

# Relationship between Land Acquisition Processes and Structures on Livelihood Outcomes of Smallholder Farmers in the Bawku District of Northern Ghana

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## Abstract

This research paper is a result of a study that analysed the relationship between land acquisition processes and structures on livelihood outcomes of smallholder farmers in Bawku East District of Northern Ghana. The descriptive research design was chosen to permit obtaining and describing of information concerning the land acquisition structures/processes; the available livelihood assets, how these could be transformed through innovative livelihood coping strategies towards achieving sustainable livelihood outcomes for the rural dwellers who lost land in the Bawku East District of northern Ghana. The correlational design was utilised to permit investigation of the relationship between land acquisition and livelihood outcomes among smallholder farmers in Bawku East District of northern Ghana. 400 individuals participated in the study in four villages in Bawku District. The villages were selected because they had been affected by large scale land acquisitions for community development projects. The study concludes that, the introduction of land title registration to replace the Deed registration in Ghana was not effective as was envisaged; because to date after its introduction, the weaknesses identified under the Deed's registration remained unresolved due to poor implementation of the law and other institutional related factors. The indigenous land tenure and management system continues to operate and provide land for many people and purposes. It has wider coverage than the state system and dominates particularly in rural areas and for agricultural purposes. The Land Act, 2020 (Act 1036) was passed by Parliament and assented to by the President on 23rd December 2020 to revise, harmonise and consolidate the laws on land to ensure sustainable land administration and management, effective and efficient land tenure and to provide for related matters. With the

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Chiefs as the pivot for land related disputes and/or conflict resolutions; the Chieftaincy Act, 2008 (Act 759) was enacted by the Parliament and assented by the President on 16th June 2008. The land acquisition process in Bawku East District has a negative impact on the livelihood of indigenous farmers. This is attributed to the fact that land acquisition leads to the loss of land, loss of means of livelihood, disruption of economic activities, persistent land-related conflicts, and relocations to poorly developed areas, inadequate and late compensation, and environmental degradation.

### Keywords

Land Acquisition Processes and Structures, Livelihood Outcomes, Smallholder Farmers, Bawku East District, Ghana

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## 1. Introduction

It is an undeniable fact that large scale land acquisition by Government and influential individuals for development projects/facilities and residential/commercial infrastructure in Ghana is on the upsurge. The receiving end of the effect of land acquisition on household livelihoods is those living on or proximal to the acquired lands. Ideally, [Carney \(1998\)](#), [Mallick \(2019\)](#) and [Agleby \(2019\)](#), posited that an underlining principle of the Sustainable Livelihood Framework (SLF) is that those sufficiently endowed with assets especially land, are in a better position to make positive livelihood choices. This implies that several range of options avail rural households to choose from in order to maximize their achievement of well-being rather than being forced into any given livelihood coping strategy ([Lyatuu, 2015](#)).

Almost everyone's history or family root is always a saga of attachment to or alienation from land; ([Mahama, 2006](#)). As stated by [Avery \(2009\)](#) there is no land without a titleholder. Naturally land belongs to three groups of people, namely, the dead, the living, and the unborn. At any point in time, the living is just a custodian of the land. The owner of a land is thus any person or group of people that have the reserved right; legally or customary to use, convey, lease, or assign a parcel of land ([Mahama, 2006](#)). In Ghana, Land acquisition is organized along two main lines; that is, customary and statutory or public.

Customary lands are managed based on customary laws and traditions of specific customary areas in the country. Public lands on the other hand are managed based on State laws and Acts. Customary lands make up 80% of lands in Ghana, while public lands make up 20% (18% being lands compulsorily acquired by the State from customary authorities, and the remaining 2% being lands whose legal management has been vested in the state to act as trustees on behalf of the customary owners). Customary lands therefore provide the largest market base for land acquisition in Ghana, both for private individuals and corporate bodies. This is similar in some other African countries like Uganda, Kenya, and

Zambia where customary land acquisition and management practices are phenomenal. In Africa, between 70% and 90% of persons and even Governments, wishing to acquire land rely on processes involving customary institutions for residential and commercial structures and/or implement projects in the interest of the people.

In Ghana, government's land acquisition is usually done through the power of eminent domain or escheat otherwise known as compulsory acquisition, as provided under Article 20(5) of the 1992 constitution of Ghana, and under the State Lands Act 1962 (Act 125). Land acquisition from the public lands by private individuals, and corporate bodies is to an extent, on a limited basis; because public land acquisitions have certain restrictions that make it difficult for open accessibility by all individuals.

Article 20 clauses (1) and (6) of the 1992 constitution make this clear. Article 20(1a) permits the State to compulsorily acquire any land in Ghana for such purposes as is "*in the interest of defense, public safety, public order, public morality, public health, town and country planning or the development or utilization of property in such a manner as to promote the public benefit.*"

Clause (6) further states that "*where the property is not used in the public interest or for the purpose for which it was acquired, the owner of the property immediately before the compulsory acquisition, shall be given the first option for acquiring the property*" (Government of Ghana, Constitution of the Fourth Republic of Ghana, 1993: pp. 24-25). Due to the limitation on the availability of public lands to all people by this clause; it pushes most prospective land owners or buyers to fall on the customary sector for land acquisition.

## 2. Literature Survey

In the rural villages of the Bawku East District, farming is the predominant source of livelihood with majority and most of the farmers being smallholder farmers as posited by Agbley (2019). Due to the high illiteracy rate, increased household sizes and high poverty rate in the Bawku East District, most of the people do not have alternative sources of livelihood such as engaging in monthly salary work, and other opportunities in the formal sector. Hence farming has been the major source of living among the rural people of the Bawku East District.

The situation has become worse as recent statistics showed that, for every hectare of land acquired for government or community project in any village within the district, more than twenty (20) smallholder farmers lose their farm-lands (Agbley, 2019). The unfortunate circumstances are that despite the increasing number of smallholder farmers losing their farms, there is no satisfactory reimbursement and resettlement to the farmers who have lost the land. Aside from this, there is also no insurance or social security for these farmers; resulting in the land loss for smallholder farmers who eventually find difficulty in coping with life and sustaining their livelihood. They keep losing hope and seem to have no assurance for future sustainable livelihood especially as their

wellbeing and life satisfaction are being threatened (Agbley, 2019). The acquisition of farmlands from smallholder farmers using all means by government officials, influential individuals and politicians is the case in the Bawku East District (Bawku Municipal Council Minutes, 2020).

A theoretical review of the theories on Land Acquisition; indicates that land related issues were based on the evolutionary and institutional or communitarian approach and understanding of land reforms and the effects on livelihood dimensions of land reforms and its implications. It was underpinned by the evolutionary and modernist theory where poor, under developed nations with large arable lands and peasant way of life were expected to transit to capitalism which is a clear basis of large land acquisitions for plantation agriculture. In Ghana Land acquisition is organized along two main lines which are customary and statutory or public Customary lands are managed based on customary laws and traditions of specific traditional/customary areas in the country.

Furthermore, the neoliberal argument was that for an agrarian revolution to ensue countries are encouraged to pursue land reforms through the formal registration of lands or land titling. They argue that private land is the most efficient unit of agricultural production since owners are final claimants to profits and thus have higher incentives to put the land to the best use and improvement. Consequently, the government of Ghana needs to modify the current land acquisition processes to suit the livelihood needs of smallholder farmers. Additional land reforms include adequate and timely compensation to the landowners to enable farmers invest in non-farming livelihood activities; and government adopting appropriate mechanisms of minimizing persistent land-related conflicts.

