

Real Estate Development and Land Grabbing in Ghana: A Review of Impact and Policy Responses

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Abstract The United Nations has stated that denying smallholder farmer access to land is a denial of their right to food and livelihood. According to FAO, about 70 percent of the world food supply comes from the smallholder farmers. While the world population is expected to reach 10 billion by 2050, it has been projected that world food production is increased by 50 percent by 2050. This calls for proper land reforms to make agricultural lands accessible to smallholder farmers in order to achieve SDG 2. Therefore, this study was conducted to assess the impact of the accelerated conversion of fertile arable lands to real estate development in Ghana and policy gaps. The study, which was exploratory, reviewed journals, articles, books, conference papers, policy briefs, workshops reports and other relevant materials to identify and assess the problem, and policy gaps. The study has revealed that even though, the structural adjustment programme in Ghana brought to light prospect to the private sector, it worsened farmer's plight as many lost their lands to companies including the real estate due to lack of documentation. The study revealed that in the western region, over 12,500 acres of agricultural lands have been sold to oil and gas related companies for other uses. In the central region, about 2,000-2,500 acres of lands at Gomoa and Awutu Seenya have also been lost to real estate developers. Findings also revealed that one-meter square decrease in land size decreases food-driven investments by \$1.72 in the area. The problem is alarming, leading to loss of biodiversity, livelihood and deepening poverty in affected communities. The study recommended law enforcement on the existing land use and spatial planning Act 2016 and sensitization on Convention on Biological Diversity, Ramsar, and consequences of the problem on food security in Ghana.

Keywords: *land grabbing, food security, real estate development, human right impact, livelihood, environment, policy gaps*

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1. Introduction

Large-scale foreign investment in Africa's abundant but largely underutilized arable land has been criticized by international NGOs and social movements as 'land grabbing', which limits access of smallholder farmers to land, deprives local people of their livelihoods and threatens local and national food security across the continent [1]. Land grabbing is a serious issue that affects the environment, economy and human rights [2]. Despite the global spread of land grabbing, there is no definition that fully captures the issue. But according to the World Bank, land grabbing is a large-scale purchase of land that violates human rights. This includes rights to food and rights to land. Large land deals between African governments or chiefs, and usually foreign and sometimes domestic investors have seen many countryside lands often taken over for as much as 50 to 99 years [3]. From

Ghana and Senegal in West Africa to Ethiopia in the Horn of Africa, and down to Mozambique in the South, land considered idle and available has changed hands, with profound implications on farmers, environment, and food security [4]. While land grabs are currently a global problem, it is unlikely that the land rush will ever truly end considering the fast population growth coupled with free trade policies in the context of globalization [3]. Land grabbing is endemic in Sub-Saharan African countries because most farmers do not have formal land rights and most do not have a government willing to advocate for local populations at the expense of losing a large contract [5]. It is important to improve and expand the formal land rights of local communities because land grabs do occur in areas where local persons and communities are actively using the land.

Unlike other parts of Sub-Saharan Africa, the sale of lands in Ghana is driven mostly by traditional authorities, family heads, and landowners. Rapid population growth and hike in rent prices have given rise to the demand for

personal houses across the country [6]. The quest to own private apartment in Ghana has been a tag on the necks of the populace over centuries [2]. This quest worsened in 2000- 2008 due to access to mortgage and flexible loans, boosting the real estate sector. Since the emergence of the real estate sector in Ghana, large tracts of fertile arable agricultural lands have been given away by chiefs, family heads, and private individuals at the expense of community members, whose livelihood depends on farming. Development experts have indicated that with 54% of Ghana's population of nearly 30 million living in urban areas, there is an incessant demand for accommodation, hence, driving the real-estate developers to convert arable lands to offices, houses, parks, and shops among other things. However, it is increasingly becoming difficult for farmers to get lands to farm, contributing to the declining agriculture sector currently in the country [7]. It's against this backdrop that this research was conducted to assess the implication of the accelerated conversion of fertile agricultural lands to real estate development, policies and policy gaps.

