URBANISATION AND ITS IMPACT ON AGRICULTURAL LANDS IN GROWING CITIES IN DEVELOPING COUNTRIES: A CASE STUDY OF TAMALE IN GHANA

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Abstract: Rapid urbanisation, population pressure and the governmental, shelter, infrastructural, industrial and commercial needs of a fast growing city have stretched the land delivery system in Tamale to breaking point. Agricultural lands, which serves as the main source of livelihood, has been encroached by the process. This paper seeks to assess the impact of rapid urbanisation on agricultural lands in developing cities, drawing empirical evidence from Tamale, Ghana. The research used a mixture of qualitative and quantitative methods including interviews and questionnaires to collect and analyse data from stakeholders in selected peri urban areas in the Tamale city region. Contrary to the mainstream view that the polygamous nature of Northern region is the main source of increment in the population and thus urbanisation in the area, stakeholders’ perception was different as responses indicated that the rapid urbanisation of Tamale is as a result of increased commercial activities and its strategic location. The rapid urbanisation of Tamale sparked up a succession syndrome where prime agricultural lands have been converted to other land uses believed to be the highest and best use. The pressures of urbanisation have negative implications on predominantly poor farming communities in the Tamale region. Policy focus should be geared towards the protection of prime agricultural lands that serves as main sources of livelihood. Urbanisation is necessary but not to the extent of denying the rural folks of their main source of livelihood.

Keywords: Agriculture, land, cities, Tamale, Urbanisation.
I. INTRODUCTION

The twin pressures of rapid urbanisation and a fast growing population have wreaked havoc on agricultural land relations and land management in Tamale. A major problem of rapid urban growth is changing land use patterns. The general characteristics of rapid urbanization experienced by most sub-Saharan countries, such as Ghana are rampant changes in land and building uses [1]. Growth in urban population goes with no equivalent growth in land supply [2]. Land is fixed in supply and does not increase with increasing population growth. The pressure exerted by increases in population and rapid urbanisation deprive other sectors of the needed land. Agricultural lands are most affected by rapid urbanization and its functions of demand. Land uses for residential, industry and commercial, civic and culture tend to dominate agricultural lands in the bid for space in the urban place. This dominance tends to deprive farmers of arable land to cultivate thereby reducing agricultural productivity. There is a clear depiction of this situation in the Tamale metropolis and its trajectory areas.

In Ghana, over 60% of the populations are involved in agriculture as a major source of employment to the populace. Depriving the sector of land therefore brings an increase in the unemployment rate. In the urban areas, the cumulative effect of succession and dominance factors have made land increasingly scarce for peri-urban farmers. Rapid urbanization has adversely affected development efforts in many cities. One of these is changes in land use subsequently leading to decreased agricultural land in favour of the provision of residential accommodation in most urban settlements. This is reflected in the form of dormitory and satellite towns that are being developed in the urban peripheries which were agricultural lands in the urban setting. The key challenge of the urbanization process is the rapid conversion of large amount of prime agricultural land to urban land uses (mostly residential construction), in the urban periphery. The effect is the unavailability of prime agricultural lands. The consequence is low agricultural productivity, low standard of living and food insecurity. With an annual growth of about 2.4 million people, Ghana’s population is constantly on the increase. This ultimately increases the urbanisation trends in the country as displayed on the table below.
Table 1: Total Population and Percentage Urbanized, 1921-2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Percentage Urbanized</th>
<th>Urban Population</th>
<th>No. of Urban Settlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1921</td>
<td>2,298,000</td>
<td>7.8</td>
<td>179,244</td>
<td>-</td>
</tr>
<tr>
<td>1931</td>
<td>3,163,000</td>
<td>9.4</td>
<td>297,322</td>
<td>-</td>
</tr>
<tr>
<td>1948</td>
<td>4,118,000</td>
<td>12.9</td>
<td>570,597</td>
<td>41</td>
</tr>
<tr>
<td>1960</td>
<td>6,727,000</td>
<td>23.1</td>
<td>1,551,174</td>
<td>98</td>
</tr>
<tr>
<td>1970</td>
<td>8,559,000</td>
<td>28.9</td>
<td>2,472,456</td>
<td>135</td>
</tr>
<tr>
<td>1984</td>
<td>12,296,000</td>
<td>32.0</td>
<td>3,938,614</td>
<td>203</td>
</tr>
<tr>
<td>2000</td>
<td>18,912,000</td>
<td>43.8</td>
<td>8,278,636</td>
<td>364</td>
</tr>
<tr>
<td>2007</td>
<td>23,000,000</td>
<td>49.0</td>
<td>11,270,000</td>
<td>492</td>
</tr>
<tr>
<td>2010</td>
<td>24,658,823</td>
<td>51.0</td>
<td>12,545,229</td>
<td>636</td>
</tr>
</tbody>
</table>

Source: Derived from GSS (2005a, 2005b and 2010 estimate)

From the table, barely in 2010, more than 51% of the total population are living in towns and cities. However, few centers dominate this concentration, mainly Accra in the coastal belt, Kumasi in the middle belt, Tamale in Northern and Sekondi-Takoradi in the Western region of Ghana. Consistent with observed trends in other parts of Africa, Ghana’s population is becoming increasingly urbanized [3]. An urban centre in Ghana is described as a settlement with a population of 5000 or more people [4]. In recent times, more than four out of every ten Ghanaians live in the city or town with more than 5000 people [3]. If these current trends should continue, by the year 2020 more than half of Ghanaians would live in urban settlements. This is what the Tamale Metropolis is currently experiencing. This ultimately is a threat to food security as agricultural land users are always outwitted in the bid to use land in a rapidly urbanizing city.

II. LITERATURE REVIEW

The Concept of Urbanisation

The term urbanization as traditionally measured by demographers is urban population divided by total population of a region [5]. Urbanization is also defined as the annual rate of change of the
percentage of people living in urban areas, or the difference between the growth rate of urban population and that of total population [6]. Closely linked to this, Nsiah [7] defined it as the shift from a rural population to an urban population and include an increase in the number of people in the urban areas. One thing that is clear from all these definitions is the concentration of people at a particular urban area. Thus, for the purposes of this research, urbanization would be defined as the concentration of population at a particular place at a point in time. Urbanization affects all sectors of the economy. It is regarded as an inter-sectorial phenomenon involving all aspects of the human society and economy [8]. Urbanization is the outcome of the social, economic and political developments that lead to urban concentration and growth of large cities, changes in land use and transformation from rural to metropolitan pattern of organization and government. In effect, urbanization affects all spheres of human life both in the rural and urban setting.

