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LAND COMMODIFICATION AND LIVELIHOODS OF FARMERS IN AWUTU-BREKU, GHANA.

HONLAH QUARM

2021

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LAND COMMODIFICATION AND LIVELIHOODS OF FARMERS IN AWUTU-BREKU, GHANA.

BY

HONLAH QUARM

Thesis submitted to the Department of Integrated Development Studies of the School for Development Studies, College of Humanities and Legal Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy Degree in Development Studies

JULY 2021

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature..... Date.....

Name: Honlah Quarm

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Supervisor's Signature..... Date.....

Name: Dr. Joseph Boateng Agyenim

Co-supervisor's Signature ..... Date.....

Name: Dr. Federick Koomson

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ABSTRACT

The study examined land commodification and its implications for the livelihoods of farmers in Awutu-Breku. Data were collected for 232 randomly sampled farmers and the results complemented by responses from opinion leaders and local authorities. Data analysis involved the application of descriptive statistics, factor analysis and thematic analysis. The study found that urbanization and the quest for capital accumulation for future use were the most important reasons for land commodification in Awutu-Breku and these greatly reduced the livelihoods of farmers. Farmers resulted to migration to overcome constraints to their livelihoods as a result of the loss of land to urbanisation and industrial activities. The study further revealed that in Awutu-Breku low standard of living of the farmers was because of land commodification. It was therefore recommended that government should effectively initiate documented and legal policies on the appropriation of lands for agricultural and industrial purposes.

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KEYWORDS

Farmers

Land commodification

Livelihoods

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DEDICATION

To my parents.

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CHAPTER ONE

INTRODUCTION

Commodification of land is recognised as one of the key developmental challenges faced by both developed and developing countries (Garrity, 2004). Owusu (2008) states that in the Ghanaian urban cities, the rate of land commodification is overwhelming because of increase in population, which exceeds the managing capacity of the government. Mostly, peri-urban towns have become the focal points of these activities (Watson, 2009). Studies have shown that farmlands usually suffer the most as these farms are destroyed to pave way for industrial activities (Armar-Klemesu, Lamptey, Larbi, Maxwell & Zakariah, 1998; Grant, 2009; Owusu, 2009).

Land commodification has consequences on the livelihoods of farmers as they largely depend on land for their survival. Although some farmers are compensated and others adopt some coping measures, the negative effects of losing lands mostly linger (Nyantakyi-Frimpong & Bezner Kerr, 2017). This situation has led many studies (Niederle & Schneider, 2010; De-Schutter, 2010) to be conducted. However, most of these studies (Niederle & Schneider, 2010; De-Schutter, 2011) examined how the problem of land commodification arises and its effects on the affected landowners. Even though studies have been conducted on land commodification, literature on the reasons for land commodification, the effects of land commodification and the coping strategies adopted by farmers to face land commodification are few. No study in this light has been conducted in Awutu-Breku, hence the study seeks to fill in the gap.

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Background of the Study

Land is one of the factors of production with great economic value and uses (Duranton, Ghani, Goswami, & Kerr, 2015; Gaffney, 1994). Lands have always changed hands and this has occurred because of a change in its use (Naab, Dinye & Kasanga, 2013). For instance, farmlands can be used for the construction of schools or other developmental purposes. This raises the concern of commodification of land as has been stressed by Strasser (2013). According to Strasser (2013), commodification connotes the action of turning something into or treating something as, a commodity or commercialisation of activity that is not by nature commercial. In this case, the land becomes an entity that can be exchanged for economic value (Lin & Zhang, 2015). The commodification of land is a process through which land and land rights are changed into a commodity, which is freely tradable (Zhang & Wu, 2017).

Land commodification activities is happening in both developed and developed countries making it a global concern (Lin, 2014). Government, private individuals or institutions usually act these exchange practices. According to Lin and Zhang (2015), due to urban maintenance and construction, land commodification has become the main source of municipal finance. This argument has been reassured by the work of Lui and Lin (2014), that land commodification is widely practised as a means of local revenue generation. Another cause of land commodification is that it transforms local economies, which leads to a greater entrepreneurialism (Maxwell et al., 1998). This results in changes in urban dynamic, which manifest itself in economical, spatial and environmental dimensions.

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Globally, the rise of the real estate sector has become a major economic pillar for national development. Thus, farmlands are mostly acquired through ruthless means such as forced destruction and this has resulted in social discontent and landless farmers (Song, Wang & Lei, 2016). Spatially, the commodification of lands has led to permanent changes to the urban environment because these lands are usually encroached (Yeh & Li, 1999). Environmentally, land commodification emphasizes market anarchy and disorder, such as overexploitation of land resources, for instance, the mining of minerals that destroys the land and sometimes water bodies (Xu, Yeh & Wu, 2009). These urban dynamic changes are brought about by the rise in demand for unregulated land sales and population growth (Radetzki, 2013; Satterthwaite, McGranahan, & Tacoli, 2010).

Land commodification is manifested in a huge increase in foreign and domestic investments in land, often concentrated in the world's poorest and hungriest countries. This process, which involves 'the increasing tendency to treat the land like a pure financial asset', also includes speculative land deals on squatter neighbourhoods, eviction, 'slum' upgrading and the reuse of dilapidated areas in the global South (Desai & Loftus, 2013). These projects are accompanied by state investment in mass housing for middle and low- income households and the creation of subprime mortgage markets (Schelkle, 2012).

These factors led to the grabbing of lands with the promise of a wide array of resource development projects, which usually does not come to fruition (Le Billon & Sommerville, 2016). The need to address the crisis pertaining to land commodification resulted in its inclusion in the Sustainable Development Goals, specifically Goal 11 that focused on achieving sustainable cities and

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communities. Examples from South Korea show that corporation own 69% of total land (La Grange and Jung, 2004), Germany has estimated the loss of 35.6 million ha to investors worldwide (D'odorico & Rulli, 2014) and USA has about 52% of their lands commodified for various purposes aside farming (Samat et al, 2014).

Studies (Christophers, 2018; Alkire, Chatterjee, Conconi, Seth & Vaz 2014) have revealed that this terrible situation is more prevalent in developing countries. This practice of land commodification in rural societies affects the livelihoods of the people, especially farmers whose livelihoods depends on farming (Rigg, 2006). Commodification of subsistence farmlands denies inhabitants of rural areas their main resource and delinks communities from agricultural production resulting in an increase in poverty. German, Cavane, Sitoe and Braga (2016) affirm this assertion by stating that, lands in developing countries, especially the rural areas, have become a much-sought-after commodity for investment and this affects their livelihoods negatively.

According to Gundel (2006), once land is used for a particular purpose such as residential, it cannot be simultaneously used for agriculture production because, land is fixed in supply and as such, its quantity does not increase naturally with increase in population. This narrows the concept of land commodification to nations with food security problems and private investors. Evidence from cases around the globe such as in Nigeria, Zimbabwe, Sudan and others (World Health Organization, 2018) indicates that it is not only food-insecure nations that are involved in land transactions in poor countries but also the desire for clean energy following the European Union legislation that requested member nations to use 20 per cent of clean energy, mostly from bio-

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fuel by 2020 (Schaffnit, 2012). This has attracted even food secured nations in Europe to purchase large-scale lands to grow jatropha to meet their energy targets. In places like Kenya and Cambodia, there are several examples of land deals fully initiated by local governments. This phenomenon of the commodification of subsistence farmlands, because of a change in a society's economy can best be explained by the location and political ecology theories.

In explaining land commodification, the location theory is of the view that the geographical position of land to an economic hub increases its demand to organisations or individuals who want to maximise their utility (Lambin & Meyfroidt, 2011). The theory maintains that the open, competitive, and high demands of the markets within a particular area will ensure the demand of its surrounding lands (Toulmin, 2009; Melo & Jenkins, 2021). The implicit assumption is that the closer a land is to a central market, the higher its demand. However, this is not always true as lands, which may not be closer to markets, may have high demand because of the earth resources available in these lands. For instance, some farmlands are bought because of its mineral rich content (Davis, D'Odorico & Rulli, 2014). Such instances are explained by the political ecology theory.

The political ecology theory suggests the interplay of political power in cases of demand on lands, who gets easy access and why (Turner, 2004). Thus, the demand and acquisition of lands is intertwined with political, economic and social factors. Political instances dwell on the government's need of land. Economically, lands that are mineral rich are usually in high demand, so those with financial power can acquire these lands. Lastly, lands that have some social

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significance such as those for protecting wildlife are usually politically acquired (Lin, 2009).

The social justice philosophical school of thought argues about how there is a need to arrange the social and economic organizations in an economy to fairly distribute the benefits and burdens (Olsaretti, 2018). Social justice advocates for the fair demarcation of land for agricultural purposes because of the rapid growth of industries. Government should appropriate fairly lands for agriculture and that for urbanisation purposes to prevent encroachment. Similarly, Bernhardt and Milberg (2011) have noted that social upgrading, taking the form of distribution of lands for agricultural purposes and the livelihoods that depends on it, has its philosophical basis in social justice.

Policies and programmes such as land reforms were conceived to curb land issues according to Hall (2003) as cited by Boudreaux (2010). These land reforms such as tenure reforms and redistribution were set as a positive measure to reverse the patterns of land ownership, but also as an intervention to promote social justice and socio-economic equity. Recent policy on the fair demarcation of land for agricultural and industrial purposes are under review yet to be implemented.

In Ghana, land ownership can be group into three categories, these are customary ownership; state-controlled lands; and shared ownership lands. These contribute 78, 20 and 2 percent respectively of the total land area of Ghana (Schoneveld & German, 2014). The principal system of land use and ownership in Ghana is the customary land tenure system, which means lands are owned and managed by indigenous communities in line with their customs (Mireku, Kuusaana & Kidido, 2016). In Ghana, the constitution confers

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authority over public lands to the government whereas, authority over private lands are given to the chiefs. The 1992 of Constitution of Ghana (Article 36.8.) recognizes chiefs as trustee of land managers on behalf of their communities. The ultimate authority in deciding land allocation is vested in the chiefs (Boone, 2015).

This can be traced to the historical resistance of chiefs against the colonial efforts to take over lands. Thus, power is given chiefs to control lands in their communities (Amanor & Ubink, 2008; Kirst, 2020). Although the Ghanaian government is familiar with the customary land tenure system, it has taken land by compulsory means, which has led to litigation, disputes and conflicts (ElHadary & Obeng-Odoom, 2012). However, it is necessary to note that the compulsory means of acquiring land by the state commonly known as 'eminent domain' is not exclusive to Ghana, but practised by most countries as well (Ghimire, Sharma & Tuladhar, 2017).

In Ghana, most lands are under the control of traditional authorities (Yaro, 2012; Mariwah et al. 2019) and the high rate of urbanisation, coupled with high population growth is placing demand on land (Ahmed & Dinye, 2011). This has resulted in the need to commodify lands for building houses and other developmental works (Asafo, 2020). This has led to the rise of activities related to developmental works such as sand winning for buildings, mining and commercial agriculture (Maxwell, Larbi, Lamptey, Zakariah and Armar-Klemesu, 1998; Smalley, 2013). Furthermore, it has been discovered that lands in rural and peri-urban areas become commodified because of the increase in land value (Bugri & Yeboah, 2017). For instance, land values in the West Ahanta - Ghana rose because of the discovery of oil in the Sekondi-Takoradi

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area. Similarly, according to Iddi (2017), lands at Awutu-Senya District has seen a rise in value because of the increase in urbanization, population growth and contested access to land.

In Awutu-Breku, the livelihoods of farmers suffer the demerits of land commodification. Studies (Bugri & Yeboah, 2017; Coulibaly & Li, 2020; Nketia, 2017) have suggested that the commodification of lands in peri-urban areas in Ghana mostly affects the livelihood of peasant or subsistence farmers. Bugri and Yeboah (2017), opined that land commodification reduces land sizes and its accessibility threatens the very survival of farming communities. Awutu-Breku is a farming-based town, and the rise of activities such as sand winning has affected farmers. In a bid to alleviate these farmers from their woes, there is the need to find other means of supporting their livelihood.

Statement of the Problem

Commodification of land is recognised as one of the key developmental challenges faced by both developed and developing countries (Lin, 2014; Garrity, 2004). History has shown that land is a major source of wealth both through its resource base and food production. This makes it a major asset in the sustenance of livelihoods especially in the rural areas (Mumuni & Oladele, 2016). However, these advantages of land create conflict among the ordinary people, local communities and global power groups (Cottyn & Vanhaute, 2016). Due to the fact that land is a key determinant of livelihoods in developing countries, its commodification breeds many challenges (Anseeuw, Wily, Cotula & Taylor, 2012).

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In Ghana, the rate of land commodification is overwhelming, mostly in urban areas, due to increase in population, which exceeds the managing capacity of the local, and national government (Owusu, 2008). Peri-urban towns have become the focal point of these activities (Watson, 2009). Awutu-Breku is a town located between two economic centres, Kasoa and Winneba. According to Von Thuneens' (1850) location theory, the closer a town is to an economic hub the higher the demand for its lands. This demand is to satisfy economic activities, sustain survival and expand territories. This expansion is from the urban centres down to the surrounding rural areas. Given the geographical location of Awutu-Breku, and the rate of spill over of these economic activities through the commodification of land, places the lands in high demand. In agreement, Mabikke, Habitat and Chigbu, (2015) stated that lands in Awutu-Breku is on high demand.

Awutu-Breku being a peri-urban town, suffers the pressure of losing lands and, in turn, their livelihoods. This also affects the land tenure security of these farmers as ascribed under the Land Administration Project (LAP) in Ghana, which has been in effect since 2003. However, despite these staggering implications of land commodification, only a small number of empirical research studies on land commodification and livelihoods of farmers have been conducted in sub-Saharan Africa (Dell'angelo, D'odorico, Rullie & Marchanda, 2017; Grant, 2009; Lyons & Westoby, 2014; Owusu, 2009; Wolford & Nehring, 2015). Nevertheless, few studies have examined issues on land commodification such as Nyantakyi-Frimpong and Bezner Kerr (2017) who examined specifically, how social differentiation causes land grabbing and intensifies food insecurity in the northern region.

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Akaateba (2019) also centred on the causes and effects of commodification of land while Mwingyine (2019) focused on evolving land commodification and international land relations in North-Western Ghana. These studies failed to relate land commodification to livelihoods of farmers. This is what the study seeks to explore in Awutu-Breku, which is a rural town close to economic hubs such as kasoa and winneba. Theoretically, the location theory also indicates that firms identify settings that maximize their gains and individuals select locations that maximize their usefulness (Kline & Moretti, 2014). This theory, however, fails to predict how affected persons cope with challenges faced. Thus, this study attempts to examine land commodification and livelihoods of farmers in Awutu-Breku.

Research Objectives

The general objective of the study was to examine land commodification and its effects on the livelihoods of farmers in Awutu-Breku.

The specific research objectives were as follows:

1. Ascertain the factors that influence land commodification in Awutu-Breku.
2. Examine the livelihood implications of land commodification on farmers in Awutu-Breku.
3. Discuss the coping strategies adopted by farmers to mitigate the effects of land commodification.

Research Questions

1. What factors influence land commodification in Awutu-Breku?
2. What are the livelihood implications of land commodification on farmers in Awutu-Breku?

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3. What are the coping strategies adopted by farmers to mitigate the effects of land commodification?

Significance of the Study

The study will contribute to the on-going diverse perceptions about land commodification and its implications on the peri-urban farmers. This will aid in identifying measures that need to be implemented in order to address and moderate land commodification process. As a result, the outcomes of the study will contribute to developing a better understanding of how land commodification affects the livelihoods of farmers in rural areas such as Awutu-Breku.

The findings of the study would also serve as sources of additional knowledge on reasons for which land commodification occurs, the challenges faced by peri-urban farmers as well as building foundations for further studies in these areas. In addition, the study would inform the policymakers about the implications of land commodification that will help them develop good coping measures for peri-urban farmers in Awutu-Breku. These will include agricultural policies. The study will serve as a baseline for further studies on land commodification.

Delimitations

Thematically, the study aimed at examining land commodification and its implications for the livelihoods of peri-urban farmers. Specifically, the study addressed issues pertaining to the factors that lead to land commodification and how it affects livelihoods of peasant farmers. The land commodification practices considered in this study included the reasons for the practice of land commodification, the implication on farmers' livelihoods and challenges faced.

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Geographically, the study was conducted in Awutu-Breku. Awutu-Breku was selected for the study because it has been identified that estate developers or private business owners buy lands from Awutu-Breku and win the sands on the lands for construction purposes. This is to satisfy the population growth in the urban centres. The study solely focused on farmers in Awutu-Breku.

Limitations

A major limitation of the study is the fact that I focused on only farmers. Comprehensive data on the various aspects affected by land commodification would be required in order to examine an overall status of land commodification among the people of Awutu-Breku. Another limitation of the study was the sample size. The inability of the researcher to engage all the members in the population affected the generalisation of findings by using sample statistics to estimate population parameters. This made the data collection exercise very difficult, as some of the farmers were located in very far areas. In all, 232 out of the 291 sampled farmers responded to the data collection instruments used for the study. The 232 farmers represented 79.72 percent of the total number of respondents.

Organisation of the Study

The study was organised into five chapters. The first chapter is the introduction, which presented issues on the background to the study, statement of the problem, research objectives, research questions, delimitation and limitation of the study. Chapter Two was centred on the review of literature related to the study. Some of the issues that were considered under the chapter are the theoretical, conceptual and empirical review and conceptual framework.

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Chapter Three focused on research methodology. The chapter encompasses research design, study population, sample and sampling procedure, method of data collection, ethical consideration, and data analysis. Chapter Four was also on results and discussion. It was organized under the objectives of the study. Summary of major findings, conclusions and recommendations as well as suggestions for future studies will be presented in Chapter Five.

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CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter focuses on the literature review of the study. Literature review allows researchers to refine the problem to be examined and provide comprehensive information of the current state of knowledge in a particular area (Kumar & Antonenko, 2014). This chapter is structured according to the theories, concepts and empirical reviews to aid the study as other researchers have employed in finding solutions to similar problems (Babbie, 2005; Ridley, 2012; Yin, 2003). It reveals strengths, weaknesses and conflicts in existing literature and draws lessons to inform the new study.

