Rights Watch, 2013). Land is a key resource for many people especially women in the region as it plays both cultural and social identity roles in various ways (Vanclay, 2008 & Wickeri, 2011). The acquisition and distribution of land for resettlement with limited considerations of the social and cultural dimensions caused hardship (Reddy et al., 2015; Smyth & Vanclay, 2017a).

Interviews and focus group discussions with affected women in Kyakaboga resettlement area in Albertine Graben revealed that, livelihood impacts that resulted from the government displacement and its resettlement programs started with mechanisms characterised by displacement and resettlement. The affected people had two options to pick from in return for their lost land: cash compensation and resettlement. Partial land acquisition compensation was not an option as long as the government needed the land for ground testing and exploration. A significant number of the affected people chose cash compensation. Each option had its own benefits and challenges that later undermined people's livelihood capacity. For example, one of the major challenging aspects of the resettlement compensation mechanism was how the head of the household alone was eligible, without considering other household members. It is a problem in the Albertine region, most of the households or families culturally are huge and polygamous majorly headed by men. Moreover, women who were living in polygamous marriages remained stranded because the compensation programs by resettlement did not cater to their plight. Indeed, the resettlement condition/guidelines¹ required resettling only one head of the family with one wife of his choice. As a result, their living conditions were drastically fragmented, as most of them were detached from their husbands and the entire extended family. In a focus group discussion with the affected women, it was stated:

¹ It is referred to as conditions or guidelines because by the time Uganda implemented oil development-induced resettlement programs, there was no policy in place and up to date. The Ministry of Energy and Mineral Development sets guidelines when the need arises.

The policy not to be resettled with our husbands was not known by many affected people when they were selecting the resettlement option. We women who were living a bit far from our co-wives, would not have accepted losing our land and homes to them. Even our husbands were ignorant about it. Now we have no start from, we are refugees in the resettlement. We have been detached from everything; let it be our beloved ones, resources, and our security which is land² and our culture too³.

It was further echoed by a civil servant at the community level during interviews in Kyakaboga, Hoima district that compensation by resettlement ignored the cultural setup of the families in the area. That most women who were not on the list of the head of the family were left out. He stated that “they are many women with no clear homes and sources of livelihoods as well” They depend on petty activities such as vending firewood and water in the resettlement area Field Interview June, (2019)

In a related cause, there was a confirmed perception of lack of willingness by the government and Strategic Friends International (SFI) the company which contracted compensation activities in Hoima to recognize the oral promised auxiliary property apart from land and houses. Respondents attested that whereas the compensation plan included land, home, and provision of roads, markets, and health centers most of these were not honored by the government. As already indicated even land and houses were for the chosen women in the affected families. It is further narrated by the Resettlement Affected Persons (RAP) representative:

According to the oral and written explanation we got, resettlement was formerly to offer each person equal benefits and equivalent to what each person owned and more benefits such as churches, public markets, and water sources but later, it was changed to resettling some with land and house while others with land only, while others with nothing. The benefits that were earlier mentioned were not talked about at all⁴.

Similarly, scholars such as Mander, (1999), Downing, (2002) and Cernea, (2000) argue that displacement of any kind causes many similar consequences. A large portion of the world’s displaced population comprises indigenous people, the elderly, children, and women. Although the international standards on resettlement are clear with principles; involuntary resettlement should be avoided or at least minimized; where resettlement is unavoidable, all people affected should be compensated fully and fairly (Smyth et al.,2015); Such standards have been observed in many countries to be adamantly ignored(also see Ali & Behrendt, 2001). However, most of these affected countries portrayed the experience of the resettlement challenges to be short-lived, Uganda’s situation may be different. The projected results are severe because of the resettlement guidelines/conditions for the oil-development resettlement programs in particular which leave a sound number of women with no livelihood base; land and related resources.