The belief in the evolutionary theory of land reforms, which is the moving from communal lands into privately held lands (land titling) led to large-scale land acquisitions by corporate entities or individuals with large capital. Quaye (2008) noted that in Africa, between 70% and 90% of persons and even governments, wishing to acquire land rely on processes involving customary institutions for residential and commercial structures and/or implement projects in the interest of the people. In Ghana, government's land acquisition is usually done through the power of eminent domain/escheat, otherwise known as compulsory acquisition, as provided under Article 20(5) of the 1992 constitution of Ghana, and under the State Lands Act 1962 (Act 125) (Government of Ghana, Constitution of the Fourth Republic of Ghana, 1993).

Dual tenure and land management systems currently run parallel to each other in Ghana (Statutory and Customary); with the customary system being the more robust in practice. The state land machinery when applied and enforced, weakens and extinguishes the customary system for all practical purposes. Beyond enabling the government to acquire land cheaply, the impact of the state land machinery on the customary private sector has been damaging.

Modern customary land law tenancies vary widely from seasonal hiring and

renting of land, to the sharing of farm produce and even farmland itself. Partition of farmland affords landless migrants a means to gain access to land by becoming landowners themselves. Some concern has, however, been expressed about the fairness of some of these tenancy arrangements. These have focused principally on issues of security of tenure, the amount of rent payable and uncertainty about the terms of the contract. These concerns were echoed in a report by a committee on tenant/settler farmers chaired by the Administrator of Stool Lands. It recommended that “customary tenurial systems like ‘Abusa’ and ‘Abunu’ should be phased out and the same replaced with a more progressive system capable of protecting the interest of tenant/settler farmers and landowners. This could be achieved by encouraging the documentation of the relationship between landlords and tenant/settler farmers and also by a cash tenancy system based on acreage”. This was tried before in the 1960s under the Rent Restriction Acts and the regulations made under them, which subsequently failed and were abandoned; as it was not clear whether the Committee’s proposal was superior to the indigenous practice. The indigenous system had the advantage of flexibility and in some cases resulted in ownership of land by people who might not have had the means to buy land directly. Even the much-despised sharecropping arrangements had benefits in an essentially rain fed system of agriculture where the risk of crop failure was real. This was an area where legal rent restriction, and the fixing of a money rent in a period of inflation, should have been avoided since it was unlikely to be effective. The opportunities to settle Ghana’s land question, promote efficient land markets and secure invaluable economic and financial returns from state/public and vested lands have all, so far, been missed; all public land management agencies are currently too weak in personnel, funding, equipment, vehicles and other support services to execute their national and regional functions effectively and efficiently; without independent property services agencies, devoid of political and ministerial control, land management will continue to be dominated by the Government of the day; there are inequities in state land regulation and its administration. These must be removed or amended to allow for progressive land management based on standard professionalism, financial, economic and market considerations; the benefits of the public land machinery have gone to benefit a small minority class. Resources are being transferred, in legal fashion, from the poor to the rich, the powerful, the influential, the well-connected and the educated at the expense of the poor majority; such a retrogressive land administration regime is not sustainable. In the long run, it is an invitation to instability and revolution if the disadvantaged majority decide to challenge the system; indigenous land tenure and management systems have a place in the modernisation and development process; though progressive, the customary tenurial systems are currently proving inadequate in dealing with the challenges of the time. Some chiefs and indigenous custodians of land are breaking all the basic tenets underlying customary landholding. Families and individuals are still supposed to be absolutely secure

in their landholdings, both for agriculture and housing. The current urban and peri-urban land market is a rat race, in which most indigenous families, particularly the most vulnerable groups are generally excluded; the uncertain and precarious nature of compensation claims do not augur well for long term relationships between new land developers, who are largely migrants, and displaced indigenous people; and the current rates of rapid urbanisation and the indiscriminate conversion of agricultural lands are a recipe for disaster, and will not promote sustainable development at village, district, regional or national levels.

### 3. Theoretical Framework

The section provides a theoretical framework adopted by the study. It also provides the livelihood theories following critical review of the relevant literature in relation to the study regarding land acquisition processes and livelihood outcomes.

#### 3.1. The Evolutionary Theory of Land Rights (ETLR)

The ETLR is where the arrow pointing towards registered freehold indicates the evolutionary trend from informality towards formality. The implication of the ETLR is that a state needs to implement a land titling programme to formalise private property rights once land becomes scarce in order to reduce conflict and promote efficiency, economic growth and political stability goals that are often shared by cadastral innovators and land administrators. [Platteau \(1996\)](#) clearly shows that these aims are not always achieved, especially with reference to sub-Saharan Africa. He asserted that perhaps “the most delusive idea behind the ETLR is that land titling can be expected to increase land security for all customary Rights-holders” ([Platteau, 1996](#)) and calls such an assumption “naïve”. [Whittal \(2014\)](#) concurs with “the assumptions underlying evolutionary land rights thinking require critique [because] change is not always unidirectional” and because freehold should not be valued more highly than other land tenure forms that can offer strong tenure security. The ETLR does reflect the idea that land tenure arrangements and practices are changing more or less autonomously under the pressure of growing scarcity of land, and that these changes are leading to increased individualisation of land tenure and increased transferability of land ([Platteau, 1996](#)). However, it fails at the point of formalisation and registration of private property rights in the context of sub-Saharan Africa. In some contexts, land registration has led to improved credit access, higher land values, increased investments in land, and higher output/income. The evolution of land rights is not necessarily a cost-effective process, especially in sub-Saharan Africa, which could create bias in favour of the wealthy. Hence, the assumption that registered titles give tenure security may be invalid in the face of government land reform policy and practice that advances the ETLR.

Many customary norms and practices recognise as legal and offering a high

degree of tenure security when viewed from an African customary law perspective. An analysis of the land questions based on the evolutionary and institutional or communitarian approach and understanding of land reforms have however, not paid enough attention to procedural concerns and on livelihood dimensions of land reforms and its implications. Working in conjunction, they help to explain why land deals occur where they do and how they change not only the land itself, but also people's relation to the land which is the theoretical gap to this study. The evolutionary gap to this study is based on the theory of property rights which underscores the fact that in a market involving agricultural land in developing nations, a spontaneous transition from communal to private property occurs as soon as national and international commercial pressure on rural land creates new market opportunities. In effect, though the evolution is seen as spontaneous, the government of the land still plays a crucial role as the actor formalizing and consolidating the new system (Agleby, 2019). The basic argument of the evolutionary theory is that, when commercial pressure is heightened there is usually a corresponding effect which will initiate a beneficial shift from traditional land tenure to private property ownership; and with the state supporting the change, it will lead to the efficient allocation of resources, increased productivity and sustainability of smallholder farmers in the given community.