Theoretical Review

Theoretical review remains one of the most important strategies for completing a research study (Yin, 2003). Bititci, Chan, Kumar and Nudurupati (2011) posits that it provides a set of parameters for reviewing literature in relation to the main themes pertinent to a particular research field, thereby giving a focus to the review. This section examines the location theory, political ecology theory and the rational choice theory as the theoretical framework underpinning the research. The merger of these theories in the study are essential because none of the theories can autonomously explain land commodification and livelihoods of farmers. These theories complement each other in the explanation of the issues of interest to the study.

Location Theory

The location theory was propounded by Von Thuneen (1783-1850) and translated in 1966. Von Thuneen was concerned with geographic location of

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economic activity. The theory suggests that accessibility to market (town) can create a complete system of land commodification (Jenkins, 2004; Shatkin, 2014). The theory is underlined by the assumptions that farmers are rational and will opt for agriculture type that produces the greatest location rent. The assumptions of the theory are that there is a single central market with no connections and transportation cost are directly related to distance (Fischer, 2011; Ponsard, 2012). O'Kelly and Bryan (1996) contends that per the location theory, most farmers will choose an agriculture activity that yields more returns.

The location theory mainly focuses on agriculture land (Angelsen, 2007) and the balance between land cost and transportation cost (Alonso, 2017). Milne (2013) revealed that the rationale of the location theory plays a major role for lands to be commodified because most farmers give in to the benefits of choosing that rationale. Akram-Lodhi and Kay (2012) blame the influence of land commodification on penury. The elements that promote penury encompass individual attitude, human capital and welfare participation (Gans, 1995). The location theory is particularly influenced by individual attitudes.

As implied by location theory, Awutu-Breku, a town close to a central market i.e. Kasoa, is a hub for economic activities in Ghana. Thus, the custodians of lands and farmers in Awutu-Breku opt for a more yielding return on the land as the location theory depicts. The increasing rate of urbanisation has caused the 'spill over' of demand for land to neighbouring towns like Awutu-Breku to experience these effects in the form of land commodification. Lands that are commodified are used to satisfy the pressures of migration, establishments of business centres, accommodation purposes and construction purposes. Hence, the location theory explains the reasons why farmers or

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custodians of land give out the scarce lands in Awutu-Breku for other purposes other than agriculture. The limitation of the location theory is that it does not consider the behavioural basis (Gorter & Nijkamp, 2001) for which land is commodified and how it affects livelihoods that depend on lands (Nakoinz, 2012; Christaller, 1933). This weakness can be accounted for by the political ecology theory and thereby necessitating its use as a complement.

Political Ecology Theory

The political ecology theory (PE) is attributed to the work of Eric R. Wolf (1972). The theory analyses how power and economics render resources, landscapes and marginalised people in instrumental terms. Wolf (1972), Axtmann (2004) and Walker (2006) have discussed how local rules of ownership and inheritance mediate between the pressures emanating from the larger society. Political ecology can be defined as the constant shifting dialect between society and land-based resources among classes and groups within society (Swyngedouw & Heynen, 2003).

The theory focuses on the role individual economic relationships play in maintaining social order. Under advanced capitalism, commodification expands into corners of social and political life with devastating consequences (Burawoy, 2015; Williams, 2005). In establishing the basis of this theory, Wolf (1972) identifies three fundamentals underlining the theory, which are: 1) cost and benefits associated with environmental change are distributed unequally, 2) the unequal distribution reinforces or reduces existing social and economic inequalities and 3) results in political implications where power relations are altered. Political ecology has played a critical role in explaining land

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commodification, notably the social and political inequalities that both cause and mediate their effects (Bryant, 2015).

Political ecology is fundamentally keen on the relationship between humans and the biophysical environment (Bixler et al., 2015). Political ecologists explore the environmental challenges such as wars over control of natural resources, urban environmental injustices and land commodification that vulnerable communities face (Batterbury, 2018). Despite the interdisciplinary nature of the Political Ecology theory, it is mostly concerned with disciplines of geography and development studies (Zimmerer & Bassett, 2003). In general, political ecologists believe that the human struggle for resources and healthy environments is strongly influenced by how much power societies and individuals hold, and how they use it.

Inequalities in access to natural resources has been a major theme of the political ecology theory. Considering the information on commodification of African lands by investors, foreign government and corporations in the 2000s had major effects on the livelihoods of people. This in a way is connected to their access to these natural resources. Natural resources like land usually when taken from the rural areas through this process are not compensated by the returns from what the lands are being used for (Wily, 2013). The power to convince is also important to the political ecology theory, as in the case of Cameroon, where local chiefs are persuaded to belief that more benefits comes from commodifying the lands. This goes a long way to affect the livelihoods of the people (Batterbury, 2018; Escobar, 2008)

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The processes underlining political ecology in key reference to the commodification of land affects the livelihoods of those who are mainly dependent on it. Powers political authorities wield influences local authorities hence, the determination of these land commodification processes in the rural areas. Awutu-Breku suffers same where who gets land, how and for what purpose is mostly determined by the authorities and this affects the livelihoods of the people of Awutu-Breku and their standard of living. As livelihoods are affected by land commodification, farmers adapt to ways that are most beneficial to sustain their livelihoods (Tong, Zhu & Lo, 2019). The political theory does not account for this hence the essence of the rational choice to complement it.

Rational Choice Theory

Rational choice theory describes the situation where an individual in making decisions about personal objectives employ rational calculations (Scott, 2000). These decisions made by individuals provide them with the greatest benefit or satisfaction and they are seen as their highest self-interest (Mansbridge, Bohman, Chambers, Estlund, Føllesdal, Fung & Martí, 2010). This theory is based on the assumption that aggregate social behaviour results from the behaviour of individual actors, each of whom is making their individual decisions. Key elements within this theory are individual preferences, beliefs and constraints (Hands, 2013).

The core argument of the rational choice theory can be traced to the works of neoclassical economics (Kjosavik, 2003). The theory is known to be based on three assumptions: (1) individuals have selfish preferences, (2) they maximize their own utility or satisfaction and (3) they act independently based

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on full information. With the first assumption, the theory believes that people try to maximize their advantage and minimize their loss in any situation. Thus, before taking a decision, individuals indulge in some rational calculation that becomes a driving force for making a choice that will maximize their pleasure or profit.

The rational choice theory stipulates that all complex social phenomena are driven by individual human actions (Young, 2016). In this sense, an economist or researcher can study the behaviour of a whole society by studying individual rational decisions. According to Sato (2013), the aggregate social behaviour results from the behaviour of individual actors. As such, it could be said that the theory focuses on the determinants of individual choices. This provides the individual with preferences among the available choice alternatives that allow them to state which option they prefer (Roach & Sauermann, 2010).

In addition, the rational choice theory assumes that an actor chooses an alternative that the actor believes brings about a social outcome that optimizes individuals' preference under subjectively conceived constraints (Sato, 2013). In explaining some social phenomena such as land commodification, the theory supports the choice of favourable coping mechanisms that affected farmers adopt to enable them maximize their benefit as compared to when they had access to land (Zoomers, Van Noorloos, Otsuki, Steel & Van Westen, 2017).

The rational choice theory, although used to explain most social phenomena, is prone to criticism. According to Hodgson (2012), the notion of rationality where people try to do the best, they can in their circumstance so to achieve the best possible or maximize their outcome is perfect but has become problematic with the rise of game theory. The coping mechanisms grounded in

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Awutu-Breku are subjected to personal and selfish interest. Therefore, the rational choice theory throws more light on the choice of coping mechanisms adopted by these affected farmers.

Conceptual Review

The conceptual review, according to Swaen (2015), is what you expect to find through your research. It defines the relevant variables for your study and maps out how they might relate to each other. The conceptual review is a representation of an expected relationship between variables of the study thus, land commodification, livelihoods and peasant farmers. It was developed based on a literature review of existing studies and theories about the topic.

Land Commodification

The issue of land commodification, though not very new, has picked pace with increasing cases in the developing world, hence attracting attention in academia. More deliberations on land commodification in urban areas have focused on setting up enterprises in urban areas which calls for the acquisition of land or space through state-mediated privatization of public owned assets, public-private partnership and risk absorption by the public sector (Atasoy, 2017). Following this, several individuals and organizations have attempted a definition for the concept.

Land commodification includes changes in land use, land access and common-property resources that suggests the commercialization of housing and agriculture (Desai & Loftus, 2013). Similarly, Cotula (2012) views "land commodification" as a term coined by the media to describe large-scale purchases or leases of agricultural or forest land on terms that are detrimental to those already living on the land.

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Concerning land commodification in rural areas, recent studies have emphasized the role of land grabbing in land commodification (Hall, 2013). This concept explores the reconfiguring of access to exclusion from and claims over common resources, as well as the role of the state in the reorganization of land–property relations (Peluso & Lund, 2011). There is a range of motives in land grabbing with different impacts on rural livelihoods. All are central to the 'agrarian question' in relation to the general class-transformation processes of commercialization of agriculture and the dissolution of subsistence-based food production (Bernstein, 2006; McMichael, 2012).

The land is then used for various purposes ranging from large-scale commercial food and bio-fuel production to protection of global biodiversity and green space. Given the disparate issues, it covers, the term 'land grab' remains inconsistently defined and poorly understood (Holmes, 2014). There are also significant methodological problems in collecting and presenting reliable data and documenting the process itself (Locher & Sulle, 2014). Nevertheless, land grabbing is a useful concept in explaining land commodification.

Land commodification as further discussed by Friends of the Earth (2010) is broadening and deepening the trend of privatisation that has deepened poverty and threatened the food sovereignty of billions of the world's most vulnerable people. The African Biodiversity Network (2007) shares the views of Cotula (2012) but expressed their ideas in a different form and tone where lands are commodified or taken control of, for commercial and industrial agricultural production. This has therefore deprived many local farmers and pastoralists of their livelihood assets.

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The Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD) and International Institute for Environment and Development (IIED) in 2009 defined land commodification as land agreement that does not only include the purchase of the ownership of land but also the acquisition of user rights, leases or concessions whether short or long term. Shepard and Mittal (2009) and Kenney-Lazar (2012) share the view that land commodification is the purchase or lease of land by countries that are richer but have huge deficits in food production and private individuals from mainly developing economies with the aim of producing for export.

Land commodification allows the investors to take control of lands that are critical to recent and future food sovereignty of the host country (FIAN, 2010). VIVAT International (2014) opined that land commodification activities through sale or lease contracts could last for as long as 99 years, which are highly detrimental to the interests of the affected communities. Sometimes, some of these land transactions are carried out without the potentially affected people being involved in the negotiation processes according to (Vermeulen & Cotula, 2010; Fisher, Ury & Patton, 2011). In many cases, host communities and even host governments are not compensated appropriately for the actual value of the land. This is because of the make believe of host communities or government that investors have also come to help.

Similar to the argument put forth by VIVAT International (2014), Zoomers (2010) argues that land commodification as "deals" are carried out by international corporations or foreign governments. The two definitions factored in the fact that land commodification is done by foreign governments and international corporation but ignored the view that land deals can also be

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initiated by domestic governments. National Association of Professional Environmentalists (NAPE, 2012) mentions that land commodification occurs when farmlands used for food production by local small-scale farmers are either leased or sold to outside investors.

The contemporary land commodification happens when land and other constituents of the environment are taken often made possible due to the huge capital involved. This allows resources to be exploited either for domestic use or to serve the needs of foreign nations (Borras & Franco, 2010). However, from the perspective of the researcher, the concept "land commodification" is defined as an emerging phenomenon whereby nations, individuals and organizations or corporations use diverse tactics, especially where the domestic government is involved to take control of land belonging to local peasant and subsistence farmers, often with the view that investing in such lands will contribute significantly to improving the living conditions of the affected people. In simple terms, land commodification is the acquisitions, purchases and leases of agricultural lands belonging to local farmers in such a way that it undermines the livelihood sustainability of the affected people.

Factors responsible for commodification

Land commodification activities are usually justified for the purposes of investments and development when it actually displaces local farmers and rural inhabitants (Nyame & Grant, 2014). In western Ethiopia, the allocation of land to external agribusiness investors by the government in and around Gambella National Park threatened the livelihoods of local pastoralist communities, and the antelope migration between Ethiopia and South Sudan (ILC & IIED, 2013). Intensive agricultural production on commodified lands can endanger

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biodiversity. This is because as the forest is converted into plantations, it reduces diversity of flora and fauna, and agrobiodiversity (Braun & Ruth, 2009).

In fragile African ecosystems, the practice of industrial agriculture on lands which have been commodified have the capacity to destroy the habitat of millions of persons who are already witnessing deteriorating conditions due to climate change hence, as traditional small-scale farms are gradually being substituted with large intensive agriculture, there is the likelihood that the enjoyment of rights by the future generations would be jeopardized (Alison, Sylvain, Rolf & Sofia, 2011). According to Brad, Schaffartzik, Pichler & Plank (2015), in Malaysia and Indonesia on the environmental impact of investing in large scale oil palm and rubber plantations on grabbed lands revealed that there has been significant rise in greenhouse gas (GHG) emissions, massive deforestation, soil nutrient depletion, drought, and desertification.

In Indonesia and Malaysia, rubber and oil palm plantations are blamed for the devastating forest fires that have destroyed large tracts of forestlands (Colchester et al., 2011). Yet, governments of south-east Asian oil palm producing countries continue to use oil palm plantation as part of their measures to address climate change impacts, forgetting that the mere clearing of the rich forest alone to establish plantations causes carbon emissions, which have serious implications on the environment and for that matter agriculture (Evers, Yule, Padfield, O'Reilly & Varkkey 2017). The clearing of the forest and grassland cover to make way for plantations has affected wildlife, to the extent that monkeys and antelopes are being hunted as alternative sources of food, hence affecting the microclimate of the area (NAPE, 2012; FOE, 2012).

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In Cameroon, the American-owned Herakles Farms have purchased 73,086 hectares of land in the midst of a biodiversity hotspot to develop an oil palm plantation (Twene, 2017). The African Conservation Foundation admonished that such a bold decision will only be an environmental disaster for the rainforests of Cameroon (Oakland Institute, 2012). The most severe instances of destruction of rainforests by Industrial Tree Plantation expansion can be found in Southeast Asia where the two biggest pulp producers, Asian Pulp and Paper (APP) and Asia Pacific Resources International Holdings Limited have deforested about two million hectares of forests in Riau Province of Sumatra alone (Overbeek, Kroger & Gerber, 2012).

In terms of the effects of the conversion of commodified lands into large-scale commercial agriculture on water, available evidence suggests that such large-scale investments could completely worsen communities' access to water, and in particular, regarding agro-fuel production, due to the high input requirement of energy crop plantations (FAO, 2008). For instance, the production of agro-ethanol (jathropha) for agro-diesel requires considerable amount of water (Twene, 2017). In Tanzania, a study of a tract of land, which included the spring of Tove, rented to a local industrial farm for the cultivation of crops and for animal grazing reveals that the farming practices completely degraded the quality of water in the spring (Arduino, Columbos, Ocampo & Panzeri, 2012).

Land commodification activities are also attributed to the fact that agricultural investment is meaningless without water. Therefore, in most cases, investors rather target lands that have copious amount of water (Small, 2013; Mann, 2010). Similarly, in Cambodia, a case study of the rubber plantation on

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commodified lands at Ka-Nat Thum reveals increasing trends in environmental degradation, which has destroyed the water purification services of the primary forest ecosystems, hence resulting in poor water quality of the area. The destruction of the forest mainly due to the rubber plantations has reduced immensely the water holding capacity of soils, altered the microclimate of the area, which has contributed to a decrease in water availability (Roy & Roy, 2014). A shift in land use from forest and small agriculture to large-scale rubber plantation with its attendant excessive application of chemical fertilizers and pesticides has also led to contamination of the ground and surface water (Bues, 2011).

Since many lands that have been commodified are usually used for large scale agricultural investment, in many of the host countries, where laws on pesticides and herbicides are either lacking or ineffective, it creates risks to other water users (Smalley, 2013). With the case of the SCOPALM OIL Palm Plantation project in Cameroon, there was increasing water pollution from agrochemicals (Twene, 2017). Tests on water effluents by Centre Pasteur for example, found high levels of chemical and biochemical substances which suggested that the sources of water for the villages near the SCOPALM OIL Palm Plantation project were of poor quality and suitable only for irrigation, cooling, and navigation (European Coalition and Corporate Justice for Sherpa, 2010; Mann, 2010).

A study of the environmental impacts on oil palm plantation in Guatemala revealed that, at La Caobo and Esperancites Del Rio in the Municipality of Chisel in Guatemala, the plantations have altered the courses of rivers for irrigation, and the use of chemicals such as fertilizers, herbicides and

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pesticides has contaminated water bodies of many nearby communities (Guerena & Ricardo, 2013). Although fertilizer use and irrigation can significantly contribute to addressing some of these challenges posed by the agricultural investments on commodified lands, however, these activities can equally lead to long-run sustainability problems such as salinity, waterlogging and soil erosion if they are inappropriately designed (European Coalition and Corporate Justice for Sherpa, 2010).

Since the global shooting up of oil prices in 2006, foreign companies in their attempts to expand their businesses have targeted developing countries including Ghana for lands (Schoneveld, German & Nutakor, 2011). The demand for oil led to the increase in its prices, hence investors with the knowledge of Africa being the continent known for oil discovery made Africa one of their business ventures by commodifying lands to realise these benefits. According to Schoneveld and German (2014), about 36 foreign-based companies have each gained land in Ghana exceeding 2000 hectors for agriculture and forestry plantation. The overall land acquired by these companies is 2.05 million hectors making these investors the majority shareholders.