**Urbanization in Ghana**

Since 1921 when the first formal census was conducted, the population of Ghana has grown steadily. The increase in population has gone in tandem with increase in the proportion of the total population living in urban centers, that is, settlements with a population of 5000 or more [9]. From as low of about 9% in 1921, the proportion of the total population urbanized almost tripled to reach 23% in 1960, and more than doubled to reach 49% in 2007. There has been a gradual percentage increase of the number of people living in urban areas from 1948 to date as well as their corresponding total populations. Whereas only 9.4% of the total population lived in urban areas in 1931, this population shifted to 13.9% in 1948, 23% in 1960, 28.9% in 1970, 31.3% in 1984 and 43.9% in 2000. In sum, by 2000, the number of urban settlement had increased about nine folds from 41 in 1948 to 364 in 2000 while the corresponding population increased almost fifteen times from 570,597 persons in 1948 to 8,278,636 in 2000 [4, 10].

The rising trend in urbanization has been driven by the following demographic factors: Rural urban migration, natural increases in towns and cities, and re-classification. Villages grow into towns once they have attained the threshold population of 5000 or more persons which is the census definition of an urban centre in Ghana. Between the periods of 1948 to 1960, about 98% of the urban growth was caused by migration from rural areas [3]. The increase in urban populations did not decline that of the rural areas. Rural population increased from 5 million in
1960 to 6 million in 1970 reaching almost 8.4 million in 1984 [10]. The rate of increase in the urban population was however faster than that of the rural population.

**Rapid Urbanisation**

High rates of urbanisation which is monumental increases in population have outgrown the management capabilities of cities in the developing world. The existing formal planning standards and tenure regulations have in most cases proven inappropriate to meet the challenges. Informal urbanisation is by-passing formal planning regulations and creating parallel structures in order to tackle their existent problems. The population of sub-Saharan Africa was estimated at 688.9 million in 2002, with an annual growth rate of 2.7%. It is one of the world’s fastest growing populations, having doubled since the 1960s, and looking set to double again in 22 years at its current growth rate. At the same time, recent economic growth in sub-Saharan Africa has been disappointing, with per capita GNP increasing at only 0.2% or so per annum 1965 and 1988. If the rate of growth continues at that rate, the population will triple by 2020. Yet it is the part of the world that is least able to meet the cost of such growth. So many people in developing countries are moving from the countryside to urban areas to escape adverse rural conditions. At the same time, many urban areas will continue to attract people from the countryside because they generally offer more opportunities.

From 1990 to the year 2020, a total of approximately 14 million hectares of land (approx. 475,000 ha/yr.) in developing countries will be converted for urban purposes [11]. There is no doubt that this rapid urbanisation will remove some agricultural lands from production. Indeed, the conversion of land from agricultural uses to higher valued uses of the fringes of urban areas is part of the process of economic development, generating in most cases significant economic benefits. Biased urban and industrial growth strategies, together with the neglect of the agricultural sector, have also led to significant damage to prime agricultural land. The population of Ghana is also growing very fast. According to the 2000 population census, it stands at 18.9 million, representing a 53.8% increase on the 12.3 million recorded 16 years earlier in 1984. The current population is estimated at 20.3 million, an intercensal growth rate of 2.7% per annum. This is lower than the rate for West Africa (2.9%), but higher than the global rate (1.5%) and gives a population density for the entire country of 79.3 people per square kilometer. The level of
Urbanisation from 32% to 43.8% since 1984. Urbanisation is concentrated in the Greater Accra, Ashanti and Northern Regions (of which 87.7%, 51.3% and 44.2% respectively are urban), where the rate of change in tenure and livelihood in peri-urban areas of the major cities in Ghana are changing at an alarming rate. The inter-censal growth rate in peri-urban areas of the capital Accra is 4.4% per annum, compared with the national growth rate of 2.7%.

The 2010 population census indicate that more than half of the population of Ghana is expected to live in urban centres. A major feature of the urbanisation trends is the active conversion of subsistence agricultural holdings into housing estates, industrial estates, infrastructure, schools, offices, shops, recreational grounds and other related land uses. The monetary and related benefits and potential opportunities in the urbanisation process and changing land use patterns (i.e. from subsistence to commercial land markets) are not in dispute. What is the issue is the implication of rapid urbanisation and the emerging land markets for sustainable development in the peri-urban communities in the light of agriculture.

**Land Use Planning Response to Urbanization**

Urban planning plays a very important role to augmenting the capacity of cities to accommodate with population growth. Nevertheless, poor planning leads to inefficiencies and institutional rigidities that hasten diminishing returns and cause inoperative capacities [12]. Good planning, however, allows a city to take more than what the average would permit [13]. In an attempt to control the better management of urbanization, governments all over the world have adopted both micro and macro-economic policies designed to mitigate if not reduce the tempo of urbanization to manageable levels. Land use planning and management tools have, over the years, played a crucial role in avoiding and mitigating the adverse impact of rapid, unplanned urbanization [14]. As a primary tool physical planning are established to address mid and long term problems. Physical planning as a complement to social and economic conditions has an important role to play in helping achieve the aims of the social, economic, and other forms of planning. The end result of this is manifested in a meaningful and useful organisation of facilities in space. This involves the proper use of land, development of a good and efficient land policy, planned infrastructure, and the development of new land among many others that favour decentralised economic development. Such a planning approach would be aimed at ensuring orderly spatial development which is consistent with land use.
Strategic planning is another approach that integrates urban development to achieve growth in city and at community levels. The outcome of the planning process is not just a physical development covering land, infrastructure, finance and institutions [12]. In Ghana, some of the strategies in use include the promotion of urban infrastructure and the development and provision of basic services. In terms of housing for the urbanites, the low cost housing programme in the 1970s and the recent affordable housing project are aimed at lessening the hardships in the urban areas by the provision of affordable housing. The Ghana Poverty Reduction Strategy (GPRS) II also addresses issues such as providing and implementing development plans for urban centres, enforcing rules on land use plans and accessibility, coordinating all aspects of town development and facilitating public and private partnership in the development of urban infrastructure. Fostering the growth of settlements brings about rural transformation, improving infrastructural facilities in slum areas and restricting the formation of new slums [15]. As a result, a new Land Administrative Project (LAP) was launched in 2003 as the implementation strategy for the new National Land Policy (NLP) in Ghana. The project has so far completed legislative and judicial reforms, established ten customary land secretariats in each of the ten regions, supported the capacity building of land-based academic and research institutions, and identified and measured forty five geodetic reference points [16].

