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Journal of Sustainable Mining

journal homepage: www.elsevier.com/locate/jsm

Research paper

Mining-induced displacement and resettlement: The case of rutile mining communities in Sierra Leone



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ARTICLE INFO

Keywords:

Mining-induced displacement
Resettlement
Political ecology
Impoverishment risk and reconstruction
Rutile mining
Sierra Leone

ABSTRACT

This study examines mining-induced displacement and resettlement (MIDR) in rutile mining communities in Sierra Leone, drawing from mining and resettlement literature and utilizing political ecology and the impoverishment risk and reconstruction (IRR) model. Data for this paper was primarily obtained from semi-structured interviews of sixty participants in Kanga and Madina Villages in Bonthe District, Sierra Leone in May and December 2016. The interviews were recorded, transcribed, and thematically analyzed. The findings of this study show that the execution of MIDR has primarily contributed to sustained social and economic impoverishment rather than improved the socioeconomic condition of resettled communities. Sustained impoverishment included loss of land-based resources with an adverse impact on the local livelihoods, joblessness and marginalization of the affected persons with reference to compensation for lost property. Such outcomes have reinforced unequal power relations over the processes surrounding involuntary displacement and the resettlement of displaced communities, to the disadvantage of relocated communities. Nevertheless, close examination of the resettlement effect on local actors revealed that chiefs, who are the traditional leaders, derived substantial socioeconomic benefits during resettlement, unlike women and youths who faced social and economic impoverishment. This study calls for the inclusion and active involvement of landowners in determining the modality for compensation for lost trees and crops, which may include a new policy wherein affected persons will receive an annual payment for economic trees until the rehabilitation of mined-out areas. It also underscores the need to formulate legislation that ensures the provision of alternative livelihoods for relocated persons, which would potentially enhance the reconstruction of affected communities.

1. Introduction

Mining-induced displacement and resettlement (MIDR) can cause major social disruption and affect the socioeconomic condition of resettled persons, yet it is an inevitable outcome of incremental mineral exploitation (Kemp, Owen, & Collins, 2017; Owen & Kemp, 2015). Mining-induced displacement involves, mostly, the involuntary movement of affected people from their original abode and/or socioeconomic activities. Mining-induced resettlement is the extensive process of planning and implementing the relocation of people, households and communities from one location to another because of mining projects, and all the associated activities such as the provision of compensation, livelihood restoration, and restoring or improving the social condition of the community (Vanclay, 2017). The term MIDR is relevant for this study because MIDR may be positive in its orientation through the implication that it involves a resettlement package. However, evidence gathered suggests that MIDR is generally detrimental to host communities as affected communities bear the environmental costs

of mining and face unfavourable socioeconomic conditions, often exacerbated by ineffective livelihood reconstruction programs (ActionAid, 2008; Adjei, 2007; Aubynn, 2003; Human Rights Watch, 2014; Madebwe, Madebwe, & Mavusa, 2011).

Nevertheless, global mining stakeholders such as the International Finance Corporation (IFC) and the World Bank have formulated best practices aimed at mitigating the multi-faceted impacts of development-induced displacement, including mining-induced displacement. The IFC's Performance Standard 5 on land acquisition and involuntary resettlement and the World Bank's Operational Practice 4.12 emphasize minimizing adverse social and economic impacts caused by land acquisition or the restriction of land use by 1) compensation of assets at replacement costs, and 2) ensuring that resettlement activities are executed with appropriate disclosure of information, consultation, and informed participation of the affected people (IFC, 2012; World Bank, 2001). They also call on projects to assist displaced people improve their livelihood or at least restore it to pre-displacement levels. However, the extent to which these best practices have contributed to

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Received 3 October 2018; Received in revised form 10 January 2019; Accepted 1 March 2019

Available online 06 March 2019

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List of abbreviations		NGOs	Non-governmental organizations
IRR	Impoverishment risk and reconstruction	PC	Paramount chief
IFC	International Finance Corporation	RUF	Revolutionary United Front
MIDR	Mining-induced displacement and resettlement	SRL	Sierra Rutile Limited
MMA	Mines and Mineral Act	SSA	Sub-Saharan Africa

positive MIDR outcomes in affected communities in developing countries has been seriously questioned. The reliance on generic social safeguards for involuntary displacement while overlooking specific contexts and relationships, and the absence of community participation in the design and execution of plans usually leads to the marginalization of local people's views and interests (Conde & Le Billon, 2017).

In the case of Sierra Leone, the displacement of affected mining communities has been ongoing since the 1950s. However, a new wave of spatial expansion of corporate mining activities in the post-war era (2002 onwards) has led to the widespread displacement and resettlement of affected communities (Wilson, 2013, 2015). Indeed, some NGOs have identified social and economic vulnerabilities in iron ore, rutile, and diamondiferous communities in Sierra Leone (Human Rights Watch, 2014; NACE, 2009; NMJD, 2010). Nonetheless, previous and current provisions such as the Mines and Mineral Act (MMA) 1994, the Core Mineral Policy 2003 and Sierra Rutile Agreement 2002 address the issue of compensation for lost property due to mining-induced displacement, while clause 38 of the MMA, 2009 additionally underscores displaced persons right to resettlement.

While extensive research has been done on development-induced

displacement due to dam construction, irrigation projects or oil exploitation (Maitra, 2009; Terminski, 2011, 2013), there is a dearth of empirical work on MIDR in SSA (Sub-Saharan Africa) countries, including Sierra Leone. Such an investigation is necessary because the process of MIDR is somewhat different from other forms of development-induced displacement (i.e. dams, irrigation projects, oil exploitation, etc.) mostly entail one-time large-scale displacement, a mining project may involve multiple displacements over time due to incremental land acquisition. There are also instances in which anticipated displacement and resettlement may be foiled due to changes in investment climate or other unforeseen circumstances (Kemp et al., 2017; Owen & Kemp, 2015). Moreover, such transformation may have disparate impacts on various mineral actors in relocated communities. Therefore, it is pivotal to assess the processes and impacts of MIDR.