Global land commodification seems to be predominant in Africa. In a study by Anseeuw et al. (2012) it was revealed that of all the publicly reported cases, Africa recorded 948 land acquisitions, thus 134 million hectares. This was followed by 43 million hectares in Asia, 19 million hectares in Latin America and 5.4 million hectares in other regions particularly Eastern Europe and Oceania. These trends in land commodification, particularly in Africa, is traceable to the perception that there are available lands that are untapped and

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the assumption that land prices could be much cheaper due to poverty (Afeliga, 2019). As a result of poverty, custodians of land sell or lease their lands to make ends meet. Weak land administration systems in Africa supports the reasons for easy land acquisition by individuals, foreigners, and domestic governments (Anseeuw et al., 2012).

Food crisis in 2007 and 2008 became the primary driver of land commodification among food-importing countries such as Saudi Arabia, United Arab Emirates, China and India. This was due to the unpredictable world food markets affecting their food security (Anseeuw et al., 2012; Lorenzo et al., 2009). However, the demand for food is not the only driver. The desire of nations to achieve reliable energy supply, culminating in the acquisition of land for bio-fuel production is essentially one of the key drivers of the land commodification phenomenon. Others include; forestry for carbon sequestration, mineral extraction, conservation of reserves, industry and tourism.

The northern part of Ghana has suffered primarily from these land commodification activities. This has increased food insecurity and poverty (Stenberg & Raffiee, 2018). The government, chiefs and large foreign corporations (ElHadary & Obeng-Odoom, 2012) spearhead Land commodification practices in Ghana. In addition, Nyame and Grant (2014) identified that 70 percent of lands in Tarkwa, which is located in Western Ghana, has been earmarked for mining activities. In 2009, fifteen out of seventeen companies located in Brong - Ahafo (now Bono and Ahafo regions) and Ashanti regions were found to be foreign-owned, and have gained 1,075,000 hectors of land for the production of jatropha. Land commodification

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activities are usually justified for the purposes of investments and development when it actually displaces local farmers and rural inhabitants (Nyame & Grant, 2014).

The issue of land commodification is categorised into two forms namely; Domestic Land Commodification and International Land Commodification. Domestic land commodification connotes all forms of land deals or acquisitions that are wholly perpetuated by local elites, companies and national governments (Levien, 2011). On the other hand, international land commodification involves all land acquisitions that are entirely carried out by foreign governments and corporations and the global commodity chains (Amanor, 2012).

Livelihoods

Livelihood looks at all the factors that either make people more liable to external shocks or promote the individual or family's survival strategies (Abass, Afriyie & Adomako, 2013). These are thought to comprise, mainly, the assets possessed by people, the activities that they engage in to promote improved living conditions and to satisfy all the factors that enhance or deny people's access to livelihood assets and activities (Ellis, 2000). Martin and Lorenzen (2016) opined livelihoods as all activities including both farm and off-farm and the access of people to assets that support these undertakings which people do to make a living.

The concept of livelihood is increasingly becoming central in the discourse of rural development, poverty alleviation and natural resource management (Ellis, 2000). It is well noted that in defining "livelihood" the factors and conditions ranging from social, economic, and environmental which

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constrain or enhance people's ability to make a living are emphasized (Krantz, 2001). As defined by Ellis (2000), livelihood comprises assets (natural, physical, human, financial and social capital); the activities and the access to these that together determine the living gained by individual or households. Livelihood has the characteristics of being adapted for survival.

From the perspective of Rakodi (2014), livelihood includes the capabilities, assets and activities needed to guarantee a means of living. The authors further stated that livelihood is sustainable when it can absorb all shocks and stresses without seriously altering the natural resource base. Livelihood sustainability is endangered by external pressures, called the vulnerability context, comprising stress and shocks that people cannot take control over them (Alison, 2004). Thus, sustainable livelihood refers to livelihood strategies that are resilient in the face of external shocks and stresses maintain the long-term productivity of natural resources and do not compromise the livelihood options open to others (Alison, 2004).

Implication of Land Commodification on Rural Livelihoods in Africa

The effects of land commodification have turned out to be one of the debated issues in the academic field in present times due to the cumulative cases linked with the masses of such land acquisitions. While proponents of land grabbing such as the World Bank (2010) portray it as a positive phenomenon, opponents such as Andersen (2010) are also strongly against the phenomenon called "land commodification". Land commodification undisputedly offers many opportunities, which include providing on farm and off-farm jobs, and the building of facilities including schools and health posts for the poor rural people (Zoomers & Otsuki, 2017).

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VIVAT International (2014) opined that land commodification activities through sale or lease contracts can last for as long as 99 years which are highly detrimental to the interests of the affected communities. Sometimes, some of these land transactions are carried out without the potentially affected people being involved in the negotiation processes according to (Vermeulen & Cotula, 2010; Fisher, Ury & Patton, 2011). In many cases, host communities and even host governments are not compensated appropriately for the actual value of the land. This is because of the make believe of host communities or government that investors have also come to help.

The recent global land commodification and its subsequent large-scale agricultural investments have usually led to the clearing of vast areas of land (De Schutter, 2011; Hands off the Land Network, 2013). This usually causes permanent damage to the physical and biological environments, hence posing threats to agriculture and the general livelihoods situations of the affected communities. Globally, many biodiversity conservation efforts have been thwarted due to the increasing desire for large scale lands by wealthier nations, individuals and governments, both domestic and international as well as organizations (Conrad & Hilchey, 2011).

Other advantages of land sales include advancement in agricultural technology, stable global prices in the future and increased production of food crops (Braun & Ruth, 2009). Since land commodification lead to increased investments in food and agro-fuel production flowing to rural areas such as Abraka, Kebbi, Ogoni and Shonga of Nigeria (Etemike & Efanodor 2015), it could offer the necessary benefits and opportunities for supporting the livelihoods of poor rural societies (Mutopo, 2012). These investments through

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the establishments of processing industries, provision of improved seed varieties and establishment of facilities such as schools, roads, health centres and water services (Haralambous, Liversage & Roman, 2009).

Large scale land acquisitions can be a "win-win" deal if buyers of the land commodify lands in agriculture as a growth opportunity and provide an equally sustainable source of livelihoods (Aabø & Kring, 2012). This is because agricultural production and improving yield rests on land size and recent farm techniques respectively, as economies of investors and host countries benefits (Sheppard & Mittal, 2009). The World Bank (2010), in support of land commodification is optimistic that through land deals, there would be significant improvement in productivity. The bank highlights that in countries where there are large tracts of suitable farmland coupled with a greater percentage of smallholders with very low productivity, the inflow of foreign investment and technology could provide large benefits to local populations.

In the perspective of the World Bank, local communities can learn new production methods from foreign investor's expertise and capital in order to utilise their own resources more efficiently and become more productive. This usually occurs when the locals are granted employment opportunities in the new use of commodified land. However, the World Bank (2010) was also quick to add that "the risks associated with such investments are immense," mainly because the demand for land is focused on countries with weak governance and insufficient legal frameworks, but acknowledged that, if governments implement the right policies, the risks can be turned into equally large opportunities.

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It is also key to mention that many of such investments are often done by the private sector. Their profit-seeking aims may possibly outweigh their obligation to provide these benefits to the local people (Li, 2015). In cases when these opportunities are created, they are not always maintainable, and local elites frequently use these opportunities to defraud their people (Yaro, 2012). When it comes to promises made by investors, such as the development of social amenities and economic infrastructure, it has been claimed that these advantages do not appear or arrive extremely slowly in some cases (Moges, 2010). As evident in a study conducted by Oviedo (2011) in Mali on the case of plantation workers, it is also worth noting that, in most situations, investors pledge to provide employment to the locals whose lands have been commodified, nevertheless, the jobs are generally seasonal, low-paying, and offer poor working conditions.

Furthermore, large scale projects are generally highly mechanised, thus, not creating much employment for the smallholder farmers or landless peasants (Deininger, 2011). Often, the government of the host country does not have the authority to compel foreign investors to keep their pledges (Moges, 2010). Furthermore, it would be quite difficult for certain locals to quickly adjust to new methods because they lack the requisite skills, in order to take advantage of the opportunities provided by investment in the commodified lands (Dodman & Mitlin, 2013). As a result, such people's livelihoods may become extremely unstable.

Arguing from Zevenbergen, Augustinus, Antonio and Bennett (2013), as a result, it is unrealistic to expect that all those who are impacted will receive the advantage as indicated. Nonetheless, it does that rule out the possibility that

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investment in commodified lands has a beneficial impact on the livelihoods of people of the host communities. If the investments are dutifully and properly implemented, they will have a positive impact on the livelihoods of the local people and the importance of the host country's growth cannot be overstated (Andersen, 2010).

Shanguhyia (2013) however, hold the view that these benefits or opportunities land commodification presents are needless, considering the challenges that the land acquisitions present to people's livelihoods. These challenges include natural resource degradation, loss of traditional farming techniques and increasing food insecurity. Andersen (2010) further stressed that even though many of these land-lease agreements make provisions for investments in rural development; they are usually not made on equal terms between the investors and local communities because as mentioned earlier, the potential affected people are left out in the negotiation processes, which in several instances have threatened rural livelihoods (Chizoba, Gwen, Abiola, Chinny & Chike-Jideani,2012) such as farming and livestock rearing.

Theting (2010) opined that recent studies conducted in some Eastern African countries like Kenya, Tanzania and Mozambique revealed that the large-scale agricultural investments of commodified lands failed to fulfil the promise of building infrastructure and creation of jobs. The author attributed this to the fact that affected communities had little or no power to demand the fulfilment of these promises because these affected communities are made to believe that they need such investments to improve their standard of living. Kachika (2010) adds that, even in situations where farmers were employed, the conditions contained in the contracts were not favourable and the number of

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workers was much reduced due to the mechanised nature of the farm. Family-operated farms can be economically more efficient than big farms or plantations operated by wage labour (Tran-Nguyen, 2010).

Similarly, the Pesticide Action Network, Asia and the Pacific (PANAP, 2010) argues that land commodification undermines and ruins small-scale and backyard farming that is otherwise built on local, indigenous and gender-based knowledge, often times employing biodiversity-based techniques. Big investments in land commodification may induce land-use changes to the disadvantage of food security because high-quality land may be diverted from local food production, livestock grazing, and income generation activities previously undertaken by rural communities (Modi & Cheru 2013). Consequently, smallholders may have no other option but to seek a living on marginal lands (Action Aid International, 2008).

It is clear that, the global land commodification will have the effect of encouraging the dominance of the state to the disadvantage of the original owners and occupants (Borras & Franco, 2010). Foreign large-scale agricultural investments on commodified lands could, in theory, contribute to global food security; but it could also create problems of food sovereignty in the host countries due to heavy exportation (Jägerskog, Harsmar & Kim, 2012). The National Association of Professional Environmentalist (NAPE, 2012) revealed that people living on Bugala Island in Uganda used to grow beans, yams, peas, maize, and bananas which were supplied to other communities, today, the island imports almost all its supplies of bananas, rice, beans and maize flour due to land commodification activities in the area.

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Makutsa (2010) speaking to the effects of land commodification on livelihoods shows that there will be a serious food shortage in Tana Delta in Kenya, if all the potential agricultural investments on all commodified lands take off in the region. Using Uganda as an example, the National Association of Professional Environmentalists (NAPE, 2012) explains how the use of commodified lands for oil palm plantations has affected the local economy, which traditionally relied heavily on fishing, wood gathering, and food crop cultivation. Local food security is threatened because vast lands that could be used for food crops are instead being used to plant oil palm. As a result of the large capital investment in commodified lands, local subsistence farmers and pastoralists are increasingly interested in low-paying temporary occupations. (Magdoff & Tokar, 2010).

Plantation workers on commodified lands in Mali and Sierra Leone, for example, are paid around USD 2.25 per day in Sierra Leone, while laborers in Mali are paid even less, between USD 0.60 and USD 1.20 per day (Oviedo, 2011). The absence of an appropriate policy framework to manage and regulate land commodification activities and the eviction of local farmers, severe forms of hunger and poverty are likely to emerge in many developing countries, particularly in Sub-Saharan Africa, where worse forms of land commodification are mostly triggered by land grabbing activities (Costamagna, 2014).

A number of development-oriented organizations, for instance, have criticized land commodification. There are claims that both the government and private persons with the goal of investing money to improve local food production and stabilize local and regional markets acquire large tracts of land. Land commodification instead increases competition for land, leading to higher

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land prices and, in turn, higher food prices. (Alhassan, Shaibu & Kuwornu, 2018). As a result, even though the food is grown in their own country, local populations in poor countries will be unable to purchase it (Christiane, Timo, Knoblauch & Krista, 2011).

For the fact that land commodification could jeopardise the general food security and livelihood sustainability of developing economies, it is also worthy to note that land commodification cannot wholly be blamed for the inability of affected countries to achieve food sufficiency (Ogenga, 2010). This is because it is common knowledge that agriculture in many African nations is largely carried out by the aged whilst the energetic youth continue to migrate to Europe for jobs to support their livelihoods (Proctor & Lucchesi, 2012). Equally, food production in these nations is mainly nature determined and still being carried out with the use of traditional farming techniques such as the use of hoes and cutlasses. It is, therefore, crucial to note that the problem of food insufficiency in developing economies is because of multiplicity of factors. Land commodification is just one of them.

A major effect linked to the acquisition of vast tracts of land is the potential loss of residential-based assets (Anseeuw, Wily, Cotula & Taylor, 2012). Such effects may be, especially worsened when the land is acquired forcefully without any form of negotiation and accompanied by forced evictions of affected population (Milimo et al., 2001; cited in Cotula, 2012). According to the Asian NGO (2014), land commodification, instead of facilitating rural development, rather deprives the host country the natural resources that constitute the assets upon which rural livelihoods are drawn. Land commodificatifon does not only mean that farmers will lose their livelihood

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assets, but also these assets will be transformed from smallholding into large industrial farms, mainly meant to produce for the international markets (GRAIN, 2008; GRAIN, 2011).

A land commodification case involving Kilombero Plantation Limited, a venture between a public agency, Ruiji Basin Development, and a Private Company, Agrica (UK) in Morogoro in Tanzania completely deprived the local farmers and pastoralist of their lands and forest, thereby, making them out-growers to the investors. Thus, this land deal directly was a means of divorcing subsistence farming that has been feeding villagers over the years (Chambi, 2010). The immediate impact linked with land commodification, which exacerbates rural livelihoods, is displacement (Thomson, 2014). Due to large-scale land commodification, sometimes, it is almost impossible for women to perform their primary functions such as the provision of food, water and fuel for their families. This is because areas initially used for farming, animal grazing, fishing, gathering wild foods are lost to local communities (Action Aid International, 2014).

As a result of large-scale land acquisitions in Zambia, women who were traders were displaced thereby compelling them to travel a long distance from their homes to the public market to carry out their businesses (Cotula, 2012). For nine years, First Information and Action Network has investigated and documented a land commodification case in Uganda, as the government of Uganda leased land to a German coffee trader to establish a plantation under its local subsidiary, Kaweri Coffee Limited. The outcome of the investigation revealed that 401 families, made up of almost 2,041 individuals were evicted, as well as their houses and farmlands destroyed by the army without adequate

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consultation and alternative arrangements (Alison, Sylvain, Rolf & Sofia, 2011).

Behrman, Meinzen and Quisumbing (2011) and Mutopo and Manase (2012) view the effects of land commodification and livelihoods from the perspective of gender. Using the bio-fuel plantation land commodification in Chimubanje in Zimbabwe as a case in point, they argued that women are always at a disadvantage in all land deals since displacement and land reallocation that emanates from such land transactions often put undue pressures on their already tenuous land rights (Mutopo, 2012).

Consequently, land upon which women rely for foraging, firewood and livelihoods were mostly given away for foreign investment leading them to directly bear the costs of exorbitant food prices that result from the commercialisation of staple foods (Zoomers & Kaag, 2014; Elson, 2016). The land acquisition process of the bio-fuel plantation land deal in Zimbabwe was accompanied by water appropriation, which also affected women's access to water for domestic use following the pollution of water sources as well as the reduction of the water table (Mutopo & Manase, 2012).

Similarly, with the sugar contract in Mozambique in 2007, the women who were hired were excluded from old-age benefits and childcare assistance (Andrade, Cristiano, Casmiro & Almeida, 2009). Daley and Englert (2010) support this gender argument that women are neglected in the distribution of benefits from large-scale transactions inland because benefits such as compensation, employment and income generation opportunities often go to the men, thereby increasingly marginalizing women-headed households.

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Atafori and Aubyn (2012) highlighted the gender implications of land commodification using a case study of the 1,250 hectares of commodified land involving the Prairie Rice of Texas USA in the Tongu District of the lower Volta in the Volta Region of Ghana. They (Atafori & Aubyn, 2012) revealed that the loss of land brought a damaging effect on women because of their high dependence on it. Women in Tademe, for example, were not able to find land replacement because they were hemmed in by land belonging to neighbouring villages and by Passion Fruit plantation. Consequently, many residents left Tademe, and those remaining, especially women resorted to cooking and selling food to Prairie workers as a way of making ends meet.

Generally, what is common from regarding the effects of land commodification on rural livelihoods in Africa is that it is seen as growth opportunity by providing on-farm and off-farm jobs (Hall, Scoones & Tsikata, 2017). It also provides social and economic infrastructure for Africa and for that matter the developing economies (Simone, 2014). On the other hand, contenders also view land commodification as a threat to food security and the overall livelihood sustainability of the affected people due to the loss of livelihood assets such as land, forest and water (Borras & Franco, 2010). Since asset loss is a complete denial of rural livelihoods, it concludes that land commodification generally ruins rural livelihood sustainability.

Indigenous agricultural technology, for example, is gradually waning as many local farmers and pastoralists are now converting into casual paid labour on large-scale industrialised farms often managed and controlled by foreigners or local rich individuals (Smalley, 2013). It is argued that without strong institutional framework and a very vigorous crusade from civil society

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organizations to halt the extreme cases of land commodification in Africa, it would not be surprising that in the not too distant future, majority of people, especially Africans would experience worse forms of poverty, hunger and general deprivation of well-being. Interestingly, notwithstanding the obvious dangers of large-scale land acquisitions on livelihoods, many cases corrupt local elites and governments have fully supported foreigners to deprive the local subsistence farmers and pastoralists of their lands (Moreda, 2013). Generally, it is evident that the adverse consequences of large-scale land acquisitions on rural livelihoods overweigh the positives.