Resettlement compensation promises: Too little, too late

Generally, evidence collected from documents and interviews indicate that 20 households out of 93 households in Hoima district who had initially opted for resettlement option later joined the cash compensations group because of anticipated uncertainties of the resettlement program. This was partly driven by resettlement delays and changes in some promises the government compensation agents had included in the resettlement memorandum of understanding between the government and owners of the property. For example, in the beginning, everybody who opted for resettlement was promised a piece of land and house, but later information was received that only 43 out of 73 households will receive both land and a house and others will

² A focus Group discussion in the Yakaboga resettlement area, Hoima, May 2018.

³ Women focus group discussion May 2018.

⁴ Interview with RAP Representative, May 2018.

receive land only. During data collection, there were views that compensation activities were unfolding at people's expense as a group of the affected women fittingly put it:

Some of us had waited for resettlement for almost four years but all of a sudden, the Strategic Friends International (SFI) came to meet us and mentioned that the program for resettlement has changed. That they are only 43 households that will be resettled with land and a house, but the rest will only get land. We went into shock because they did not tell us who was affected by what? We started inquiring about the probability of applying for cash compensation, we mobilized ourselves and succeeded in getting cash, though at that time we did not have other property, crops, and plantations to value because we had stopped using the land. We only received money for land in a community meeting organized by one Civil Society Organisation, 2018⁵.

In another interview with the local leader, similar voices came up:

later after six years of awaiting resettlement and all of a sudden, the government informs us that some people will not be resettled with houses while others will be. Some people became impatient and changed to cash compensation while others had nothing to do other than finding other ways like staying with relatives, constructing makeshift houses while others went renting near the resettlement⁶.

From the foregoing account, it can be averred that all the agreed amount of compensation was never paid to the affected women in time, and this caused not only misery but also mental anguish as many of them expressed shock, apathy, and disappointment. Ostensibly, many displacement-related cases in many African countries appear to have been handled similarly. In South Sudan, Turyamureeba (2012) aptly notes that the resettlement package for the displaced ex-combatants and their associates was too little and too late, which caused a lot of anxiety, misery, and undesirable sentiments against the ruling government. Moreover, studies have shown that cash compensation overland to cater for an alternative land especially in developing countries has not yielded tangible benefits in terms of restoring household livelihoods (Lahiff, 2013; Cotula et al., 2009; Ghimire et al., 2017).

Therefore, compensation does not sufficiently replace the lost property and livelihoods, neither does it improve household income, rather, cash compensation worsens the standards of living of the people, particularly vulnerable persons like women, children, and the aged (FAO, 2009). This can be enhanced by the dilemma of undervaluing assets, delay in paying the compensation, and resettlement (Downing, 2002). The situation further worsens when resettlement takes shape, then restoring the former source of income, and replacing compensation losses becomes a delusion (Cernea, 2002). The results of the study also relate with other scholars' analyses such as Cotula et al., (2009) and Mander (1999) who indicate that, if the process of compensation is not well packaged, most of the time, it turns out to impact the beneficiaries negatively.

Women's source of livelihood before displacement

In order to make an informed inquiry into the effects of oil discovery resettlement activities in the Albertine Graben, it's important to first examine the sources of livelihoods before displacement and resettlement. The affected women revealed that their sources of livelihood were related to land: arable farming including growing edible trees and fruits, poultry, livestock, as well as access to environmental resources such as water, forests, and swamps.

⁵ Interview with the resettled women without houses in Kyakaboga Hoima District, May 2018.

⁶ Interview with the local political leader in Nyamasoga, May 2018. This was also confirmed by direct observation during field visits.