This paper examines MIDR in rutile communities in Sierra Leone drawing from political ecology and Cernea's (1997) IRR model. Rutile communities were relevant to this study because these locations have witnessed incremental mining and, subsequently, displacement and relocation since 1979. This study explores the following questions: 1)

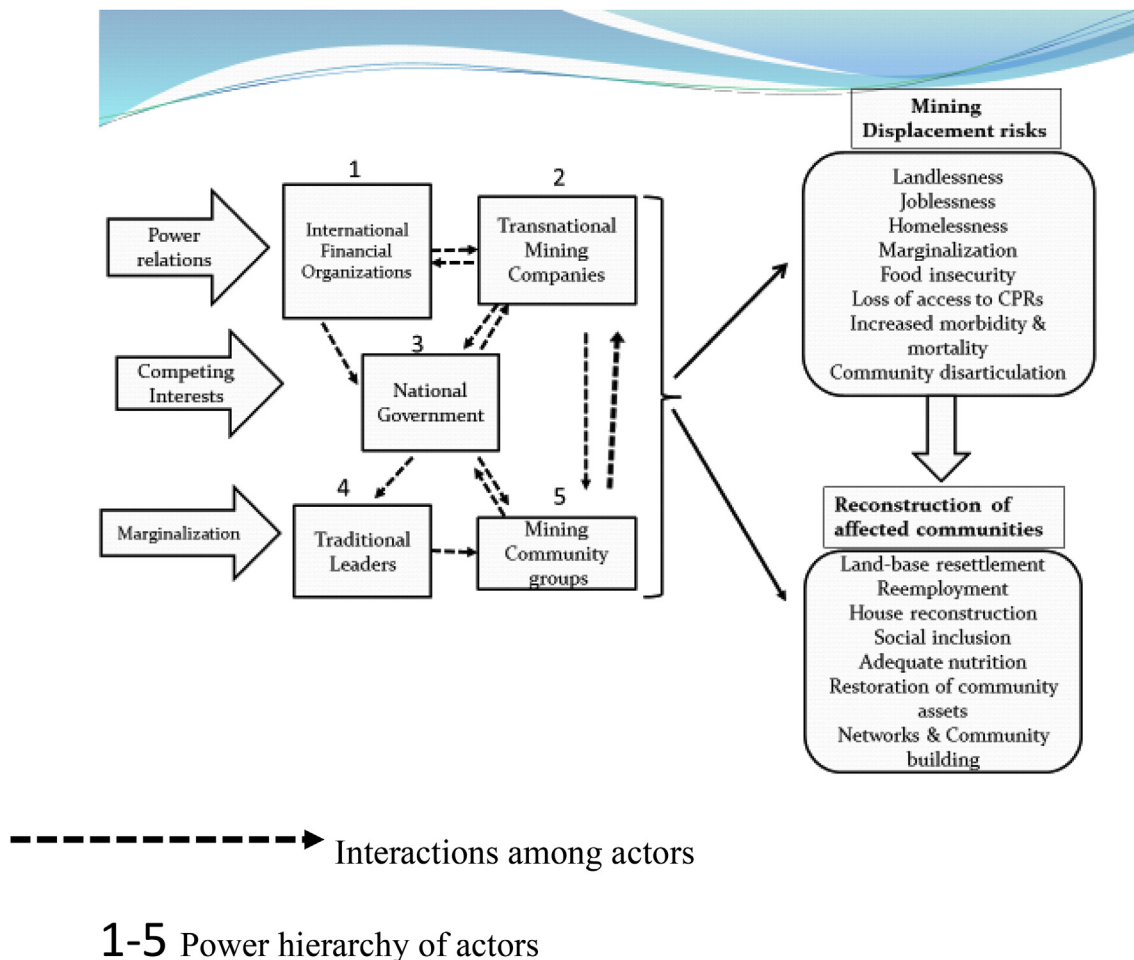


Fig. 1. Theoretical Framework: Political Ecology and Cernea's (1997) Impoverishment risk and reconstruction model.

How do power relations, competing interests between actors, and strategies employed influence the displacement process? 2) How do power relations and strategies employed impact the resettlement process, affected resettled communities in general, and specific groups within those communities? 3) What can be done to improve the socioeconomic conditions of relocated communities? These research questions are relevant in order to provide in-depth investigation of the process and impacts of MIDR in rutile communities and inform policies aimed at mitigating the possible unfavourable socioeconomic outcomes of MIDR. Findings reveal a need for the inclusion and active involvement of landowners in determining the modality for compensation for lost trees and crops, and to formulate legislation that ensures the provision of alternative livelihood options for relocated persons, which would potentially enhance the reconstruction of affected communities.

The combined framework provides a more comprehensive approach to unravelling the processes and impacts of MIDR in rutile mining communities. Political ecology's integrative explanation of the context within which natural resource exploitation occurs makes it a suitable framework to critically examine how patterns and processes of power relations and competing sociopolitical and economic interests among mining actors, especially at local and national levels, affect rutile MIDR (Bury, 2008). Power relations may be construed as the differential ability of various [mining] actors to influence decision making (in this case pertaining to rutile MIDR), and the varying ability to control or access the economic benefits from resource exploitation. Power

relations are also manifested in the form of authority and capacity for action (Long, 2001). The issue of marginalization is also relevant to this study as it influences the processes and outcomes of MIDR. Winning and losing during MIDR can be expressed through the concept of marginalization which is generally conceived as a process that encompasses various forms of exclusion such as economic and social/political exclusion. Political ecology is utilized in this paper to examine power relations among and between actors, such as government authorities, the mining company, the local mining community, their interests, their position within the extant power hierarchies, and the cumulative effect of these dynamics on MIDR (Fig. 1).