Coping Strategies Adopted by Farmers

Poverty levels among many rural dwellers especially those in Africa are high (Anyanwu, 2013). The desire to alleviate poverty has generated the debate about the need to ensure that the resources or activities on which many livelihoods depend are protected and managed effectively to promote sustainable livelihoods (Vedeld, Jumane, Wapalila & Songorwa, 2012). As a result, several scholars have outlined various interventions in this direction.

Carswell (1997) posits that among the surest ways of ensuring livelihood sustainability is by promoting intensive agriculture and discouraging agricultural extensification. He argued that by encouraging agricultural intensification through the introduction of improved farming techniques such as the use of natural or artificial fertilizers, improved seedlings, multi-cropping and soil conservation, yield per hectare will increase without necessarily expanding the size of farms. Increasing yield per land area, in turn, increases livelihood sustainability by enhancing the quality and quantity of livelihoods. By agricultural intensification, degradation to livelihood assets (land and forest)

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reduces considerably, which nevertheless, guarantees a more reliable means of livelihood across generations (Grogan, Birch-Thomsen & Lyimo, 2013).

Agricultural intensification itself though often regarded as a positive process; has negative effects regarding the quality and quantity of livelihoods (Chambers & Conway, 1992; Rakodi, 2014). For most people, improvements in labour productivity through intensification offers an opportunity for improving the quality of livelihoods but this, however, maybe at the expense of the number of livelihoods if there is no increase in output (Fan, Brzeska, Keyzer & Halsema, 2013). While there is little doubt that Green Revolution ensured massive increases in crop yields, especially in India, which strengthened local people's livelihoods, such an agricultural intensification has some environmental challenges such as loss of micro-nutrients which equally has huge implications on livelihood sustainability (Magnus, 1996).

Agricultural intensification can be a successful vehicle to promote livelihood sustainability through the use of modern farming methods such as fertilizer and other chemicals, excessive or wrongful application of such chemicals can make soils impoverished (Mutabazi, George, Dos Santos & Felister, 2014). This will, in turn, endanger farm yield and for that matter the general livelihoods of the rural dweller. Since intensive agriculture is capital intensive, it is not possible that poor rural households will be able to afford (Moock, 2019). Hence, it can be concluded that it is a strategy that rather promotes the livelihoods of the rich other than the poor and the marginalised in society.

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Karim, John and Elson (1998) advocate for livelihood diversification as one of the possible ways by which decent livelihood can be achieved. They contend that efforts should be made by individuals and households to discover new avenues or ways of generating incomes to improve or maintain living standards. Livelihood diversification comprises both farm and off-farm activities usually undertaken by households to raise additional income to augment that from the farming activities, sale of waged labour and migration to urban areas to search for paid jobs (Alobo Loison, 2015).

In Mali, during the off-farm season, young men and women migrate to cities for paid jobs; women also do cleaning alongside market gardening, while others combine petty trading with crop and livestock productions (Cekan, 1992). From the literature, it can be stated that in as much as livelihood diversification could possibly promote livelihood sustainability, it is also equally worthwhile to note that, when people and households merely vary their livelihood activities alone cannot guarantee them sustainable livelihoods (Satterthwaite & Tacoli, 2014). Livelihoods will be sustainable only when the livelihood activities are maintained.

In addition, livelihood diversification cannot guarantee sustainable livelihoods for households whose members are old as they may not have the strength to engage in multiple income-generating activities compared to a household whose members are younger, active and energetic (Babu, 2013). In an attempt to promote the sustainability of rural livelihoods, considerable attention must also be directed towards the role culture plays in sustainable livelihood and community development (Daskon & McGregor, 2012). Individuals and communities have their own values, norms, customs and

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knowledge systems which determine and influence the kind of livelihood activities or strategies they use to exploit the natural environment for a living (Ingram, 2014).

The culture of some communities sometimes over-stress certain resources whilst others are left untapped since such places are often believed to be the sacred grooves (Chandima, 2009). In such instances, policies enacted to regulate the usage of such resources perceived by individuals and communities as the appropriate means of achieving sustainable livelihoods would often not be welcomed. It could be argued that without adequate knowledge about the general ways of life of the people, the decision to ensure livelihood sustainability will be a difficult one because the practice of culture can preserve rural livelihoods and at the same time impede livelihood sustainability (Morse & McNamara 2013). By ignoring the culture of a particular community in designing and implementing policies geared towards promoting livelihood sustainability, it can generate conflict.

In Lesotho, as part of the interventions to sustain rural livelihoods, a project dubbed Training for Environmental and Agricultural Management (TEAM) managed by CARE Lesotho-South Africa, was initiated which developed an extensive approach to provide adequate training to increase the knowledge and improve the practices of rural farmers (Twene, 2017). This provided rural farmers with enhanced decision-making and problem-solving skills. It enabled them to adopt more environmentally friendly methods of farming and eschewed practices such as those of agricultural extensification (slash and burn) that are very detrimental to livelihoods (Franks et al., 2004).

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Furthermore, in Uganda, following government's determination to ensure livelihood sustainability, agricultural modernisation was used as the vehicle for eradicating poverty to enable local people enjoy a more sustainable livelihood (Isgren, 2016). In Tanzania, there was an agricultural sector programme support for local farmers, which included the provision of free extension services in addition to subsidised inputs supply as part of government's measure to promote livelihood sustainability (Cromwell, Cooper & Mulvany, 2001; Aker, 2011). This intervention according to Franks et al. (2004) has contributed to a more secure livelihood for local farmers, provided income, and better nutrition for the smallholder farmers and women in particular.

In as much as the views expressed by Franks et al. (2004) are undeniable, it is crucial to add that they fail to acknowledge that these sustainable livelihood intervention strategies as outlined are capital-intensive programmes, which can only be practised by individuals and nations that are very resourceful. Even in rich countries, sustaining such capital-intensive programmes as a way of enhancing rural livelihoods is very doubtful let alone to talk of countries in Africa where capital is woefully inadequate (Peters, 2013). For poor rural societies where access to land is unrestricted, perhaps the cheapest alternative strategies could be agricultural extensification.

Since societies are striving for sustainable livelihoods, it is imperative to ensure wise management of wetland ecosystems on which many rural livelihoods depend (Kinaro, 2008). In the Mekong Region in Cambodia for example, a regulatory body was set up to supervise the efficient management of the local community fishery as a strategy to promote livelihood sustainability

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(Friend, 2007). In pursuance of sustainable livelihood, a clear framework was designed which outlined the category of people with rights of access to the community fishery, targeting the poorer households and women in the catchment area (Ratner, Åsgård & Allison 2014).

This was to ensure that fishing in the area is properly regulated and managed in the best possible manner to limit the rate of degradation to aquatic life on which the livelihoods of many dwellers in the area depend (Friend, 2007). As part of the management strategies employed in the Mekong Region to sustain livelihood, the poorer households and women were represented on the management committees to observe and monitor areas recognised locally as important for fishing (Chowdhury, Koike, Rana & Muhammed, 2013).

Accordingly, this promoted the sustainability of wetland resources (floodplains, river systems) that support livelihoods as capture fisheries. It is essential to note that while this strategy potentially could promote rural livelihoods, it will only materialize if persons appointed to oversee the proper management of the wetland ecosystems act diligently and honestly (Twene, 2017). What is more significant here is to educate the local people adequately so that they do not degrade environmental resources upon which their livelihoods depend.

Novib (2008) also identified three key strategies for ensuring sustainable livelihoods. In the first instance, conscious efforts should be made by both the private and government sectors to build and protect livelihood assets. These will ensure that financial services such as credits, savings and insurance are provided for the rural poor whose livelihoods depend on natural resources such as land, water and forest (Van Ginkel et al., 2013). In their quest to exploit these

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resources, they will be well positioned to use their credits to employ the best possible and less destructive strategy (Beck, 2010).

Equally, livelihoods is strengthened through access to credit coupled with access to natural resources (Neef, Onchan & Schwarzmeier, 2003). There is also the need to reduce disaster risks and vulnerabilities such as credit risks and hazards and build people's capacity to be able to adapt to environmental degradation and climate change since these are detrimental to livelihood sustainability. One area overlooked in the arguments of Novib (2008) has been the failure to recognise that there is the urgent need for both the government and the private sector to act responsibly by ensuring changes in the global trade rules in order not to kick the poor out of the public markets.

Trade terms in developing nations are so liberal that they create huge opportunity for competition, which tends to displace local producers and traders, thereby, weakening their livelihoods (Penz, Drydyk & Bose, 2011). While these strategies are important, it is also worthy to stress that livelihood sustainability can be achieved when opportunities are created by preventing land seizures to improve the position of smallholder farmers in the supply chains (Deininger & Byerlee, 2011). A critical look at the discussions on land commodification and livelihoods shows that the activity of land commodification because of the Bui dam project has both positive and negative impacts on rural livelihoods (Twene, 2017).

These positive effects include employment creation, technological and knowledge transfer, skill training and development of social and economic infrastructure. In contrast, displacement of people, human right violations, loss of livelihood assets, loss of indigenous farming practices, gender inequality,

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food security problems, social conflicts and its associated social tension and environmental concerns are among some of the negative effects. Notwithstanding, the benefits that local people and domestic states derive from land grabbing, the negative effects on people's livelihoods are far-reaching (Anseeuw et al., 2012).

Therefore, to promote sustainable livelihoods for the local people, there should be a comprehensive framework developed to regulate the activity of land grabbing in Africa. (Egoh et al., 2012). Equally, there is the need for a vigorous crusade from civil society organisations in this direction. Failure to do this will potentially lead to a form of neo-colonisation of many countries in Africa, which will rather exacerbate further the local people's livelihoods.

Empirical Review

In this section, the empirical studies presented focused on land commodification and its implications on livelihoods. The study reviewed eight studies including, Toku (2018); Zhang and Wu (2017); Nketsiah (2017); Twene (2017); Nguyen, Hegedus and Nguyen (2019); Mariwah et al (2019) and Ewordu (2016).

Factors that lead to Land Commodification

Toku (2018) conducted a study on land commodification to establish the factors that influenced land commodification in the Wa Municipality of Ghana. The study centred on urban expansion and its effect on peri-urban agriculture. The study employed the urbanization theory in explaining issues of the research. The study argued that phenomenal urban population growth and its accompanying expansion have had a profound effect on the peri-urban communities.

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Ewordu (2016) researched on factors that led to commodification in Bortianor by assessing the effects of these factors on the livelihoods of peri-urban crop farmers and the strategies adopted by these farmers in adapting to the challenges it posed to their livelihoods. The mixed method approach was used to dissect the key research questions underlining the study. The study revealed that most farmers had lost their lands to residential and business developers. Thus, an appreciable number of farmers and fishermen had switched to non-agricultural activities as a source of maintaining livelihoods. This is due to the loss of farmlands to the entrepreneurs. It was recommended that measures be put in place so that maximum output can be achieved from the small amount of land left for agricultural purposes.

Zhang and Wu (2017) studied on political dynamics in land commodification: Commodifying rural land development rights in Chengdu, China. The study discovered that the spread of capitalism accounts for todays' various commodification process. This study examined a market-based program of land development rights trading in Chengdu, China detailing how local governments at multiple levels work together to construct land development rights as a commodity and build market institutions to foster its trading, illustrating land commodification as an inherently political process. The study brought to bear how political process hides behind land commodification to finance rural reconstruction and brought profound changes to rural space, including re-configuring land-use patterns, transforming physical conditions in residential communities, and changing the representation of space.

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Implication of Land Commodification on Livelihoods of Farmers.

Nguyen, Hegedus and Nguyen (2019) examined the Effect of Land Acquisition and Compensation on the Livelihoods of People in Quang Ninh District, Quang Binh Province: Labor and Income. The study focused on the relationship between land and rural livelihoods. The study also revealed that agricultural lands were being increasingly lost as well livelihoods being affected because of developing industrialization in the provinces of Vietnam by the state for park projects. For the research methods, secondary data from select governmental agencies were gathered, and 50 households were interviewed to collect primary data. The results of this research indicated a high proportion of households suffered insufficient employment, as well as those that are spending compensation money in ways that do not generate income.

Mariwah, Evans and Antwi (2019) explored on gendered and generational tensions in increased commercialization of land, livelihood diversification of farmers in Jaman North District, Brong-Ahafo Region-Ghana. The study employed qualitative, participatory research approach with 60 middle-generation men and women. It was revealed as these activities came along with valued income, it exposed rural actors to multiple risks and inequalities, such as the uneven effects of economic globalization, rises in food prices, hunger and food insecurity, growing competition for land, youth outmigration and climate change.

Ewordu (2016) researched on assessing the effects of urban sprawl on the livelihoods of peri- urban crop farmers of Accra: the case of Bortianor. The study focused on the effects of urban-sprawl on the livelihoods of peri-urban vegetable and crop farmers and the strategies adopted by these farmers in

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adapting to the challenges that urban sprawl poses to their livelihoods. Mixed methods approach was used to dissect the key research questions underlining the study. The study revealed that most farmers had lost their lands to residential and business developers, an appreciable number of farmers and fishermen have switched to non-agricultural activities as source of maintaining livelihoods.

Coping Strategies Adopted

Mariwah et al (2019) conducted a study on the tensions in increased commercialisation of land, livelihood diversification among farmers in Jaman North District, Brong-Ahafo Region-Ghana. Using the qualitative research approach, specifically the participatory approach with 60 middle-aged men and women. The study revealed that community members valued the additional income stream accompanied by these activities. Most of the farmers resorted to cashew planting because of the added value income it gave them even at the expense of concerns such as, food security, rise in food prices, and competition of land, weak bargaining position and youth out migration.

Nketiah (2017) also explored on agricultural land deals, farmland access and livelihood choice decisions in Northern Ghana. The study assessed how agricultural land grabs affect farm households' access to land and strategy adaptation among farm households within affected communities. The researcher employed a two-stage sampling technique accompanied by t-test and chi-square analysis. The study revealed that, most farmers adapted to low lands farming periods and farming on limited or marginal lands to support livelihoods.

Twene (2017) also conducted a study on land grabbing and rural livelihood sustainability: experiences from the Bui Dam construction in Ghana. The study investigated the effects of the vast agricultural land grabbed for the

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Bui Dam project on the livelihoods of the affected people. The study employed mixed methods used to carry out this study. Specifically using questionnaire and unstructured interview as well as observation. The results of the numerical simulation indicated that community members have diverted to non-agricultural activities such small business establishments and hawking to support livelihoods.

Lessons Learnt

From the various empirical reviews, it was deduced that descriptive survey study was the predominantly used. The descriptive survey study design was specifically chosen to concentrate land commodification activities and issues surrounding it at one time. It was revealed from the review that the studies employed quantitative, qualitative and mixed methods research approaches in studying the issues on land commodification. The mixed methods were mostly employed because it provided a methodology for conducting a research that involves collecting, analysing and integrating both qualitative and quantitative measures to studying a phenomenon. Hence, employing this approach in a study can produce more complete knowledge necessary to inform theory and practice.

It further emerged from the review that purposive sampling, and simple random sampling were the sampling methods mostly employed. The purposive sampling, generally, was used to select local heads and authorities while the simple random sampling was adopted to select farmers. The data collection methods the review discovered as the most employed were; focus group discussions, and interviews. These varied methods fostered the gathering of data from the farmers that guaranteed rigorous data collection, as it aided in overcoming the limitations concerning the use of one method. The instruments

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that most of the studies adopted for data collection included focus group discussion guide, interview guide and schedule, and questionnaire.

Ratio and nominal scales were used to measure key issues. Sex, marital status, and educational level were measured using the nominal scale while measurement of issues relating to age in years, and years lived in the community were measured on a ratio scale level. For the quantitative analyses, the earlier studies employed statistical analysis - SPSS. However, descriptive statistics was commonly employed. Thematic analysis and cluster analysis were commonly used for qualitative analysis. These qualitative analyses are most appropriate for analysing nominal data.

Conceptual Framework: Land Commodification and Livelihoods of Farmers

The conceptual framework represents a visualised logical arrangement of relevant and related concepts that display how concepts are related and interconnected with each another in relation to the problem under study (Neuman, 2014; Ridley, 2012). The conceptual framework in Figure 1 demonstrates the synergy among the study variables. The nature of land commodification has key nexuses with livelihoods. The linkages show that livelihoods alter as land commodification activities occur. Land commodification activities can be classified into two; domestic and international land commodification. Domestic land commodification, which happens in cities and localities while international land commodification are activities that occur between countries. The framework shows that economic, socio-cultural, political and environmental factor influences land commodification activities which affects livelihoods of farmers. The

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implications of land commodification on livelihoods causes farmers to adopt to diverse ways to support their livelihoods.

The conceptual framework shows how land commodification activities affect the livelihoods of farmers. There are factors that influence land commodification and these factors are, economic, socio-cultural, political, and environmental factors. The factors that influence land commodification is underpinned by the location theory. These factors that lead to land commodification have implications for livelihoods of farmers as depicted by the conceptual framework. However, farmers adopt various strategies to support their livelihoods when their lands are commodified. Farmers adopt strategies that are most beneficial and able to sustain their livelihoods, hence the rational choice underlines the reasons for the strategies farmers choose.

