RESEARCHING INTERNAL DISPLACEMENT

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Development-Induced Internal Displacement: A Sustainable Livelihoods Framework Perspective

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Abstract

Migration has been argued to enhance livelihoods in various ways thereby being a livelihood strategy. However, displacement is not likely to yield such benefits but instead increases vulnerability by decapitalising displaced people. This study brings into perspective the need to analyse livelihoods among development-induced displaced persons using the sustainable livelihoods framework. The study proposes a framework of analysis within the sustainable livelihoods framework context to attain this objective. Results show that while development projects aim to improve lives, they seldom do so to the internally displaced persons. Also, results show that internal displacement may result in a vicious cycle of migrations again leading to decapitalisation and vulnerabilities. Thus, while Cernea's model remains a very useful tool of analysis in development-induced displacement, it leaves a lot to be desired. The perspective from the livelihoods framework, thus, complements this model well such that authorities need to work together with development agencies to analyse likely consequences of proposed development-induced displacements using the sustainable livelihoods framework.

Keywords

Internal Displacement; Livelihoods; Impoverishment; Vulnerability; Assets

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1. Introduction

Despite the increasing interest in migration studies, little has been done specifically on the link between development-induced displacement and sustainable livelihoods. Although migration has sometimes been argued to enhance livelihoods, debate exists with respect to displacement. Migration may enhance livelihoods through income diversification, for example, through remittances. Families have also migrated as a way of reducing vulnerabilities such as food insecurity, natural disasters and conflicts. However, development-induced displacement's outcomes have recently become a point of discussion in migration studies. Their consequences on livelihoods remain highly debatable especially with regards to benefits versus costs.

Development-induced displacement has become prominent with the majority of authors focusing on dams such as Scudder (1985) and Cernea (1995, 1997). The dominance of dams has led to the establishment of the World Commission on Dams. Recent interest has, however, focussed on mining-induced displacement since it has been found to be unique, thereby, potentially having unique consequences (Terminski, 2012; 2013, Owen & Kemp, 2015). The current study, however, focuses on development-induced displacement in general.

Development projects are never meant to displace people but whenever such projects are engaged in, displacement is sometimes inevitable. Losses from such internal displacements are large and such losses have been well documented. For instance, Madebwe, Madebwe and Mavusa (2011) noted that people were relocated from Chiadzwa to Arda Transau to allow mining. Madebwe, Madebwe and Mavusa (2011) and Mandishekwa and Mutenheri (2020b) established that these people became landless, among other losses. Also Cernea (1997) indicated that displacement leads to landlessness and other risks. These losses have implications on IDPs' livelihoods, for example IDPs change economic activities after displacement (Bruck, 2004; Bruck and Danzer, 2007; Bozzoli, Bruck and Muhumuza, 2011; Mandishekwa and Mutenheri, 2020a). The new activities have their own livelihood outcomes as predicted by the sustainable livelihoods framework (SLF) by DFID (1999).

It has also been observed that migration has not taken the centre stage in mainstream economics but the economic explanations of migration dominate the literature (de Haas, 2007). Such theories include the Lewis (1954) and Harris-Todaro (1970) models. One explanation for migration within these theories is differences in wages (actual or expected) between two locations, the labour-scarce and surplus areas. Thus, migration is incentivised by these differences since a cost-benefit analysis by a rational agent is assumed. The general conclusion from these theories is that migration is beneficial to both the sending and destination areas. However, this may not always be so especially under development-induced internal displacement. The place of this study within the migration literature is to bring development-induced displacement into perspective with special focus being on the analysis of development-induced internally displaced persons' livelihoods using the SLF developed by DFID (1999). This is very important for it enlightens authorities on the need for sustainability of lives among IDPs. This corroborates the arguments by Chambers and Conway (1991) that capabilities, sustainability and equity are linked. Given the losses in capabilities experienced by most IDPs, equity and sustainability are equally affected. Previously, similar livelihoods frameworks have been applied to disaster-induced displacement and resettlement (Arnall, Thomas, Twyman and Liverman, 2013) but little is known about its linkages with development-induced displacement.

The main objective of this article is, therefore, to show the link between development-induced displacement and sustainable livelihoods. Development theories predict that development projects are meant for economic development thereby enhancing livelihoods of all residents through, for instance, assets accumulation. However, development-induced displacement impoverishes the displaced people, through asset losses, thereby contradicting initial intentions of development projects. With displacement, IDPs' livelihoods mostly become vulnerable which possibly goes against the expectations of sustainable livelihoods. To attain the study objective, two main strands of literature are critically reviewed *viz*, development-induced displacement and sustainable livelihoods literatures. Their inter-linkages are also analysed to clarify the thesis of this study to show that the two strands need to definitely relate to each other in theory, practice and in policy. Thus, the study contributes, theoretically, to literature through proposing an analysis of livelihoods among development-induced IDPs using the SLF.