The IRR model is also relevant here as it underscores the eight foundational risks that result in impoverishment through [mining-induced] displacement and prescribes measures to eliminate or mitigate these risks (Cernea, 1997). The risks are landlessness, joblessness, homelessness, marginalization, food insecurity, loss of access to common property, increased morbidity and mortality, and community disarticulation (i.e. the breakdown of community cohesiveness) (Fig. 1). The model also prescribes how to overcome impoverishment through risk reversal sequences. This study focuses on five of the impoverishment risks and the reversal measures relevant to this case study: landlessness, joblessness, homelessness, marginalization, and food insecurity. This paper argues that asymmetrical power relations and conflicting interests amongst stakeholders, the marginalization of mining communities, the weak enforcement of mining regulations, as

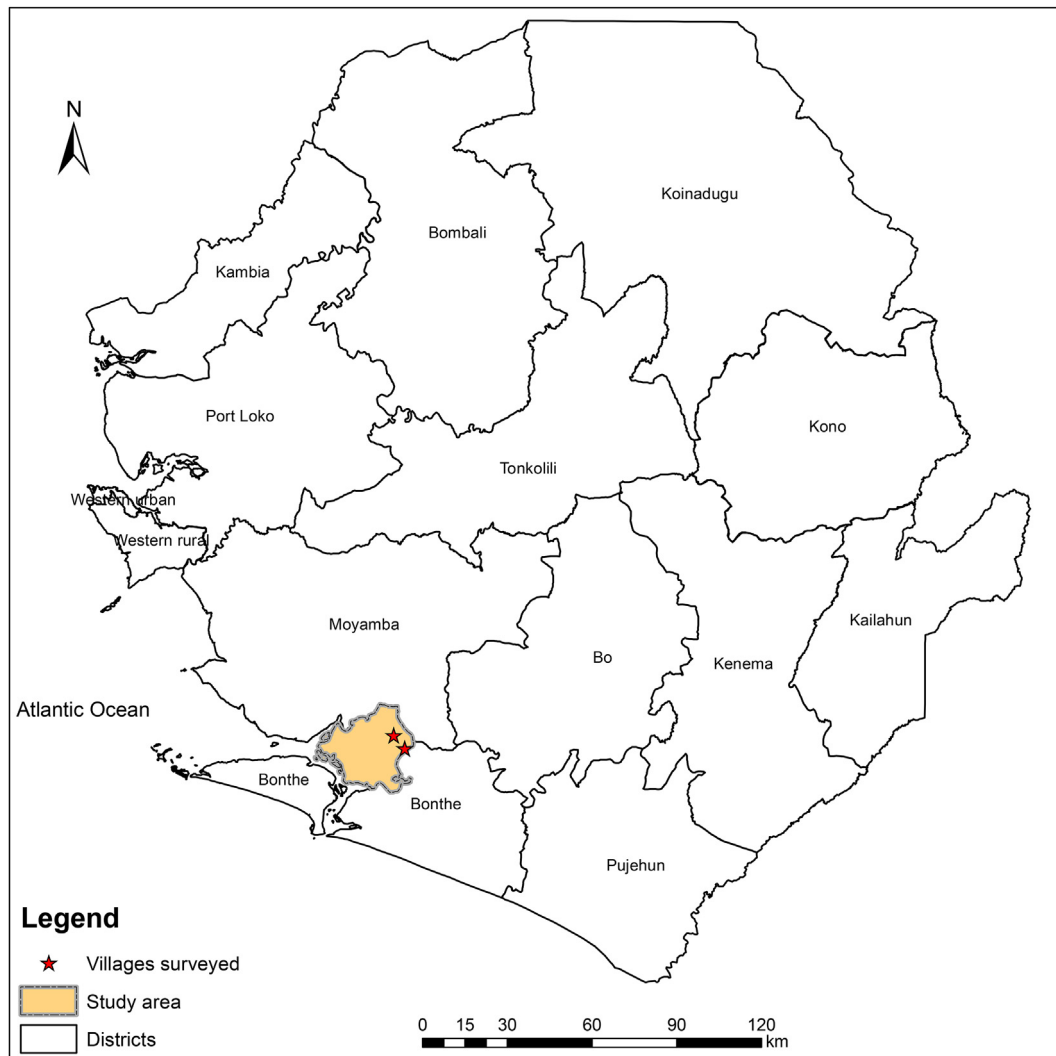


Fig. 2. Sierra Leone map: study area showing rutile locations.

well as the poor monitoring and evaluation of resettlement programs have primarily contributed to socioeconomic impoverishment rather than enhanced the reconstruction of the affected rutile mining communities.

A political ecology approach has been adopted to investigate mining-induced displacement (Nambiza, 2007; Hermer, 2016). For instance, Nambiza (2007) reported that displacement of the affected people in the Bulyanhulu mining community in Tanzania can be associated with power relations amongst disparate stakeholder and their connection to global interests. This process resulted in the social and economic impoverishment of the local community.

Furthermore, most scholars that have examined mining-induced displacement noted that disparate groups of people affected by displacement are not directly involved in the planning and decision-making process of eviction and resettlement (Nambiza, 2007; September, 2010; Madebwe et al., 2011; Lilywhite, Kemp & Sturman, 2015). While these studies discuss the process of displacement, the practice and activities that occur in the pre-displacement phase are virtually invisible. It is therefore necessary to also examine the roles and power dynamics among local and national actors in the pre-displacement phase.

Several scholars also adopted the IRR model to examine the process and impact of MIDR (Ackuayi, Godsway, & George, 2014; Downing, 2002; Lilywhite, Kemp, & Sturman, 2015; Terminski, 2012). A common thread with in their findings is that the risks and livelihood restoration measures, including compensation for lost property, were not commensurate with resettlement impacts or expressed community needs as displaced people were faced with impoverishment (Kidido, Ayitey, Kuusaana, & Gavu, 2015; Taabazuig, Luginah, Djietror, & Otiso, 2012). This study goes further by assessing the impact of MIDR on chiefs (i.e. traditional leaders of communities), women, and youths in the resettled communities to determine whether there are different impacts among these groups.

Furthermore, researchers have assessed governments' role in mining and resettlement. A consistent observation is that host governments in developing countries lack the capacity, skills and resources, as well as having inadequate legislation governing expropriation and resettlement, to regulate large-scale mining-induced resettlement (Kemp et al., 2017; Vanclay, 2017).

While these studies, in general, identify issues pertaining to displacement and resettlement, the role of power relations among and between actors at various geographic levels, conflicting interests among actors, the issue of marginalization of affected people, and how all those elements influence MIDR outcomes are not explicitly examined. This paper aims to underscore these dynamics, as exemplified in the case study of MIDR in rutile mining communities in Sierra Leone.