2. Materials and Method

The study was an exploratory and qualitative study which employed a detail desktop search and literature review on land grabbing, the housing sector in Africa, real estate development in Africa and its impact on agriculture, farmers, food and nutritional security, and policy gaps that exist. Articles, journals, books, conference papers, research reports, policy documents, and briefs served as the resource materials used in the study. Other materials such as land use planning documents and maps were also reviewed to inform the discussions.

3. Results and Discussion

3.1. Drivers of Land Grabbing

The International Land Coalition defines land acquisition as a large-scale land purchase or leases larger than 200 hectares (ha), which is ten times the size of the average small farm. However, there are differences between land acquisitions and land grabs. A land acquisition becomes a land grab when at least one of the following occurs: a violation of human rights, such as making the local population food insecure or violating equal rights of women; the principles of free, prior, and informed consent are disregarded; the deal is not based on a thorough assessment of social, economic, and environmental impacts; the contract is not clear and transparent with binding commitments on employment and benefit-sharing; or the plan ignores democratic planning, independent oversight, and meaningful participation of local communities [2].

3.1.1. The Real Estate Market

There are a couple of factors that drive the African real estate sector. One is the continent's population boom. Africa's population currently stands at over 1 billion and is expected to reach 2.4 billion in just 40 years [1]. This means that in the coming decades, hundreds of millions of

Africans will need additional roofs over their heads. This population growth is the strongest underlying reason for the huge demand for accommodation and real estate properties across Africa [5]. According to research, 300 million more Africans will become a city and urban dwellers by 2030, therefore, the real estate demand is likely to increase in areas like Lagos, Cairo, and Kinshasa [4]. This increase in tenant demand has encouraged new schemes to be proposed. Abidjan, the economic capital of Ivory Coast, is a really good example where the proposed schemes are supported by offshore investors [5]. Sub-Saharan Africa's largest cities are currently some of the fastest-growing urban areas in the world. UN forecasts say that the populations of Lagos, Kinshasa, and Luanda will all grow by more than 70 percent during the 2010-2025 periods, while Dar es Salaam, Kampala and Lusaka are expected to double in size. Lagos has already overtaken Cairo as Africa's biggest city, and its population may be close to 40 million by 2050, making it a truly global megacity. The consequences of this will be grabbing of fertile agriculture lands around villages for accommodation to meet the growing population [1].

Table 1. The distribution of world's urban population by region, 1970-2020

Region	1970	1990	2000	2020
urban populations in Million				
World	1332	2275	2854	4210
Africa	86	204	295	566
Asia	485	1015	1373	2212
Europe	412	509	520	540
Latin America & Caribbean	164	314	394	543
North America	171	214	250	321

Statistics: United Nations (2008).

Table 2. Percentage (%) of population in urban areas 1970-2020

Region	1970	1990	2000	2020
urban populations (% population)				
World	36.0	43.0	46.6	54.9
Africa	23.6	32.0	35.9	44.6
Asia	22.7	31.0	37.1	48.1
Europe	62.8	70.5	71.5	74.8
Latin America & Caribbean	73.8	75.4	79.1	84.6
North America	70.8	70.6	70.4	71.4

Statistics: United Nations (2008).

3.1.1.1. The Real Estate Market in Ghana

In Ghana, the mid-1980s to the early 1990s represents the era of Structural Adjustment Programmes (SAPs) and Economic Recovery Programmes. At the heart of SAPs was the economic liberalization, and state withdrawal from key sectors of the economy to give way to the private sector. Consequently, government's policy on housing took a different turn with emphasis on creating an enabling environment for private sector participation in housing delivery leading to the emergence of the real estate developers and the establishment of the Ghana Real Estate Developers Association.