So far the SLF has been used in urban and rural livelihoods (Ellis, 1999, de Satge, Holloway, Mullins, Nchabeleng, and Ward, 2002, Amphune *et al.*, 2018). However, the vulnerabilities faced by IDPs are unique thereby deserving attention as argued in this study. Because Wayessa and Nygren (2016, p. 387) said "[a]s there are differences in the causes of displacement, there are variations in the post-displacement plights and livelihood-reconstruction needs", therefore, the SLF may be a good instrument in analysing IDPs' livelihoods because it considers individual specific circumstances thereby enabling the project planners to harness IDPs' assets to help improve lives. The application of the SLF is also supported by DFID (1999, n. p[1]) which states that "[t]he livelihoods approach is a way of thinking about the objectives, scope and priorities for development".

This study is organised as follows: The next section looks at development-induced displacement literature focusing more on the model by Cernea (1995, 1997). Sustainable livelihoods and the SLF come next. After the framework, a brief on materials and methods is presented followed by the proposed analytical framework which acts as the results section. A conclusion is given thereafter.

2. Methods and analytical framework

This study is based on a critical analytic review of existing literature. To review the literature, certain considerations were made. First, the study considered displacement studies. These were distilled to show their importance to development-induced displacement. Theories on development-induced displacement, particularly the IRR model by Cernea (1997), were relied on and the associated empirical evidence considered. On sustainable livelihoods, the SLF by DFID (1999) was invoked. The main focus was on the capital elements of the framework and the livelihoods outcomes. Particular focus was also made on the migration strategy to argue that migration is not only a livelihood strategy but that it can also result from unsustainable

[1] In the whole of this paper, n. p means no page number included in the document cited.

livelihood outcomes. Thus, while the SLF assumes migration to be a livelihood outcome, this study accepts that but adds that migration, especially internal displacement, may be a result of livelihood outcomes. These linkages are shown in the analytical framework employed.

Livelihoods have been analysed within the sustainable livelihoods frameworks (SLFs). A number of these SLFs exists for example the ones by DFID, Oxfam, Care and UNDP frameworks. For the purposes of this study, the focus will be on the DFID framework. The DFID framework, however, has a lot in common with the Oxfam framework (de Satge, Holloway, Mullins, Nchabeleng and Ward, 2002). The main focus in this study is on the shocks, capital elements and livelihood outcomes. The capital elements are represented in a pentagon of assets. In line with the place of IDPs in literature that they are a vulnerable group, the SLF is applicable because DFID (1999) states that the SLF views people as operating in a vulnerable context. Despite these vulnerabilities, people still have certain assets that they could use to reduce poverty, with poverty being viewed as either absolute or relative.

From the literature surveyed, it has been established that development-induced displacement is never meant to cause impoverishment of the displaced people. Its intention is to improve national welfare. However, it has also been shown that development has negative consequences to those displaced. These consequences are detrimental to households' livelihoods. With this in mind, Figure 1 has been theoretically proposed as an analytical framework for this study.

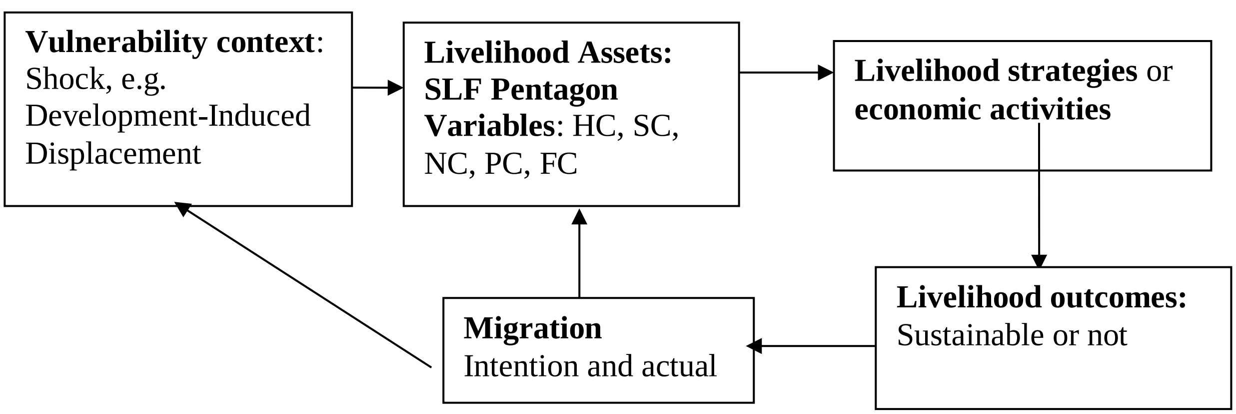

Figure 1: analytical framework[2]

Key: ***SLF****-Sustainable Livelihood Framework,* ***HC****-Human Capital,* ***SC****- Social Capital,* ***NC****-Natural Capital,* ***PC****- Physical Capital,* ***FC****- Financial Capital*

It is shown in Figure 1 that a shock, that is, development-induced displacement, has effects on livelihood assets. DFID (1999) argue that shocks destroy assets owned by households requiring use of coping strategies such as disposal of assets. Some of the assets affected have been