However, recent studies revealed that in the Bawku East District and further areas in the Upper East Region in Ghana, there are increasing land disputes arising from scarcity of arable lands available for farming in the area. The authors conclude that the number of farmlands available for farmers is gradually being reduced and the situation is presently depriving farmers of arable land and disrupting the livelihood of smallholder farmers. Some of these smallholder farmers are at times compelled to travel far away from home for farming purposes, thereby limiting their ability to farm on available arable lands in proximity to their homes. Moreover, the family members, due to increase in family size and community population are sharing the same land owned over decades resulting in conflicts emanating from reduced land ownership of smallholder farmers. Unfortunately, the increasing scarcity of agricultural lands has been blamed on the procedures and processes of land acquisition in the district where most farmlands have been converted for non-agricultural use. Most agricultural lands in the Bawku East District have been converted into the construction industry, factories, projects to support the improvement agenda of the government ID1F and other community development projects.

Consequently, the extent of the land acquisition for government and community projects is rendering the smallholder farmers in the district more vulnerable and threatens their living conditions as most of them are losing their farmlands. From this perspective, it can be argued that access to land is important for the sustainability of livelihoods of the majority of African populations, and the social and economic development of the African society as a whole (Lund, 2011; Mallick, 2019). According to Sietchiping et al. (2012), land appears to be one of the

most important productive assets of rural residents in developing countries, because how land is accessed and used has far reaching implications for productivity, equity, and overall economic growth of rural villages in Africa; as in most rural African villages, customary systems determine access, use and transfer of land. However, in modern capitalist and urban systems, land markets have become the commonly accepted mechanisms that allocate ownership and usufructuary rights in a manner that allows land and its associated assets to be used in the most economical way including innovative and result-oriented approach to agricultural practices (Mahoney et al., 2007). Since land is vital to sustainability of rural villages, it was imperative to review the concept of land grabbing and diminished land ownership to concretize the conceptual framework for the study. Furthermore, in the conceptual framework, some demographic features of the land-lost by smallholder farmers serve as a moderation variable.

This review aligns with the research objective which is to conduct an extensive investigation into the impact of government developmental projects and individuals' acquisition of community lands for residential purposes and livelihood assets on sustainable living policies and earnings of the land-lost by smallholder farmers in the Bawku East District of Ghana; of which, findings of this research can be useful to acquaint farmers with sustainable livelihood strategies and innovative agricultural practices, to make recommendations to strengthen the conflict mechanisms in place over land issues. The findings also strengthen the land acquisition processes based on the active role of traditional leaders and landowners; and reverse the increased rate of land degradation and desertification within rural villages of the Bawku East District. The study also seeks to find answers to the research queries, including, the level to which structures and processes for land acquisition influence the livelihood coping strategies of the land-lost smallholder farmers; the extent these processes and structures for land acquisition impact on the post displacement livelihood outcomes of the farmers through the mediation effect of the land-lost farmers' livelihood strategies; the mechanisms through which Livelihood Assets affect the farmers' livelihood outcomes through the mediation effects of livelihood strategies; the moderation effects of the demographic features (age, sex, and household size) in the association of living possessions and their outcomes of land-lost smallholder farmers; effects of the demographic features (age, sex, and household size) in the connection between living assets and earnings strategies of the land-lost smallholder farmers and the conflict resolution mechanisms in place to reduce the seasonal or perennial land disputes among villages and families especially at the onset of the rainy season.

This survey considered the research design, study population, sampling technique, data collection methods and instruments, validity and reliability texts, data processing, data analysis explained in detail in chapter 3; and the adoption of a descriptive research design to obtain information concerning the most innovative and result-oriented approach towards enhancing smallholder farmers agricultural practices to the end of achieving sustainable livelihoods for these



rural dwellers in the Bawku East District of northern Ghana. The sampling methods comprised purposive and snowball sampling seeks to cover the research variables or construct which constituted latent variables whose dimensions were measured with reflective observed construct indications adapted from the literature, theories and conceptual models using the Structural Equation Modeling (SEM) analysis method of which details are elaborated in the research methodology.

### 3.2. Sustainability Livelihood Theory

Sustainability of smallholder farmers entails sustainable agricultural practices to ensure the livelihood of these farmers. Hence, the concept of sustainability revolves around the postulation of Chambers and Conway (1992) regarding efforts at responding to diverse realities of most rural communities. Chambers and Conway indicated that sustainability of rural farming activities is grounded in the Sustainable Livelihood Approach (SLA) which is interconnected with three-pronged concepts of capability, equity and sustainability. They offered a definition of sustainable livelihood emphasizing on social and environmental dimensions. A livelihood according to Chambers and Conway (1992) comprises the capabilities, assets and activities required for a means of living. They further explained that, sustainability is attained when individual smallholder farmer can cope with and recover from stress and shocks, maintain or enhance his or her capabilities and assets, and provide sustainable livelihood opportunities for the next generation which contributes net benefits to other livelihoods at the local and global levels in the short and long-term.

According to Lyatuu (2015), since the development of the SLA by Chambers and Conway various international development stakeholders have been using the SLA to operationalize sustainable livelihood frameworks to suit their goals. Oxfam in 1993 employed the sustainable livelihood framework (SLF) in formulating its overall aims, improving project strategies and staff training through encouraging participation. Furthermore, the *Cooperative for Assistance and Relief Everywhere Inc.* (CARE) improved the framework in 1994 to include cultural relations to address gender issues in its efforts to achieve household livelihoods security in relief and development work (Lyatuu, 2015). The UNDP also adopted the SLF to serve as both a conceptual and programming framework for poverty reduction. Carney and Britain (2003), Salisbury (2003) and Small (2007) as cited in Lyatuu (2015) assert that, the core of SLF in all Agencies has been a link between asset, livelihood strategies and livelihood outcomes.

Carney (1998), Mallick (2019) and Agbley (2019), posit that an underlining principle of SLF is that those sufficiently endowed with assets are more likely to be able to make positive livelihood choices. This implies that there are a range of options that rural households can choose from in order to maximize their achievement of well-being rather than being forced into any given strategy (Lyatuu, 2015). Scoones (1998) also stated that the SLF describes two types of relationships be-

tween assets. Thus, 1) sequencing refers to the degree to which the acquisition of one asset enables the acquisition of another, and 2) substitution, which is the degree to which assets can be substituted for others.

Most of the smallholder farmers' livelihoods are based on a certain type and level of natural capital which also is derived from land (Gosling, et al., 2010). Supporting this assertion, through owning land; a household's social status is dignified enabling it to benefit from greater social capital. Lyatuu (2015) and Agbley (2019), added that land is a key asset for rural livelihoods because of its primacy in asset sequencing. A household that has acquired land may be more likely to invest in conservation projects or use it as collateral to access financial capital and use the latter to enhance their human capital through investing in skills development programs and in their children education.

The study viewed land as a natural resource base and a dominant asset in sequencing other assets (Scoones 1998). Hence, in formulating the conceptual framework, the proposed study leans on the assumption that land has a high influence on rural household's ability to pursue meaningful livelihood strategies (LS) that would enhance rural households' well-being. In view of this, the proposed study puts land at the core of sustainable assets for smallholder farmers; and assumes that different patterns of acquired land in terms of size and number of plots have varied influence on the pursuit of LS and the ultimate achievement of their well-being.

#### 4. Review of Related Literature

This covers an extensive investigation of previous literature related to the study and field works focusing on the study objective; relationship between land acquisition processes and structures on livelihood outcomes of smallholder farmers in the BED.