However, [8], has argued that the private sector is unlikely to provide housing for poor and low-income groups without compromising certain factors. This is because the private sector has never played any role which obviously leaves everyone in comfort situation [8]. According to ISSER, multiple factors such as adherence to land and land use planning are likely to be compromised by the private sector as far as housing delivery is a concern. Despite these challenges, the rapid increase in the country's population (nearly 30 million) has resulted in a large demand for housing. It is projected that the country needs at least 100,000 housing units annually while supply is estimated at 35 percent of the total need. Other studies put the country's overall annual deficits between 70,000 and 120,000 housing units with only 30-35 percent of the annual estimated requirement being supplied [9]. This has given rise to a steady boom in the housing sector. Currently, Accra alone has over 50 real estate developers, but only 36 of them was accessed from Ghana Real Estate Development website as the time of this study. For the first time in Ghana's history, there were more houses in urban areas than in rural areas, from 47.2 percent in 2000 to 55.8 percent in 2010 [10]. This reflects the shift of the population from rural to urban. The shift has affected access to lands in cities, making it extremely expensive or non-existing. This situation has caused many real estate developers to move to the rural areas for large acres of land [9]. Unfortunately, these are fertile arable agricultural lands which communities' members depend for their livelihood. These lands are consciously being sold out by chiefs to these real estate developers for non-agricultural purposes, disposing tenant farmers from the lands [11]. Regrettably, farmers in districts such as Awutu Senya, Gomoa, and Agona in the Central region have not been spared of this calamity. In the Eastern region, for instance, Aburi, koforidua and its surrounding communities have also seen a drastic shift in land cover from agriculture lands to real estate development. Unfortunately, with the population increasing by 30.4% since 2000 and urban residents growing from 43.8% of the overall populace in 2000 to 50% in 2010, it is projected that Ghana will need an estimated 2 million new housing units by 2020, hence, the problem of land grabbing is not ending soon [6]. This,

therefore, suggests that the country need an effective housing policy framework to control the menace or else, it can result in natural resource conflict. Many research reports indicate that from 1990 to date, not less than 18 violent conflicts have been sparked over natural resources between companies in SSA [1].

3.1.2. The Real Estate Sector and Land Grabbing in Ghana

Currently, in Ghana, the speed at which real estate development is accelerating in the central region, especially Gomoa and Awutu Senya districts of the central region of Ghana is alarming [10]. The situation is not different in the communities in the Eastern region and Western region. The lucrative nature of the real estate business due to population growth and expatriate community have been the main motivation for the conversion of agricultural lands into real estates [8]. The problem is further driven by lack of good rewards from lands given by chiefs, landowners and family heads to tenant farmers. In most cases, when a more financially rewarding use becomes a possibility, tenant farmers are forcibly ejected from the land and sold to real estate developers. This problem, if not addressed, can lead to a total conversion of fertile arable agricultural lands to real estate development and sand winning activity. In as much as most existing real estate development is expected to take place in peri-urban rural areas, where farming is the main occupation, it is only expected that the two cross paths. In the western region, for instance, rich biodiversified areas such as wetlands and Mangroves, which are of biological importance have been sold by chiefs and other traditional leaders for resorts, commercial apartments, and real estate development to serve the oil and gas industry. Many research reports indicate that from 1990 to date, there has been a massive conversion of agricultural lands to real estates with its associated land litigation problems. Farmers currently find it difficult getting lands to farm. A Survey by MANGROVE (Food security NGO in Accra) revealed that at least about 2,000 -2,500 acres of fertile agricultural land has been cleared for real estate or sand winning purposes in Gomoa East and Awutu Senya district alone (kasoawinneba road).



Figure 1. Photo showing real estate's springing up in the Western region



Figure 2. Photo showing similar ongoing projects along the coastal communities of the western region



Figure 3. Photo showing the main entrance to the oil village in Western region, Ghana