[2] The arrows may not necessarily imply direction of causality because causality might also be bidirectional. However, the analysis done in this study imply unidirectional causality as depicted in Figure 1

highlighted in development-induced displacement literature particularly in the IRR model by Cernea (1995, 1997) and such assets include land, homes and common property. Within the SLFs some of these assets have been lumped into five categories as human capital, social capital, natural capital, physical capital and financial capital. After these capital elements are affected negatively by displacement, households are left with no option except to engage in new economic activities to sustain their lives (Bruck, 2004; Bruck and Danzer, 2007; Mandishekwa and Mutenheri, 2020a). Because these activities are engaged in after livelihoods have been disrupted, the activities can be viewed as coping strategies. These economic activities are represented under livelihood strategies in Figure 1. The economic activities engaged in may or may not be sustainable since in early stages of resettlement households are more concerned about current consumption. Each activity done, therefore, has its effects. For instance, if not sustainable, these economic activities may lead individuals or households to migrate in search of better livelihoods while if sustainable, households are likely to remain, at least for some time. Thus, Khosla (1999) argues that sustainable livelihoods will bind people to their community and land thereby reducing probability of migration. With time, this creates place attachment which again limits probability of migration. However, with development-induced displacement, the probability of further displacements cannot be denied.

Migration (for the active working group) will now depend on several issues for instance the probability of getting a better paying job in receiving site versus the current location, as predicted by the Harris -Todaro (1970) model. On the one hand, if the probability of getting a better paying job is high, there is a high probability of migration and *vice versa*. On the other hand, the financial capital to finance the actual migration plays a key role. However, when social capital is in place and of good quality, there is a likelihood of increased migration with costs being catered for by relatives or friends. For example, Levron (2013) found that IDPs would take refuge in relatives' or ethnic group members' homes in the destination area. Migration and in particular, displacement has the potential to affect the five capital elements in the pentagon again.

Migration can also lead migrants to be more vulnerable as depicted in Figure 1. Because migrants have lost a number of household assets and, possibly may be engaging in less sustainable livelihoods, they are likely to become more vulnerable to problems like food insecurity. That development-induced internal displacement leads to food insecurity has been clarified by Cernea (1995, 1997). This may be a result of loss of land and other capital elements like financial capital.

From Figure 1, one may be compelled to conclude that development-induced displacement may lead to a vicious cycle of relocation. The chain of forced relocations may be difficult to break if policies, to enhance economic activities in the post-displacement site, are poor. Thus, while the SLF views migration as a livelihood strategy, this study argues that it can also be a result of livelihood outcomes. When livelihood outcomes are not sustainable, migration might be used as a strategy to enhance the capitals in the pentagon but might also lead to vulnerability. For example, financial capital may be enhanced by remittances. Again, by financing medical bills and education in the receiving country, remittances enhance human capital or can even be used to buy land (natural capital). Therefore, migration in this instance will be used as a strategy to enhance capital elements. When used as a livelihoods strategy, Amphune *et al.* (2018) found that migration may be a sustainable option. The effects of migration on vulnerability have also been indicated by Cernea (1995, 1997) in his model. As Coleman (1988) rightly said, migration leads to loss of social connections hence social disintegration a noted by Cernea (1997).

Another avenue is that it is possible for development-induced displacement to reverse the benefits of other policies. For instance, suppose that already sustainable livelihoods have been established in the area, displacing households disturbs these livelihoods. This takes longer, if ever, it is to be established in the post-displacement area. The length of time may be longer if assets that enable livelihoods will have been lost due to displacement.

From the connections explained above, the study now moves to detailed explanations of the various aspects of development-induced displacement and the SLF. Section three presents the development induced displacement consequences in detail.

3. Development-induced displacement consequences

Development-induced displacement has been extensively written on. Various literature views can be deduced from what already exists on this topic, such as sociological perspectives and economic perspectives, or even from theoretical and empirical perspectives. For the purposes of this study however, the impoverishment risks and reconstruction model by Cernea (1995; 1997) is analysed. This has been chosen because of its close link with the SLF to be analysed in the next section.

Cernea (1995; 1997) identified eight risks associated with development-induced displacement. He argued that whenever there is a development project these risks are likely to arise. He also noted that these consequences are, however, project specific. This argument makes the application of SLF handy in IDPs' livelihoods because it can be tailor-made to various situations. The eight risks identified are explained here.

3.1 Landlessness

Landlessness is defined as expropriation of land (Cernea; 1995; 1997; 2000). Cernea (1995; 1997) found that after displacement people lose a key asset, land, thereby decapitalising IDPs. Because Cernea argues that rural households are mostly dependent on land, he, therefore, argues that when land is expropriated, natural capital is taken away making affected households more vulnerable to livelihoods shocks. Mburugu (1994) also noted that people's identity is tied to their land implying that landlessness leads to loss of identity. Loss of land has also been found to lead to other consequences such as food insecurity (Yankson *et al*., 2017). Because poor people's lives depend mostly on land, even household incomes are affected by landlessness (Cernea, 1997; Gillis, 2005). Therefore, the loss of this natural capital element, land, is critical for livelihoods.