In addition, much of the violation of planning regulation can be avoided by resorting to the law where necessary. Masakazu [14] observed that, regulatory instruments such as land and household registration, property tax systems, and building and land development permits are all important basic tools that strengthen effective implementation of spatial plans. Thus, the basis for development control is planning legislation. In pursuit of this, planning authorities has been delegated with powers to enforce planning legislations and use their discretions where absolutely necessary. Besides, the Local Government Act, 1993 Act 462 (sections 46-78) also creates each District Assembly as a planning authority. The assembly is to in effect, issue development permits, draw development plans, and take such actions, and decisions necessary to bring about the overall development of the district so far as it is not inconsistent with national development plans. The rationale is to increase rural development in order to curtail rural urban drift. Zoning regulations are also a constituent of the response of land use planning to urbanization. This
promotes efficiency and allow for easier regulation of urban development. Zoning techniques may include designation of sensitive land resources and areas, establishment of buffer zones, management of hazard prone lands and protection of cultural resources. Others also include the protection of green fields, preservation of prime agricultural lands and discouraging excessive urban sprawl. These may be applied to implement master plans and guide urban development to spatially appropriate areas.

The Geographic Information System (GIS) is a technical tool widely used as part of effective urban planning approach. This approach is gaining increasing importance in Ghana as a tool for decision making in planning since it links together different data sets. In this system, accurate information on land prices, supply of serviced land, present and future land projects and housing technologies can be accessed. This aids the inadequately staffed local governments to better manage rapid urban growth. Such information supports planning, decision making and private sector investment. Meaningful planning starts with efficient information channels and trickles down to effective institutional capacity. However, the realisation of plans is made possible by a legal body, hence the need for planning laws and regulations and the astute institutions to enforce them.

**Urban Agricultural Development**

The relationship between people and land is often complex, though, and differs between societies depending on their history, culture and legal system [17]. The land tenure systems in Ghana are enshrined in the various customary practices. Prior to colonialism, land management and ownership resided collectively in the society [18]. Individuals only had right of use. The objective is to ensure easy access to land for every household in a predominantly subsistence society. Most of these individuals used the land for farming purposes. Currently, land accessibility particularly for farming purposes is becoming increasingly difficult. Mabogunje [18] observed that, this is so because customary land tenure operates alongside Western tenurial systems in many urban centres resulting in great ambiguity surrounding land policies and objectives. A major bye product of this is the disintegration of customary land tenure systems. Western tenurial systems do not afford individual enough use rights as did the customary system. Besides, other land uses (industry and open spaces) introduced as a result of colonialism tends to
compete with agriculture. Previously, customary lands had no marked boundaries and members of families or communities had a collective ownership. However, as pressure of demand for land continued to increase, customary land owners resorted to the definition of boundaries. The pressure on customary land increases with urbanization, so that the amounts of payments tend to increase such that in some cases, it approximates the market value. Urbanization has therefore been identified as one of the significant factors that exerts pressure on land resources. This has made land accessibility cumbersome for farmers and other land seekers.

In response to demand for urban land, the process of land supply has changed from giving farming use rights to urban land use rights [19]. This means that urban growth leads to the creation of individual property rights in communal lands. The supply of land for urban development is determined by the customary land owners and the demand for the urban land comes from the private sector, public sector and the civil society (individuals). Such lands are put into uses that will benefit the urban populations to the neglect of agriculture. A great deal of fragmentation of holding have been going on in most densely populated areas of West Africa and the nations have always attempted to intervene in order to reverse the dominance of small holder agriculture and increase the size of production units. The relation of land fragmentation to agricultural productivity notes that, most agricultural production for local use especially food farming, fishing and the raising of small livestock and poultry has been largely neglected and left to fend for it.

Customary land tenure remains important in many of these cities, although its future is widely disputed. The land market is shown to be complex and diverse, characterised by a high level of uncertainty and widespread disputes which threatens the future of agriculture. The strong sense of cultural identity associated with customary land, and the difficulties of introducing major changes to land markets, however, point towards maintaining a modified form of customary land tenure. Agriculture is neglected as an area becomes increasingly urbanised. Urbanisation leads to the inaccessibility of land, land fragmentation, change in land supply, and rapid increment in land values. This does not create a favourable environment for the development of agriculture.
Urbanization and Peri-urban Agriculture in Ghana

The rate of population growth is linked to the fast expansion of urban slum areas, with high levels of unemployment, food insecurity and malnutrition. Such rapid urbanization engendering the harsh reality of urban poverty requires adapted strategies to ensure adequate access to food for all in a context of escalating levels of urban food insecurity together with its adverse health and social consequences. This change is driven by such factors as economic demands, consumption patterns and lifestyles [20]. Since land is now needed for uses besides agriculture and forestry in the urban centre, its value has shifted from a consideration of its fertility and other favourable bio-physical characteristics to that of its functions. This has resulted in the acquisition of some of the most suitable agricultural lands for residential developments, particularly those near the centre. There is a consequent decline in the farmed area and an increasingly limited access to the natural resources on which the livelihoods of the poorest depend. There is not only the reduction in the total area of land available for farming but most importantly, there is a drastic loss of soil fertility due to intensive use to support plant growth and for that matter agriculture. A large number of youth are also opting out of farming because of growing insecurity in land ownership. The loss of agricultural land to urbanization has become possible because of the high rate of natural population increase and migration of people to a number of towns. One of the settlements in Ghana which has experienced this is Tamale. The peri urban farmer is the most affected in all of these since his source of livelihood is dependent on agriculture.

Agriculture which is the main source of livelihood of peri-urban dwellers is seriously being threatened by rapid urbanization because of the problem of scarcity of land for agricultural purposes that will arise. Thus, the allocation of agricultural land for residential development has resulted in a reduction in the quantity (size) and quality of land. Farmers are therefore, often left with little or no land to cultivate and this renders them vulnerable. Agriculture, in general and the food production for the urban population was, and still is, thought to take place in the rural sector only. In reality this undertaking has failed in many countries due to missing infrastructure (delivery of seeds and fertilizers to rural areas and delivery of the harvested produce to urban centres) and lack of purchasing power of the urban poor. Although the interest in agriculture in urban centres is quite recent, it is practiced for a long time. The peri-urban interface of most
urban areas which show characteristics of both rural and a few urban life is, in most cases the agricultural hub of the urbanites and turns to supply most of their food requirements.