To ensure sustainability of smallholder farmers, Kasanga (1988), postulated that a better than average land residency structure in a natural and agriculturally based economy like Ghana should notwithstanding different things ensure that: 1) there is impartial dissemination of land assets among the individuals for their cultivating, lodging and different endeavours. 2) In the community, there is no creation of the landless class. 3) Approach to land is being ensured, and the privileges obtained to secure land for the people are ensured. 4) Desperation, joblessness, unemployment, fiscal and political vulnerability for a larger part, as against of a minority class which are landholding is avoided. 5) The benefits/rights are secured as evident to many get-togethers included—taking out land questions and indictment. 6) Both family and a single person have rights to land which can be seen in the relevant lawful courses of action. Sustainability or livelihood coping strategies of smallholder farmers therefore entails sustainable agricultural practices to ensure the livelihood of these farmers. Hence, the concept of sustainability revolves around the postulation of Chambers and Conway (1992) regarding efforts at responding to diverse realities of most rural villages.

Chambers and Conway (1992) indicated that sustainability of rural villages farming activities is grounded in the Sustainable Livelihood Approach (SLA) which is interconnected with three-pronged concepts of capability, equity and sustainability. They offered a definition of sustainable livelihood emphasizing on social and environmental dimensions. According to Chambers and Conway (1992) livelihood comprises the capabilities, assets and activities required for a means of living. They further explained that sustainability is attained when the individual smallholder farmer in the short and long-term can cope with and recover from stress and shocks of the effects of land acquisition. This is by maintaining or enhancing his or her capabilities and assets to provide sustainable livelihood opportunities for future generations at the local and global levels.

According to Lyatuu (2015), Chambers and Conway (1992) SLA have been adopted by various international development stakeholders to operationalize sustainable livelihood frameworks to suit their goals. Oxfam in 1993 employed the sustainable livelihood framework (SLF) in formulating its overall aims, improving project strategies and staff training through encouraging participation. Furthermore, the Cooperative for Assistance and Relief Everywhere Inc. (CARE) improved the framework in 1994 to include cultural relations to address gender issues in its efforts to achieve household livelihoods security in relief and development work (Lyatuu, 2015). The UNDP also adopted the SLF as a conceptual and programming framework for poverty reduction. The core of SLF in all Agencies has been a link between asset, livelihood strategies and livelihood outcomes. Carney (1998), Mallick (2019) and Agbley (2019), posit that an underlining principle of SLF is that those sufficiently endowed with assets are in a better position to make positive livelihood choices.

This implies that there are several options that rural households can choose from to maximize their achievement of well-being instead of being forced into any given strategy (Lyatuu, 2015). Scoones (1998) also stated that the SLF describes two types of relationships between assets. Thus, 1) sequencing refers to the extent to which the acquisition of one asset enables the acquisition of another, and 2) substitution, refers to the degree to which assets can be substituted for others. Most of the smallholder farmers' livelihoods are based on a certain type and level of natural capital which also is derived from land (Gosling et al., 2010). Through owning land; a household's social status is dignified enabling it to benefit from greater social capital. Lyatuu (2015) and Agbley (2019) added that land is a key asset for rural livelihoods because of its primacy in asset sequencing. A household that has acquired land is most likely to invest in conservation projects or use it as a guarantee to access financial capital and use the latter to enhance their human capital through investing in skills development programs and in their children's education. At present, there is a dichotomy of opinion among researchers and stakeholders about smallholder farmers' livelihoods in the Bawku East District.

Boamah (2011), attributed smallholder farmers' situation to poor regulatory

policy on land acquisition in Ghana while [Tsikata et al. \(2011\)](#) and [Vijaya Bhaskar et al. \(2017\)](#) felt that implementation of several projects by government and local authorities using communal and smallholder farmers' lands for these projects resulting in unsustainable agricultural practices are the causative factors for increased diminishing land ownership and degradation of land in the Bawku East District.

[Agbley \(2019\)](#) disagreed with such notion and claimed that government and individual projects orchestrated practical and result-oriented strategies on agricultural practices, but out of desperation, most of the farmers failed to follow these recommendations. For example, [Lund \(2014\)](#) indicated that farmers in the Bawku East District often employ agricultural practices such as bush burning and tree felling, despite strict instructions from government officials and private individual commercial investors to desist from such practices. [Ayariga \(2004\)](#) indicated that due to the limited farm land in the East District, the construction of additional dams is impractical since the portions of land that could have been used for cultivation of crops will be used for the construction of dams whereas water can be pumped from the nearby river for irrigation (White Volta). [Ayariga \(2004\)](#) and [Lund \(2014\)](#) further indicated that the felling of trees constitutes one of the major problems in the Bawku East District attributing to unsustainable agricultural practices; and there is scarcity of trees to diversify into charcoal burning. [Alare \(2015\)](#) study focused on Climate-Smart Agriculture as an innovative approach to increasing agricultural productivity, however, her study was conducted in Anafobiisi and Gowrie-Kunkua societies in the Bolga District that is in Upper East Region of Ghana. [Agbley \(2019\)](#) study on land acquisition and its impact on smallholder farmers focused on the entire Northern Region of Ghana with much attention on highlighting the negative impact of land acquisition on smallholder farmers livelihoods. [Akudugu and Issahaku \(1990\)](#) study centered on the management of smallholder irrigation schemes and irrigable lands in the Bawku East District by communal institutions like the Water Users Associations where most farmers have lost their lands totally covered under the water catchment of irrigation dams. It is imperative to resolve the controversy between scholars on the above-mentioned issues to orchestrate practical agricultural practices and result-oriented approaches to improving smallholder farmers' livelihoods in the Bawku East District. In an area where occupants rely on regular land assets for their jobs, corruption of such assets is a genuine danger to the maintainability of a resource way of life.

This study likewise concentrated on the structures, causes and answers for the threat of land corruption in the Bawku East District of the Upper East Region of Ghana. It viewed land as a natural resource base and a dominant asset in sequencing other assets ([Scoones, 1998](#)). Hence, in formulating the conceptual framework, the study leaned on the assumption that land has a high influence on rural household's ability to pursue meaningful livelihood strategies (LS) that would enhance rural households' well-being. In view of this, the study puts land

at the core of sustainable assets for smallholder farmers; and assumes that different patterns of acquired land in terms of size and number of plots have varied influence on the pursuit of LS and the ultimate achievement of their well-being. Previous researchers' findings created a gap as they did not connect how large-scale land acquisition affected the livelihood coping strategies of smallholder farmers in their target areas of study. *Jatropha* and other cash crop production could be used to enhance development in rural villages if the project adheres and considers the traditional land tenure systems with the full engagement of the people of the host villages. Large-scale land acquisition for plantation and biofuel production did not divert resources from food production. The activities of Bio-fuel Africa Ltd had led to the generation of additional social assets in projects for host villages including grinding-mills, dams, and health centres. Improving on the human capital, a case in Mali relates where the company had provided technical assistance to farmers to enable them to improve on their agricultural activities. The project had contributed to long term public revenues. There was another case of foreign entrepreneurs in Ethiopia who had contributed to the revenue base of the government by paying land lease fees. In Mali local farmers union were able to invest and hold a 20% share in a Dutch funded project. Contrary to above findings, several researchers indicated that lands acquired for cash crop farms rather worsened livelihoods of host villages. Some advocate that smallholder farmers benefitted from lands acquired for biofuels in terms of employment creation, infrastructure, higher standards of living, etc. Large-scale *jatropha* cultivation generated conflicts over resources in Africa (notably in Mozambique and Tanzania) and Asia. The phenomenon could significantly exacerbate rural poverty as villages lose access to vital livelihood resources. Women farmers in Mozambique and Tanzania suffered after losing their farmlands to commercial plantation investors. These farmers reportedly lost their assets, the only farmlands on which their livelihoods and that of future generations depended.