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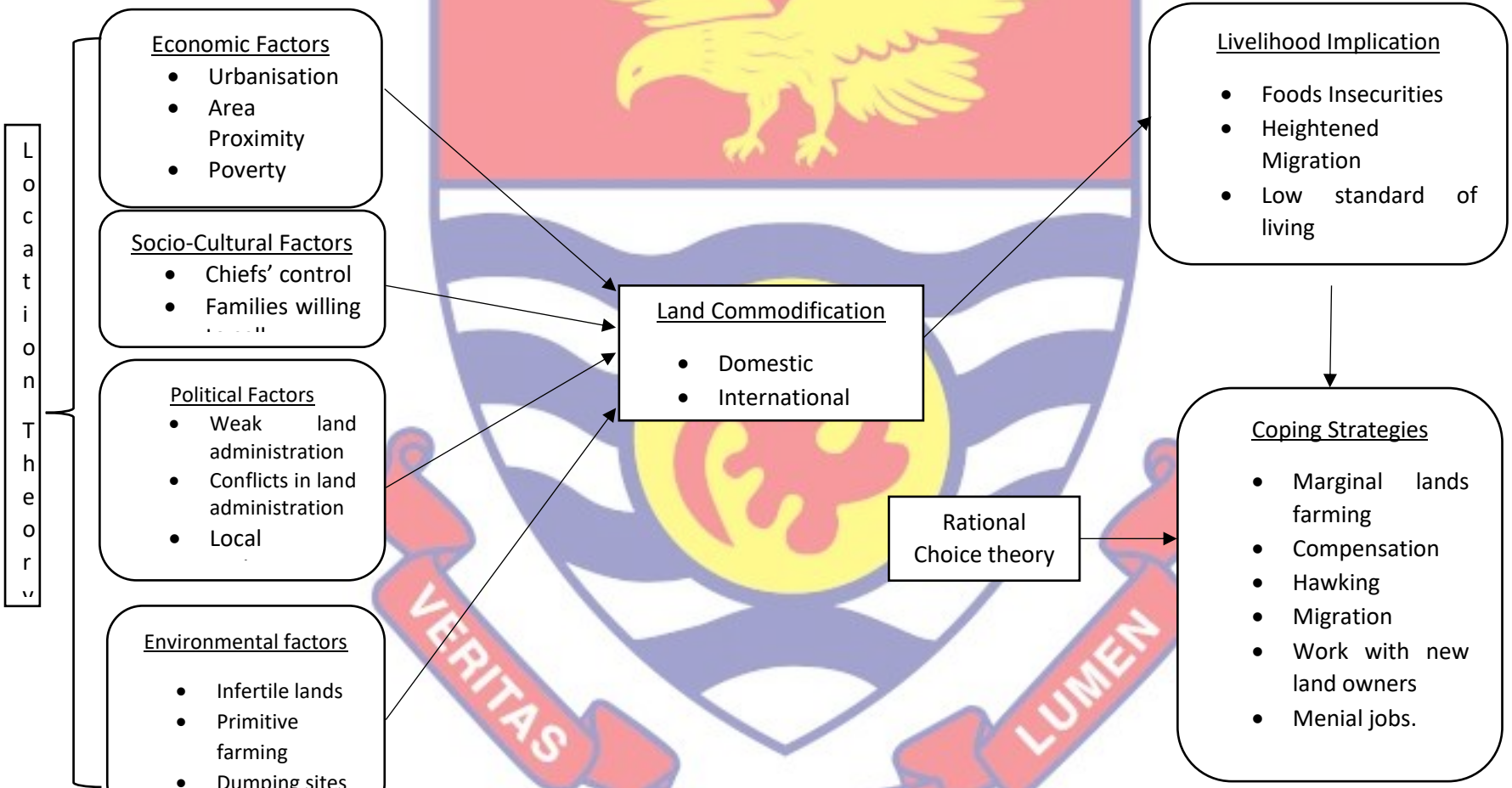

Figure 1: Land Commodification and Livelihoods of Farmer
Source: Author's construct (2020)

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CHAPTER THREE

RESEARCH METHODS

Introduction

Research methodology is the specific procedures or techniques used to identify, select, process, and analyse information about a topic (Kumar, 2019). In research, the methodology section allows the reader to critically evaluate the overall validity and reliability of the study (Elo et al., 2014). The methodology section answers two main questions: how data are collected or generated and how they are analysed (Jogulu & Pansiri, 2011). The methodology, hence, is the direction of a research. The research method used to conduct this study is discussed in this chapter. It includes the research design, the sample population, sample and sampling processes, research instrument, data collection procedures, and data analysis procedures.

Research Design

Major philosophical paradigms underpinning empirical social research, include, positivism, interpretivism and pragmatism (Wahyuni, 2012). These paradigms form the basis of every research. According to Oppong (2014) and Sarantakos (2005) as cited by Fuseni (2018), a positivist thought contains a realist and objective ontology, thus, reality is objectively external to the individual. The interpretivist, on the other hand, holds the view that reality is relative to the individual hence leading to multiple realities (Alharahsheh, & Pius, 2020). Lastly, the pragmatist focuses on the practical or logical response. Pragmatism states that truth can be known only through the practical, meaning pragmatist recognise the importance of manpower.

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Positivists apply the quantitative approach to research; interpretivists use the qualitative research approach whiles pragmatists adopt both quantitative and qualitative research approach. The study hence identifies more with pragmatism because ascertaining quantitative and qualitative data for the study will give a clearer understanding of the study as it examines the land commodification and livelihoods of farmers. This study adopted the concurrent mixed method. This approach was used because it allows for mixing of methods that could improve the validity and reliability of the data and its explanation (Zohrabi, 2013). In line with the pragmatist philosophical paradigm, the study adopted a mixed-method approach. The mixed methods research can be defined as a type of research, which allows the utilisation of both qualitative and quantitative techniques (Johnson, Onwuegbuzie & Turner, 2007). Hence, researchers are allowed to adopt various approaches to answer the research questions posed.

Specifically, the concurrent mixed methods were used, as this allowed the researcher to simultaneously collect and analyse qualitative and quantitative data. As argued by Creswell and Clark (2017), the adoption of the concurrent mixed methods offers the researcher the opportunity to comprehensively analyse the research problem. This was deemed appropriate, as all three objectives required the collection of both quantitative and qualitative data. The descriptive survey study design was employed in making the inquiry to determine the implications of land commodification on the livelihoods of farmers in the peri-urban areas. Descriptive survey design is a scientific approach that entails observing and describing the state of a subject without affecting it in any manner (Blessing & Chakrabarti, 2009).

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Study Area

Awutu-Breku is one of the towns in the Awutu-Efutu District. It is situated between latitudes 5º20'N and 5º42'N and longitudes 0º25'W and 0º37'W in the eastern part of the Central Region of Ghana. The district shares borders with the Ga South District (in the Greater Accra Region) to the east; Effutu Municipal and the Gulf of Guinea to the south; the West Akim District to the north; Birim South to the north-west, Agona West Municipal to the west, and the Gomoa East separating the southern portions of the district from the main land.

The agricultural goal of the District is to increase production in a sustainable manner. Crop farming is the dominant occupation of the people of Awutu-Breku and as such, these farmers will require lands for farming as have been the case. However, Awutu-Breku has been recorded to be experiencing the phenomenon of land commodification and in this light, the purpose of the study will be achieved. The Awutu-Breku community crop farmers are losing lands to estate developers, hence the choice of the area for the study.

Study Population

A population in research refers to the larger group of people with common observable features to which one hopes to apply the research result (Fraenkel & Wallen, 2003). The population for the study comprised all peasant crop farmers in Awutu-Breku totalling 1,209 (Awutu-Breku District Assembly, 2019). These farmers provided information on the reasons for land commodification; the effect of land commodification on their livelihoods; as well as ways of dealing with the challenges associated with land commodification in Awutu-Breku.

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Sample and Sampling Procedures

A sample is a subset of a population (Banerjee & Chaudhury, 2010). A sample helps considerably to define the accuracy of the research results. It has been assumed by scholars that the larger the sample size, the more the accuracy or precision of the results of the study. Conversely, sample size tends to decrease with relatively large population (Welman, Kruger & Mitchell, 2005). Out of a population of 1,209 peasant farmers, 291 of them were selected for the study. This sample size was determined using the Krejcie and Morgan (1970) table for sample size determination. The Systematic procedure was used to select the farmers to respond to the interview schedules while the purposive sampling procedure was used to select eight key informants for the study.

The District Agriculture office through the president of the farmers-based association furnished me with the sampling frame thus, list of farmers in Awutu-Breku. Selecting farmers for the study was done after determining the sampling fraction. The sampling fraction was calculated as follows;

$$\frac{population}{sample} size = sampling\ fraction$$

$$\frac{1209}{291} = 4\frac{45}{291}$$

In order to contribute to the sample, one farmer from the first nine farmers was randomly selected and subsequently every 4th farmer was selected until a total sample of 291 was attained. The District Agriculture office again, provided me with their contacts and with the help of the president of the farmers based organisation, the selected farmers were located. The president of the farmers-based organisation directed and led me to the traditional/ local authorities where interviews were conducted. The key informants selected for the interview were executives of the association and local heads in Awutu-Breku. They were

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selected because of their roles as executives and experiences. The key informants were made up of four executives of the farmers' association, and four local heads.

Data Collection Instruments

Interview schedules and interview guides were the instruments used to collect data. The interview schedule was chosen because it is appropriate for collecting data from a potentially large number of respondents. Interview schedule allows data to be collected within a short time especially, when the population is easily accessible (Osuala, 2005; Deng & Nelson, 2010; Lopez & Whitehead, 2013). The interview schedule is also appropriate when most of the respondents cannot read or write. The interview schedule for the farmers was constructed according to the objectives of the study. The interview schedule had four sections containing closed-ended items (Appendix A). The measurement of variables was based on the nominal and ratio scales. Section one captures demographic characteristics of the respondents such as sex, age, marital status, and number of years lived in the town.

Section Two captured the first objective, the factors that influence land commodification. Issues that were captured include economic, socio-cultural, political and environmental factors. The next section, section 3, which is objective two, examined the livelihood implications of land commodification of farmers. It covered issues such as the possibility of food insecurities, high dependency ratio, low standard of living, heightened migration, increased social vices and ignoring values and traditions of the community. The fourth section captured the coping strategies adopted by farmers to support their livelihoods. Particularly, it concentrates on farmers' tendency to resort to street hawking,

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farming on marginal lands, depending on compensations for lands taken, migrating to farther places, working with the new owners of the land and taking lowly jobs in the community.

For the qualitative aspect of the study, interview guide was the major instruments used to collect data from the farmers. Data collected centred on the effects of land commodification, causes of land commodification and coping strategies adopted by affected farmers. Primary data were collected. Primary data collected were on issues like the effects of land commodification, causes of land commodification and coping strategies adopted by affected farmers.

Validity and Reliability of Instrument

Saunders and Lewis (2012) have asserted that prior to using an instrument to collect data, it should be pre-tested. The purpose of the pre-test was to refine the instrument so that respondents had no problems in responding to the items (Chenail, 2011). In addition, it enabled the researcher obtain some assessment of the validity of the items and the likely reliability of the data that were collected. Welman, Kruger and Mitchell (2005) also stated that it is necessary and useful to pre-test the instrument for data collection before administering it to the actual sample. For these reasons, the interview schedule and guide were sent to experts within this field to peruse its validity. However, this study relied on the reliability of Twene (2017) and Agbley (2019) from whose study the interview schedule was adopted.

Ethical Consideration

Researchers need to secure their respondents in their studies. They must build trust with respondents, support research integrity, and avoid misbehaviour and impropriety that might reflect poorly on their institution or organization

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(Anderson, Shaw, Steneck, Konkle, & Kamata, 2013). In compliance with these requirements, the consent of the selected respondents was sought before the interview schedule was administered. This was done by asking all respondents, individually, for their consent before commencing the administration of the interview schedule. No respondent was compelled to participate in the study. In addition, the interview schedule left no room for names of respondents. Rather, it was coded to prevent the respondent from identifying the information. As a result, the study guaranteed that all ethical concerns about the respondent's confidentiality and anonymity were addressed.

Fieldwork

Information was sought from the Agricultural office through the Awutu-Breku District Assembly. Permission was granted for data to be collected. Data collection lasted for a period of four weeks i.e. 4th June, 2020 to 2nd July, 2020. Farmers were pre-informed through a representative of the Farmers' Association. Data were collected during the COVID-19 pandemic period and hence appropriate protocols were duly observed. Protocols such as social distancing, frequent application of sanitisers, wearing of gloves and the use of face masks were adhered to on the field. Respondents were mostly reached in their homes after they had returned from their farms. Sometimes, respondents were also reached at their various farms. That notwithstanding, the major challenge faced on the field was the difficulty in getting to the farmers during the day. In curbing the situation, a commercial tricycle was arranged to transport the researcher and the research assistants to the farms of the sampled farmers.

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Data Processing and Analysis

The data collected from the respondents were coded and processed using the Statistical Product for Service Solutions (SPSS) v.23 software. The first objective was analysed using factor analysis (KMO and PCA), Factor analysis is a technique that is used to reduce a large number of variables into fewer numbers of factors. It is a statistical data reduction and analysis technique that strives to explain correlations among multiple variables. The second and the third objectives were analysed using descriptive statistics (frequencies, mean, standard deviation and skewness). The qualitative aspect was analysed using thematic and content analysis.

Chapter Summary

The purpose of this chapter was to discuss the methods and procedures employed to achieve the aim of the study. According to the purpose of this study, population and scope, the descriptive research design with the first objective was analysed using factor analysis. Whiles the second and third objectives were analysed using descriptive statistics (frequencies, mean, standard deviation and skewness). Thematic analysis was also used to analyse qualitative aspect of the second and third objectives. This was appropriate to answer the research questions of this study.

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CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents and discusses the findings of the study with regard to the objectives. The chapter begins with a discussion of the background characteristics, followed by results and discussion of the field data. This section discusses factors influencing land commodification, describes effects of land commodification on livelihoods of farmers and finally discusses coping strategies adopted by farmers.

The first objective has its theoretical underpinning reliant on the assumptions of the location theory. The second objective also has its theoretical underpinnings dependent on the assumptions of the political ecology theory. The third objective, on the other hand, has its theoretical inspiration from the tenets of the rational choice theory. In all, 232 out of the 291 sampled farmers responded to the interview schedule. The 232 farmers represented 79.72 percent of the total number of respondents.

Background Characteristics of Respondents

This section presents the background characteristics of the respondents. The issues considered under the section are the sex, age, marital status and number of years lived in the community. The import of presenting the demographics of the respondents is because they establish the perspective within which the responses were obtained. They form the basis for disaggregating responses. Finally, these variables have been found to influence peoples' perception of land commodification (Wisborg, 2013).

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The first background characteristic examined was sex. The sex dimension of the analysis was important because Ananga, Ayuk Etang, Bigoh and Njoh (2018) argued that differences in the socio-cultural roles assigned to both sexes create differential influences in their attitudes and perceptions of land commodification. Out of the 232 respondents, 53.9 percent were males and the rest (46.1%) were females.

Another background characteristic of respondents examined as represented in Table 1 was age. The study considered the age demographics of the sample because it helped reflect the proportions of the targeted population at different life stages in other to ascertain the varying responses.

Table 1: Age of the Respondents

Age of Respondents	Frequency	Percent
21-30	59	25.4
31-40	55	23.7
41-50	43	18.5
51-60	35	15.1
Above 60	40	17.2
Total	232	100

Source: Field Data (2020)

Results on the age distribution of the respondents show that most of the respondents (25.4%) were within the ages of 21 and 30 years. This age range falls within the youthful and active age range in Ghana (GLSS, 2020). Most of the youthful livelihoods depend on land for survival hence when that source is tempered with, livelihoods are affected. The group with the least respondents (15.1%) was the 51-60 age group. The results captured in Table 1 show that the respondents were distributed across different active farming age group.

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The next table describes the marital status of farmers. The marital status was considered important to the study because, it exposes the diverse nature of perceptions of respondents since ones' marital status influences the way they think and most women depend on farm lands for survival (Atafor & Aubyn, 2012).

Table 2: Marital Status of the Respondents

Marital Status	Frequency	Percent
Married	174	75.5
Divorced	5	2.2
Single	42	18.1
Widow/Widower	10	4.3
Total	232	100

Source: Field Data (2020).

The results as presented in Table 2 show that the majority (75.5%) of the respondents were married. In accordance with Nouman, Siddiqi, Asim, & Hussain (2013) most farmers are married with dependents. The table further shows that a handful of the respondents were divorced (2.2%).

The study also considered the years respondents had lived in Awutu-Breku. Years lived in a town allow for comparisons of the past and the present ways of doing things especially the phenomenon under study. Table 3 describes the number of years lived in the communities. The results showed that the majority (70.7%) of the respondents had lived in Awutu-Breku for more than 20 years while 5.2 percent have lived in Awutu-Breku for less than 5 years. This characteristic is important because it aids the study to draw from the experiences of natives who had lived there for the varying period of times. Naab *et al*. (2013) who conducted a study in Tamale on urbanization impact on

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agricultural lands opined that years lived by respondents adds up to the significance and validity of data.

Table 3: Number of years respondents have lived in the community.

Number of Years in the Community	Frequency	Percent
Less than 5 years	12	5.2
5-10 years	19	8.2
10-15 years	17	7.3
16-20 years	20	8.6
Above 20 years	164	70.7
Total	232	100

Source: Field Data (2020).

Factors Influencing Land Commodification in Awutu-Breku

The study sought to examine the factors that influence land commodification in Awutu-Breku. The need to identify these factors can be premised on Agbley (2019) who argued that to make a subject under study clearer, it is necessary to categorise the identified factors that affect the subject under study. Essentially, the factors are grouped into economic, social, political and environmental dimensions.

Principal Component Analysis (PCA) was used to explore the elements that influence land commodification. This was essential in order to comprehend how these variables interpret land commodification operations. It was critical to examine the appropriateness of the data for this analysis before running the PCA. The Kaiser–Meyer–Olkin (KMO) measure of sample adequacy was used. The result of the KMO test, as shown in Table 4, scree plot in Figure 2 and supported by the use of PCA. Sample adequacy of a data is pegged at a value >0.7 Pallant (2011). The test for adequacy of the data recorded a value of 0.706.

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Table 4: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.706
Bartlett's Test of Sphericity	Approx. Chi-Square	1983.821
	Df	105
	Sig.	.000

Source: Field Data (2020)

Table 4 revealed that the Bartlett's test of sphericity (χ 2 = 1983.821; df = 105, P-value = 0.000) shows that the indicators or items were not an identity correlation matrix. These two tests supported the use of PCA in investigating the magnitudes of the factors that influence land commodification in the study area (Pallant, 2011).