**Food Security in the Context of Urbanization**

The Food and Agriculture Organization of the United Nations (FAO) defines food security as a solution that “exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preference for an active and healthy life” [21]. This definition comprises four dimensions of food security; availability, stability, safety and access. The first dimension relates to the general availability of sufficient amounts of food. In the future, agriculture will be challenged to meet the demand of a population that is projected to grow and to urbanize [22]. The food availability of every developing city stand threatened. An immediate consequence of rapid urbanisation is the crowding out of peri-urban agriculture, which often plays a significant role in supplying perishable foodstuffs to cities. In addition, already weak tenure agreements may be challenged, and agricultural production may shift to less productive areas, which could, *ceteris paribus* result in yield losses. Food stability requires that food can be accessed at all times. Food safety is linked to the quality of food and constancy. This will put additional pressure on rural infrastructures, transport, technologies, and food distribution. Since these tend to be insufficient in urban and peri-urban areas of most developing countries, the stability of food supplies may be jeopardized [23].

Bayo [24] vividly illustrated these challenges for Nigeria taking into consideration transportation cost, traffic, and the populations and their food requirements. It is not enough that sufficient amounts of food are available, if they cannot be consumed without risking major health problems (Food Safety). Numerous studies found that urbanization generally decreases child malnutrition and increase dietary diversity [25]. However, in urban areas food is increasingly consumed outside the house. Maxwell et al [26], in a survey of 559 urban household in Accra, found that more than 32 percent of the households’ food budget was spent on street foods. This share was higher in poorer population segments. Urbanisation therefore turns to increase the health risk of urban areas especially with poorer populations. The final dimension, access to food, is associated with the resources that an individual or household possesses to obtain food required for a healthy diet [27]. Having sufficient resources to afford a healthy diet, is the most important dimension of food security in urban areas. In many cities of developing countries, inhabitants buy more than
90 percent of their food [26, 27]. Food is, therefore, not accessible to urban dwellers especially the poor who rely on marginal income. Food prices in these urban centres are consistently on the increase and tend to deprive a section of the population of the needed food requirements. The various dimensions of food security are explicated on the diagram below.

**Figure 1: Major dimensions of Food Security in the context of urbanisation**

Source: United Nations Administrative Committee on Co-ordination
III. RESEARCH METHODOLOGY

The Tamale Metropolitan Area is located at the centre of the Northern Region. It shares common boundaries with Savelugu/Nanton District to the north, Tolon / Kumbungu District to the west, Central Gonja District to the south-west, East Gonja District to the south and Yendi Municipality to the east. The Tamale Metropolis occupies approximately 750 square kilometers which is 13 percent of the total area of the Northern Region. Tamale became a district in 1988 by Legislative Instrument 1453. It was called West Dagomba District Assembly. It was then promoted to West Dagomba Municipal Assembly in 1994 and finally elevated to the status of a Metropolitan Assembly in 2004 by legislative instruments (LI) 1801 of the Local Government Act 1993, (Act 462). The Northern Region is the largest of the 10 regions of the country in terms of landmass, occupying 70,384 square kilometres and accounting for 29.5 per cent of the total land area of Ghana. It has almost the same land area as the Western, Greater Accra, Volta and Eastern Regions put together (28.1%) or the Brong Ahafo, Ashanti and Greater Accra Regions combined (28.2%). Yet, apart from the two Upper Regions, the Northern Region’s population is almost the same as that of Brong Ahafo and slightly larger than that of the Volta and Central Regions, which are much smaller in land area.

According to the Ghana Statistical Service (2000), the Tamale Metropolis has a population of 293,881. This figure shows an increase of 75 percent over the 1984 population of 167,778 and represents an intercensal growth rate of 3.5 percent. This is far higher than the regional and national rates of 2.8 per cent and 2.7 percent respectively. Similarly, the population growth rate in Tamale is higher than that of the Accra Metropolitan Area (AMA) which is 3.2 per cent. Meanwhile, the population in AMA in 2000 was 1,658,937, about six times higher than Tamale. On the other hand, the growth rate in Kumasi Metropolitan Area (KMA) is 5.4 percent; which is far greater than TAMA and AMA. The growth rate of KMA is high because it is a central point for business in the country linking the north and south.

Primary data were collected using questionnaires, visual observations, institutional surveys and key informant interviews. The institutional surveys covered the Town and Country Planning
Department, Lands Commission (LC), the Land Valuation Board (LVB), Tamale Metropolitan Assembly and Ministry of Food and Agriculture (MOFA). Secondary data were collected through the review of literature, which includes documents from the Tamale Metropolitan Assembly, the Ghana Statistical Service and the internet. The questionnaires seeks to address the types and nature of land use changes, their implications on agricultural land and the way forward for protecting these fertile agricultural lands from encroachment by urban land uses. A random sample was taken to ensure that the inference about population involved would be made valid and that the items in the population had the opportunity being chosen. Given the agricultural communities of Kanvilli, Kpalsi, Malshegu, Kakpagyili, Vittin, Tuunaayili, Fou, Sognaayili, Adubilyili and Gurugu, a calculated sample size of 300 activity units selected at 90% confidence level and a margin of error 0.1. According to Rice [28], in central limit theorem if a sample size of at least 30 is selected and properly distributed research findings are close to reality when dealing with small sample size. From this proposition the emphasis was on distribution of the sample size in order to give a true representation of current situation for the ten communities observed under the study.

A total number of 30 questionnaires were therefore administered in each of the communities under consideration. A separate set of questionnaire (30) were again administered to land owners in the study area including the ten agricultural communities aforementioned. This was to get their responses on the rate of land acquisition, the trend of values increases in the various communities and the kind of land uses that mostly seek land. The study however relied on the institutional survey for the changes in land uses in the city. This data was mostly gathered from the Town and Country Planning department and the Planning Unit of the Tamale Metropolitan Assembly. Observation is also one of the key techniques that was used in gathering qualitative data. This was done through monitoring by seeing the daily land use activities that takes place in the study area. in order to ensure that data gathered were a true representation of what actually exist, a system of triangulation was adopted where major data findings gathered were discussed with a group of interviewees and officials of the Town and Country Planning Department as well the Ministry of Food and Agriculture and the Metropolitan Assembly for them to make further contributions as to whether or not the research findings were of true representation of the situation on ground.
IV. ANALYSIS, RESULTS AND DISCUSSIONS

Allocation and Acquisition of Land

Rapid urbanization has caused a drastic change in the land holding arrangements in Tamale. Its trajectory areas have become active peri-urban land markets where subsistence agricultural lands have attained higher values. Demand for land has increased leading to increase in value prices of such lands. In an interface with the chief, who currently is the caretaker of the land, it was ascertained that, land ownership was formerly in the hands of a few individuals or families who were recognised as land owners or “Tendamba”. These people allocated parcels of land to both indigenes and strangers who wanted to use the land in one way or the other. However, the position of the tendamba in land ownership and allocation is gradually becoming extinct as some of the chiefs are now wielding ownership powers and hence allocates land. This has been one of the major land disputes in the Tamale Metropolitan Area because of the conflict of interest which exists between the chiefs who wield political power and the land owners.