The situation reportedly resulted in hunger and reduction in the level of productivity of the affected farmers as they resorted to unfavorable alternative means of coping strategies to survive. Several Ghanaian and Senegalese farmers had lost their "marginal" lands on which was their main source of food, fuel and incomes.

Smallholder farmers whose farms were replaced with plantation cultivations (on which they cultivated maize, rice and cassava) experienced a worsened food insecurity situation. Large plantations led to the attraction of pests which destroyed nearby food crops of rural farmers. Livelihood coping strategies of smallholder farmers which is dependent on the well-structured and time tested traditional or communal land tenure systems in Ghana has been seriously threatened due to the acquisition of large-scale land by influential individuals and foreign agribusinesses (Lyatuu, 2015; Agbley, 2019). For example, in the Savana region of Ghana, smallholder farmers' entitlement right to their land have been se-

riously affected by the presence of BioFuel Africa, a corporation involved in increased investment in emerging markets and acquisition of large tract of lands for growing *Jatropha* farms, BioFuel Africa, landowners and certain stakeholders ascertain that investment by such big international agricultural corporations boost foreign direct investment for Ghana, increase much needed export, accentuate growth and create jobs for indigenes and boost smallholder farmers' livelihood (Tsikata et al., 2011; Agbley, 2019).

With the increasing population, there is need for smallholder farmers to increase production with sustainable agricultural practices so as to preserve the natural resource base and the environment (Yiran et al., 2012; Tsikata et al., 2011; Agbley, 2019). Large scale acquisition by foreign agribusinesses dispossesses smallholder farmers from their lands and speeds up land degradation. To increase production, most of the farmers go into unsustainable agricultural practices such as indiscriminate bush burning, cutting down of trees to pave way for planting and inadvertently speeding up desertification (Yiran et al., 2012). In view of the increased emphasis on food security and sustainability of livelihoods worldwide and the increasing rate of desertification in Bawku (Yiran et al., 2012; Agbley, 2019), sustainable agricultural practices must be promoted to reverse land degradation, increase productivity and livelihood outcomes of smallholder farmers. In this regard, land is one of the most important productive assets of rural farmers in developing countries especially Africa and Asia (Sietchiping et al., 2012). Therefore, how land is accessed and used has far reaching implications for productivity, equity, and overall economic growth of rural communities in Africa. In most rural African communities including Bawku, customary systems determine access, use and transfer of land. Lund (2014) revealed that in Bawku, family heads, Tidana and Tigatus are responsible for land administration with little intervention from the government. With increased pressure by foreign agribusinesses, to many family heads, there is little control over which land should be sold and which should be left for smallholder farmers. This has led to serious conflicts and disputes so much so that it is currently affecting agricultural practices and production of smallholder farmers due to the fear of being assaulted in the farm or losing their precious land upon which their livelihood is sustained. However, in modern capitalist and urban systems, according to the enclosure model and Marx's concept of primitive accumulation, land markets have become the commonly accepted mechanisms that allocate ownership and usufructuary rights in a manner that allows land and its associated assets to be used in the most economical way including innovative and result-oriented approach to agricultural practices (Mahoney et al., 2007). Since land is vital to sustainability of smallholder farmers, then there is a need to promote the implementation of the evolutionary theory of property rights so as to forestall the damaging effect of customary systems of land allocation. Promotion of increased government intervention in land allocation and resolution of disputes in Bawku is primary to increased access to land by smallholder farmers and sustainable

land use.

### Summary of the Research Gaps

The evolutionary gap to this study was based on the theory of property rights which underscored the fact that in a market involving agricultural land in developing nations, a spontaneous transition from communal to private property occurred as soon as national and international commercial pressure on rural land created new market opportunities; however, though the evolution was seen as spontaneous, the government of the land still played a crucial role as the actor formalizing and consolidating the new system (Agbley, 2019).

Alare (2015) study focused on Climate-Smart Agriculture as an innovative approach to increasing agricultural productivity, however, her study was conducted in Anafobiisi and Gowrie-Kunkua societies in the Bolga District in the Upper East Region of Ghana. Agbley (2019) study on land acquisition and its impact on smallholder farmers focused on the entire Northern Region of Ghana with much attention on highlighting the negative impact of land acquisition on smallholder farmers livelihoods. Akudugu and Issahaku (1990) study centered on the management of smallholder irrigation schemes and irrigable lands in the Bawku East District by communal institutions like the Water Users Associations where most farmers have lost their lands totally covered under the water catchment of irrigation dams.

It is imperative to resolve the controversy between scholars on the above-mentioned issues to orchestrate practical agricultural practices and result-oriented approaches to improving smallholder farmers' livelihoods in the Bawku East District. In an area where occupants rely on regular land assets for their jobs, corruption of such assets is a genuine danger to the maintainability of a resource way of life.

Previous researchers' findings created a gap as they did not connect how large-scale land acquisition affected the livelihood coping strategies of smallholder farmers in their target areas of study. In Ghana, few studies addressed some dimensions of livelihood diversification. Kuwornu et al. (2013) stated that, most farmers diversified into the agro-processing and non-agro processing using the multinomial logit; meanwhile, none of these addressed the subject matter of this paper as the empirical literature focused on socio-economic determinants as well as livelihood-related determinants of diversification.

The research design and methods adopted by previous researchers were mostly non-descriptive survey; approached qualitatively and quantitatively. This study therefore adopts a descriptive research design to obtain information concerning the most innovative and result-oriented approach towards enhancing smallholder farmers agricultural practices to the end of achieving sustainable livelihoods for these rural dwellers in the Bawku East District of northern Ghana.

## 5. Methods and Tools

In this study post-positivist research paradigm was adopted. The descriptive re-

search design was chosen to permit obtaining and describing of information concerning the land acquisition structures/processes; the available livelihood assets, how these could be transformed through innovative livelihood coping strategies towards achieving sustainable livelihood outcomes for the rural dwellers who lost land in the Bawku East District of northern Ghana. The correlational design was utilised to permit investigation of the relationship between land acquisition and livelihood outcomes among smallholder farmers in Bawku East District of northern Ghana. The study purposively selected four villages (Baribari, Kulungungu, Missiga and Kard) out of the twelve villages as the target area because these villages had similar vegetational, climatic, social, cultural, social characteristics. Results from any findings will be same in any of the 12 villages within the BED. According to the Bawku Municipal Statistics Service Department, the 4 villages targeted in this study have a total population of 11,985 inhabitants with 3876 persons as active farmers and farm owners as the target population (Ghana 2021 PHC). The sample size of participants included active smallholder farmers from the four villages seriously affected by land acquisitions for community development projects and by individuals for residential purposes, who would have been displaced from their farmlands, disrupting their livelihood and sustainability; key government officials and public servants within the Bawku East District Assemblies; representatives of NGOs in the affected villages. Since a population of 3876 was very big, the sample size of 400 participants from the rural areas was selected, and determined using of the [Sloven \(1960\)](#) formula as shown below:

$$n = \frac{N}{1 + Ne^2}$$

where  $n$  = sample size;  $N$  = Target Population size and  $e$  = the level of precision of measurement (acceptable error margin); the error margin will be considered at a Level  $e = 0.05$ .