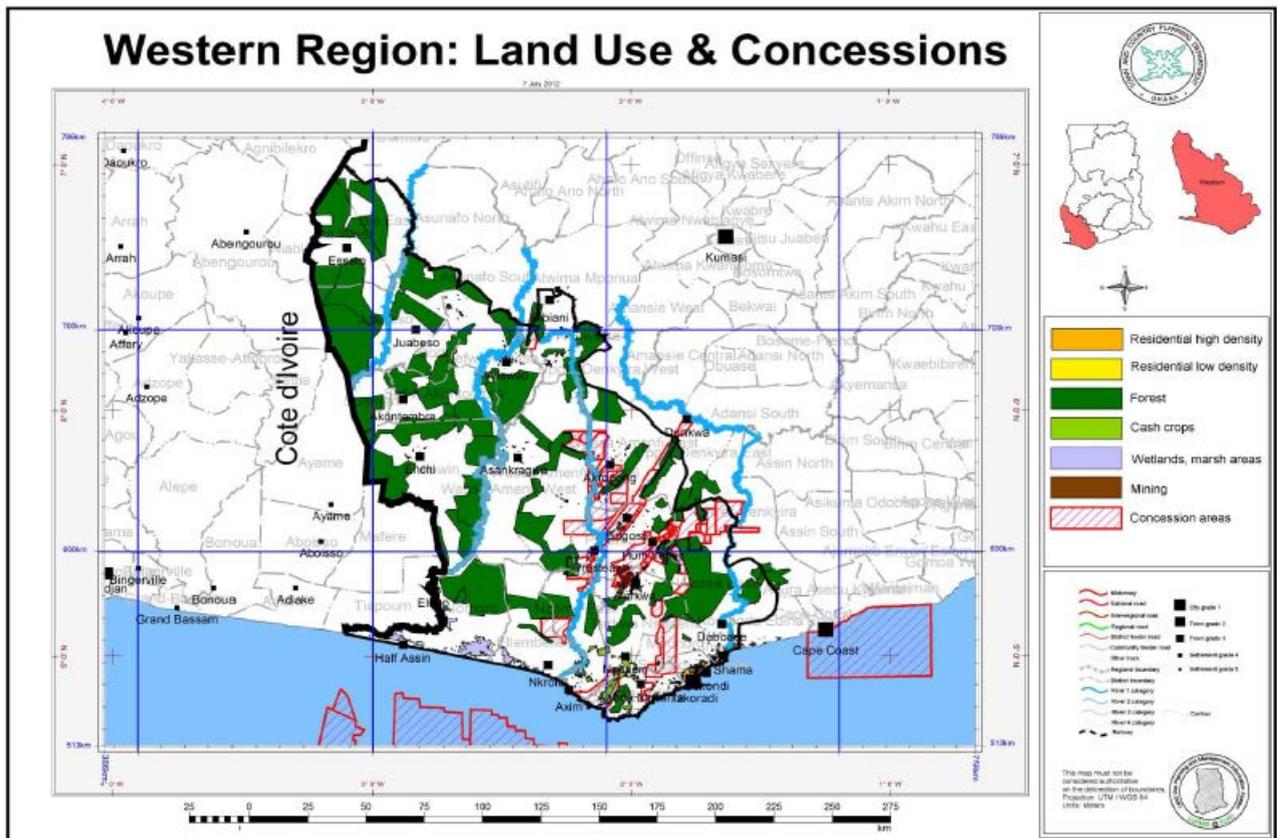


Figure 4. Land use concession in the Western region of Ghana

In the Western region alone, over 12,500 acres of fertile agricultural lands have been lost to oil-related infrastructure development including quarries, sand and gravel extraction for the construction industry [12]. The real estate development is currently booming in the Western region, particularly the coastal districts. In Ahanta west, the pace of real estate development is overwhelming. Among them is the Oil village, which covers over 700 acres of fertile arable lands. According to research by Hen Mpoano (Coastal ecosystem management NGO), an estimated land size of 1,190 acres have also been cleared for estate development and construction activities in Ahanta West alone [12]. In Ghana, some traditional authorities have reported being coerced by political elites into signing an agreement that he understood little or nothing about with foreign investors. Areas currently under agricultural uses are increasingly schemed out for future residential uses or earmarked as potential industrial hubs within the framework of the government’s export processing zones policy. According to the Today’s Ghana news report on 7th July 2018, members of Amene-Oyoko family of Sakyikrom/Noka at Nswam in the Adoagyiri Municipality of the Eastern Region have threatened to sue officers of Land Commission at Koforidua, and some police and military officers who they believe were conniving with Amen Amen City, an estate developing company, to allegedly take over their lands located at Nyanaw mountains and Noka village at Nswam. This problem is alarming and worsening poverty among farmers.