The powers of the Tendamba and that of the chief are inseparable as the chiefs now allocate land in their respective traditional areas. It is the chief who signs allocation notes and also performs other traditional rites in connection with the land. Chieftaincy, among the Dagbon people is like some kind of “civil service”. A chief can be enskinned for a particular community for a particular period of time. He, therefore, controls all lands in his jurisdiction in his capacity as chief for that period of time. Outright purchase of land is unknown in the metropolis. The most popular means of acquisition in the area is inheritance of family land. Purchase of land involved the purchase of use rights commonly referred to as a license or a customary lease. This aspect of land acquisition is more common among settler farmers and residential land owners who are strangers and not members of the land owning group. The most common form of ownership among the indigenes is either through gift or inheritance from family members. Empirical evidence shows that 48% of land acquisition in the area is through inheritance, 23% through gift and 29% through purchase. This strengthens the generally held perception about the clan system in Northern Ghana and how family members inter-relate including giving out land to members of the land owning group for farming.
Land Use Change in Tamale

The changes occurring in land use in Tamale are becoming rampant. The major cause of this change is urbanisation. It is having a negative impact on the form and structure of the city of Tamale. Landlords and care-taker chiefs revealed a swift change in the use of land in and around the metropolis. It showed that 92% of lands acquired ten years ago were used for agricultural purposes with the remaining 8% accounting for residential and commercial activities all in the peri urban interface. Out of the 92% of the lands which were previously used for agriculture, 60% of these lands were already being used for some agricultural activities while the remaining 40% were vacant (bare land). This shows the role agriculture plays in Tamale where majority of its land acquired were used for agriculture. Changes in land uses will therefore pose serious consequences as the agricultural land base will be reduced leading to less land available for agriculture.

Many land owners have now changed the use of their lands. Much as 61.3% of the respondents confirmed that their lands which previously were agricultural lands has been converted to residential land uses, 22.6% for commercial land uses and 12.9% for local industry. As low as 3.2% of these lands still remain as agricultural lands. This clearly depicts the rapid changes in land use that has taken place especially among the farming communities. The high price offered by these land uses is the main motivating factor for the rapid change in the land uses. The Ministry of Food and Agriculture (MOFA) and the Town and Country Planning Department confirmed the occurrence of changes in land use from agricultural to other land uses. According to MOFA, the average farm size of a farm ten years ago which was 10 acres has reduced to below 6 acres per farmer. The rapid urbanization as well as increase in family size of farmers are some of the major causes of this phenomenon. There is a reduction in agricultural lands as the average farm size of a farmer has reduced. Residential and industrial lands have recorded increases as average land sizes for both uses increased from 0.25 to 0.45 and 0.75 acres respectively. Commercial lands, however, recorded an increase as average land size increased from 0.25 acres to 0.38 acres. This is attributed to the increasing commercial activities in the city centre and its environs. Most of the agricultural lands are used for residential and commercial land uses. As a result, the agricultural productivity of the district has been reducing for the past
ten years. However, due to food security programmes and other interventions from NGOs and government, the effect is being gradually reduced despite the persistent loss of agricultural lands.

**Major Factors of Land Use Change**

Data from the field suggest that over the last one decade, land use in Tamale has been changing from predominantly agricultural (from cropping and animal husbandry) uses to non-agricultural uses, such as provision of residential and recreational space, transportation facilities, and industrial production. This is mainly dictated by the urbanisation phenomenon.

**Migration**

As much as 41.2% of the respondents were not members of the community but hailed from within and outside the region. Out of this, 42.5% of them agree to have stayed in the area for over ten years because of the agricultural prospects of the area. The influx of these migrants has serious consequences on the land use changes of the area. The desire to own and use land by all these migrants has contributed to the land use changes currently occurring in the study area. Out of 58.8% indigenes in the city area, majority of them are into agriculture. About 60% of the residential developments taking place in the peri urban areas in Tamale are attributed to the contribution of migrants. The table below shows the distribution of migrants according to their source region.

**Table 2: Respondents place of origin**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the district</td>
<td>52.0</td>
<td>17.3</td>
</tr>
<tr>
<td>Within the region</td>
<td>19.0</td>
<td>6.3</td>
</tr>
<tr>
<td>Outside the region</td>
<td>49.0</td>
<td>16.3</td>
</tr>
<tr>
<td>Outside the country</td>
<td>3.0</td>
<td>1.1</td>
</tr>
<tr>
<td>Indigenes</td>
<td>177.0</td>
<td>59.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>300.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey, (2012)
Commerce
The increasing commercialization of Tamale is one of the major factors accounting for the land use changes. The city centre has been choked with commercial activities and residential facilities are being converted into shops. The average size of a commercial area has reduced from 0.38 acres in 2001 to 0.20 acres in 2011. This is attributed to the intense commercial activities in the city centres. The pressure in the city has forced some city dwellers to move to the peri urban areas. Residential lands in prime locations in the city centre are being taken over by commercial activities while at the same time prime agricultural lands in the peri urban areas are also being taken over by residential developments, (Annual Report of Tamale Metropolitan Office of TCPD, 2011). The increase in average residential land from 0.25 acres to 0.45 acres attests to this fact.

Population
The rapid changes in land uses are also as a result of the increasing number of people in the metropolis. Tamale since its declaration as a Metropolitan Assembly Area has been increasing in numbers with their persistent needs and demands which involves the use of land. The table below shows the consistent increase in the population of Tamale Metropolis from 2001 to 2010. Increases in population comes with the increasing demand for land. Natural population increase is however established as the most rapid mode in which the population of the area increases. As shown on the table below, it is evident that the population of Tamale has been increasing. It is common to find large family sizes among the Dagomba, the major ethnic group in the city. Large family sizes exert pressure on family lands as family members demand land for activities such as farming, residential and commercial purposes. This ultimately leads to land fragmentation resulting in smaller parcels of land available for agriculture.