Thus, substituting into the Sloven's formula of

$$n = N \div 1 + N(e)^2$$

$$n = 3876 \div 1 + 3876(0.05)^2 = 3876 \div 1 + 3876(0.0025) = \mathbf{400}.$$

Adoption of purposive sampling method ensured that the most qualified and key informants relevant to the focus of the study were selected. The Researcher's used a contracted professional photographer, his IPAD, Android phone and notebook for record purposes through video recordings and picture taking during the data collection process.

Structured interview guides and interview schedules elicited relevant data that underpins the objectives of the present study. The choice of the in-depth interview was used to allow the cross-checking of the survey results and to explain the realities behind the identified trends in the data. The observation method was used in this study; because it facilitated physical engagement that enabled researcher to get firsthand impression of events, by acting as a participant in all



activities. An observation checklist was used as a guide in data collection as social and developmental facilities was observed on rural farmlands together with the related activities. Documentary review was based on the analysis of literary works of scholars, and it was an intensive exercise which involved deep analysis and interpretation of facts and findings/records of others (Mbabazi, 2008). One of the main methods used to collect data was the survey method because the population was too large to observe directly. The information collected was through self-administered questionnaires which were distributed to the respondents. This study majorly employed the survey method because it was cheaper and convenient given its flexibility (Mbabazi, 2008). One of the main methods used to collect data was the questionnaire; because the population was too large to observe directly. Many studies of Land Acquisition Structures/Processes employed questionnaire research techniques to examine Land Acquisition Structures/Processes and alternative livelihood outcomes of smallholder farmers. The focus group discussion method advantage was that it involved stakeholders who are normally part of the land acquisition structures and participated in the land acquisition processes; owned land and livelihood assets; initiated and implemented livelihood coping strategies for alternative livelihoods of land-lost smallholder farmers; and it was possible to have information which was obtained by use of a tool like a questionnaire on Land acquisition structures and processes.

The observation and unit of analysis focused on smallholder farmers in four villages, namely: Baribari, Kulungungu, Kard and Missiga in the Bawku East District of the Upper East Region of Ghana who have lost their farmlands or have been compelled to leave their lands. The target population for this study was smallholder farmers, traditional leaders/Tindanas, family heads, government officials/influential individuals and commercial farmers within the agricultural sector. The study population constituted mostly of the smallholder farmers within the Bawku East Districts of Northern Ghana.

Triangulation of the research techniques, where several methods of data collection were employed was done. All data collection instruments were analysed to establish their consistency and validity. In order to ensure internal and external validity, a pilot test was conducted in Bador village of the Bawku East District using 20 participants. Results obtained were used to identify weaknesses in the guide and appropriate correction(s) made. To ensure reliability, the internal consistency was measured using the Cronbach alpha. Reliability is defined as the degree of consistency with which an instrument measures the attribute it is designed to measure. Reliability of the questionnaire was measured with Cronbach's alpha statistics using SPSS 20. Data was edited to detect errors and omissions and make corrections; classified based on common characteristics according to the descriptive attributes. Descriptive and inferential statistics, by means of the Statistical Package for the Social Sciences (SPSS) version 20 was also used to process the data collected for the study. The use of both manual and electron-

ic coding helped in the identification of emergent trends and pattern in the data.

Data analysis involved both qualitative and quantitative data. The data ably answered the research questions and hypotheses. The descriptive analysis of the data was performed using SPSS analyses, while the research hypotheses were analysed using the Partial Least Square Structural Equation Model (PLS-SEM). The use of structural equation modeling, the Smart PLS has been proven to be an effective software for such analysis involving latent variables and mediation effect (Hair et al., 2013). The final outputs and selected summary tables were transferred into the main report, findings presented, interpreted and conclusions deduced. The qualitative data helped to supplement the data that had been generated quantitatively.

The researcher envisaged certain limitations that could inhibit the collection of rich data and overall findings of the study. These were forestalled through meeting with participants before the interview/FGDs to allay any fear or favour. Also, closed-ended questions were raised to elicit opinion of participants. The study strictly considered all the research ethics and protocol regarding the conduct of research of this kind with human subjects and the living conditions. The respondents were further assured of confidentiality of the information given and that the findings of the study were entirely for academic purposes only. Every respondent involved in the study was entitled to the right of privacy and dignity of treatment. The researcher employed all avenues and opportunities to ensure that all issues that were considered unethical in context were addressed. Questions included in the guide were ethically considered to avoid personal sensationalism and sentimentalism.

## 6. Discussion of Results

The results from the questionnaires on the land acquisition structures and land acquisition processes using interviews and FGDs are as presented in **Table 1**.

### 6.1. Land Acquisition Structures

The study findings in **Table 1** generally reveal very unsuitable aspects of land acquisition structures that may act as an obstacle to achieving the required livelihoods that accrue from the utilization of land among the farmers in Bawku East District ( $M = 4.54$ ). Unclear, unpredictable and unenforceable land laws create opportunities for corruption which further undermines the livelihoods of the villagers. The study findings revealed that the existing rules and customs that control land ownership in this community have (very highly) caused many farmers to lose land(s) ( $M = 4.66$ ). For farmers to attain the substantial livelihoods, it is necessary to relax the strict rules and customs that control land ownership among farmers in the community of Bawku. It was also found out that farmers find land acquisition structures very difficult to acquire more land for farming in this locality ( $M = 4.480$ ). Land acquisition structures need to be revised to ease land acquisition in Bawku East District.

**Table 1.** The nature of land acquisition structures and processes in the bawku east district.

Nature of Land Acquisition Structures and Processes	Mean	Std. Deviation
<b>Land Acquisition Structures</b>		
The rules and customs that control land ownership in this community have caused many farmers to lose land(s).	4.66	0.86
Farmers find land acquisition structures difficult to acquire more land for farming in this locality.	4.48	1.02
There is a lack of coordination between government agencies, tindanas, and chiefs handling land acquisition matters.	4.56	1.00
Women are not integrated in the structural arrangements that lead to land acquisition.	4.45	1.12
<b>Pooled Mean &amp; Standard Deviation</b>	<b>4.54</b>	<b>1.00</b>
<b>Land Acquisition Processes</b>		
There are limited chances for farmers to be heard on land conflicts resolution process.	4.46	1.09
Farmers do not have enough capital to follow the land acquisition process in this area.	4.70	0.86
The processes of land acquisition in this area discriminate against farmers.	4.70	0.85
<b>Pooled Mean &amp; Standard Deviation</b>	<b>4.62</b>	<b>0.93</b>
<b>Aggregate Mean &amp; Standard Deviation</b>	<b>4.57</b>	<b>0.97</b>

Scale: 4.20 - 5.00 Very High, 3.40 - 4.19 High, 2.60 - 3.39 Average, 1.80 - 2.59 Low, 1.00 - 1.79 Very Low.