The rest of this paper is organized as follows. Section two describes the study area, methods and data sources. Section three encompasses results and discussion of the dynamics surrounding MIDR in rutile mining areas of Sierra Leone. Section four presents conclusions from the study.

2. Materials and methods

2.1. Study area

The study area encompasses Kanga and Madina Villages in Imperi Chiefdom, Bonthe District, Southwestern Sierra Leone (Fig. 2). The Bonthe District lies within the coastal plain relief system and consists of a low-lying swampy area extending 10–40 km inland (Alie, 2001). Imperi Chiefdom is 624 km² and lies within the equatorial rain forest zone which is characterized by tall trees with thick undergrowth. The climate is tropical monsoon and has wet and dry seasons. Settlements are mainly located in flat areas with fertile soils and adequate water sources, such as rivers streams, and inland valleys often containing titanium mineral bearing sediments/sands with constituent minerals of

rutile, ilmenite, and zircon. Sierra Rutile Limited (SRL) has been continually extracting these minerals in Southwestern Sierra Leone since 1967. The area also has some of Sierra Leone's best agricultural land wherein various crops thrive. The main economic activities include swamp rice cultivation, upland cultivation of food and cash crops, fishing and rutile mining. The estimated population of the chiefdom is 33,394 (Statistics Sierra Leone, 2017).

2.2. Data and methods

Data for this paper was primarily obtained from semi-structured interviews conducted in May and December 2016 in Kanga and Madina Villages in Imperi Chiefdom, Bonthe District, Sierra Leone (Fig. 2). The main goal was to solicit local evidence with the aim of broadening understanding of the processes surrounding mining-induced displacement, resettlement and livelihood restoration opportunities and challenges. A total of sixty interviews (thirty in each village) were conducted at the homes of interviewees in the Kanga and Madina villages. The average duration of each interview was 30 min. Participants included traditional leaders, youth, women, elders, and inter-religious council representatives. Senior officials of SRL declined to be interviewed, stating that it is against their company's policy. To bridge this gap, information obtained from SRL reports, as well as former SRL workers was used. Interview topics included the roles that community representatives play in planning and implementing resettlement programs, the eviction process, whether the displaced were better off in the new place (resettlement area) compared to their original town or village, and what can be done to improve the socioeconomic condition of resettled persons. After interviews were undertaken and recordings transcribed, the qualitative data were thematically analyzed (Creswell, 2013). This involved identifying, coding and categorizing the major themes from the findings, with reference to displacement and resettlement. Interviewees' responses were presented in contextualized description and in frequency percentages. Information obtained from secondary data sources, such as the mining company's documents and scholarly articles, supplemented this data.

3. Results and discussion

3.1. Actors, power relations and the pre-displacement and displacement phases

This sub-section examines the processes and impact of the pre-displacement and displacement of rutile mining communities. It demonstrates how asymmetrical relations amongst actors, competing interests, and victimization influence the displacement process and outcomes.

Residents of Kanga and Madina villages stated that the first sign of interest in their original villages was when SRL surveyors came to the areas of vegetation surrounding their communities in 1988 and 1993, respectively. The head of the company's Community Affairs Department officially notified residents of Kanga in 1989 and Madina in 1993 that a suitable amount of economic grade rutile deposits had been discovered in their villages to warrant mining of the entire locality, including the adjacent villages of Mbelleh and Foinda.

Power relations and conflicting interests and strategies between residents and the powerful actors ensued. The less powerful residents of Kanga and Madina villages challenged the proposal saying that they were not going to move to other locations because of their cultural and traditional attachment to their centuries-old settlements and the poor conditions of the previously relocated communities (i.e. phase 1 relocation).¹ As the resolve of the people against displacement and relocation process grew, SRL officials employed rigorous strategies geared

¹ Phase 1 relocation, which involved the relocation of ten settlements, took place between 1979 and 1988.

towards convincing the people to accept displacement and relocation. The elders stated that several regional administrative authorities, such as the District Officer and the Provincial Secretary, came to talk to the people of Kanga and Madina in order to try to convince them to move. When this strategy proved futile, government ministers came to the villages to coerce the people to accept the move. Ministers told villagers that the then President was angry over their intransigence. They informed the people that the president stated, “If commercial quantity of rutile is found under the State House, the company will demolish it for mining purposes and relocate it to another site”. In fear of being punished by the political head, the people of Kanga and Madina surrendered and agreed to move to the new location.

Unequal power relations between the authorities of SRL and the government on the one hand, and the local people on the other hand, influenced the initial stage of resettlement. While most interviewees (90%) acknowledged that their traditional leaders were consulted, they maintained that the traditional leaders were not actively involved in the resettlement process because they only performed minor roles, such as pouring libations and offering traditional prayers. Furthermore, most community members asserted that they were intimidated by government officials who came along with security forces such as the Sierra Leone Police and the armed Special Security Division when they came to estimate the market value of their houses and crops. Political marginalization was also evident as (90%) of the interviewees stated that the assessment team from SRL's personnel department in collaboration with officials from the Ministry of Agriculture dictated the pricing of all properties without any negotiations with the owners of the properties.

Nonetheless, community representatives were involved in the selection of the relocation sites in the rutile mining areas. Most participants stated that their community representatives suggested the present sites for relocation, and that SRL authorities agreed on these locations after discussions at higher levels of government with a proviso that these communities will not be subject to another relocation by the same company. This study reveals that in spite of power differentials, community representatives had some influence in selecting the relocation sites, which is in contrast to the displacement of the Chiadzwa villagers in Marange, Zimbabwe where locals were excluded as the national government authorities in partnership with the diamond company exclusively chose the relocation site (Madebwe et al., 2011).