Arable farming

There was consensus among women that agricultural activities such as growing cassava, sugar cane, rice, beans, groundnuts, sweet potatoes, millet, and maize were majorly done by women. The crops grown were the major source of food and income for survival. Moreover, the harvests from agriculture strengthened their capacity to cater for the family needs such as health care, clothing, and caring for the entire family.⁷ The size of the land, security for the gardens, family cooperation in the production process, and community unity in terms of social capital, motivated women and men to practice sustainable agriculture. For instance, most farmers who reared animals would use the waste to boost land fertility while being mindful of protecting the environment from exhaustion. People were so careful about environmental protection to the extent that in rural Hoima, selling manures from animal waste was a lucrative business. One of the women explained:

[...] when we were still living in Kabaale, I had five cows and my neighbours too had theirs. We were utilizing animal wastes to earn money and at the same time boosting our livelihoods. I used to sell cows' droppings in small amounts measured in a wheelbarrow and each wheelbarrow was at 6000 shillings. The surplus of the droppings was used in my own gardens. This protected my land from exhaustion because all the crops and the surrounding environment were kept normal⁸.

Other women interviewed declared that fruits tree growing was also practiced as a source of livelihood. The fruits grown included jack fruits, pawpaw, grapefruit, oranges, avocado, and guava trees. These were grown as sources of food and at the same time providing income to many women in the area. The selling of fruits from the farm trees enhanced the incomes of women and improved livelihoods during fruits' good harvests. For many women, it was an assurance that at certain seasons in the year, incomes from fruits would be obtained. It was emphasized that:

In our former homes in Kabale, there were no households that did not have at least more than two types of fruit trees. Fruits were part of our daily deity and source of income for school fees medical bills, and clothing. We women when it was a season, we sold them on weekly community market and our biggest market was at the Lake Albert on different shores. We can go as far as Kiso-tonya, Butiaba, Wanseko, and Kasenyi. At least in a week, someone earned not less than 20,000 = (6 US Dollars)⁹.

The above constructs contribute to the common declaration that, many women in Africa depend on land for their survival (Dankelman & Davidson, 2013). They grow crops and gather firewood, attend to animals, and use water for both domestic and animal feeding (Dankelman & Davidson, 2009). Women in Albertine Graben were found to be more of what other African women practice before compensation. For instance, they participate in the planting of tree fruits for home consumption, planted both annual and perennial crops, plant trees to supplement wild trees for firewood, and go further to take care of the plants and pasture for future use.

It was also observed in most homes in Kabale¹⁰ that trees particularly Eucalyptus, pines, *Milicia Excelsa* (Mvule tree), *Ficus Natalensis* (Mutuma/bark cloth tree), and acacia were controlled and catered for by women¹¹. It was a culture where each home owned different types of trees and other vegetation to enhance livelihoods. These were grown for pole, timber, and

⁷ Interviews with women in Kyakaboga Hoima District, May 2018.

⁸ Interview with a former woman farmer in Kyakaboga Hoima, May 2018.

⁹ Focus group discussion in Kyakaboga resettlement, Hoima District May 2018.

¹⁰ As observed when we paid a field visit to those that were still awaiting resettlement. Those that had experienced technical problems and were not resettled with the rest.

¹¹ And the entire family. It was owned by women because they were the most users; firewood for home use and selling them. Also when charcoal was burnt the final users were women.

wood to the constructors, the fuelwood, and charcoal extraction, to the vendors of wood and charcoal. One woman in Kyakaboga resettlement confirms the activities and narrates her experience about her household and trees plantations:

My family and I while still in our former land in Kabaale, we had 3 acres of Eucalyptus trees plantations and the other side of the land were acacia trees. This was my main source of income in addition to growing food crops. Each pole was sold at UGX5000 (USD1.4) and a bunch of firewood between UGX 5000-10,000 (USD 1.4-2.9) and, for those who were buying acacia for charcoal a pile of logs was UGX30,000(8.9)/. Here in Kyakaboga, I compete for acacia trees which have even extinct¹².

The narration above does not only designate the usefulness of fruit trees growing as a former source of livelihood but also endorse the persistent preservation of the environment on a household as well as community level. Therefore, in a situation where current conditions are contrary to the former ones where ownership and control of some resources in their former land, the choices that are made to survive in a related manner, cause enormous damage on the existing unplanned scarce resources.