development could be more efficient as well as attractive and liveable. In the foreseeable future, these development patterns will likely continue, and only worsen, given the absence of clear guidelines and regulations for land use decision making at the MMDA level. In Ghana, when investors such as real estate developers dispossess small-scale farmers of their lands, often times compensations are not made to the farmers, especially in the case of tenant farmers. And even in some cases where the investor provides compensation, it is often not sufficient; crops are valued based on discretion and amount not matching the value of the permanent loss to their lands [13]. This consequently, plunges them into adverse poverty. The implication on women is usually complicated by the fact that most investors target lands, which has crops of less value, especially annual crops [14]. In Ghana and for that matter Africa, women are tag to food crops production, which are vegetables, root and tuber crops. Therefore, access to food and household income becomes a challenge, putting much stress on the women to find food on the table for the family. In recent times, the trend is changing as many real estate developers continue to buy unproductive cocoa and oil palm farms from landowners as the detriment of the caretaker farmer in the case of sharecropping agreement. It is true that land grabbing through massive non-agriculture investment such as real estate development is, therefore, contributing towards deepening the human right abuse and poverty in Ghana.

3.1.3. Effect of Land Grabbing on Farmer’s Livelihood

Rapid conversion of agricultural land for residential and real estate development is displacing traditional agro-based livelihoods and diminishing vital ecosystem goods and services, with negative implications on food security and overall resilience of ecosystems in the district [11]. Besides, sprawling sub-urban development is limiting access to, and increasing the cost of providing public services in the district. A village-centric pattern of

Table 3. Compensation matrix

		←	→	
		Low	Average	High
Low		Vegetable, fruits and root tuber crops		
Average		Oil palm and Coconut	Cocoa	
High				Rubber plantation

(Per Crop in GHC) Low: 1.0 - 5.0, averagely low: 5.0 - 15.0, Average: 15.0- 20.0, High: 300.0-400.0.