Although community representatives had some influence in selecting the relocation land, political marginalization was manifested during the eviction process. Interviewees maintained that community representatives had very little say in the eviction process as SRL and government authorities exerted considerable power. The company hastily relocated villages to the present site without communal structures, which was contrary to the company's intended policy and international best practices. An elderly man of Kanga village stated that:

The residents of old Kanga were practically coerced/forced into moving from the old village into the unfinished village. Company authorities initially told us that we would only be moved after completion of the houses and other facilities. We were also told that we would share these facilities with Mbelleh II, another relocated village proximate to our village. However, we were surprised when SRL officials brought vehicles one afternoon and told us to go onboard with our personal effects. As we started moving, bulldozers already standing at the perimeter of the village started demolishing our structures.²

Unequal power relations and disparate interest of the actors were prevalent in the eviction process. The company, with the acquiescence of the national government, exerted its power as it expedited the eviction process to be able to begin mining as soon as possible, even without the provision of communal infrastructure. This calls into

question the role of the government in monitoring and enforcing resettlement goals in the interest of its people. The government may have been preoccupied with the economic gains from rutile mining, which included royalties and taxes.

A major finding of this study is how SRL (with national government authorities) wields considerable power by relocating affected communities to *settlements containing unfinished infrastructure*, contrary to the initial agreement and international best practices. This finding differs from other studies on involuntary displacement in SSA countries wherein communities have been moved to new locations after the completion of housing and communal structures (Lillywhite et al., 2015; Madebwe et al., 2011).

Social marginalization of community members during the implementation of housing and complementary physical infrastructure projects resulted in outcomes inimical to the affected communities. Eighty percent of the interviewees asserted that community members did not play any active role in the construction process as company officials told them that the company wanted to fast-track the relocation process and provided modern facilities for Kanga, Madina and the two Mbelleh villages. Interviewees stated that company officials told them that the company wanted to follow some specifications that local builders could not do. Consequently, community members could only observe as SRL personnel used inferior materials, such as mud blocks, poor quality timber, very thin corrugated iron sheets and other sub-standard building materials for houses (See Fig. 3).

The company's conservative economic interests and the lack of government monitoring and evaluation of housing projects contributed to unsustainable infrastructure. Though SRL later constructed communal buildings, such as a market, a mosque, a courthouse (court *barray*), a church, and a primary school, respondents noted that they were made of poor-quality materials such as hollow sandcrete bricks, poor quality timber and fiber concrete roofing that were all unsustainable. According to the respondents, the market and mosque are in ruin, the health clinic is dilapidated while the local courthouse, church, and primary school are yet to be rehabilitated. The company's priority in general was to minimize costs and complete the community structures as soon as possible. However, poor quality community structures in the resettlement area can be partly attributed to a lack of oversight by the national government authorities in ensuring that high quality building materials were used. Similar problems occurred in the diamondiferous communities of Tankoro Chiefdom, Kono District in the early post-war years, in which the diamond company, Koidu Holdings, initially built sub-standard buildings with mud blocks, which were contested by civil society and social movement groups culminating in company-community conflicts (Wilson, 2013). Ultimately, the company had to rebuild the structures with better building materials.

3.2. Social and economic impact of MIDR on resettled communities

Eighty percent of the participants indicated minimal positive impacts of resettlement on the lives of the relocated communities. While they attested that the construction of houses had a positive impact on their lives, some of them indicated that the new houses were smaller. Respondents viewed the poorly constructed communal infrastructure as a disservice to their community as there are better quality buildings that were constructed by NGOs that have not disrupted their communities. Although the company ensured risk reversal from potential homelessness to home reconstruction, the study illustrates the issue of the sustainability of physical structures in resettled locations. Eighty percent of the interviewees stated that the majority of houses constructed in Kanga in 1991 and Madina in 1994 were now in ruins and had leaking roofs. Furthermore, some houses collapsed less than five years after construction, yet nothing has been done to address this issue.

Economic marginalization was also prevalent in the affected communities. A lack of jobs was cited as a major reason why their lives were worse off in the new settlements. Since eighty percent of interviewees

² Interview, an elderly man, Kanga Village (20 May 2016).



Fig. 3. A house in New Kanga.

lost their local livelihoods due to rutile mining-induced displacement, they had high expectations that SRL would provide them with long-term jobs. Interviewees in Madina indicated that the village chief was the only full time SRL employee from their village. Interviewees stated that there were occasional casual mining jobs open to a few residents of Kanga and Madina, but they were short-term (six to nine months). Some of them stated that company officials usually tell them that they lack the skills needed for long-term employment in the mining company.³ Consequently, there were high unemployment rates amongst the residents of these relocated communities. Thus, the attempt to overcome joblessness, an impoverishment risk, through reemployment was not achieved in these resettled communities. In fact, rutile-mining districts of Bonthe and Moyamba are amongst the poorest in the country with poverty head count ratio of 51.4 percent and 70.8 percent, respectively (World Bank, 2013). Other studies have also reported the loss of jobs due to mining-induced displacement and lack of employment opportunities for most residents in the resettled areas (Lilywhite et al., 2015; Madebwe et al., 2011).

Another major factor that contributed to impoverishment in resettled communities was limited access to and utilization of land-based resources. Four-fifths of participants lamented that very little land for farming was available in their new locations, including the steep hills of Kanga, and that has had a deleterious effect on farming, which is their predominant occupation. Others noted that the loss of inland valley swamps rich in soil nutrients and diverse vegetation has led to further impoverishment of the community members.⁴ Ninety percent of interviewees reported that their quality of life was poor due to loss of livelihood derived from diverse traditional sources, such as fishing, hunting, wildlife, processing of wild palm fruits, harvesting timber, honey, and traditional medicines.⁵ While these livelihood sources were available in their original locations, which were vacated due to rutile mining orchestrated by powerful actors such as the national government and company authorities and the IFC who provided financial support to SRL, they were not available in the resettled areas. As one elderly person in Kanga said:

The loss of farmland and inland valley swamps to mining has impoverished us. We have lost all forms of traditional livelihood systems. We need farmlands to continue our livelihood profession as farmers. *The officials of Sierra Rutile Limited promised to secure land for us to continue our livelihoods. They also promised to provide us with alternative livelihood systems. None of these has materialized which has deepened our sufferings.*⁶