Livestock farming

Crop production was enhanced by animal rearing. Women who were involved in livestock grazing narrated their stories; “animal rearing was part of our normal activities where we earned through selling milk and the animals themselves; goats, sheep, and cows”. By the time the valuation of the land and other properties in 2009, a litre of milk was selling at UGX 1,400(USD 0.42) a goat at UGX 100,000(USD 29.7), a cow at UGX 1,000,000 (USD 297) and, a sheep between UGX 80,000 - UGX 120,000 (USD 23-35). The number of women who were rearing pigs were also significant. There was a consensus during the focus group discussion in Kyakaboga resettlement areas that livestock and crop farming were the major sources of income because the land was enough and productive.

Poultry rearing such as chicken and ducks was an agricultural activity practiced in most families. The chicken and ducks were kept as a form of assurance. They financially empowered and secured families in case of emergencies. According to most women interviewed in Kabaale parish, poultry played multiple roles in their families such as food security, income-generating, and cultural practices whenever necessary. To most women, poultry was kept on a free range, which was very cost-effective as it did not require maintenance costs other than space.

Water resources

The other natural resource asset related to land that supported women was water. It was noted that water points owned either by the individual households or community-supported their livelihood activities. Various water points existed in different villages in Kabale, where almost particular extended households jointly or individually owned them for instance, small wells, water springs, and traces of water taps were physically observed in abandoned villages; Kitegwa, Nyamasoga, Kyapoloni, and Kitegwa¹³. It was also echoed in a focus group where women respondents lamented:

We owned spring water and artificially made wells in our lands, some households had water taps, while others had simple rainwater tanks. There were limited chances of households depending on another for water sources because there were also community sources of water like natural spring water and shallow wells which were constructed by the government. All sources of water were satisfying women's daily livelihoods and animal husbandry as well¹⁴.

¹² Interview with a resettled woman Nyamasoga Hoima, May 2018.

¹³ Based on the observation made during rapid assessment in Hoima district, December 2017.

¹⁴ Focus Group Discussion Kyakaboga, Hoima District, May 2018.

In relation to the above, empirical results further indicate that it was a culture in every household that owned swamps in their land to preserve them for specific individual family and community activities. Some swamps being homes of fish, mangrove forests, papyrus plants meant for handcraft materials for home use, and income-generating sources and were commonly preserved. Some artificial man-made wells were also housed in swamps. Although swamps were culturally looked at as a blessing to many families and communities to preserve many things for human consumption, there were a lot of environmental benefits such as wildlife habitats, natural water quality improvement, flood control, opportunities for recreation, and natural products at a little or no cost. Protecting wetlands also protected climate change and all creatures' health through ecosystems both agroecosystem, aquatic ecosystems.

Women's livelihood diversification was another role played by swamps preservation as they veiled several opportunities to sustain their families as well as their incomes. to deal with daily needs in addition to agriculture. In an interview with one of the ladies that derived part of their survival in handcrafts, she shared her experience on how she used to fetch papyrus materials and make baskets of different types. She was also a member of a handicraft group that was making different materials and sold them to tourist shops in Hoima town. The rest of the materials would be sold to individuals who had cultural ceremonies like give away and weddings.¹⁵

It is therefore imperative to note that, access to land that houses other resources including swamps and water bodies, offered women the capacity to develop themselves through diversifying their agricultural activities with non-farm activities. Against this background, the compensation process was expected to put into consideration the capacity and capabilities of women in sustaining their livelihoods by providing them avenues for livelihood restoration such as a sound environment with proper vegetation, enough sources of water, and other auxiliary public resources like reservoirs. This is a key approach because the sources of livelihoods for women in the resettlement area would be at a higher percentage relative to the previous ones before resettlement; dependent on the land for food production and exploitation of the existing forest trees or plantations for firewood, charcoal for various uses as indicated by the beneficiaries. Thus, failure to put into consideration the needs of men and women as indicated above results in an unstructured approach that leads to unexpected negative environmental impact.