3.2 Homelessness

Loss of housing and shelter has been acknowledged among IDPs. It has been found that once displaced, people sometimes become homeless (Cernea, 1995; 1997). This consequence may be experienced by several generations with overcrowding being most prominent. With no homes, people become more vulnerable to weather shocks such as frost and hail storms as well as pneumonia. It is, therefore, somehow proper to argue that when someone is homeless, his or her livelihood is likely to be unsustainable because of trauma and associated illnesses.

3.3 Joblessness

Cernea (2000; 2004) defined joblessness as loss of wage employment which potentially leads to unemployment or underemployment. With all the various meanings that may be attached to wage employment, Cernea says joblessness is tantamount to loss of means of survival. According to Cernea (2000) when displaced, people also lose work that they could have done in other people's farms. Thus, wage incomes are affected by displacement. Megeneto (2013) and Mandishekwa and Mutenheri (2020b) found that unemployment among IDPs increase after their displacement. Analogous to loss of employment, Cernea (1996a) found that trade linkages established in the pre-displacement location are lost after displacement. The effects of joblessness on livelihoods cannot be denied since jobs are sources of income.

3.4 Social disarticulation/disintegration

Although no unique definition of social capital exists, its benefits have been well acknowledged. For example, it reduces search costs (Coleman, 1988). Displacement disintegrates households through loss of social capital. This loss of social capital impoverishes households because the access, including but not limited to credit, they could get from their social connections will have been disturbed (Cernea, 1995; 1997). For example, Megento (2013) found that IDPs lost their social connectedness because of displacement. Loss of social capital impoverishes people because social capital sometimes complements or substitutes other productive resources (Schmid and Robison, 1995). For instance, Barbelet (2017) found that social capital enabled IDPs to access credit. The loss of access to credit is tantamount to loss of financial capital. The end result of which is impoverishment.

3.5 Marginalisation

Cernea (1995) argue that marginalisation starts well before actual displacement. People may be denied credit, a proxy for marginalisation, before displacement because of the probability of non-payment before migrating. Because of lack of creditworthiness information, credit may still be denied after displacement (Mandishekwa and Mutenheri, 2020b). Like Cernea (1995; 1997), Megento (2013) and Mandishekwa and Mutenheri (2020b) concur that after displacement IDPs lose access to credit. Denying credit to IDPs is equivalent to denying oxygen to the body because Kvernrod (2004, p. 8) noted that credit is "... an oxygen infusion for a better life" among IDPs. Thus loss of credit affects IDPs' financial capital. Some IDPs are also subjected to persecution by host communities (Lopez, Arredondo and Salced, 2011) thus, resembling social marginalisation.

3.6 Food insecurity

Cernea (1995; p. 252), defines food insecurity as "... calorie protein intake levels below the minimum necessary for normal growth and work". To Kumar (1989) food security can be viewed as the availability and physical access to food by every member of the household. Cernea (1995) and Kumar (1989) imply different proxies of food security. For the purposes of this study, the definition by Cernea (1995 prevails because the analysis made here rely heavily on Cernea's views. According to Cernea (1995) displacement leads to food insecurity. Acharya (2009), Carrilo (2009) and Mandishekwa and Mutenheri (2020b) all found food insecurity among IDPs. Despite food insecurity as a consequence of displacement, within the SLF food security is very important as a livelihoods outcome variable.

3.7 Loss of access to common property resources

When displaced, people may lose the access they have to common property resources (Cernea, 1995; 1997). Common property resources are rival but non-excludable in consumption implying they are impure public goods. Because of these characteristics, continued use of the property leads to the tragedy of the commons by Hardin (1968).

Now, in development projects, common resources lost by IDPs are common grazing land and common forests, among others. Cernea (2000; 2004) and World Bank (2012) argued that loss of these resources leads to loss of incomes for rural households. It has been claimed that most poor rural households depend on common property resources (Cernea, 1995; 1997). For instance, they gather firewood for their heating and cooking purposes. Thus, loss of this access leads to loss of means of survival with Wayessa and Nygren (2016) establishing that loss of access to resources by resettlers makes recovery very difficult thereby impacting heavily on livelihoods.

3.8 Increased morbidity and mortality

Development-induced displacement has been found to lead to loss of access to community services sometimes leading to death. Such services include access to safe drinking water and health services. Such losses may lead to increased spread of diseases (Cernea, 1995; Robinson, 2003). Thus, displacement may affect health status of IDPs. For instance, Getanda, Papadopoulos and Evans (2015) established that displacement affected mental health of IDPs. Increased death rates among IDPs have also been found (Cernea, 1995). Therefore, by taking away people's access to such community services, displacement may lead to increased vulnerability to diseases and therefore human capital loss.