In fact, an environmental impact assessment study of the mining area conducted in 1990 on behalf of SRL revealed similar adverse livelihood impacts of affected communities in a sub-section entitled socio-economic considerations related to the mining process (Environmental & Scientific Consulting Group, 1990). The report indicated that fishing and agricultural production due to thin and infertile soil in the relocated areas, and the destruction of gallery and linear forests have badly affected the livelihood of those in the resettlement areas. The 2001 Social Impact Assessment of Communities in Sierra Rutile Operational Areas, Southern Sierra Leone also highlighted a deplorable livelihood situation (Josiah, 2001). It is therefore astonishing that interviewees in Kanga and Madina villages categorically stated that SRL has not sponsored any alternative livelihood programs in their villages since they were relocated in 1991 and 1994, respectively. This begs the question: what role does the government play in enforcing and monitoring proposed resettlement programs? In this case, it appears that government authorities have not held the company accountable regarding the fulfillment of its alternative livelihood agreement in these villages. Other works have also shown that the disruption of land-based resources such as agricultural land and forest due to mining affects the local livelihoods of the relocated communities (Ackuayi et al., 2014; Akiwumi, 2011; Taabazuig et al., 2012). However, this study highlights an array of terrestrial and aquatic resources that communities have lost because of incremental land acquisition for rutile mining. Furthermore, the absence of alternative livelihood result in the generation of “new poverty” (Downing, 2002).

The loss of access and utilization of farmland (both in quantity and quality), and other natural resources have considerably affected food security in the resettled areas. Four-fifths of interviewees maintained

³ Interviews, Madina and Kanga residents, (May 2016).

⁴ Interviews, youth, women and elders of Kanga Village (May 2016).

⁵ Interviews, Kanga and Madina residents (May 2016).

⁶ Interview, an elderly man in Kanga Village (May 2016).

that the primary cause of food shortage in their new communities was lack of farmland. While their old villages had enough land for cash crop plantations, sufficient farmland and extensive inland valley swamps with rich soil, marine resources, abundant water sources such as streams and wells, and diverse vegetation for traditional livelihoods sufficient for everyone; the new villages lack these resources. Kanga residents revealed that the soil between the houses has been over utilized and is now depleted. Thus, there is an acute shortage of food production, which is contributing to food insecurity in these communities.⁷

The affected people's lack of political influence in farmland acquisition was evident. Despite several reports and the company's promises for the acquisition of farmland for the new locations, nothing has been done. Though the national government could put pressure on the company to acquire farmland for the relocated communities based on their promises, it appears that its primary interest lies mainly on the economic benefits it derives from the company. Yet, the affected people have been impoverished for over twenty years with very limited farmland, which has contributed to food shortage. Thus, food insecurity, an impoverishment risk associated with displacement, was sustained rather than reversed. This is supported by other studies undertaken in SSA countries (NACE, 2009; Aduayi et al., 2014; Adjei, 2007; Human Rights Watch, 2014).

Government and SRL authorities also exercised considerable power in the assessment and payment for dwelling houses, while community members had no voice in the process. A joint team of SRL assessors and the Area Town Planning Officer of the Southern Province assessed houses and determined the payment per house. The team categorized the houses as old and new, the latter were houses constructed within a year of the start of the relocation process after the initial assessment of the buildings. Owners of new houses were paid Le 15,000 (\$69.76) with no other benefits. Old houses were valued based on the quality of building materials used and number of rooms. Owners of old houses received between Le 20,000 (\$93.02) and Le 50,000 (\$232.56) [Exchange Rate Le 215 to 1 U.S. dollar, U.S. Department of Treasury Financial Management Service. Treasury Reporting Rates of Exchange as of March 31, 1991].

The social and political marginalization of the affected persons involved in the compensation process for loss of land and crops also contributed to the prolonged impoverishment of the resettled communities. Part of the problem stems from unequal power relations between resettled communities and the mining company (SRL), and from the company and the national government authorities. Although the government agriculture officials consulted SRL in order to determine the costs and mechanism of compensation to land and crop owners, the affected plantation and landowners had no voice in determining the compensation values for lost trees, crops and land. While the law requires agreement with land/property owners [clause 34 of the Mines and Mineral Act (MMA) 2009, and in previous mineral acts], the government agricultural representatives sidestepped this law. The company therefore gave the "reasonable" rates laid down in the government's approved price list. Nine-tenths of interviewees emphasized that the state value was below market price for properties in that condition. They emphatically stated that the one-sided pricing system has adversely affected the wellbeing and livelihood of the relocated people in the following ways: 1) only selected crops were paid for instead of all cash crops; 2) the meagre payment for cash crops (such as oil palm, coconut, kola nut tree, coffee, citrus, and breadfruit) was done only once instead of for the number of years (some up to 50 years) such crops remain economic trees; 3) economically beneficial trees in the forest were not paid for; 4) no compensation was provided for loss of livelihood systems such as fishing, hunting, honey gathering, and other forms of traditional economic livelihood schemes. Eighty-five percent

of the respondents also noted that the amount paid per acre of land annually (ranging from \$8 in the early 1990s to the current rate of \$13 per acre) by SRL for a year can be considered a pittance because a farmer can earn five to eight times more for the same land if utilized for agricultural purposes. Furthermore, landowners only receive 50 percent of the amount paid annually. Thus, the socioeconomic conditions of most plantation owners were worse than before displacement due to very limited compensation.

Asymmetrical power relations between SRL and the Madina community regarding crop assessment and payments, coupled with unforeseen circumstances such as political instability and the company's economic situation adversely affected the community. Despite the completion of a crop assessment by the company and the government in 1994, no payment was made for most of the crops until the RUF rebels overran the rutile mining communities on January 19, 1995. The company's ownership changed in 2002 after the end of the rebel war. Four-fifths of the respondents affirmed that the new SRL management did not pay for the assessed crops. When the less powerful affected people confronted SRL authorities in 2004 for compensation for the crops assessed before the rebels overran the rutile community, SRL personnel told them that the amount was so huge that they could not pay upfront as the company did not have enough money to do so. This process dragged on for years adding to the economic impoverishment of the affected people. The point of contention for the people was that part of the permanent crops had already been destroyed in 1994 when they were evicted. As of 2003–04, SRL allowed people to continue to farm on the remaining land partly because the company apparently lacked the funds to pay the crop owners. However, SRL further demonstrated that it wielded considerable power over the affected farmers. Some months into the 2003–04 farming season, the company brought armed police officers to escort personnel who came to reassess the crops that had previously been assessed before the rebel onslaught. The people claimed that SRL did not pay them but stopped them from planting cash crops. When they resisted, police armed with AK 47 rifles menacingly escorted the crop officers from the Ministry of Agriculture and SRL Crop Assessment Team. The team only allowed one person at a time to assess his/her crop. They intimidated the farmers to the extent that they refused to assess crops, which they considered young or any planted after 1994. The landowners reported the matter to local authorities, but the paramount chief and other elected representatives did not intervene to remedy their plight. The payment for wild trees were minimally made without factoring in the value chain relevance of the flora and fauna and other natural environmental resources, such as marine life and swamps, to the cultural values and livelihood systems of the community.