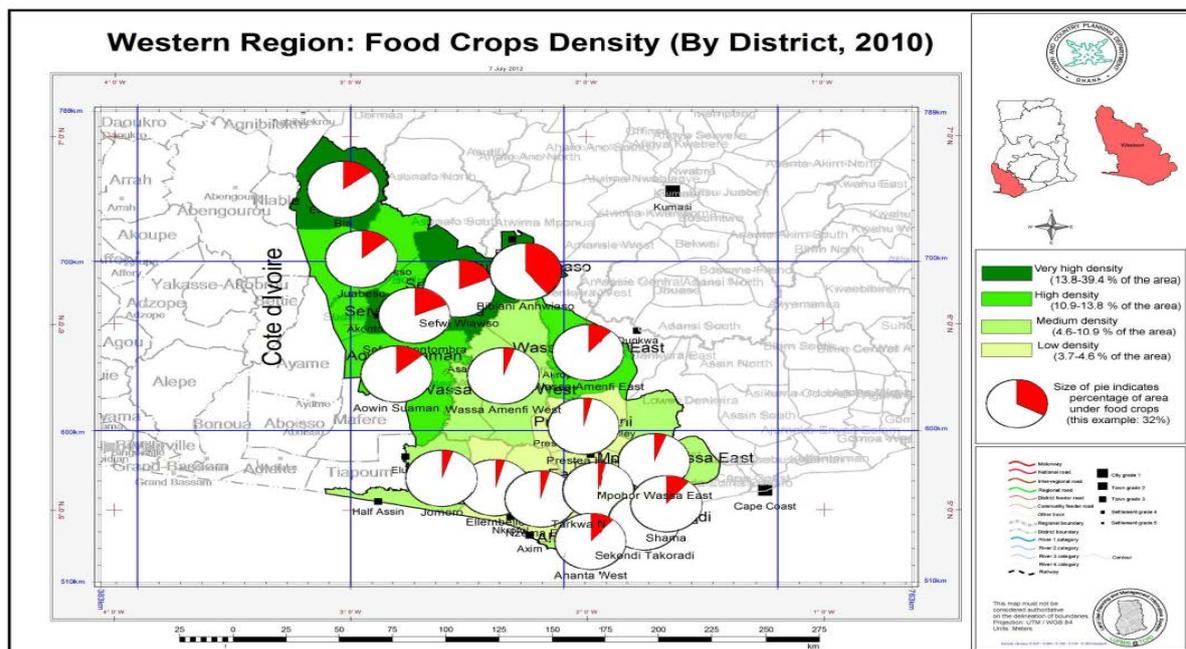


Figure 5. Farm land distribution in the Western region of Ghana

Mangrove forest which serves as a source of livelihood by providing crabs, Periwinkles, fish and other resources including medicinal plants have now been cleared to deny community members of their livelihood. Exacerbating the problem is the declining fish catch and Cape Saint Pauls Wilt of Coconut, which has further deepened the hardship situation among displaced farmers in the western and central region of Ghana [12]. Research has shown that decrease in land size available to farmers by one-meter square due to increased land grabbing, decreases the value of food crop produced, and hence decreases food-driven investments by \$1.72 in the area. It is therefore evident that land grabbing has more negative influence than positive. Displacement leads to loss of a source of income and feeding, human rights violation, environmental degradation and so on. No matter how good global grab will be, it is evident that it is the smallholder farmer who suffer [3].

3.1.4. Effect on Food and Nutritional Security

Over the past several decades, many countries have opted agribusiness as a solution to food security [15]. Studies have shown that smallholder farmers grow more than seventy percent (70%) of the world's food and are therefore critical to global food security [1]. Unfortunately, the very land on which these foods are produced by the smallholder farmers is under threat by real foreign and domestic investors for activities other than food production, posing food and nutritional insecurity challenge [1]. There is no denying that food security remains a dire problem, rapidly rising prices for staple foods from 2006 to 2008 culminated in a worldwide food crisis, and while commodity prices have somewhat stabilized, millions are still suffering from hunger. However, [16] reports indicate that another 40 million people were pushed into hunger in 2008, primarily due to higher food prices, bringing the overall number of undernourished people in the world to 963 million (compared to 923 million in 2007). Sub-Saharan Africa remains the highest in the world in terms of undernourished. Although, the prevalence declined from 33.2 percent in 1990–1992 to 23.2 percent in 2014–2016, the number of undernourished people has actually increased. This implies that access to land is critical to tackling this in the long round.

As reflected in Sustainable Development Goal 2, one of the greatest challenges the world faces is how to ensure that a growing global population projected to rise to around 10 billion by 2050 has enough food to meet their nutritional needs. To feed another two billion people in 2050 means that food production will need to increase by 50 percent globally. This, however, depends on access to land. Current population growth coupled with a high rate of land grabbing for real estate and other non-agriculture uses will obviously not help the world to achieve this goal. In Ghana, for instance, communities or districts where land grabbing is imminent, prices of food are high. In Ahanta West, Shama and Ellebelle district in the Western region of Ghana, the price of three pieces of cassava cost between GHC 4.0–6.0 as opposed to GHC 2.0–4.0 in non-land grabbing areas [12]. The situation is not different from the Central region. Indeed, food security is a complex condition requiring a holistic

approach to all forms of malnutrition, the productivity, and incomes of small-scale food producers, the resilience of food production systems and the sustainable use of biodiversity and genetic resources.

According to [16], after steadily declining for over a decade, global hunger appears to be on the rise, affecting 11 percent of the global population. World estimated the number of undernourished people increased from 777million in 2015 to 815million in 2016. This demonstrates the need to produce enough food and avert habitual sale of fertile agricultural lands to other uses such real estate development.