4. Sustainable livelihoods

DFID (1999) noted that the meaning of the word livelihood is not universal. Therefore, DFID's working definition for livelihood, as adapted from Chambers and Conway (1991, p.6) is "[a] livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base". Ellis (2003, p. 3) argue that "[t]he term livelihood attempts to capture not just what people do in order to make a living, but the resources that provide them with the capability to build a satisfactory living, the risk factors that they must consider in managing their resources, and the institutional and policy context that either helps or hinders them in their pursuit of a viable or improving living". Therefore, in line with the statements by DFID (1999) and Ellis (2003), one can deduce that the term livelihood encompasses a plethora of issues. Several livelihoods have been assessed in terms of the SLF.

Amphune *et al* (2018, p. 26) stated that "[t]he Sustainable Livelihood Framework (SLF), which focuses on the things people do and the resources they access in pursuit of a living, is very much connected with migration since the mobility of people is about the movement of human capital including the mobility of labor together with a person's experience, skills, educational level and health status". They argue that migration is a way of rural livelihood diversification since it reduces vulnerability to shocks. Such increases in income sources include remittances (Ellis, 1999). Amphune *et al.* (2018 also state that "[a] livelihoods approach places households and their members at the center of analysis and decision making", a sentiment also shared by DFID (1999). However, Amphune *et al.* (2018) noted that the SLF has been widely applied in rural areas. Viewed from development-induced displacement perspectives, by placing people at the centre, the SLF seems to respond to Cernea's claim that development projects must put people first. However, there have been few, if any, applications of the SLF to IDPs' livelihoods, even on theoretical grounds.

Conway (2004) stated that the understanding of people's livelihoods is a prerequisite before giving them the necessary assistance. Therefore, since humanitarian assistance is sometimes given to IDPs, it is imperative to understand their livelihoods. This gives room for the SLF framework used in this study. The following paragraphs outline and evaluate the SLFs focusing on the five capitals and the relevant livelihood outcomes.

5. Applying the sustainable livelihoods framework

DFID (1999, n. p) states that "[t]he livelihoods framework is a tool to improve our understanding of livelihoods, particularly the livelihoods of the poor". The framework shows several factors influencing livelihoods of poor people. In this review, focus is made on vulnerability, capital or assets and the possible livelihood outcomes from livelihood strategies. This has been necessitated by the relationships among vulnerability, capital, livelihood strategies, livelihood outcomes and migration. The approach used here is not meant to rule out the role of transforming structures and processes within the SLF but these structures are assumed exogenous, at least in the short run within the country of concern.

5.1 Vulnerability context

Within the SLF, vulnerability context is viewed as the external environment. The term external environment implies external to the person whose life is under consideration, that is, the environment outside of the person's control. Three main vulnerability context variables have

been identified which are shocks, trends and seasonality. Shocks and seasonality have been noted to be the most important variables to livelihoods among the poor people because trends are generally predictable and hence may be somehow managed (DFID, 1999). However, trends affect rates of return very much. While DFID (1999) noted that although not all trends have negative influence on livelihoods, the term vulnerability context means that many hardships among poor people emanate from these contexts. Thus, even if trends move in the right direction, poor people may not be able to utilise the opportunity because of lack of assets (DFID, 1999). Therefore, displacing these people worsens the situation because they lose their assets.
Within development-induced displacement, the vulnerability context is a shock as a result of displacement. Displacement affects people's external environments through various ways. For example, people lose access to common property resources and community services. Loss of land and access to common property resources increases vulnerability to food insecurity among other consequences (Cernea, 1997). Cernea also noted that poor people depend mostly on common property resources therefore; taking these accesses from the poor people impoverishes them. Again, taking community services, such as clinic and hospital services, away from IDPs increases their vulnerability to diseases such as malaria (Cernea, 1997).

5.2 Livelihood assets: the asset pentagon

The SLF seeks to understand people from their own perspectives. It aims, firstly, to understand what people have as assets they can use to their benefit. DFID (1999) views poor people as being unable to utilise only one asset to enhance their livelihoods since poor people's access to these assets is usually poor, therefore there is need for assets diversification. The assets have been grouped into five categories resulting in the asset pentagon. A further grouping has also been done where the capitals have been broken down to assets and capabilities. Capabilities are taken to refer to human capital while assets refer collectively to physical, natural, social and financial capitals. While these categorisations are important, it is equally important to note that they come from one group called economic capital. This seems to concur with Bourdieu (1986) who concluded that every type of capital can be reduced to economic capital. Being at the centre of the SLF, the asset pentagon is explained next.

5.2.1 Human capital

According to DFID (1999, n.p) "[h]uman capital represents the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives". Human capital is considered as a livelihoods asset meaning its accumulation (or loss) leads to potential gains (or losses) in livelihoods. In economics, education and health are some of the good proxies of human capital. Suttie and Vargas-Lundius (2016) argue that migration of household members increase human capital in terms of better health and enrolments into education. Such benefits of migration have been observed among households whose relatives are in the diaspora in Zimbabwe (Mishi and Mudziwapasi, 2014). However, with development-induced displacement, there are usually high rates of school dropouts and loss of community services. These reduce human capital.