During interviews, former SRL workers who were part of the assessment team stated that the practice of disregarding very valuable flora and fauna and other resources that formed the economic livelihood system of the people was very wrong. However, they further indicated that whenever the affected people raised these issues, the assessment team provided a platform for their voices to be heard.⁸ Nevertheless, the affected people received very little (if any) support from local and state authorities. Some residents alleged that local and state authorities protected the company's interests rather than those of the affected communities.

3.3. The resettlement effects on three local actors

Although rutile mining-induced resettlement has been a major contributor to the impoverishment of relocated Kanga and Madina communities in general, the following discussion assesses the resettlement effects on three categories of local actors.

⁷ Interviews, Kanga and Madina residents, (May 2016).

⁸ Interviews, former SRL workers, Imperi Chiefdom (December 2016).

3.3.1. Local Chiefs

A hierarchical structure of chiefs gives the paramount chiefs (PCs) considerable leverage in mining communities. The PC who is at the apex of the chiefdom power hierarchy is a custodian of land in his/her respective chiefdom, below them are section chiefs, followed by town/village chiefs and female leaders [“mammy queens”] (Wilson, 2015). The PC and sub-chiefs were involved in the relocation and resettlement process. As custodians of land, the chiefs allocated land to their community members in the resettlement area. Some interviewees alleged that the chiefs apportioned a large quantity of land to themselves in resettlement areas. Furthermore, they noted that the PC is economically better off than the sub-chiefs within the rutile mining chiefdom as he receives one-third of the allocation from the crop compensation funds and receives mandatory surface rent payable by the mining company. The paramount chief (like other paramount chiefs of mining chiefdoms) also receives courtesy fees from company officials at various times during the year. The sub-chiefs may receive a fraction of this money from the PC. The sub-chiefs have frequently accused the PCs of siding with the mining company and government officials against the interests of their subjects.⁹ The village chief of Madina is a sub-chief who reports to the PC through the Section Chief and Chiefdom Speaker. Unlike other residents, the company constructed the house of the Madina chief with hollow concrete bricks and provided him with a permanent job in the company.¹⁰ Thus, chiefs, especially the highly influential PC, acquired considerable socioeconomic benefits from rutile MIDR, unlike other local actors.

3.3.2. Women

Nine-tenths of women interviewees maintained that they are the worst affected group by rutile MIDR. They noted that rutile mining, which involves clearing vegetation, dredging and destroying a large expanse of land, has necessitated their relocation. The women are usually responsible for the upkeep of the homes in traditional rural communities. They support their homes by doing subsistence farming, gardening, rearing chickens, collecting and processing palm oil and other foodstuffs, fishing in streams and petty trading. However, the disastrous nature of rutile mining has not only destroyed the land-based livelihoods of women in relocated settlements and by extension their families, but it has practically confine them to perpetual impoverishment. Many of them stated that their farming activity has been substantially reduced from what they were accustomed to in their original village sites. They noted that the unavailability of land for upland rice farming has limited the range of their farming activities as they used to intercrop the main rice farms with crops such as cassava, sweet potatoes, okra, etc., which were used for family subsistence or sold to provide income. The women also highlighted gender bias in compensation as cash compensation for farmlands, crops and gardens were paid exclusively to male heads of households and village chiefs.¹¹ These findings are supported by Ntiri's (1992) work on the impact of rutile mining in Southern Sierra Leone.

3.3.3. Youth

Although the relocation occurred about twenty-four years ago, youths in Kanga and Madina villages have been grappling with social and economic challenges. The relocation process practically destroyed the economic base of their parents that provided for them. Consequently, the number of school dropouts grew immediately after the eviction of residents from the villages due to a lack of funds to support their educational requirement. Moreover, the failure of SRL to provide any support for alternative livelihood systems, as promised, and the lack of the company's support for education in the two villages

compounded the problems for the youth, perpetuating high dropout rates in subsequent years. As of 2016, there were no vocational/technical institutions in the villages to cater for the training of youths. Very high youth unemployment is an economic issue that has been persistent in the resettled communities. Consequently, out-migration is on the increase as many youths have left the villages to seek greener pastures away from their home.¹²

The above analysis of the resettlement effect on chiefs, women and the youth has revealed disparate socioeconomic impacts. In general, chiefs acquired socioeconomic benefits from rutile MIDR in sharp contrast to women who were further impoverished by MIDR. The youth also faced adverse social and economic impoverishment, though some migrated outwards in search of better socioeconomic opportunities. Thus, these salient findings provide a more nuanced understanding of the variability of the resettlement effect on different actors within resettled communities, unlike most empirical works that revealed socioeconomic impoverishment within the communities as a whole (Ackuayi et al., 2014; Lillywhite et al., 2015; Madebwe et al., 2011; September 2010; Terminski, 2012).

3.4. Measures to improve the social and economic conditions of resettled communities

Respondents identified several measures when asked about the three most important ways to enhance their socioeconomic conditions (see Fig. 4). Home reconstruction was cited as the top most measure to enhance the lives of the resettled communities, as 71% of respondents emphasized the need to rebuild their dwelling houses. Furthermore, they stated that they would want to be involved in the process and would prefer the use of durable materials, such as concrete blocks, good quality timber and corrugated aluminum sheets. They would like each house to have a latrine and kitchen, with solar power in each housing unit.