Scree Plot and Component Analysis of Factors Influencing Land Commodification.

This aspect looks at the extraction of key indicators that influence land commodification and determine the influence of each indicator on land commodification.

The result in Figure 2 shows how indicators identified to have influence on land commodification are similar in nature. It shows that the fifteen (15) items (Table 5) were grouped into four components. This meant that four components were extracted because these components recorded eigenvalues greater than 1. These four components depict the similarity of indicators identified.

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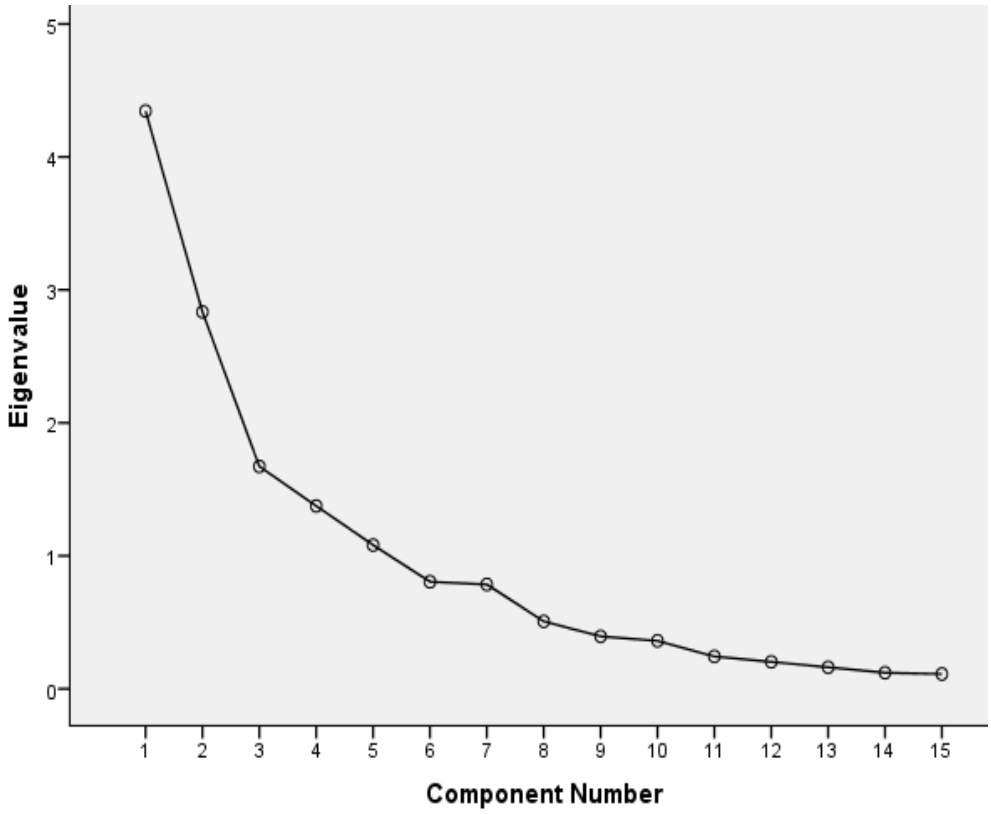

Figure 2: Scree Plot of factors influencing land commodification
Source: Field data (2020)

The component Matrix table (Table 5) contains estimates of correlation between each of the variables or items that influences land commodification and its components. It classifies the various items of land commodification into groups to aid the understanding and easy explanation of the phenomenon under study

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Table 5: Component Matrix of Factors influencing Land Commodification

	Economic Factors	Environmental Factors	Political Factors	Socio-Cultural Factors
Accommodation on high demand	.794			
Poverty	.731			
Closer to Kasoa	.722			
Business expansion activities	.709			
Recreational facilities springing up	.697			
Accumulate capital for future benefits	.659			
Urbanization activities springing up	.448			
Lands losing their fertility		.841		
Primitive farming practices that affects the ecosystem negatively		.815		
Lands are turned into dumping sites		.698		
Local authorities facilitate sales of land			.836	
Conflict from differences in stool land administration			.515	
Families/stools willing to sell their lands				.892
Chiefs have power over lands				.467

Source: Field Data (2020)

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Table 5 presents the component matrix of factors that influence land commodification in Awutu- Breku. The rule of thumb is that only factor loadings with values not less than 0.4 were retained in this table (Budaev, 2010). Factors with high absolute values are thought to contribute more to the extracted variable retained. The aim of PCA is to categorize variables into components. By categorizing and reducing the 15 variables identified by the study into four components, the goal of the principal component analysis was met. Economic, environmental, political, and socio-cultural considerations were the four components.

The first component comprises factors that were economic in nature. The variables loadings on this factor as shown in Table 5 indicated that, demand for accommodation (.794) was the most pressing variable under the economic factors, followed by poverty (.731), Awutu-Brekus' closeness to Kasoa (.722), business expansion activities (.709) and urbanisation activities springing up (.448) turned out to be the least pressing variable to influence of economic activities on land commodification. Urbanisation activities such as industrialisation and the establishment of enterprises propel land commodification under the disguise of development (Long, Zou & Liu, 2009).

The closeness of Awutu-Breku to an economic hub (Kasoa) causes the change in ways of doing things hence land commodification (Von Thuneen, 1966). Similarly, Qiu, Xu and Zhang (2015), opined that business expansion and accommodation influence land commodification. According to Tanner (2018), the economic dimension plays a crucial role in determining land commodification activities. This helps to determine the potential and need for investment within a given population and area. Accordingly, Bernstein (2007)

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identified capitalist systems as the various reasons informing the economic dimension, which influences the intensity of land commodification. Hence, it is necessary to consider the various economic factors that contribute to the commodification of land.

In addition, the second component as indicated in Table 5 was environmental factors. This component explained how the identified environmental factors contribute to land commodification. The indicators that loaded under this component were lands losing their fertility, primitive farming practices that affects the ecosystem negatively, and lands turned into dumping sites. Lands losing their fertility, according to Table 6, recorded the highest load (.841) among the environmental factors, while lands turning into dumpsites recorded the lowest load (.698). This indicates how well the loss of land fertility aids land commodification.

Loss of land fertility usually depicts the inability of that land to yield more produce because of pollution or continuous farming (Tittonell & Giller, 2013). Environmental factors are very important because it has great influence on population, health and living organisms. The purpose for which land is commodified is very important. According to Panagos et al. (2015), environmental factors encompass soil degradation, deforestation and land use change. Akaateba (2019) affirms that when lands are not yielding, custodians of the land deem it appropriate to commodify the land or treat it as a commodity, as in the case of Awutu-Breku.

Political factors emerged the third component per Table 5. It comprises of local authorities facilitating sale of land (.836) and conflict from differences in stool land administration (.515). In comparison, Table 5 clearly shows the

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difference in the loadings (correlation) between the two political indicators. This means that in the case of Awutu-Breku, differences in stool land administration has the minimum influence on land commodification between the two indicators. Political factors are factors that are influenced by government decisions in terms of public decisions in local communities and national levels. According to Boone (2014), political factors encompass land administration system and control given local heads over land. Consequently, political factors may affect the decision-making process in line with the appropriation of lands. Toulmin (2009) asserted that in most rural areas, local authorities have control over lands as in the case of Awutu-Breku.

Finally, the last component, according to Table 5, was sociocultural factors. The first indicator which was families/ stools willing to sell land, loaded .892 and the second indicator, chiefs having power over lands loaded .467. In this case, families/stools were more willing to sell lands (.892) as compared to chiefs' power over lands (.467) that somewhat enhances land commodification activities. This is similar to a case study by Kuusaana *et al.* (2013) in Kumasi and Wa traditional areas. In affirmation, Bae (2019) argued that socio-cultural factors have influence on land commodification.

The qualitative aspect of the first research objective was done using thematic analysis. This was to support the quantitative aspect of the study. During the interviews, it was observed that, urbanization had reduced the size of farms, influenced the type of crops planted and reduced productivity. It came out that chiefs are the custodians of the lands hence they play a role in land commodification by authorising permit document for land sale. This aided the

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selling of lands. In this respect, the organiser of the farmers' association spoke on the factors influencing the sale of land in Awutu-Breku:

> "Urbanisation is making it difficult for me to acquire lands for my business. Families are mostly custodians of land, therefore when pieces of land are demarcated to be sold, the chiefs append their signatures to these transactions to aid land commodification. They do so mostly without informing us. The local authorities play no role in the sale of farmlands."

The above quotation implies that land commodification thrives on urbanisation. This is because most organisations and governments require land for development (Larbi, Antwi & Olomolaiye, 2004). Another respondent (president of the farmers' association) asserted that:

> "Urbanisation is moving farmers further into the bush. Chiefs have shared control over lands with the custodians of land, which are the families. They decide who to sell lands to whomever and whenever it pleases them. The local authorities play no role in the sale of lands here."

In support to the responses above, a respondent who had been farming in Awutu-Breku for over twenty years revealed that:

> "Urbanisation is sending farming lands very far, making us lose our farming lands to sand winning. The chiefs are the custodians of the land and they sell the lands whereas local authorities play no role in land sales here".

The study revealed that economic factors such as demand for accommodation, poverty, Awutu-Brekus' closeness to an economic hub such as Kasoa and business expansion activities play the most role in land

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commodification. Socio-cultural, political and environmental factors also play their part in the influence on land commodification. The next issue examined land commodification and livelihoods of farmers.

Land Commodification and Livelihoods of Farmers

The second objective of the study examined the livelihood implications of land commodification on farmers in Awutu-Breku. The quantitative data were analysed using descriptive statistics like frequencies and percentages. The results are presented graphically. The qualitative data were analysed thematically (Creswell, 2013).

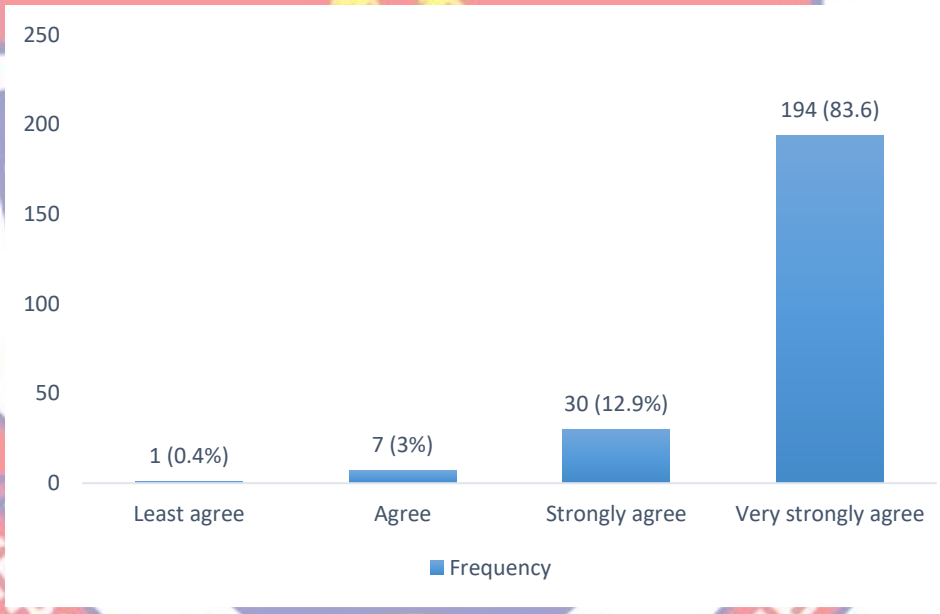

Figure 3: Land Commodification leads to Food insecurity

Source: field data (2020).

The bar chart in figure 3 shows the varying perceptions of farmers on land commodification and food insecurity. From Figure 3, it can be observed that, 83.6 percent of the respondents agreed very strongly that Land commodification was leading to food insecurity, which affects their livelihoods. As shown in the figure, some of the respondents (12.9%) agreed strongly that food insecurity is a threat to livelihoods of farmers. Since most livelihoods in

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rural areas depend on farming, land commodification threatens their food security (Keovilignavong, & Suhardiman, 2020). This is similar to the findings of Chinsinga and Chasukwa (2012) who stated that land commodification is a major concern of the people who live in the rural areas of Malawi since it results in food insecurity.

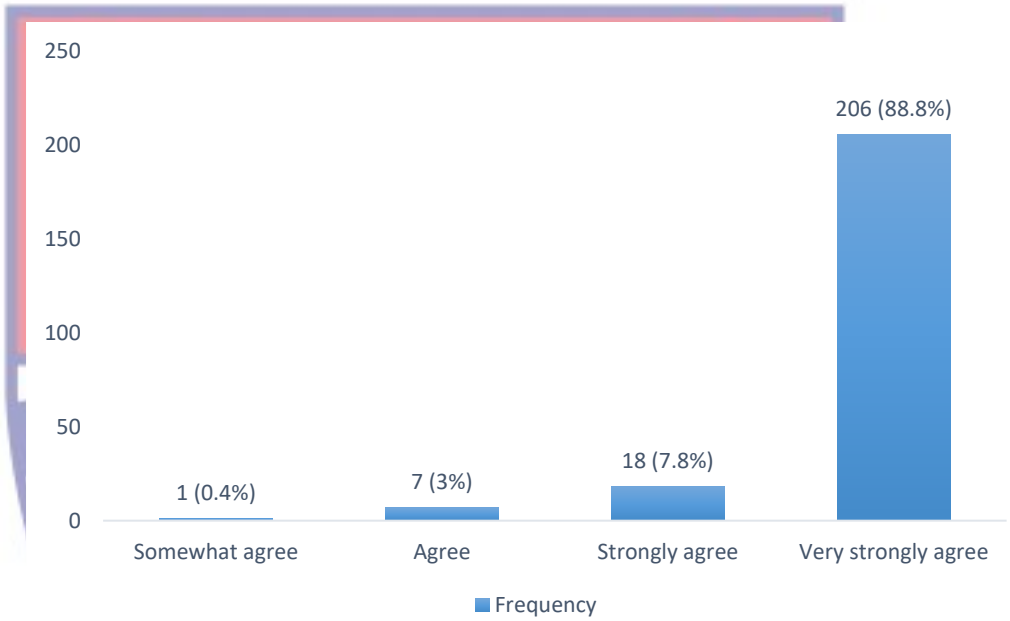

Figure 4: Land Commodification leads to High Dependency Ratio

Source: Field Data (2020)

In addition to food insecurity, high dependency ratio was also identified in the study as a threat to the livelihoods of farmers. According to Figure 4, 88.8 percent of the respondents agreed very strongly that high dependency ratio is an implication associated with land commodification. The respondents were of the view that when farmlands are lost, high dependency ratio is an expected end. A high dependency ratio means those of working age, and the overall economy face a greater burden in supporting the younger and aging population (Bloom, Boersch-Supan, McGee & Seike, 2011). Akwaa-Sekyi (2013) stated that most rural communities are farming communities; hence, the loss of farmlands

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renders most of the farmers, especially the younger and aged (mostly help on the farm), dependent on the working age. This, in turn, increases dependency ratio since most of the aged farmers lack the requisite skills for other menial jobs aside farming (Eneyew & Bekele, 2012). Women and children are also mostly vulnerable and not suitable for high demanding jobs (Amanor, 2010).

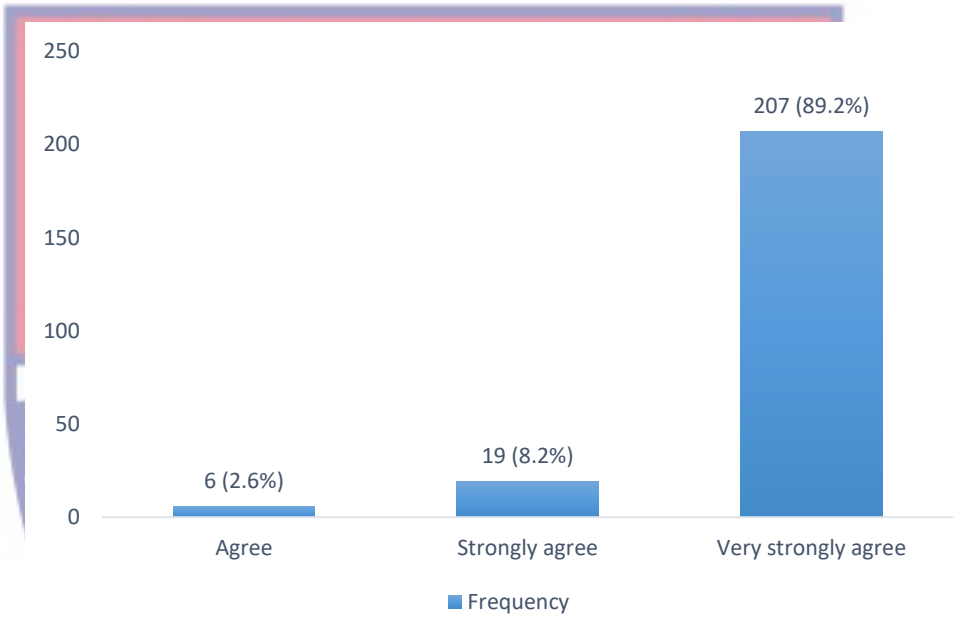

Figure 5: Land Commodification leads to Low Standard of Living among farmers

Source: Field Data (2020).

Land commodification has altered and reduced the standard of living of farmers. From Figure 5, it can be observed that the majority of the respondents agreed very strongly (89.2%), while others agreed strongly (8.2%) and the rest agreed that land commodification affects their standard of living. The figure further shows that all respondents opinionated that their standard of living reduce when farm lands are lost. This result confirms findings by Makutsa (2010), who stated that, large-scale land transactions often undermine efforts of the indigenes to seek decent livelihoods. Thondhlana (2015) similarly opined

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that the standard of living of people who depend mostly on land reduces when lands are commodified.