Effects of resettlement on women livelihoods and environment

According to Mohamed (2020), internal displacement has been identified as a cause of severe deforestation around the larger camps or resettlement areas. Where changes in the environment as a result of development activities present a new threat to human security, reduced forest cover through deforestation thus erratic rainfall, prolonged drought, and ultimately food insecurity and associated livelihoods are symbolic (Warner, et al., 2010). This paper contributes to the empirical literature by critically examining the effects of oil-induced displacement and resettlement activities on women's livelihoods and the environment in Albertine graben, Uganda.

Landlessness

During the process of resettlement after displacement of people for oil refinery development activity, it was confirmed that most women experienced the loss of land in two ways; access to land as per previous one and ownership for widowed women who were under the care of the heir as per family decisions¹⁶. The first category of women deprived of access to land in the

¹⁵ An interview with a resettled woman in Kyakaboga Hoima district, May 2018.

¹⁶ Due to the policy of resettling one head of the family which left most women in polygamous marriages and women who were living with parents suffer.

resettlement was for women in polygamous marriages and women or adult daughters that were still under the care of parents and parents-in-law who shared the same land. The second category deprived of ownership is the widows who had ownership of their husbands' land but were still under the control of the head of the clan/tribe. The resettlement guidelines offered opportunities to only clan and family heads and, consequently eliminated a large number of women. One affected woman narrated how they survived without their former source of livelihood which is:

There is only one big opportunity of surviving if you are lucky; "supplying wood fuel". In the surroundings, even in this resettlement camp, getting firewood is problematic. My children and I survive on selling firewood within the resettlement and neighborhood Buseruka. My land and my co-wives were registered under my husband's name, and at the time of resettlement, were left out. I cannot do much other than finding other means of survival¹⁷.

It was further observed that women turning to the environment for income generation in the resettlement was very competitive among those that were not assured of being resettled officially, as one affected woman states; "To me, I had never felt I would depend on selling charcoal and firewood, as I was used to crop production and animal rearing until I reached here in the resettlement and I was told that the only land that was available was for the extended family of our heir and I could not think otherwise"¹⁸. Based on women's experiences, Sideris (2003) construes landlessness as the loss of physical and non-physical assets, including homes, communities, productive land, income-earning assets, and sources, subsistence, resources, cultural sites, social structures, networks, and ties, cultural identity, and mutual help. Cernea (2000) traces landlessness risks from those people who fail to attain alternative land after displacement, which leads to loss of productive systems, commercial activities, and more loss of livelihoods. These losses make them vulnerable to poverty because people have lost both artificial and natural capacity to sustain their source of livelihood (Cernea, 2000).

Unless land-based productive systems are reconstructed or replaced with steady income-generating activities, families are likely to become more impoverished. Nayak (2000), Cernea and McDowell (2000) and, Mahapatra (2000) indicate that landlessness occurs as a consequence of alienation, it causes disastrous economic, ecological and political effects, and it has transformative effects on people such as psychological and emotional effects. Cernea (1995) argued that loss of land removes the foundation upon which people's productive systems, commercial activities, and livelihoods are constructed. According to Cernea, the loss of both physical and man-made capital results into the decapitalization and pauperization of the displaced people. The fact that land expropriation takes away the foundation on which people's basic livelihood systems are constructed, the livelihood impacts are inevitable, often resulting in conflict over resources, which leads to landlessness and consequent environmental problems (Stanley, 2004; Terminski, 2013). In respect to women, Ahmad (2006) noted that being forced from their land not only deprives them of their livelihoods but also their water in ponds, forests for firewood, and natural plants for local medicines (Ahmad, 2006).

Main source of environmental damages

Deforestation

The resettlement programs resulted in the loss of land, homes, and other community properties. People began destroying the environment in anticipation of cash payments and new resettlement areas for immediate benefits. The original family and community attitude to conserve the environment for future use were replaced by the desire to overexploit the

¹⁷ Field Interviews May 2018.