3.1.5. Effect of land grabbing on the environment

Land use change is arguably the most pervasive socioeconomic force driving changes and degradation of ecosystems [17]. Development activities, real estate development, and other human activities have substantially altered the Earth's landscape. Such disturbance of the land affects important ecosystem processes and services, which can have wide-ranging and long-term consequences [11].

Land use provides many economic and social benefits but often comes at a substantial cost to the environment. Although most economic costs are figured into land use decisions, most environmental externalities are not. For example, developers may not bear all the environmental costs generated by their projects [18]. In the Ghana, areas where lands have been sold for real estate development and other use, the vegetation is usually destroyed without restoration. In some instances, rich biodiversified sites such as wetlands and mangrove forest are cleared to make way for development projects such as real estate and offices at the expense of the enormous contribution this natural resource provided to the environment [12]. Bamboos and sometimes secondary forest are sold by family heads and traditional authorities to developers to make way for their projects. Deforestation resulting from land grabbing adds to the greenhouse effect, destroys habitats that support biodiversity, affects the hydrological cycle and increases soil erosion, runoff, flooding, and landslides [17]. Most often, land use change promotes air pollution, water pollution, and urban runoff and flooding. Habitat destruction, fragmentation, and alteration associated with urban development are a leading cause of biodiversity decline and species extinctions. Urban development from real estate in coastal areas and further inland is a major threat to the health, productivity, and biodiversity of the marine environment throughout the world [1]. It is therefore undeniable fact that real estate development in Ghana is contributing towards the harsh climate change effect (flooding) in Ghana.

3.2. Access to Land and Human Rights Impact

Access to land affects a broad range of fundamental human rights. In both urban and rural areas, individuals rely on the availability of adequate plots of land for shelter and the availability of resources. In rural areas, in particular, the realization of the right to food is intimately tied to the availability of land on which to grow crops. Additional rights, including the right to water, the right to health, the right to work, are all tied to access to land [2].

In some domestic contexts, recognition of citizenship is also attached to ownership of land, limiting the ability of landless individuals to partake in certain decisions. The problem of rural landlessness continues to increase as land in rural areas comes under multiple pressures, due to real estate development owing to population growth, fragmentation, land use conversion, environmental degradation, and the impact of natural disasters [19]. Without secure land rights, individuals and communities live under the constant threat of eviction, impacting a range of fundamental human rights. Access to land by farmers, especially women remains a great comfort for the family. The rights to food is a fundamental human right and must not be undermined or abused. Going contrary to this is tantamount to human rights abuse. In 2007, the U.N. General Assembly adopted the Declaration on the Rights of Indigenous Peoples, which states that “indigenous peoples have the right to the lands, territories, and resources which they have traditionally owned, occupied or otherwise used or acquired.

3.2.1. Land Grabbing and Human Rights Impact

Human rights have been applied to land in various contexts. Human rights seemed to be on the rise in the 1990s and seemed to lose ground under the pressures of economic restructuring, land use change, and land acquisition [20]. According to human rights, ‘certain things ought not to be done to any human being. No one should be deprived of their subsistence and security [20]. Rural people often use the land to meet their needs, and ‘needs give rise to weighty moral demands. The object of these basic human needs is the object of human rights’ [19]. [3] observed that rural smallholders who do not have productive land may lack food and die. Here, the most urgent issue is not about human rights as a conception, but about survival, and to whom to turn for some guarantee of security. Human right abuse associated with land use change in Ghana is dated over 20 years back. Many farmers, whose livelihood depends on land, have been denied their right to continue sustenance. This is evident across communities fringing all economic cities in Ghana. It is unfortunate that human right abuse continue to occur in Ghana within the context of international conventions such as Convention 169 on Indigenous and Tribal Peoples in Independent Countries, International Covenant on Economic Social and Cultural Right, African Charter on Human and People Rights, Protocol on the Rights of Women in Africa, and Universal Declaration of Human Rights.