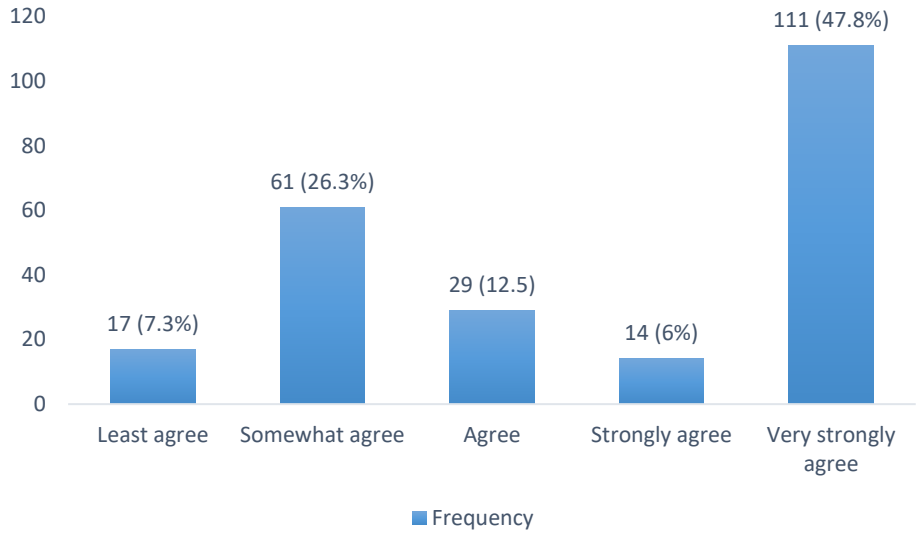

Figure 6: Land Commodification Heightens Migration among farmers

Source: Field Data (2020)

The bar chart explains the varied responses of farmers and how they think land commodification has led to migration. Figure 6 indicates that, 47.8 percent of the total respondents agreed "very strongly" that land commodification results in migration. This is similar to Bae (2019) who revealed that land commodification is responsible for the displacement of some communities in Malawi. In addition, the figure shows that 26.3 percent of the respondents somewhat agreed to this occurrence, while 7.3 percent least agreed. This implies that farmers resort to migration because they lose their lands while others do not. Similarly, Nyantakyi-Frimpong and Bezner Kerr (2017) asserted in their study that, migration to other towns becomes the next best alternative for farmers who lose their farmlands.

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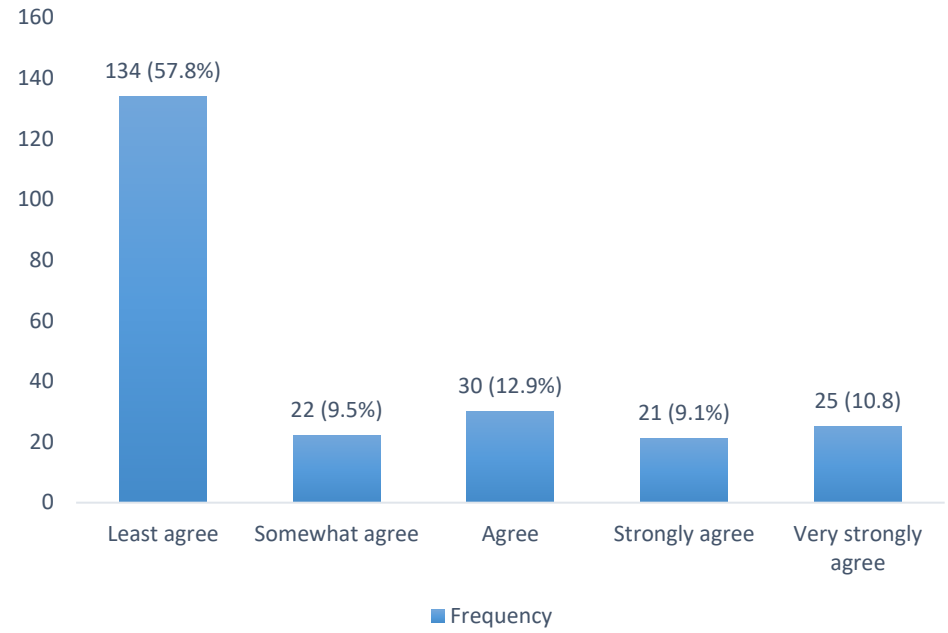

Figure 7: Land commodification leads to increased Social Vices

Source: Field Data (2020)

Farmers in Awutu-Breku described the extent of agreement to social vices being an influence of land commodification on the livelihoods as captured in Figure 7. As shown in the figure, it clearly indicates that more than half of the respondents (57.8%) least agreed fact that land commodification had increased social vices. This implies that in Awutu-Breku, social vices are the least alternative farmers resort to when they lose farmlands. This is in line with studies conducted by Gertel, Rotternburg and Calkins (2014) who opined that, affected farmers due to land commodification activities in the rural areas do not indulge in social vices. However, Oppong (2016) stated that, the cost associated with loss of agricultural lands includes social vices that further create gender insecurity in the society.

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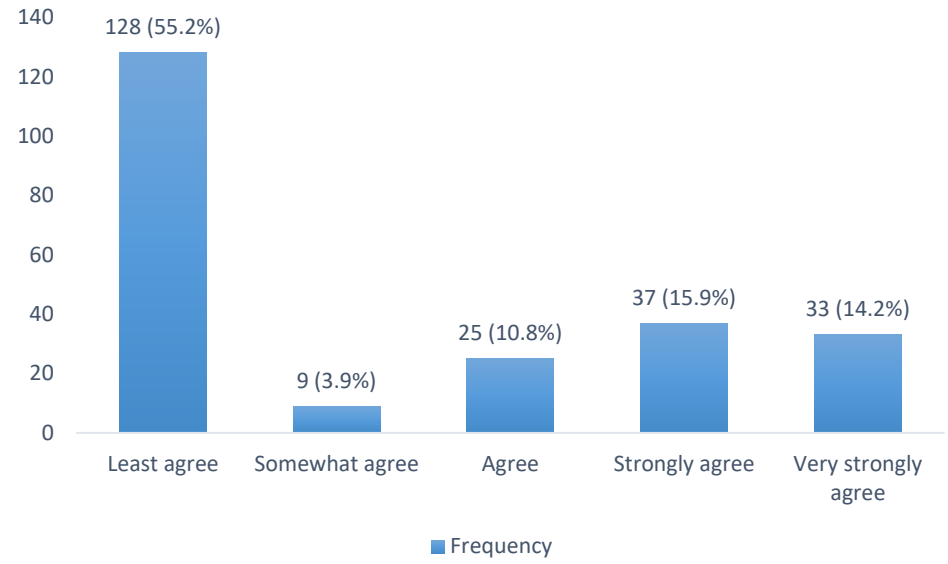

Figure 8: Land Commodification leads to ignoring values and traditions of the community.

Source: Field Data (2020).

Apart from food insecurity, dependency ratio, standard of living, migration, and social vices, ignoring values and traditions was also identified as livelihood implications of land commodification. Figure 8 depicts the extent to which of how land commodification has led to ignoring the communities' traditions and values. From the figure, 55.2 percent least agreed that land commodification causes values and traditions of communities to be ignored. About 4 percent of the respondents somewhat agree, while the rest agreed to this occurrence. This also implies that, more than half of the total respondents sampled in Awutu-Breku were in little agreement to land commodification causing values and traditions to be ignored. However, Zubieta (2016) revealed in his study that land commodification has led to loss of culture in Malawi. This is because communities no longer practiced the female initiation ceremony among others.

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The qualitative data of the second research objective was analysed using thematic analysis from the responses. This was to support the quantitative aspect of the objective. Respondents were asked the following questions; "how has land commodification affected the size of your farmlands as well as productivity" and "are the yields from the farmlands sufficient to sustain livelihoods?". Respondents intimated that land commodification has caused their yearly yields to reduce due to the current size of the lands they farm on and consequently made sustenance of livelihoods difficult. In addressing the issue, an informant who had been farming in Awutu-Breku for ten years responded that:

> " it limited the size of land to farm and affected my productivity and sometimes returns from farming are so bad that we have to go borrow money to buy food and eat."

Again, an executive member of famers-based organization intimated that:

> "yes, the size of farmland has reduced due to the town becoming urbanized and has had implication on productivity. The yields from the farmlands are not enough to sustain our livelihoods".

In addition, a local head who is also a farmer 'odikro' responded that:

> "because of urbanisation I am unable to extend my farm business and that is limiting my productivity and hence my livelihood".

It can be deduced from these responses that indeed livelihoods of farmers are affected by land commodification. This is similar to Alhassan et al., (2021) who opined that land commodification has a significant negative effect on livelihood of farmers.

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Coping Strategies Adopted by Farmers

This section examines the coping strategies adopted by farmers to support their livelihoods in Awutu-Breku. Fundamentally, coping strategies by farmers cover farming on marginal lands, taking up other jobs, migrating to further places for greener pastures, working with new owners of the land, resorting to street hawking and depending on compensation. Descriptive statistics, specifically the frequencies and percentages, and the thematic analysis were employed in analysing this objective.

The level of farming on marginal land, taking up other jobs, migrating to further places for greener pastures, working with new owners of the land, resorting to street hawking and depending on compensation were independently determined using the frequencies, percentage rates and statements of some respondents.

The first strategy the study looked at was how much farmers in Awutu-Breku rely on farming on marginal land to support livelihoods, when lands are commodified.

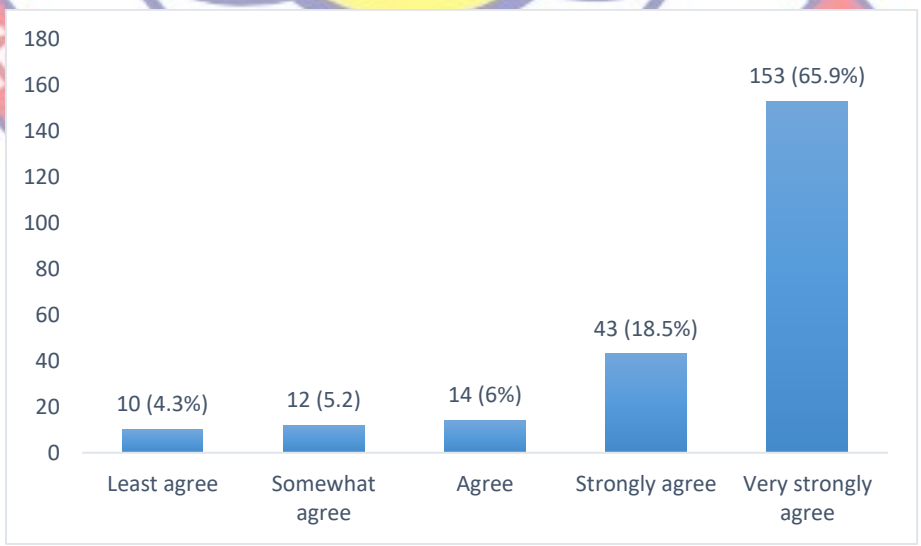

Figure 9: Farming on marginal lands

Source: field data (2020).

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From Figure 9, most of the respondents (153) agreed very strongly to relying on marginal farmlands to support their livelihoods. This implied that more of farmers affected by land commodification in Awutu-Breku usually opted to farm on small lands left. Shucksmith and Rønningen (2011) opined that farming on marginal lands by farmers who face land commodification issues is the most adopted strategy and more reliable coping strategies for farmers.

Selling has been always being the next best option to support livelihoods when ones' source of survival is cut short (Foeken & Owuor, 2008). In addition to farming on marginal lands, street hawking was identified as one of the coping strategies farmers adopt to support their livelihoods.

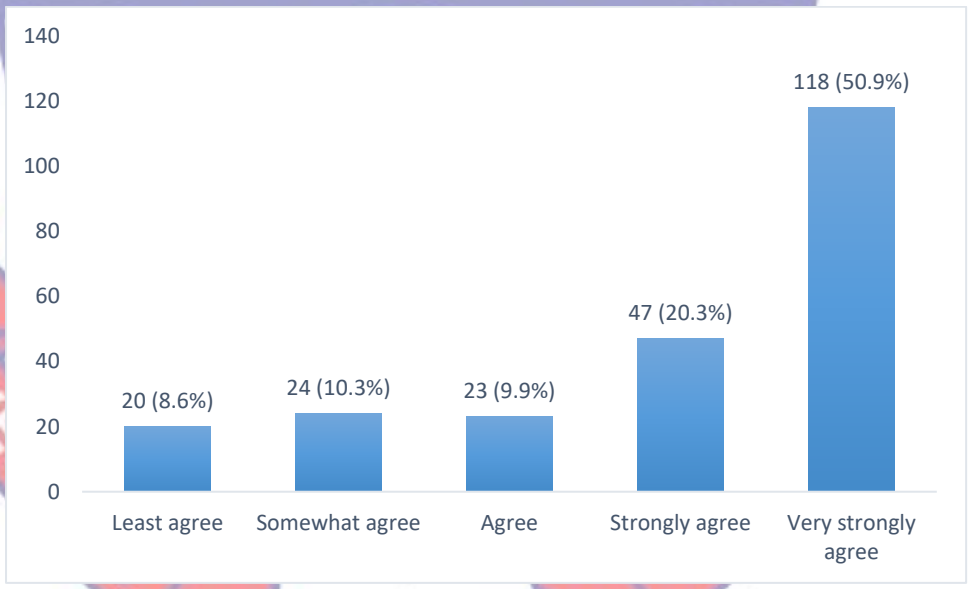

Figure 10: Resort to street hawking

Source: field data (2020)

In Figure 10, more than half of the total respondents 118 (50.9%) agreed very strongly to hawking on the street when affected by land commodification activities. This implies that street hawking is an easy-go-to strategy farmers will adopt especially the active age. Studies by (Abass, Afriyie & Adomako,

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2013; Boama & Overa, 2016 & Maxwell et. al, 1998) also reveal that more of the farmers affected by land commodification have resorted to street hawking to support livelihoods.

Depending on compensation is a strategy that farmers adopt to support their livelihoods Figure 11 describes the various level agreement by farmers in Awutu-Breku to this assertion.

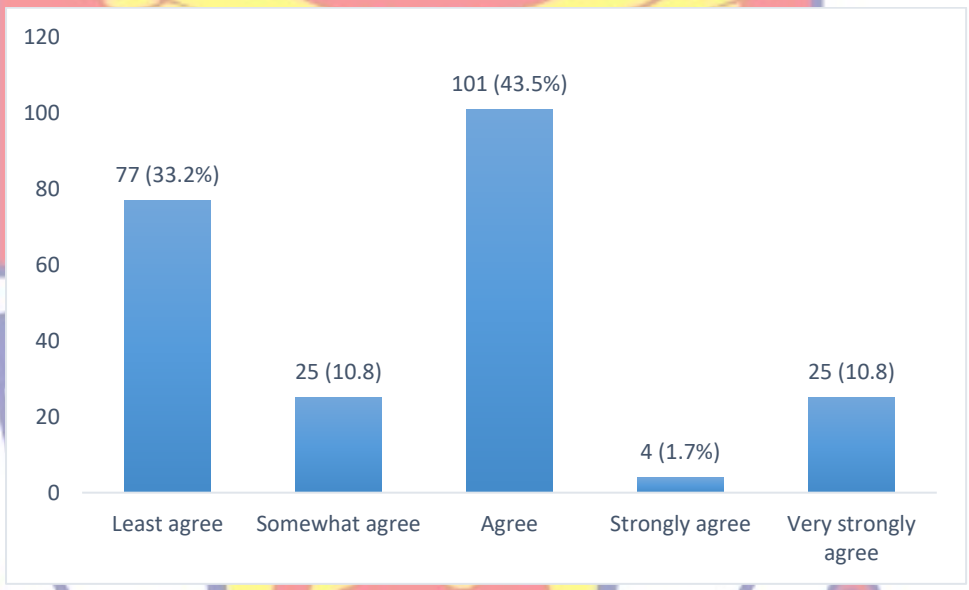

Figure 11: Depending on compensation

Source: field data (2020)

Figure 11 shows that most of the respondent (101) agreed that they depend on compensation for the loss of farmlands to support livelihoods. Others (77) also least agreed to depending on compensation for survival. This implied that the farmers in Awutu-Breku do not often rely on monetary compensation given by new owners of land to support their livelihoods. Similarly, Zhang and Lu (2011) opined that compensation for commodified land does not sustain their livelihoods. On the other hand, Bugri and Yeboah (2017) stated that farmers sometimes get no compensation for the loss of farmland.

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Migration is the movement of people from one place to another (Dingle & Drake, 2007). This has always been triggered by one thing or the other. The figure below describes the extent of agreement to farmers migrating to other places when the loose their farmlands.

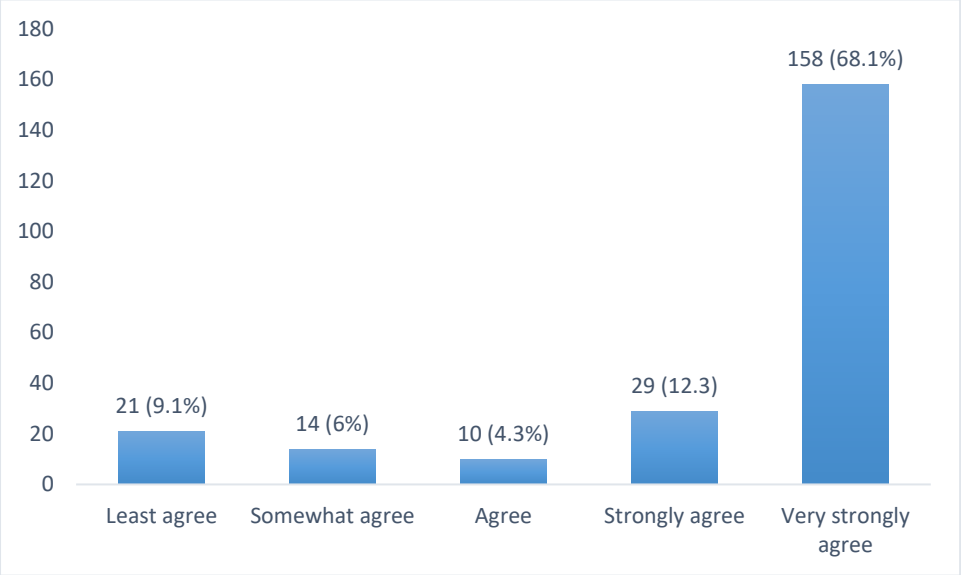

Figure 12: Migrating to further places

Source: field data (2020).