Table 3: Populations Projections of Tamale (2001 to 2010)

<table>
<thead>
<tr>
<th>Year</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>301,290</td>
<td>309,325</td>
<td>317,136</td>
<td>324,754</td>
<td>332,081</td>
</tr>
<tr>
<td>Year</td>
<td>2006</td>
<td>2007</td>
<td>2008</td>
<td>2009</td>
<td>2010</td>
</tr>
<tr>
<td>Total Population</td>
<td>339,962</td>
<td>347,245</td>
<td>354,512</td>
<td>361,720</td>
<td>369,180</td>
</tr>
</tbody>
</table>

Source: GSS, Populations Projections by Regions and Districts (March, 2009).
Change of Attitude towards Land
Tamale is basically made up of an illiterate population. As much as 46.3% of the respondent interviewed have never been to school. However, due to public education and other civil organizations in the metropolis many land owners are being enlightened about issues concerning land. According to the TCPD, some chiefs even engage the services of private land surveyors to demarcate and map out land for development even before the area is declared a planning area. This obviously influences the nature and use of land in the community.

Implication of Changing Land Use on Land Values
Generally, land values in urban settings are high. This is due to the influx of people into these areas. The high population numbers is associated with increased need for accommodation and jobs. This therefore calls for extra space for development of residences, commercial centers, industrial sites and other public institutions. The Lands Commission and the Land Valuation Board (LVB) confirmed the increasing nature of property values in the study area for the past ten years. Land values in peri urban communities have been rising at a hyper rate. Ten years ago, the price of a plot of land (0.25 acres) in Kanvilli was between GH¢30 and GH¢80 but now goes for between GH¢3500 and GH¢6000. Similar trends has also been observed in Kpalsi and Kakpagayilli where plots (0.25 acres) now go for between GH¢2000 and GH¢3500, and GH¢2500 and GH¢4000 respectively but which previously were sold for between GH¢25 and GH¢75.

Land owners and landlords are currently responding to this increasing demand for peri urban lands by also increasing the prices of land and that of habitable spaces. As shown in the figure below, land values (per a plot) in the study area ten years ago were very low. As many as 40% of lands bought were sold below GH¢200 which is far lower as compared to the same piece of land which now goes for above GH¢2000 accounting for about 53.3% of land sales in present day. Many land lords attribute this price increase to the high demand for residential lands as necessitated by increasing pressure in the city. Furthermore, 55.7% of landlords use to charge rent as low as GH¢5 and GH¢20. However, it has taken a different dimension as landlord in these areas now charge rents as high as between GH¢80 to GH¢100.
As indicated above, land values 10 years ago were very moderate in Tamale especially in the peri urban areas. Majority of land sales according to the field survey were sold below GH₵ 200. The situation has changed as a result of the rapid land use changes of the area. This is due a number of factors as seen earlier. Land values have more than increased a thousand folds over just 10 years. The study confirmed that majority of land sales are now above GH₵ 2000. This has serious consequences as the vulnerable in the society are unable to cope with these rapid increases in land values and hence are always outwitted. This calls for interventions as they would always continue to be sidelined in the bid for land. It was observed from the field survey that Land in the Central Business District attracts higher values than those at the periphery of urban areas. As a result of this, large tracks of land are being purchased at the peri urban areas by residential developers as well as other speculators.
Economic Position of Farmers and Indigenes

The livelihood activities in any community are subject to change in response to the changing socio-economic environment affecting it. The Tamale Metropolitan Area has a number of peri urban communities that form the agricultural base of the area. According to the Department of Town and Country Planning, such communities include Kanvilli, Kpalsi, Malshegu, Kakpagyili, Vittin, Tuunaayili, Fou, Sognayili, Adubilyili and Gurugu. These were previously agricultural lands now have mixed uses. The peri urban interface has variously experienced one or more of the following: land loss to housing, economic transformation away from agriculture, agricultural intensification and commercialization, environmental degradation, and agricultural decline without replacement by alternative economic activities. As much as 58.75% of the respondents are indigenes of the communities in which the data was gathered. Out of these total number of people, 42.5% were farmers and this is an indication that farming plays a very crucial role in the livelihood of the people in the area. Yet, this very means of survivorship is being threatened. This has serious implications in the socio-economic development of the area. In the figure below, the major reasons why respondents have chosen to live in the community. It can be seen that majority live in the community because of agriculture (42.5%) while the next largest group live there because of other work aside agriculture (23.8%). Trading however recorded the least (3.8%) since a lot of the peri urban dwellers are not much into commercial activities as compared to their devotion to agriculture.

Figure 3: Reasons for Respondents Continuous Stay in the area

![Figure 3: Reasons for Respondents Continuous Stay in the area](image)

Source: Field survey, (2012)
Agriculture in this respect is the main occupation of the peri urban dwellers especially those who are indigenes of the area. The rate at which these agricultural lands are being encroached is very alarming as it turns to negatively impact the agricultural base of the city. This is one of the major reasons of the recent outcry of food insecurity in the study area.

**Purpose of Land Acquisition**

Many people acquire land for agricultural, residential and commercial purposes. Just a few (3.2%) people now acquire land for agricultural purposes whereas commercial and residential land acquisition accounted for 22.6% and 61.3% respectively as seen on table 6 below. This was not the situation ten years ago. Some respondents were of the view that influx of foreigners has been the root cause. Residential land development has been the main competitor to agricultural lands in the peri urban areas of the Metropolis. Industrial land acquisition is also currently on the increase accounting for 12.9% of recent land acquisition in the area. This is mostly in the form of local industry. A notable growing industrial activity in the area is the manufacture of shea butter. Such local industries are located in the peri urban areas close to the source of raw materials. Table 6 below illustrates the use to which recently acquired lands have been put into.