4. Policies and Policy Gaps

In Ghana, in even though the land use and spatial planning authority have been established by the Land use and spatial planning Act 2016 to see to the regulation of land use and management of human settlement, their work fall short to expectations as they continue to complain of logistic despite its short existence. The Town and Country Planning Act of 1958 (Act 30) gives the district assemblies the mandate to regulate land use and development, but it is rather unfortunate that chiefs, family heads, and landowners readily gives away large tracts of fertile arable agricultural lands to an investor for

non-agricultural purposes. Recently, spatial and land use plans were completed for the six coastal districts of Western region to guide land use decision and land allocation for different uses, but in the light of this, smallholder farmers continue to lose their tenant rights to their lands without compensation. In spite of the fact that Ghana is a signatory to Ramsar convention, which seeks to protect all wetlands, the state-mandated authority such as Wildlife division of the Forestry commission seems to be doing little to stop the rapid conversion of wetlands into real estate development and other industrial settlements. Although Ghana ratifies the Convention on Biological Diversity more than two decades ago, the country’s commitment to the convention has been very low. Till date, highly biodiversified areas are given way to infrastructural development at the expense of the contribution biological diversity, which are sources of revenue through tourism and future generation [21]. The Ministry of Water Resources, Works and Housing have two (2) broad sectoral goals in line with its mandate. Among them is to ensure the sustainable development of infrastructure facilities in the area of flood control systems, drainage, coastal protection works and operational hydrology. This mandate has over the years been relegated to the background. Presently, their focus has been on other issues with little or no attention to the aforementioned task. While the national housing policy state clearly that it will ensure the promotion of housing schemes that maximize land utilization in the country, it is undeniable fact that large scale of fertile agricultural lands continues to give way to real estate development [19]. This problem if not checked, will gradually plunge the country into food and nutritional insecurity situation in the near future.

5. Conclusion and Recommendations

5.1. Conclusion

No matter how convincing the claim that the real estate industry will bring much relief to people by bridging the housing deficit in Ghana, evidence shows there is simply no place for the smallholder farmer in most situations. While housing deficit remains a problem in Ghana, it is important that food production and housing cross path. It is obvious that moving along the kasoawinneba road, lands which were onetime pineapple farms have now been converted to real estate developments. Increasing population means to increase agricultural productivity, but in many cases, it is not so. State institutions are characterized by inefficient performance, poor monitoring and regulatory works including lack of law enforcement. Even though, the land use and spatial planning Act 2016 exist, little is done to enforce it. While, the Town and Country Planning Department has existed for over decades across all the MMDAs, the problem of accelerated conversion of fertile arable lands to other uses still persists. Ghana has ratified many international conventions such as Ramsar, CBD, United Nation declaration on indigenous right to land and among others, but situation remains the same.

Indigenous peoples collective rights to lands and resources are basic to their identity and existence, and

supersede individual ownership. This helps them to tackle problems such as climate change and the loss of biodiversity. Therefore, when will we consider a win-win scenario and recognize those whose interest is left out of the land we purchases? This fundamental disconnection between increasing investment and huge consequential effect on investment climate, if not checked, can results in conflict, loss of biodiversity, food and nutritional insecurity and exacerbate climate change effect.

5.2. Recommendation

In other to address the issue of accelerated conversion of fertile arable agricultural lands to real estate development in Ghana, it is imperative that the government take a holistic approach to undertake the following:

1. To quickly complete land use plan for all Metropolitan Municipal and District Assemblies across the country and enforce it through the appropriate state institutions by providing them with the needed logistics to undertake the task.
2. To develop a comprehensive housing policy that takes into account land access to undertake home garden and the indigenous right to community lands.
3. To resource the state mandates institutions to collaborate with communities to enforce the international conventions and declarations such as Ramsar convention, Convention on Biological Diversity, UN declaration on indigenous right to land and others.
4. To sensitize traditional authorities and landowners on the consequences of accelerated sale or conversion of fertile arable agricultural lands to other uses. This sensitization of education can be done collaboratively with both local and international NGOs on all platforms such as workshops, churches, and durbars as well as the media.

I certainly believe that if these aforementioned recommendations are implemented, it will help bring hope to farmers, improve food supply system in cities, and consequently, help contributes to reducing climate change effect.

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