Kuusaana and Eledi (2015) stated that farmers affected by land commodification migrate to places that may favour their livelihoods. This is evident in Figure 12 as 158 (68.1%) respondents being the majority agreed very strongly to migrating to further places. This implies that most of the farmers have left to further places that can support their livelihood through farming because of the influence of land commodification activities on their livelihood.

Working with new owners of land to support livelihoods is one of the diverse strategies farmers adopt to support their livelihood when they loose their farmlands (Van Suu, 2009; Adametey, Ocloo & Oduro, 2015). Figure 13 illustrates how well farmers choose to work with new owners of farmland they used to work on.

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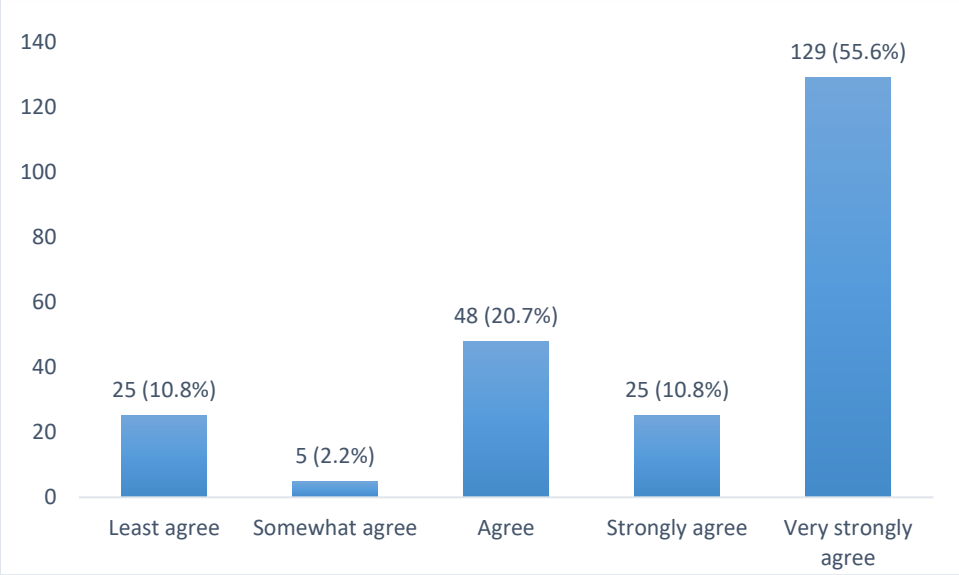

Figure 13: Working with new owners of land

Source: field data (2020)

Figure 13 indicate the rate at which farmers in Awutu-Breku opt to work with the new owners land they formally worked on to support their livelihood. It is illustrated the figure 13 that, farmers usually agree (48) to working with new owners of the land whiles most of the farmers agreed very strongly 129 (55.6%) to working with new owners of land. The implication is that, the farmers at Awutu-Breku, are more likely to opt to work with new owners of farm lands they worked on as a strategy support livelihood (Kinsella, Wilson, De Jong & Renting, 2000).

Finally, the strategy identified by the study was farmers taking other jobs to support their livelihood. Hall, Hirsch and Li (2011) asserted that individual naturally take up other jobs when they loose their previous source of support.

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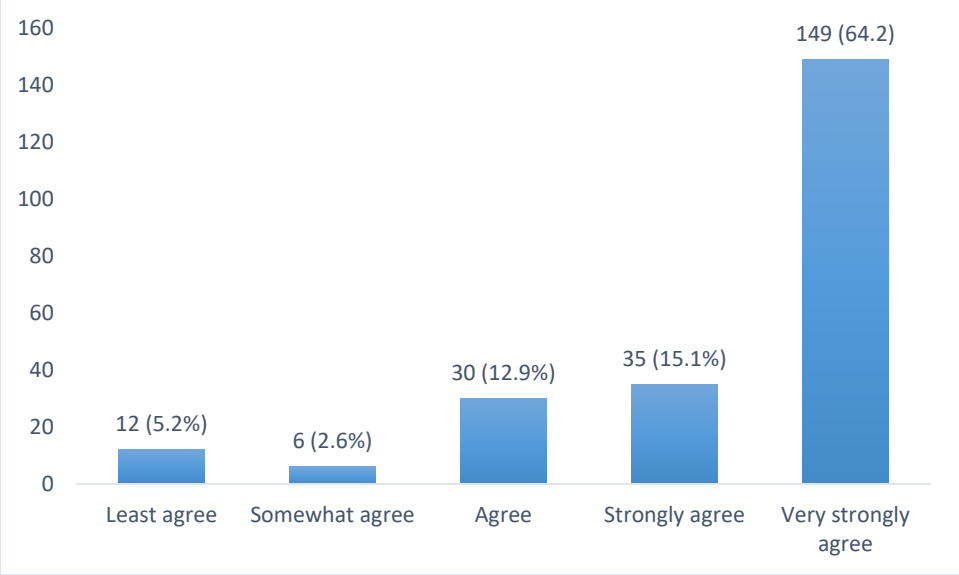

Figure 14: Taking up other jobs

Source: Field data (2020)

Figure 14, it shows that farmers in Awutu-Breku agree to taking up other jobs to support their livelihoods when they loose their farmlands. Figure 14 demonstrates the level of agreement to this coping strategy where majority (149) of the respondent agree very strongly to taking other jobs. Tsikata and Yaro (2014) opined that farmers who loose land to commodification support their livelihood by taking other jobs in the community or surrounding towns to make ends meet.

The qualitative aspect of the third research objective was done using thematic analysis from the responses to the interview guide. This was to support the quantitative analysis aspect of the objective. Information obtained was on coping strategies adopted by farmers to support livelihoods. The interviews were granted by the local heads, executives of the farmers' association and long experienced farmers. Respondents were questioned on; "what economic activity are farmers who quit farming because land had been sold involved in"?

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During an interview with a farmer who had been farming for 40 years, he intimated that most of the affected farmers are now operating provision shops. While some have also moved to neighbouring towns to look for farmlands. One respondent (executive member) said that:

> "they are either operating provisions shop or moved to other places to farm".

Another executive member responded similarly saying:

> "they have gone into selling groceries, whiles others have moved to other neighbouring towns and villages to continue their farming".

Inferring from this, most farmers are forced to move to neighbouring towns for survival or resort to the norm of switching to selling. This can be attributed to the spill over of urbanization from the city areas (Kundu, 2011).

Chapter Summary

The chapter elaborated on the analysis and discussions of the results of the study. In a bid to find answers to the research objectives of the study, factor analysis was used to determine the most pressing factors that influence land commodification. It was revealed that, economic and socio-cultural factors influence land commodification than political and environmental factors. Going forward, in identifying the implications of land commodification on the livelihoods of farmers, data collected were analysed using descriptive statistics (percentages and frequencies). The study revealed that land commodification activities influence the livelihoods of farmers especially by lowering their standard of living and increasing dependency ratio. Finally, in examining the coping strategies of farmers who are affected by land commodification activities the study adopted descriptive statistics using the mean, standard deviation and

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skewness. The study revealed that most of the farmers resort to farming on marginal lands, taking up other menial jobs and leaving the towns to other towns to have access to lands.

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CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The closing chapter of this study opens with a synopsis of the objectives of the study, methodology as well as data analyses techniques. It progresses with a summary of the key findings relating to each objective, conclusions, recommendations as well as suggestions for future research.

Summary

The study set out to examine land commodification and its implications on the livelihoods of farmers in Awutu-Breku. In order to achieve the objectives, the study sampled 291 farmers from a population of 1209 farmers in Awutu-Breku, using the Krejcie and Morgan (1970) sample size determination table. Simple random and purposive sampling were used to select the respondents. In all, 232 valid responses were obtained, thus a 79.72 percent response rate. The study employed SPSS as the main statistical tool for processing and used factor analysis (KMO and PCA), descriptive statistics (frequencies and percentages) and thematic analysis for the analysis. The summary of the major findings is presented as follows:

- Economic factors that contributed to land commodification were demand for accommodation (79.4%), poverty (73.1%), location of the town near an economic hub (72.2%), expansion of business activities (70.9%) and urbanization (44.8%). Families/stools willing to sell lands (89.2%) and chiefs have power over lands (46.7%) were the predominant socio-cultural factors that influence land commodification. Of all political factors, local authorities facilitating

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the sales of land and conflicts from differences in stool land administration contributed to land commodification in Awutu-Breku. Loss of land fertility, primitive farming practices that affect the ecosystem and use of land as dumping sites were the environmental factors that contributed to land commodification.

- Land commodification compromised the ability of the farmers in Awutu-Breku to earn livelihoods, which resulted in low standard of living, high dependency ratio, food insecurity and migration.
- Migrating to further places to support livelihoods, farming on marginal lands and taking other jobs turned out to be the most relied on strategies adopted by most farmers in Awutu-Breku. Farmers in Awutu-Breku seldom depended on the compensations paid them by new owners of the land for losing their land.

Conclusions

The findings of the study were used to draw the following conclusions. The study concluded that, economic, socio-cultural, political and environmental factors influence land commodification in Awutu-Breku. As long as these factors remain their source of motivation for the sale of land and is attractive, land commodification has come to stay.

Secondly, it was concluded that, land commodification had dire implications on the livelihood of farmers in Awutu-Breku thus, it affects their standard of living, leads to high dependency ratio, increases food insecurity and migration. On the other hand, farmers affected by land commodification do not indulge in social vices to support their livelihoods, neither has land

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commodification activities lead to the loss of the traditions and values of Awutu-Breku.

Coping strategies adopted by farmers to mitigate the effects of land commodification on their livelihoods were that most farmers work on the marginal lands. These marginal lands, in turn, yield little produce which is not able sustain their livelihoods. Some farmers take up low paying jobs in the community, which does not pay well, others move to different places hoping for better livelihood. It was also concluded that traditions and values in Awutu-Breku is not affected by land commodification activities.

Finally, the study concluded that land commodification has negative influence on livelihoods on farmers in Awutu-Breku through economic, socio-cultural, political and environmental factors and hence, farmers resort to diverse ways to support their livelihoods. Issues on land commodification must be of great priority to authorities because it affects agriculture, which in turn has effect on the economy of the nation.

Recommendations

Based on the key findings and conclusions presented:

- Government through the local lands administration office should put measures in place to monitor and curb factors such as, urbanization activities, high demand for accommodation, business expansion, families/stools willing to sell lands and chiefs having power over lands that have influence on land commodification activities.
- Since most livelihoods depend on land, and given the implications that follow land commodification on the livelihoods of farmers, traditional heads must liaise with policy makers to establish laws

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pertaining to land demarcation thus, land for agricultural and non-agricultural purposes. This will help farmers increase or sustain their standard of living.

- Agricultural institutions must support farmers with the necessary technology for farming to boost productivity levels for farmers that farm on small sizes of land due to land commodification activities. They must further educate farmers on the need to have more than one source of income to support livelihoods in case of unplanned that affect livelihoods. They must also practice different crop patterns such as mixed cropping and shifting cultivation on their marginal farms specially to help sustain the farms fertility and increase yields.

Suggestions for Further Research

Further studies should expand the research on cross regional comparison studies to bring to light the varying issues of land commodification in the various regions in Ghana. It will help compare the rate of the occurrences of land commodification in these regions and how best to respond to the issue.

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APPENDICES

APPENDIX A

UNIVERSITY OF CAPE COAST

SCHOOL FOR DEVELOPMENT STUDIES

DEPARTMENT OF INTEGRATED DEVELOPMENT

INTERVIEW SCHEDULE ON LAND COMMODIFICATION AND LIVELIHOODS OF FARMERS IN AWUTU-BREKU, GHANA.

Dear Sir/Madam,

This research instrument is designed to assess the effect of land commodification on livelihoods of farmers in Awutu-Breku. This is in partial fulfilment in the award of a Master's degree at the University of Cape Coast. As a result, any information given would be treated with utmost confidentiality. Please select the appropriate options for the questions by checking their corresponding boxes.

Section A: Background of respondents

1. Sex of respondent: [1] Male [2] Female
2. Age (years) of respondent: [1] 21 and 30 [2] 31 – 40 [3] 41 –50 [4] 51 – 60 [5] Above 60
3. Marital Status [a] Married [b] Divorced [c]Single.
4. Number of years in the community: [1] Less than 5years [2] 5-10 years [3] 10-15years [4] 15-20years [5] Above 20 years

Section B: Factors influencing Land Commodification in Awutu-Breku

5. Please indicate the extent of your **agreement** with the following statements on a 5-point scale (Please circle your answer). Where 1 = Least agreement and 5 = Very Strong agreement

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CODE	STATEMENTS					
	Economic Factors					
	Our lands are being commodified because…					
EF1	urbanization activities are springing up in my area	1	2	3	4	5
EF2	my area is closer to an economic hub (Kasoa)	1	2	3	4	5
EF3	accommodation is on the high demand in my area	1	2	3	4	5
EF4	individuals want to accumulate capital for future benefits	1	2	3	4	5
EF5	Of poverty	1	2	3	4	5
EF6	of business expansion activities	1	2	3	4	5
	Socio-cultural Factors					
	Our lands are being commodified because…					
SF1	families/stools are willing to sell their lands	1	2	3	4	5
SF2	chiefs have power over lands in my area	1	2	3	4	5
SF3	recreational facilities springing up in my community	1	2	3	4	5
	Political Factors					
	Our lands are being commodified because…					
PF1	of the weak land administration system in my area	1	2	3	4	5
PF2	local authorities facilitate the sale of land in my area	1	2	3	4	5

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PF3	conflicts arise from differences in stool land administration	1	2	3	4	5
	Environmental Factors					
	Our lands are being commodified because…					
EF1	lands are losing their fertility	1	2	3	4	5
EF2	of primitive farming practices that affect the ecosystem negatively	1	2	3	4	5
EF3	lands are turned into dumping sites	1	2	3	4	5

Section C: Land Commodification and Livelihood of farmers

6. Please indicate the extent of your **agreement** with the following statements on a 5-point scale. (Please circle your answer) Where 1 = Least agreement and 5 = Very Strong agreement

CODE	**STATEMENTS**					
EOL1	Food insecurities	1	2	3	4	5
EOL2	High dependency ratio	1	2	3	4	5
EOL3	Low standard of living	1	2	3	4	5
EOL4	Heightened migration	1	2	3	4	5
EOL5	Increased social vices	1	2	3	4	5
EOL6	Ignoring values and traditions of the community	1	2	3	4	5

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Section D: Coping strategies

1. Please indicate the extent of your **agreement** with the following statements on a 5-point scale. (Please circle your answer) Where 1 = Least agreement and 5 = Very Strong agreement

CODE	STATEMENTS					
	Farmers cope with land commodification by…					
CM1	resorting to street hawking	1	2	3	4	5
CM2	farming on the marginal lands that do not yield much	1	2	3	4	5
CM3	depending on compensations from lands taken	1	2	3	4	5
CM4	migrating to further places for greener pastures	1	2	3	4	5
CM5	working with new owners of the land	1	2	3	4	5
CM6	taking up lowly jobs in the community	1	2	3	4	5

Thank you.

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APPENDIX B

UNIVERSITY OF CAPE COAST

SCHOOL FOR DEVELOPMENT STUDIES

DEPARTMENT OF INTEGRATED DEVELOPMENT

INTERVIEW GUIDE FOR OPINION LEADERS AND LOCAL AUTHORITIES IN AWUTU-BREKU, GHANA.

Dear Sir/Madam,

This research instrument is designed to assess the effect of land commodification on livelihoods of peasant farmers in Awutu-Breku. This is in partial fulfilment in the award of a Master's degree at the University of Cape Coast. As a result, any information given would be treated with utmost confidentiality. Please select the appropriate options for the questions by checking their corresponding boxes.

Section A: Background of respondents

7. Sex of respondent: [1] Male [2] Female
8. Age (years) of respondent: [1] 21 and 30 [2] 31 – 40 [3] 41 –50 [4] 51 – 60 [5] Above 60
9. Number of dependents ……
10. Marital Status [a] Single [b] Married [c] Divorced.
11. Number of years in the community: [1] Less than 5years [2] 5-10 years [3] 10-15years [4] 15-20years [5] Above 20 years
12. What position do you hold? …….

Section B: Factors influencing Land Commodification in Awutu-Breku

6 a. When did you start farming at Awutu-Breku?

b. How many years have it been? .....

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7 How many acres of land did you start with?

8 How many acres of land do you have now?

9 Do you own the land? Yes [ ] No [ ]

10 Is the land still in your possession? Yes [ ] No [ ]

11 If No, what happened to the land?

12 What is the land being used for now?

13 To what extent has urbanization affected the sale of land in your area?

14 What role do chiefs play in the sale of farm lands in your area?

15 What role does the local authority play in land commodification activities in your area?

Section C: Effects on livelihood of Farmers in Awutu-Breku

16 How has the size of farmlands affected your productivity?

17 What types of crops do you grow now?

18 What type of crops did you grow before?

19 How often do you plant these crops?

20 Are the yields from the farmlands sufficient to sustain your livelihoods?

21 Do you practice any cropping patterns to increase your yields?

If yes mention them……

22 Which of the cropping patterns are more beneficial?

23 Have you adopted any technology to increase productivity on farmlands?

Yes [ ] No[ ]

24 If yes, why?.....

24 How has is affected the returns on the farm?

25 How has it affected your income level?

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Section D: Coping Strategies

26 Do you have other means of generating revenue other than farming?

Yes [ ] No [ ]

27 If Yes, Mention them

……

28 Do you know of any farmer who has quit farming because his/her land has been sold? Yes [ ] No [ ]

29 If Yes, what economic activities are they involved in now?

30 What other measures do you think can help the victim-farmers improve their livelihood?

31 Would you like to make any further comment or ask any question(s) in relation to this discussion?

Thank you for your time and assistance.

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