It was also found out that there is a (very high) lack of coordination between government agencies, tindanas, and chiefs handling land acquisition matters (M = 4.56). Lack of coordination between government agencies, tindanas, and chiefs handling land acquisition matters renders many farmers landless thereby limiting the attainment of livelihoods among villagers in Bawku East District. The study findings in **Table 1** also revealed that to a very large extent women are not integrated in the structural arrangements that lead to land acquisition (M = 4.45). Thus, failure to integrate women in structural arrangements that leads to land acquisition renders most of the women landless thus reduced livelihoods.

## 6.2. Land Acquisition Processes

The study findings as presented in **Table 1** indicate that there are very ineffective aspects of land acquisition processes (M = 4.57). These ineffective aspects of land acquisition processes are a constraint to economic growth and national development.

It was also found out that there are very limited chances for farmers to be heard on land conflicts resolution process (M = 4.46). Limiting farmers from being heard on land conflict resolution processes escalates further ongoing land

disputes which in turn inhibit the productivity of small-scale farms due to reduced cultivation, decreased investment, and loss of economic assets.

The study results also show that majority of the farmers do not have enough capital to follow the land acquisition process in this area ( $M = 4.70$ ). Failure to follow the land acquisition process does not make the farmers to have equitable access to land. In addition, evidence has shown serious conflicts arising from land acquisition between the villagers and government agencies due to failure to follow the land acquisition processes.

The processes of land acquisition in this area (very highly) discriminate against female farmers ( $M = 4.70$ ). By limiting women access to land, the socio-economic development and general livelihoods become limited too. Women just like men should have access to land for livelihoods among farmers to be attained.

### 6.3. Livelihood Outcomes among Smallholder Farmers in Bawku East District

The study investigated the relationship between land acquisition processes and livelihood outcomes among smallholder farmers in Bawku East District and the results are presented in **Table 2**.

The overall results in **Table 2** show that a high number of farmers in Bawku East District are faced with poor livelihood outcomes (Mean = 3.52). This is an indication that the farmers livelihood coping strategies geared towards improving the levels of food security, income security, health, well-being, asset accumulation and high status in the community are ineffective.

The study findings in **Table 2** show that high number of farmers in Bawku East District are in poorer conditions in terms of post resettlement life satisfaction ( $M = 3.24$ ). Life satisfaction, a dimension of quality of life encompassing physical, mental, and social well-being, is increasingly being recognized as a meaningful determinant of health. Poor life satisfaction associated among the farmers in Bawku East District has led to increased development of multiple chronic diseases and high risk for death.

**Table 2.** The livelihood outcomes among smallholder farmers in bawku east district.

Livelihood outcomes	Mean	Std. Deviation
We have found ourselves in poorer conditions in terms of post resettlement life satisfaction	3.24	1.14
We have found ourselves in poorer conditions in the area of post displacement wellbeing and capabilities	3.76	1.10
We are now not able to obtain enough food for dietary needs (post displacement food security)	3.50	1.23
Farmers find themselves Living in deteriorated structures (post displacement housing)	3.57	1.01
<b>Aggregate Mean &amp; Standard Deviation</b>	<b>3.52</b>	<b>1.12</b>

Scale: 4.20 - 5.00 Very High, 3.40 - 4.19 High, 2.60 - 3.39 Average, 1.80 - 2.59 Low, 1.00 - 1.79 Very Low.

The study results also indicated that a high number of farmers have found themselves in a poorer condition in the area of post displacement wellbeing and capabilities ( $M = 3.76$ ). Poor wellbeing could potentially result in a period of poor mental health and other related consequences such as childhood abuse, trauma, or neglect, social isolation or loneliness, experiencing discrimination and stigma. In addition, farmers without adequate capabilities cannot function as healthy and creative human beings and thus their capability is deprived. This is a social problem that needs to be addressed.

It was also revealed by the study that farmers are now not able to obtain enough food for their dietary needs after displacement ( $M = 3.50$ ). To cope with this food insecurity, the displaced farmers reduced their food consumption and changed their diets by buying the cheapest food products, leading to reduced nutrition levels.

The study findings also revealed that displaced farmers find themselves living in deteriorated structures (post displacement housing) ( $M = 3.57$ ). The displaced farmers after land acquisition often must endure the risk of living in deteriorated structures with inadequate basic infrastructure and services, such as water, electricity, sanitation, healthcare, and education.

#### 6.4. Correlational Results between the Nature of Land Acquisition Structures/Processes and Livelihood Outcomes among Smallholder Farmers in Bawku East District

A correlation was made to assess the nature of land acquisition structures/processes and livelihood outcomes among smallholder farmers in Bawku East District and the results are presented in **Table 3**.

The results in **Table 3** indicate that both aspects of the land acquisition process (land acquisition structures and land acquisition process) have no significant effect on livelihood outcomes among smallholder farmers in Bawku East District ( $P > 0.05$ ). This implies that people in local villages need to be subjected to fair land acquisition processes. Arguably, if land acquisition and future revenues are well managed, this could lead to economic prosperity and the improved livelihoods, however, if badly managed, there will be many negative outcomes, including protests, project delays, escalating costs, reputational damage, food insecurity, and conflict.

**Table 3.** Correlational results between the nature of land acquisition structures/processes and livelihood outcomes among smallholder farmers in bawku east district.

		Livelihood Outcome	
Nature of Land Acquisition	Land Acquisition Structures	Pearson Correlation	0.054
		Sig. (2-tailed)	0.450
		N	400
Nature of Land Acquisition	Land Acquisition Process	Pearson Correlation	-0.122
		Sig. (2-tailed)	0.085
		N	400

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## 7. Summary of Results

The study findings generally revealed very unsuitable aspects of land acquisition structures and processes that may act as an obstacle to achieving the required livelihoods that accrue from the utilization of land among the farmers in Bawku East District ( $M = 4.54$ ). There are very limited chances for farmers to be heard on land conflicts resolution process ( $M = 4.46$ ); escalating further ongoing land disputes which in turn inhibit the productivity of smallholder farmers due to reduced cultivation, decreased investment, and loss of economic assets. The study results also show that majority of the farmers do not have enough capital to follow the land acquisition process in this area ( $M = 4.70$ ); denying the farmers equitable access to land. Serious conflicts arise from land acquisition between the villages and government agencies due to failure to follow the land acquisition processes.

The correlational findings also show that land acquisition structures and acquisition processes account for a very minimal contribution (2.6%) on livelihood outcomes among smallholder farmers in Bawku East District (adjusted  $R^2 = 0.026$ ). This means that 97.4% of the livelihood outcomes are accounted for by other factors. The results indicate that both aspects of land acquisition structures and processes have no significant effect on livelihood outcomes among smallholder farmers in Bawku East District ( $P > 0.05$ ). The results show that the aspect of land acquisition structures has a positive but insignificant effect on livelihood outcomes among farmers in Bawku East District ( $\beta = 0.141$ ,  $P = 0.076 > 0.05$ ); while land acquisition processes ( $\beta = 0.090$ ,  $P = 0.312 > 0.05$ ) has a negative and insignificant influence on the livelihood outcomes.

This is an indication that land acquisition programmes from the study area have a negative impact on the livelihood of indigenous and smallholder farmers; resulting in the loss of land, means of livelihood, disruption of economic activities, persistent land-related conflicts, relocations to poorly developed areas, inadequate and late compensation, and environmental degradation. This implies that people in local villages need to be subjected to fair land acquisition processes. Arguably, if land acquisition and future revenues are well managed, this could lead to economic prosperity and the improved livelihoods, however, if badly managed, there will be many negative outcomes, including protests, project delays, escalating costs, reputational damage, food insecurity, and conflict.