Another measure that could improve the lives of the affected communities is the transformation from social/political marginalization to social/political inclusion of the affected persons in the compensation mechanism for lost property. In fact, 59% of interviewees expressed the need to revise crop compensation so they would be actively involved in the negotiation process. They maintained that if they were involved in the process, they would strongly argue for a review of the pricing to reflect the current market value and advocate for continuous payment for cash crops until mined-out lands have been rehabilitated and replanted to ensure the restoration of their livelihoods. It should be noted that government agricultural authorities in association with the mining company determine the compensation for lost trees. Nevertheless, the inclusion of the affected persons in the decision would hopefully increase the amount obtained as compensation. However, the current mineral legislature (MMA, 2009) seems unfair to the affected person, as landowners only receive 50 percent of the annual surface rent.

Educational support (48% of respondents) and skills training (45% of respondents) were the third and fourth most important measures which respondents believed would enhance their socioeconomic conditions as both would ensure alternative livelihoods in their communities. They believed that education in the form of learning and teaching materials and support to students by awarding scholarship for further studies would ultimately improve the socio-economic conditions of the affected communities. They noted that SRL should sponsor skills training in their communities followed by funding financial grants to embark on alternative livelihood projects. A Madina woman emphatically stated, “We need skills training as well as training in entrepreneurship followed by micro-grants to help us establish small-scale enterprises. These will serve as alternative sources of livelihood to our lost traditional livelihoods in our previous location”.¹³

⁹ Interviews of elders and the local chiefs (May 2016).

¹⁰ Interviews, Madina residents (December 2016).

¹¹ Interviews, Madina and Kanga women (December 2016).

¹² Youths, elders, women and local chiefs (December 2016).

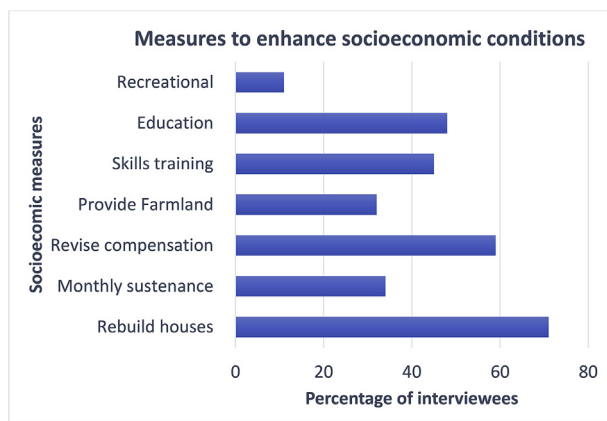


Fig. 4. Measures to enhance socioeconomic conditions.

Thirty-two percent of interviewees expressed the need for the provision of extensive land close to their new settlement. A Madina elder had this to say, “the company has not provided adequate land for our resettlement to cater for expansion of settlements, cemetery, recreational areas, societal bushes, farmland, etc. We require extensive land for the aforementioned activities to enable us live in dignity”. Moreover, many interviewees stated that they need farmland in the villages so that they can engage in small to medium-scale farming and/or gardening. This would help to mitigate impoverishment through risk reversal from farmland landlessness to farmland-based resettlement. It would also contribute to improved farming, thus curtailing food insecurity amongst the resettled population in the two villages. However, the national government authorities would have to ensure that the company fulfills its promise of providing resettled communities with adequate farmland as the community members do not have the power to influence that outcome.

To summarize, when asked to identify and explain three major approaches to improve the lives of their communities, interviewees suggested measures that would mitigate impoverishment and hopefully enhance reconstruction. They included home reconstruction, increased compensation, educational support, skills training and the provision of additional land.

4. Conclusion

This study has shown that asymmetrical power relations between the influential SRL and the national government on one hand and the affected mining communities on the other hand, competing interests among actors, as well as weak monitoring and enforcement of resettlement programs have primarily contributed to socioeconomic impoverishment rather than enhanced reconstruction of resettled communities. The mining company and the national government wielded considerable power in executing the involuntary displacement and subsequent resettlement of displaced communities. Consequently, relocated communities were faced with modified versions of five of the foundational risks namely joblessness, “landlessness” with adverse impact on local livelihoods, food insecurity due to food shortage, homelessness for those whose houses had collapsed, and political and social marginalization of the affected persons with reference to modality for compensation for lost property (Cernea, 1997). Though SRL attempted to employ risk reversal measures to improve the social and economic condition of the resettled communities, the study revealed that home reconstruction was only partially successful. In general, the lives of the members of the resettled communities were worse off than before relocation, contrary to the company’s policy and the World Bank and IFC’s

best practices. Nonetheless, this study pinpoints the variability of the resettlement effect on different groups within affected communities. Chiefs derived substantial socioeconomic benefits from rutile MIDR, unlike women who were the worst affected socioeconomically. The youth also faced serious social and economic challenges.

This study also contributes to the corpus of MIDR literature in developing countries in general and SSA countries, and pinpoints policy implications. In line with the works of Nambiza (2007), Madebwe et al. (2011), Lillywhite et al. (2015), Kidido et al. (2015), and others, the study shows how MIDR, in many instances, results in various degree of social and economic impoverishment despite efforts at risk reversal and reconstruction. This study calls for the inclusion and active involvement of landowners in determining the modality for compensation for land, trees and crops. This may require a new policy wherein affected persons will receive annual payment for perennial economic trees until the rehabilitation of mined-out areas is complete, rather than the one-off payment for economic trees that currently prevails. It also underscores the need to formulate and enforce legislation that ensures the provision of alternative livelihood options for affected community members relocated in the 1990s, whose original natural resource-rich settlements are still being mined by SRL. It is hoped that such measures would improve the socioeconomic conditions of the resettled rutile-mining communities in Southwestern Sierra Leone.

Conflicts of interest

None declared.

Ethical statement

The author state that the research was conducted according to ethical standards.

Funding body

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Acknowledgments

Special thanks to Mr. Senesie Amara, National Coordinator of Initiatives for Community Development-Sierra Leone who provided invaluable assistance during fieldwork.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jsm.2019.03.001>.

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¹³ Interview, a woman in Madina Village (December 2016).

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