¹⁸ Field interview and physical observation, May 2018

environment for daily survival. The fact that women shouldered almost all the household responsibilities in Hoima, the loss of land meant that most women had to look for alternative sources of food and income for the survival of the families. Also, due to delays in compensation and resettlement, displaced people could not do their usual farming activities in anticipation of moving to new areas or resettlement. In most cases, the alternative livelihood strategies were not favorable to the environment. Pressure on the existing forest vegetation in the resettlement areas increased. During the focus group, discussion women also revealed that displacement and resettlement resulted in the loss of forests, due to firewood, food preparation, securing bricks for construction, and revenue generation. It was revealed that everyone depended on forest vegetation. As a result, a few months after resettlement, almost all the trees were cut down. Women who got resettled without houses were too revealed to have extracted almost all the trees and other important vegetation covers such as reeds and lemongrass because of the fear of losing them into other occupants' hands who showed signs of encroaching on them. In disquiet women stated: "As you can see most parts of this land have no sources of any fuelwood, all vegetation cover is done."¹⁹

Loss of homes

Loss of homes for most women during resettlement, especially those in polygamous families, led to homelessness and loss of other related livelihood options, more specifically, social capital, social ties, and the general organization of family which all contribute to their socio-economic development. The resettlement approach of dividing affected persons into two categories for example, forty-three (43) households were meant to be resettled with both land and houses while thirty-one (31) households were resettled without houses. The need to construct new homes for themselves was based on the availability of trees, grass, and other necessary vegetation as construction materials. Demand for construction materials increased, the use of timber and over-reliance on woodlands for construction put a lot of pressure on vegetation to the extent of beneficiaries appreciating the short-term negative indicators, for instance altering rainfall patterns. Most women who were preparing to have their seeds and seedlings planted were concerned:

Since we came here to Kyakaboga resettlement, it is now six months since we are not seeing a sign of rainfall. We have only experienced hot sunshine, drought and so much grass which we found green in this area have dried up and the land is bare to support crop growth. We hope that this too much cutting and clearing of land is not the cause of rainfall failure in the last two seasons we have spent in this area²⁰.

In most resettlement communities, changes in the livelihood status of people especially women were inevitable (Terminski,2012). The competition for acquiring shelter and survival in resettled new areas among the resettles had huge environmental effects. It was observed that the existing trees for the construction of shelter were depleted before the end of the year after being resettled. However, the few trees and vegetation that still existed were on market for income. This did not only portray the open market selling of particular trees for income generation but also the depletion of the tree species in long run. Unless quick alternative materials such as bricks are provided to the troubled? homeless women including providing first growing tree seeds, the environmental impact would have severe impacts than the resettlement activity itself.

¹⁹ Focus group discussion with women resettled without houses in Kyakaboga resettlement, Hoima district, May 2018.

²⁰ Responses from a focus group discussion Kyakaboga resettlement, Hoima district, 2018.

Over-reliance on fuelwood

The existence of natural trees in the resettlement area was seen as a safety net, providing opportunities for alternative livelihood options for both men and women after losing their former livelihoods. Selling firewood and charcoal to the nearby trading centres and Hoima town was a common activity, leading to the destruction of the environment in the resettlement area. It is narrated that, after being resettled the “*only quick source of income a person could think of was gathering firewood and burning charcoal*”. One lady, a charcoal burner, lamented that:

When we reached this resettlement area competition to get money through charcoal making and selling became high. We were waking up at 6:00 am to cut the trees to sell and earn some money for our family’s survival. In a couple of months after settled in this area, we have realized that many types of trees which we found in this place have come to extinct, we cannot tell what is going to happen in the next five years to come²¹.