Human capital is viewed as capabilities in the household triangle while the other four categories of capital remain named assets (de Satge, Holloway, Mullins, Nchabeleng, and Ward, 2002).

According to Nussbaum (2003) and Sen (2008) capabilities refer to what people are able to do or be. Thus, it is an internal variable within the person or households concerned. However, Scoones (1998, p.6) argues that capabilities are more than human capital because they include "... intrinsically valued elements of 'capability' or 'well-being'". Therefore, within the SLF conceptualization, utilising people's capabilities in improving their livelihoods reduces costs of training because, for example, the people use the skills they already have.

Within displacement literature, however, human capital is affected through various ways. Such ways include dropping out of school and loss of access to health. Therefore, because displacement affects IDPs' access to both education and health services it has an implication on human capital as a livelihoods asset. Again, education improves people's access to better livelihoods through better incomes and knowledge of risk management strategies. Also, it is generally agreed that healthy employees are more productive (Keyes, 2006, Ivlevs, 2015) thus, the ability to labour as a human capital element in the SLF is affected by the health status of the migrant. Thus, relocating people to areas without access to these human capital elements affects their livelihoods negatively. Such is mostly the case in development-induced displacement, for example in Mozambique, Adeola (2017) noted that some households were dumped.

5.2.2 Social capital

DFID (1999) stated that the definition of social capital is debatable. Despite the non-consensus among authors about the definition of social capital, what is important; however, is that, "... relationships matter" (Field, 2003) in life, either the life of an individual or corporate. The importance of social capital possibly derives from the fact that it affects individual or group productivity (Coleman, 1988, Hauberer, 2011). However, within the SLF, DFID (1999, n. p) argue that "[i]n the context of the sustainable livelihoods framework it is taken to mean the social resources upon which people draw in pursuit of their livelihood objectives". Social capital has, thus, been termed the resource of last resort by DFID (1999). Viewed from displacement literature, this equally fits because IDPs are usually socially disintegratated after displacement rendering their social networks unusable (Cernea, 1997).

Again, within displacement literature, social capital has been found to be an important asset. For example, when one migrates, they may first consider where to get shelter and assistance on arrival. It has been found to reduce search costs as well. Thus loss of social capital has negative implications on livelihoods. For instance, borrowing is done from colleagues of which colleagues fall within the framework of social capital (Coleman, 1988). For example, in Africa households lend to each other even things like bowls of mealie-meal but these are not borrowed or lend to strangers. Thus, like Coleman (1988) who noted that social capital can be used positively or negatively, DFID (1999) noted that social capital can be used positively or negatively in the SLF. Therefore, within the displacement literature, Cernea (1995, 1997) noted that social disarticulation or disintegration is inevitable.

5.2.3 Natural capital

The key productivity asset among the poor is sometimes natural capital. "[n]atural capital is the term used for the natural resource stocks from which resource flows and services (e.g. nutrient cycling, erosion protection) useful for livelihoods are derived. There is a wide variation in the resources that make up natural capital, from intangible public goods such as the atmosphere and biodiversity to divisible assets used directly for production (trees, land, etc.). Within the sustainable livelihoods framework, the relationship between natural capital and the *Vulnerability Context* is particularly close. Many of the shocks that devastate the livelihoods of the poor are themselves natural processes that destroy natural capital (e.g. fires that destroy forests, floods and earthquakes that destroy agricultural land) and seasonality is largely due to changes in the value or productivity of natural capital over the year" (DFID, 1999, n.p). This quotation shows that natural capital is very important to poor people. It gives them life like oxygen does to the human body. For example, access to common forest supplements food access through gathering wild fruits thereby improving food security status of the household. Again, because of lack of natural capital (land) to use as collateral, poor people are denied access to financial capital (DFID, 1999). However, access to natural resources is also a source of conflict between the poor and the rich. For instance, Asefa (2005) considers minerals and oils as natural capital. Therefore, extraction of these natural capitals requires the rich, owners of financial capital, to displace the poor who may be owners[3] of the natural capital. Despite the lack of financial muscles by the poor people, they may also try to resist displacement in various means.

Viewed from displacement perspectives, this concurs with Cernea (1995, 1997) who noted that displaced people's lives hinge strongly on land and common property resources and community services. Although the SLF combined these variables into natural capital to include other variables that Cernea did not take into account, it is noted that these variables are of importance to human life viewed from both the SLF and IRR model. Again, DFID (1999) concurs with Cernea (1997) that loss of land is equivalent to household decapitalisation. Public resources like common forests add to household food sources thereby improving livelihoods. For example, Smith (1981) noted that people have mostly relied on natural resources for their existence through harvesting wildlife to get food, medicines, clothing and shelter, *inter alia.* In line with this, DFID (1999) argued that natural capital is very important both to those who solely or partly depend on it for livelihoods. Thus, by displacing people from their native homes, one may be forcing them to lose this access to common resources which could enhance livelihoods.