**Table 4: Uses of recently acquired lands in the study area**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>10</td>
<td>3.3</td>
</tr>
<tr>
<td>Commercial</td>
<td>67</td>
<td>22.3</td>
</tr>
<tr>
<td>Local Industry</td>
<td>39</td>
<td>13.1</td>
</tr>
<tr>
<td>Residential</td>
<td>184</td>
<td>61.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>300</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey, (2012)
A greater proportion of the people acquired land for a dual purpose, namely, agricultural and residential purposes, and in recent times, the most prolific form of land use in the area is residential. The community started witnessing rapid residential development from the eve of the declaration of the area as a Metropolitan Assembly in 2008. This has led to arbitrary retrieval of some lands by the elders of the community and converting their uses from agriculture into residential land uses. This phenomenon has generated some conflicts between the plot land owners of the community and the dispossessed landholders and between the dispossessed landholders and prospective developers.

**Loss of Farm Lands**

Substantial amount of their farm lands has been lost to other land uses as a result of rapid urbanization of the area. Land developments are fast consuming agricultural lands. Most farmers have lost their farm lands to other uses in one way or the other. Many (38.75%) farmers now have farms between 1-3 acres as against 26.25% of farmers who owned land within the same category ten years ago. It is clear that 33.75% of the respondents who were farmers owned land above 10 acres ten years ago as shown below.

**Figure 4: Farm Sizes of Respondents per Acreage**

![Figure 4](image-url)

Source: Field Survey, (2012)
A lot of reasons account for this loss of prime agricultural lands. While others were of the view that increased family size is the prime cause for the reduction of the farm lands, another school of thought indicate that it could be due to other factors like the influx of migrants, increased demand for land as a result of population increase among others. Land in Tamale is seen as a communal or family property and hence any member of the family can have access to it once they come of age. Through this birth right, family members abuse it by taking land without farming. Influx of migrants (farmers, workers, residents etc.) and high demand as a result of natural increase also accounted for 29% and 30% respectively.

**Effect of loss of farm lands**

This loss of prime agricultural lands has really affected the indigenes who are mostly farmers. These are so massive that 91.3% of respondents agree to have been affected by the loss of farm lands to other land uses that are gradually changing the land uses of the community. However, on the other hand, 8.8% of the respondents believe the loss of their lands have no effect on them in any way. The effect of this phenomenon is becoming pronounced in Tamale which is beset with a couple of problems including food insecurity. Fourty percent (40%) of the people experience a reduction in agricultural produce as a result of the reduction in farm size. Losses of income (23.8%) as well as scarcity of food (27.5%) were also some of the responses gathered from the field. This poses serious livelihood problems as majority of the population depends on agriculture as a means of sustenance.

**Table 5: Effects of loss of farm lands**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in agricultural production</td>
<td>122</td>
<td>40.7</td>
</tr>
<tr>
<td>Loss of income</td>
<td>73</td>
<td>24.3</td>
</tr>
<tr>
<td>Scarcity of food</td>
<td>86</td>
<td>28.7</td>
</tr>
<tr>
<td>Other Reasons</td>
<td>19</td>
<td>6.3</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field survey, (2012)
Security of title at present and for the future generation is also threatened since majority of the respondents anticipate land disputes. One key cause of this is the lack of documentation of land transaction and registration. Only people into commercial agriculture like cashew and mango plantation as well as rice registered their lands. The majority of the subsistence farmers see no need to register their farm lands.

**Rapid Urbanisation and Agricultural land Conversion Processes**

The evidence suggest that the flourishing peri-urban land markets are demand–driven, backed largely by monetary considerations. However complementary objectives of promoting community development from land proceeds, the maintenance of skins, chiefs and their elders and the need for cash to fight litigations in the courts in order to protect community lands from rival skins, families and individuals induce most land holders on the supply side of the market to convert agricultural land into urban uses. The general trend in some peri-urban communities is the constitution of Land Allocation Committees with a broad base representation. The chief, elders and some elites (teachers) mostly constitute this committee. They usually have insufficient knowledge in urban land development as they are mostly concern about the monetary aspect of being in the committee and also because they are not astute in landed issues. In some cases, various skins have the secretary to the chief in charge of the allocation of land. At Kanvilli, the secretary to the chief of Kanvilli (*Kanvilli Lana*) was given the mandate of land allocation. The secretary or the land Allocation Committee as the case may be, were also responsible of managing land development in their respective areas on behalf of the skins. It is also evident from the study that the preparation and/or approval of a planning scheme/layout mark the end of agricultural landholdings for females and males alike. As and when planning schemes are prepared and/or approved, a majority of the respondents lack the ability to keep and control their agricultural lands. More so, when they lack the clout to stop or influence the preparation and contents of planning schemes.

**Agricultural Land Conversion and Compensation Claims**

Indigenes are scarcely compensated in the conversion process. The displacement of the indigenous folk, female and male alike without compensation or with meagre compensation has resulted in some disquiet, misunderstanding, and sometimes open hostility between displaced families on the one hand, and traditional land custodians and the new developers on the other
hand. At Tuunaayili for instance, a developer had to pay crop compensation to a displaced family prior to the commencement of his building operation on a plot he had legitimately leased from the chief. The compensation paid was not substantial enough to offset the hardships caused to this family as a result of the development. In similar vein, at Kpalsi, a couple had to delay the construction of their house until some annual crops on the plot were harvested by the displaced family. The uncertain and precarious nature of the compensation claims do not augur well for long term social or cordial relationships between the new developers who are largely migrants and the displaced indigenous folk. They usually move into trading, business, hairdressing, dressmaking or the construction industry. This reduces the agricultural labour force in the area and the country as a whole and its consequence of food insecurity.

**Urbanisation and Insecurity Indicators**

An evaluation of various insecurity indicators amongst the respondents confirmed that unemployment appears unbearably high for all categories of respondents. Food shortages, the inability to meet basic needs, the worsening standards of living, and poverty appeared gender blind.

**Urbanisation and Agricultural Crisis**

The single women and men appeared to be quitting farming mostly because of the rapid conversion of their farm lands into other land uses causing them to landless and also because they were forced to move farther away from their homes (sometimes 20km) in order to access land for farming. Given that it is the youth who are rejecting farming, the situation does not augur well for continuity in farming business which mostly is a family business in the North. Without an heir apparent, any business in the north including farming is in trouble or is likely to be rued. The community surveys confirmed the fact that as peri urban agricultural lands get exhausted, indigenous farmers are forced to fall back on neighbouring other villages for land entailing distances of about 15 to 20km or more.

However, there are scarcely vacant family lands to be occupied by indigenous farmers as of right. As agricultural lands gets scarce, land rentals, share cropping and gift are assuming prominence in respect of access to land. It can be inferred that agriculture is fast becoming capital intensive.
There is an agricultural land market beyond the peri urban villages but without the capital and finance to rent or lease land, and/or sound health and the physical strength to enter into share cropping arrangements as well as finance to purchase inputs- the ability of the displaced farmers entering the agricultural land market is highly limited. Almost all the peri urban areas who, hitherto were exporters of food are now net importers of food.