Reliance on the firewood as the only source of energy, therefore, contributed to pressure exerted on the environment. In the former homes, firewood was still the source of energy for cooking. The difference between former lands and resettlement areas was, however, that people had many areas available to collect firewood. In the resettlement, the whole area was bare, people did not have alternatives for household energy. In Kyakaboga resettlement area, for example, all the households were dependent on trees for energy. Cooking food and charcoal burning were the major activities that contributed to deforestation in the resettlement area:

We have all developed a mentality of wanting to have piles and piles of firewood in front of our houses, we want to have piles of firewood for selling in the nearby towns. This practice is not going to allow any kind of trees to survive in this resettlement Kyakaboga²².

Charcoal making was observed to be another common activity that was mostly practiced as a source of income for many homes within the resettlement and in the neighborhood especially people that were not resettled with both land and houses. Majorly women who did not relocate are engaging in charcoal burning as a quick alternative source of income. The result of overdependence on the environment for daily incomes is the destruction of natural, social, and cultural assets. Natural vegetation /forest cover and social assets such as those that are publicly shared for consumption such as trees that provide cure to different users in the resettlement and, cultural in a manner that different tree plantations are used to perform cultural values such as healing and superstitious functions for instance bark trees, which were at risk of distinct as a result of overexploitation. The unselective cutting of these trees species for charcoal burning as stated by one community woman leader that “when it comes to gathering logs for charcoal burning we not select, we cut any grownup trees”. The process therefore commonly blocks the originally meant value of the assets that in turn gives meaning to the future generation. For example, a sense of shared identity and knowledge on key tree plantations are essential to enable particular community groups to negotiate livelihood access within the conserved environment (Onakuse & Lenihan, 2010).

Resettlement triggered land conflicts

Unlike before resettlement where most people had huge land acreage with clear boundaries, in the new area, the situation was presented complex. Some level of mistrust was developed between the landowners about true the proper boundaries and measurements as everybody expected to have an equivalent of what was previously owned. Land contestations

²¹ Interview with one woman participating in charcoal burning as a source of her livelihood in the resettlement, Kyakaboga Hoima, May 2018.

²² Commonly mentioned during interviews with men heads of the family in community meetings in the resettlement area.

resulted in extensive cultivation and land fragmentation in the need to make clear land demarcations. The environment was attacked in the process of digging boundary paths which were accompanied by clearing the vegetation cover around many pieces of land. The worst of it all, resettlement persons areas were not provided with land titles as promised by resettlement guidelines. The absence of land titles resulted in disputes over land boundaries as households tried to demarcate them based on cartographic maps. It was observed that other people solved these disputes in many ways, land and its vegetation cover were burnt to clear boundaries. Below is the quotation from the interviews demonstrating activities done towards demarcating boundaries that would endanger the environment:

Most of us women who are widows and other women whose husbands went to look for work elsewhere were at risk of losing the given land because of failure to identify our boundaries. Burning of the surrounding bush along our boundaries was easy for us than joining scuffles with our neighbours. Our target is not to allow the bush and trees to grow within our cleared boundaries until the government hands over to us our and titles²³.

Also in a general observation, almost all eligible women stayed in the resettlement area than men who went for more income-generating activities elsewhere in other districts. This did not create fear in women but more responsibilities that involved control and making decisions on land where necessary.

Related to the above displacement and resettlement land-related conflicts are not a new phenomenon. A study of 110 development projects that took place during India's Five-Year Plan (1990-95), revealed that 1.6 million people were displaced, of which almost half were tribal people and, quite often, their ownership and rights to the land were in conflict (Somayaji, 2009). Nigeria provides another example of conflicts on land compensation in oil mining countries in Africa. The Nigerian case shows that where land ownership rights are not clear, compensation is more likely to result in conflicts and harm displaced households than to benefit them (Heming and Rees, 2000). Heming and Rees (2000) continue to testify that the situation worsens when marginalized subpopulations, such as women, are not the recipients of the land compensation.