Also, DFID (1999) noted that livelihoods will be very difficult without natural capital. For example, poor air quality affects health. Such could be found in displacement *in situ* where households may not be displaced to faraway places. This is common with mining activities where some households will be within vicinity of the mining companies thereby being harmed by pollution. Also, rural households depend mostly on common forest for medicinal purposes. Most herbs used to cure ailments are obtained from the forest, thus, displacing people from their native places increases people's vulnerability to illnesses because in the new location the knowledge may not be applicable because of new vegetation. Thus, this displacement again affects indigenous knowledge systems, a key asset in livelihoods. The vulnerability to diseases is also worsened by loss of access to community services and income.

[3] I use 'may be owners' because usually governments give user rights to residents not ownership of land thereby giving the government room to use its power of eminent domain.

While other forms of capital such as manufacture and human capital are substitutable, natural capital's substitutability is limited or finite (Asafe, 2005). Reasons for such non-substitutability may be immobility and non-renewability. For example, land can only be used where it was created by God and mineral extraction can only be done where the mineral is. One soil type and its associated climate may be used profitably in combination therefore, displacement may make people access poor soils, although there is also a probability of getting better soils.

5.2.4 Physical capital

Physical capital encompasses infrastructure and producer goods. These are necessary for supporting livelihoods. DFID (1999) noted that physical capital is usually a public resource accessed by all. Thus, being a public good, use and access are not rival and excludable. Such assets include roads which offer affordable transport to the market for the goods produced. Adequate water supply comes in again. However, water supply and roads may also be private goods. For example water services are sometimes paid for which means they become private goods. Unless water is accessed from a community borehole or well, it is a private good to IDPs. Viewed as a private or public good, adequate water and sanitation improves health. Thus, it supports the human capital variable again.

In most displacement situations, households are relocated to areas lacking these social amenities. This exposes them to risks of morbidity and mortality (Cernea, 1997). For example in Mozambique, some households were placed far away from these social amenities (Adeola, 2017). However Cernea and Schmidt-Soltau (2003) and Vanclay (2017) noted that this may not be the case. Instead, people may be placed closer to amenities thereby benefiting from the displacement.

Also with regards to housing as physical capital, homelessness has been found among IDPs. Thus, IDPs sometimes become homeless in post-displacement location (Cernea, 1995, 1997) though it may not be fully fledged. Therefore, poor living conditions may arise from displacement. These poor living conditions again create a health hazard which again affects human capital and then household productivity.

5.2.5 Financial capital

According to DFID (1999, n. p), "[f]inancial capital denotes the financial resources that people use to achieve their livelihood objectives. The definition used here is not economically robust in that it includes flows as well as stocks and it can contribute to consumption as well as production. However, it has been adopted to try to capture an important livelihood building block, namely the availability of cash or equivalent, which enables people to adopt different livelihood strategies". Thus, from this argument, access to financial capital has the potential to improve livelihoods. Approximate measures of financial capital are family wealth or income (Coleman, 1988). Two main sources of financial capital were noted by DFID (1999) and these are available stock, which includes among others saving, and regular inflows of money, which include remittances, among others, but exclude earned income. In the SLF, savings have been preferred for two reasons; they do not include liabilities and reliance on other people. Livestock is viewed as a saving in the SLF (DFID, 1999) and is also a liquid asset. Another source of financial capital is credit. One key characteristic of financial capital that may give it leverage over other assets is that it helps to directly achieve livelihood outcomes, however, it tends to be the least available to poor people (DFID, 1999). DFID (1999) further claims that the absence of financial capital among the poor is the source of importance of the other capitals.

For IDPs, access to financial capital has been found to be problematic. For example, IDPs are normally marginalised from access to credit (Cernea, 1995, 1997) yet credit has been found to be very important in IDP livelihoods (Kvernrod, 2004). Thus, the budget constrain of these households is reduced by both lack of savings and lack of credit thereby affecting their livelihoods. Access to credit is usually hampered by lack of natural capital which acts as collateral security (DFID, 1999). Again, because displacement leads to loss of animals (Mburugu, 1994), financial capital is lost. It is also possible that financial capital enables one to access natural capital, such as land, through the market system. Access to other capitals such as human capital will therefore be hampered again by lack of financial capital. This may be the reason why there are high school dropout rates among IDP households.

Conclusively, one can deduce from the above discussion that the livelihood assets represented by the household livelihood pentagon in the SLF is applicable in assessing livelihoods among development-induced displacement IDPs. It has been shown that the variables from the IRR model equally fit those of the SLF. The losses force IDPs to employ certain livelihood strategies to get certain livelihood outcomes. For instance, livelihoods activities that households may engage in are petty-trading and asset disposal (Fox, Chigumira & Rowntree, 2007, Adeniyi *et al.*, 2016, Mandishekwa and Mutenheri, 2020a). Some households may engage in diversified economic activities. Diversification of assets increases a household's resilience to shocks and stresses (de Satge, Holloway, Mullins, Nchabeleng, and Ward, 2002). However, among IDPs, Scudder (1985) notes that diversification may only be engaged after sometime since IDPs try by to transfer their pre-displacement location survival strategies into the new area. Therefore, if IDPs were not diversified in pre-displacement location, this may be the same in post-displacement residential area.