**The Benefits and Adverse Effects of Urbanisation**

In some cases part of the income generated from the land sales is used for local infrastructural development whilst in some areas, the custodian keeps all the proceeds for the maintenance of himself and the skin. However, some indigenes perceive no benefits at all from the urbanisation process. The most glaring benefits from the point of view of males and females alike are access to electricity and social amenities, increased building operations, access to markets, hospitals and some limited employment. However, unemployment, high cost of living, poverty, loss of agricultural land, teenage pregnancy, social vices, and divorce emerged as the most crucial adverse effects of urbanisation from the point of view of most people. Landlessness clearly appeared more pronounced amongst the females than the males. Findings from the communities’ survey suggest that, in so far as almost all the lands in the villages are covered by planning schemes, between 80 to 100 percent of the indigenous population of the rest of the communities were currently landless. This does not augur well for Northern communities whose major source of livelihood is the dependence in agriculture.

**V. POLICY IMPLICATIONS AND CONCLUSION**

**Plots to Disposed Indigenes**

Lessons from peri-urban Kumasi can be applied in other parts of the country. In peri-urban Kumasi some villages are trying to remedy the injustices to farmers whose lands are lost through conversions. Some of these settlements are;

- In Esereso, after schemes have been prepared or approved, every house receives one housing plot
- In Fomesua, every family affected is given 10 percent of demarcated plots
• Feyiase has an interesting system: everybody (indigenes and non-indigenes above 18 years) who embraces his community’s responsibilities of levies and communal labour is sure of one building plot in conversion.

A modification of the above principles may be applied in other settlements and disposed indigenes may sell these in order to engage in alternative livelihoods.

Agricultural Land Zoning

Very good (fertile) agricultural land should be zoned as agricultural land use down to the least fertile lands. Expansion of cities as a result of rapid urbanisation should therefore be channeled to the least fertile agricultural lands first before those that are very fertile. Secondly, green belts must be incorporated in the planning scheme to check the inordinate desire for expansion and hence financial gains to individuals. Effective planning including zoning which incorporates agricultural zones and the encouragement of high rise structures, rather than single storey ones would help conserve peri-urban lands and minimize landlessness. Such a strategy has been adopted in the Republic of China where peri-urban housing is strictly high rise and the displaced families are first to be housed in the basement and first floors.

Land Resource Management

In areas where there are committees or an individual responsible for the management of land, there should be opportunities from land sales for the interest of the indigenes and dependents in school and also to enforce development control. Revenues from such land sales should be accounted for periodically by the committee or individual in charge of their collection.

Land as an Equity

Peri-urban lands may be developed as industrial land and as equity contribution so that dividends and capital values would accrue to the community for ever rather than for cash. This would ensure that the benefits to the communities involved would continue to live with them even though they may be displaced in one way or the other. The skins should also intend use the revenues from the sale of land for infrastructural development including electricity, KVIPs, piped water, schools, clinics, public bathrooms, showers, recreational centres, and so forth. Income from land sales generally flows first to men. However, women seems well informed
about the sums involved and do not feel alienated from the benefits of sale within the communities. Funds collected from these land sale can therefore also be given out to women groups as loans upon application for specific projects, e.g. a poultry. In addition, every family who loses land to land alienation or development must also be allocated land new plots on land reserved for expansion purposes or should be able to acquire new plots from the chief at no charge.

Gbawe Lands and Innovative Land Management Model
From recent research findings Kasanga et al, [29] Gbawe, arguably, presents the customary land tenure system at its best. Gbawe is an old farming community situated some 10 kilometres west and slightly inland from the centre of Accra. The chief, the allodial titleholder, and his elders collaborate with all public land agencies – Lands Commission, Town and Country Planning, as well as its own professional qualified surveyor to carry out planning schemes prior to the disposal. Gbawe has also registered its lands in accordance with the Compulsory Land title Registration Law, 1986 (PNDC 152)

Regional Policy
As a priority, government can develop a strategy whereby particular regions may be developed by targeting grants on specific sectors such as irrigation agriculture, urban renewal, mechanized agriculture, and education as a long term to reduce out-migration from those areas.

Adherence to Post Independence Judicial Precedents
In Kotei v. Asere stool (1961) GLR 492, Lord Denning said, “Native Law or custom in Ghana has progressed so far as to form the usufructuary right, once it has been reduced into possession, into an estate or interest in land which the subject can use and deal with as his own. Again, in Ohimen v. Adjei (1957) 2 WALR 275, it was again held that whereas in this case, land is required for development which will be beneficial to both the stool and the community, generally, cooperation between the stool and the family to be dispossessed is the best method of approach not high handed action. The failure to follow these judicial precedents is the major cause of peri-urban landlessness and general insecurity. In the classic judgment of Sir Randford Griffith in Lokko v. Konkofi (1907) Ren. 450, it was established that a subject usufructuary rights were
concrete property rights which could be alienated without necessarily referring to the stool. These precedents therefore establishes guiding principles for the management of land including peri-urban lands.

**Conclusion**

The varying perceptions of the adverse effects of rapid urbanisation on agricultural land is worth noting. Policy measures targeted at solving the emergent insecurity and related problems ought to be gender sensitive if the prescriptions are to be effective in dealing with the diagnosis. With major changes being agricultural land use giving way to residential land use in the peri urban area and residential land uses giving way to commercial land uses in the city, access to agricultural land is drastically reduced causing food insecurity problems. Commercial development in the city can only take the form of redevelopment of old structures. This has led to alteration of the land use plan of the city. Hence, effective land use planning should be based on promotion of policies.

The management of the lands is a key problem to individuals and the institutions involved. As a result, land degradation and desertification is gradually taking place in Tamale causing changes in the climate of the area. There is, therefore, the need for further research into the management of lands in the study area and its consequences on the socio-economic development of the people. Gbawe’s land management machinery is by no means perfect. But there is no perfect land management system anywhere on earth. Gbawe’s example is that its land management machinery does work in practice. Gbawe demonstrates that given harmonious community, chiefs, council of elders, youth and women’s group, etc. community lands, can indeed, be used judiciously ensuring that the present and future well-being of communities are promoted and preserved. Thus, Gbawe’s example is worth emulating in the country generally.
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