In Uganda and the oil-development-led compensation process, the compensation guidelines which dictate whether to compensate or not to, affected the marginalized group of women beyond recovery. This is because the so-called policy to compensate due to oil refinery development impacted the socio-economic status of the beneficiaries while the policy not to compensate retard their development innovation (Heming and Rees, 2000). Therefore, the affected women's rights, assets, and control over them in the process tend to double because they are rarely captured in planning and policymaking (Mehta, 2002). Although the Uganda land equitization and resettlement framework 2016 recognizes women to be dependent on the land for crop farming, livestock rearing, and poultry, fuelwood resources, and beekeeping, the implementation of compensation especially resettlement disregarded consideration of some women²⁴ for access to the land and other resources. The implication is that compensation activities that ignore this socio-economic livelihood structure are expected to negatively impact women. Scholars in induced-displacement studies such as Dawning (2002), Mehta (2009), and Vina & Notess (2017) extensively identify related resettlement impacts on the affected persons and their livelihoods, design strategies that tend to nurse impacts in different ways and, thus failure of the strategies to be implemented triggers the destruction of any environmental resource in the surroundings.

²³ Focus Group Discussion in Kyakaboga resettlement area, Hoima District, May 2018.

²⁴ Especially those that were not selected by the head of the family to be resettled.

Conclusion and recommendations

The resettlement process as one of the oil development activities in Albertine Graben has caused uncertainties to women's livelihoods that subsequently resulted in environmental degradation. This brings forward a signal that the relationship between rural women's livelihoods and the natural environment is intimate. Resettlement process lasted for more than eight years where several things were being administered, among others were; valuing land, constructing new houses in the resettlement, and organizing other auxiliary infrastructure services like construction of schools, while the affected women lacked the means to sustain their livelihoods as a result of loss of former land, flared up into social-economic pressure that revolved into environmentally unfriendly practices. The charcoal burning and selling of firewood as the only means of survival after resettlement left a big impact on the vegetation cover. The process of burning the vegetation cover to make land boundaries clear was too hazardous to ecosystems. This paper has examined how resettlement programs after land compensation contributed to environmental degradation in the oil and gas region, Albertine Graben, Uganda

The paper, therefore, concludes that the severe signs of environmental degradation caused by the resettlement process can be avoided especially when the women custodians of the environment are provided with a proper livelihood that matches with their former sources of livelihoods, avail to them means within their surroundings that sustain their daily activities for example sources of water and fuelwood which provide avenues of environmental protection. The strategy will further improve on the capacity and capabilities of the resettled women to sustain their livelihoods and the environmental protection demands in particular. Considering various women's sources livelihoods with a focus to save the environment does not stop at providing quick solutions but it is a sign of the social-economic factor of long-term positive climate change. We argue that given these environmental challenges arising from resettlement and displacement challenges, future land acquisition and resettlement programs should have clear and specific mitigation strategies which include among others providing for the resettled women with the basic needs of life. The consideration should further focus on the underlying and proximate causes of environmental degradation arising from resettlement programs. For example, one of the underlying causes of environmental degradation in resettlement areas being related to failure to recognize the polygamous and extended family structure of affected communities. While the proximate causes of environmental degradation included failure to resettle people on time, failure to meet the resettlement program promises such as handing over land titles, and provision of alternative livelihood means to the women, limited sensitization about the characteristics of a new environment in the new area emerged key.

We, therefore, recommend that for future compensation and resettlement operations for oil development activities, the following should be done: 1) immediate and emergence assistance to enable women to go through the post resettlement phase. Such assistance may include necessities such as timely food rations, water, dwellings, and cooking energy-saving stoves, to save the environment. 2) Durable solutions may include sufficient, timely, and commensurate land compensation and an economic stimulus package to kick-start their economic life. 3) Designing appropriate environmental sensitization sessions and empower them with information. Additionally, the government together with other key stakeholders such as NGOs may empower women with other hands-on skills such as tailoring and knitting, fashion, and design. Such off-farm business skills indubitably cushion women from exerting pressure on the environment.

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