## Recommendations

The Ministry of Lands and Natural Resources, MMDAs, Lands Commission of Ghana should modify the current land acquisition structures and processes by empowering and funding the Administrator of Stool lands to survey and register all skin/clan and family lands within all the Kusaug Traditional Area.

The Lands Commission and Traditional Councils should adhere to the provisions of the 1992 Constitution in relation to the compulsory acquisition of land to ensure that all litigation-free vested lands as well as surplus compulsorily ac-

quired lands (i.e., state lands) are returned to their rightful owners (stools, families, clans and individuals); and ensure adequate and timely compensation to the landowners to enable farmers invest in non-farm livelihood activities.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

## References

- Agbley, G. K. (2019). Land Grabbing and the Gendered Livelihood Experience of Smallholder Farmers in Northern Ghana: Through a Human Development and Capability Lens. *Ghana Journal of Development Studies*, 16, 155-180.  
<https://doi.org/10.4314/gjds.v16i1.8>
- Akudugu, J. A., & Issahaku, M. (1990). Dynamics of Landownership and Management in Small-Scale Irrigation Schemes in the Bawku. *European Scientific Journal*, 2013.
- Alare, R. S. (2015). *Climate Smart Agriculture Adoption by Smallholder Farmers: A Case Study of Anafobiisi and Gowrie-Kunkua Communities in the Bongo District of Ghana*. MSc. Thesis, University of Ghana. <http://ugspace.ug.edu.gh/handle/123456789/23377>
- Avery Dennison (2009). *We Identify Your World; 2009 Annual Report*.  
<https://www.averydennison.com/en/home.html>
- Ayariga, J. M. (2004). Climate Variability and Yields of Major Staple Food Crops in Northern Ghana. *African Crop Science Journal*, 19, 323-330.
- (2020). Bawku Municipal Council Minutes.
- Boamah, F. (2011). The Relationship between Land Grabbing for Biofuels and Food Security, a Bane or Boon? The Food Security Implications of Jatropha Biodiesel Project in Northern Ghana. In *International Conference on Global Land Grabbing*. Land Deal Politics Initiative (LDPI).
- Carney, D. (1998). Implementing the Sustainable Rural Livelihoods Approach. In The DfID Natural Resource Advisers' Conference, p. 4.
- Chambers, R., & Conway, G. (1992). *Sustainable Rural Livelihoods: Practical Concepts for the 21st Century*. Scientific Research Publishing Inc.
- Ghana Statistical Service (2008). *Ghana in Figures*.  
[https://www2.statsghana.gov.gh/docfiles/gh\\_figures\\_2008.pdf](https://www2.statsghana.gov.gh/docfiles/gh_figures_2008.pdf)
- Gosling, P. et al. (2010). Organic Management of Tilled Agricultural Soils Results in a Rapid Increase in Colonisation Potential and Spore Populations of Arbuscular Mycorrhizal Fungi. *Agriculture, Ecosystems & Environment*, 139, 273-279.  
<https://doi.org/10.1016/j.agee.2010.08.013>
- Government of Ghana (1993). Constitution of the Fourth Republic of Ghana.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Editorial—Partial Least Squares Structural Equation Modeling: Rigorous Applications, Better Results and Higher Acceptance. *Long Range Planning*, 46, 1-12. <https://papers.ssrn.com/abstract=2233795>
- Kasanga, K. (1988). *Land Management in Ghana: Building on Tradition and Modernity*. Russell Press.
- Kuwornu, J. K. M., & Demi, M. A. (2013). Analysis of Food Security Status of Farming Households in the Forest Belt of the Central Region of Ghana. *Russian Journal of Agricultural and Socio-Economic Sciences*, 1, 26-42.

- <https://doi.org/10.18551/rjoas.2013-01.04>
- Lund, C. (2011). Property and Citizenship: Conceptually Connecting Land Rights and Belonging in Africa. *Africa Spectrum*, 46, 71-75.  
<https://doi.org/10.1177/000203971104600304>
- Lund, C. (2014). A Question of Honour: Property Disputes and Brokerage in Burkina Faso. *Africa*, 69, 575-594. <https://doi.org/10.2307/1160876>
- Lyatuu, E. T., Nie, F., & Fang, C. (2015). *The Role of Agriculture in the Economic Growth and Poverty Reduction in Tanzania*.  
<http://repository.businessinsightz.org/handle/20.500.12018/619>
- Mahama, C. et al. (2006). *Land and Property Markets in Ghana*. Royal Institution of Chartered Surveyors.
- Mahoney, J., Place, F. M., & Nyangena, W. (2007). Efficiency and Equity Impacts of Land Markets in Kenya. In S. Holden, K. Otsuka, & F. M. Place (Eds.), *The Emergence of Land Markets in Africa Impacts on Poverty, Equity, and Efficiency*. Routledge.
- Mallick, S. (2019). *African Land Questions, Agrarian Transitions and the State: Contradictions of Neoliberal Land Reforms*. CODESRIA.
- Mbabazi, T. (2008). *A Sure Friendly Guide to Research and Research Methods*. Jotain Co. Ltd.
- Platteau, J. P. (1996). The Evolutionary Theory of Land Rights as Applied to Sub-Saharan Africa: A Critical Assessment. *Development and Change*, 27, 29-86.  
<https://doi.org/10.1111/j.1467-7660.1996.tb00578.x>
- Quaye, W. (2008). Food Security Situation in Northern Ghana, Coping Strategies and Related Constraints. *African Journal of Agriculture Research*, 3, 334-342.
- Scoones, I. (1998). *Sustainable Rural Livelihoods: A Framework for Analysis*. Institute of Development Studies.
- Sietchiping, F., Hazell, P. B., & Blarel, B. (2012). Are Indigenous African Tenure Systems Insecure? In J.W. Bruce, & S. E. Migot-Adholla (Eds.), *Searching for Land Tenure Security in Africa* (pp. 1-14). Kendall/Hunt Publishers.
- Sloven, E. (1960). Sloven's Formula for Sampling Technique. *Journal of Geoscience and Environment Protection*, 8.
- Tsikata, D., Yaro, J., Consortium, T. F. A., Tsikata, D., & Yaro, J. (2011). The Land Deal Politics Initiative. *Journal of Peasant Studies and Future*, 44, 515-537.
- Vijaya Bhaskar, A. V., Nithya, D. J., Raju, S., & Bhavani, R. V. (2017). Establishing Integrated Agriculture-Nutrition Programmes to Diversify Household Food and Diets in Rural India. *Food Security*, 9, 981-999. <https://doi.org/10.1007/s12571-017-0721-z>
- Whittal, J. (2014). A New Conceptual Model for the Continuum of Land Rights. *South African Journal of Geomatics*, 3, 13-32.
- Yiran, G. A. B., Kusimi, J. M., & Kufogbe, S. K. (2012). A Synthesis of Remote Sensing and Local Knowledge Approaches in Land Degradation Assessment in the Bawku East District, Ghana. *International Journal of Applied Earth Observation and Geoinformation*, 14, 204-213. <https://doi.org/10.1016/j.jag.2011.09.016>