Therefore, the following two sections present the materials and methods and an analytical framework of the study which may be used in analysing potential livelihood effects of development projects which have the potential for internal displacement. Of note is that the framework has been constructed within the SLF and migration literature and therefore can be considered an adaptation of the SLF into the development-induced displacement literature.

6. Conclusions

If development projects are to yield sustainable and inclusive development, knowledge of sustainable livelihoods is very important. This study outlined the negative consequences of development-induced displacement. Sustainable livelihoods, as viewed from the SLF are among these affected variables.

Now if development projects are meant for development for sure, they need to seriously consider livelihoods. When considering development projects, authorities must "put people first" (Cernea, 1991). The SLF enhances this understanding since SLFs are people-centred. Therefore, development-induced displacement and livelihood researchers need to collaborate to inform policy. The two need be consulted whenever such projects are proposed since failure to do so may result in serious livelihoods problems.

It has also been found that displacement of households may trigger several displacements. People lose their capital such as natural, social and financial capital, upon displacement. These losses make households more vulnerable to shocks thereby instigating another wave of migration. This migration is particularly common when livelihood outcomes are not sustainable (Khosla, 1999). Thus, a vicious cycle of migration may be created initiated by one development project. This vicious cycle leads to multiple migration and losses in capital, which further worsens livelihoods in line with Cottyn (2018) who stated that further migration exacerbates livelihoods. Additionally, Waddington (2003) and Koko and Abdullahi (2012) noted that migration may lead to increased vulnerabilities among the displaced. With this regard, therefore, development projects must ensure that livelihood opportunities are created in post-displacement locations to minimise further relocations.

Like most authors on migration, Ellis (1999), Waddington (2003), Sutie and Vargas-Lundius (2016) and Cottyn (2018) agree that migration is a risk-management strategy. However, migration might also be a source of risk, as noted in preceding paragraphs. With each successive migration, some assets are lost. Accumulating these assets is usually difficult among IDPs (Cottyn, 2018). Also, Ellis (1999) said that migration might lead to stagnation in farm output in home farms because of lack of labour.

Ellis (2003) clarifies categorically the link between migration and livelihoods. However, the author did not focus much on displacement. This study, therefore, came in and outlined the linkages from the displacement side that Ellis (2003) did not dwell on. Thus, as Wayessa and Nygren (2016, p. 387) stated "[a]s there are differences in the causes of displacement, there are variations in the post-displacement plights and livelihood-reconstruction needs", therefore, since voluntary and involuntary migration are different, they may need different approaches. Therefore, this study is one of its own kind.

In this study, I argue that before displacing people there is need to understand people's livelihoods. That is, what assets do the households already have, what they may lose during and after displacement and after displacement what will they be left with? This information has generally been left out in planning displacements because the people to be displaced are usually not consulted (Scudder, 1985). The answers to these questions may improve the understanding of the survival ways IDPs may need to reconstruct their lives given the vulnerabilities within which they will be operating. Thus, the SLF plays a key role as de Satge, Holloway, Mullins, Nchabeleng, and Ward (2002, p.2) state that "[t]he livelihoods framework is a way of understanding how households derive their livelihoods by drawing on capabilities and assets to develop livelihood strategies composed of a range of activities". Failure to take the above questions into consideration may have detrimental effects on IDPs' livelihoods. For example, most IDPs in Arda Transau were allocated houses on a one size fits all basis (Madebwe, Madebwe and Mavusa, 2011). This ignored the unique circumstances each household had thereby failing to be people-centred as advocated by the SLF. In addition to this, de Satge, Holloway, Mullins, Nchabeleng, and Ward (2002) argue that the poor must directly contribute in determining the priorities of development projects. These priorities, thus, may need to include the people's needs. Because the SLF is people centred, policy directions may be influenced by the people directly affected by development projects. Therefore, the SLF may be found to be an important tool in livelihoods analysis of IDPs. Instead of just giving displaced persons assistance, the framework builds on IDPs' strengths, that is, what IDPs already possess or have access to. Again, the SLF is relevant because "[i]t also shows key links between the situation on the ground and the policies and programmes which may provide opportunities for people, or make problems worse" (de Satge, Holloway, Mullins, Nchabeleng, and Ward, 2002, p.69). By showing the situation on the ground, the SLF enables the deduction of specifically what development agents need to do to assist IDPs.

The current study deliberately omitted transformational structures and policies in the analysis. However, they do have influences on the livelihoods outcomes. Such could be seen in the tenure considerations, for instance land tenure. Governments sometimes use their power of eminent domain to displace people. For example in Ghana, people are displaced without proper compensation because Ghana does not take into consideration the tenancy of internally displaced persons (Aboagye, 2014). Thus, in this analysis, transformational structures have been taken as given, at least in the short-run, *ceteris paribus*.

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