

**THE RELATIONSHIP BETWEEN LAND ADMINISTRATION SYSTEMS AND
SPATIAL CHANGE IN PERI-URBAN AREAS IN GHANA: THE CASE OF KUMASI
AND SUNYANI**

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A thesis submitted to the Faculty of Engineering and the Built Environment, University of the Witwatersrand, in fulfilment of the requirements for the degree of Doctor of Philosophy in Urban and Regional Planning.

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Declaration

I hereby declare that this thesis is my own, unaided work. It is being submitted for the Degree of Doctor of Philosophy at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other University.



(Signature of candidate)

22 day of
February 20 22 at Wits University

Abstract

Peri-urban areas in Ghana are experiencing rapid spatial transformation. Contributing to existing literature on African peri-urbanisation, this thesis examines the emerging spatial and structural changes in peri-urban settlements, the roles and conflictual relationship between statutory and traditional authorities in peri-urban governance in Ghana, and the impact they exert on peri-urbanisation. The thesis adopted the case study strategy focusing on rapidly growing peri-urban municipalities of Abuakwa and Adomako, peripheral to Kumasi and Sunyani, respectively, which represent customary and statutory land tenure systems typical of Ghana. This qualitative paradigm was used to survey changing physical spaces as well as to analyse emerging forms of actor relationships that impact such changes. Here, the conflictual relationships between centrally placed actors engaged in tenure, land administration practices, and peripheral actors become particularly relevant.

Two cases were purposively selected. Case studies were constructed through the qualitative paradigm, maps, and interviews that solicited the views and experiences of different actors in peri-urban development. The study involved the use of secondary data such as official documents, Landsat data, drawings, and core-periphery analysis. This was supplemented by empirical data from field visits and in-depth interviews conducted with 26 knowledge-rich respondents in the two case studies from 2018 to 2019. The respondents were planners, chiefs, and peri-urban developers in Abuakwa and Adomako.

Both cases revealed that despite their differences, traditional and statutory authorities have formed pragmatic alliances that recognise each party as a significant stakeholder in land administration and land use planning. The analysis also discovered that this was different in the past, revealing a new trend. This emerging trend in the role of traditional and statutory authorities is relevant because it has developed conflict resolution capacity to better deal with the differences that arise from land ‘ownership’, and land administration and land use planning. The underlying thrust of the pragmatic alliances is that both traditional authorities and statutory officials concentrate on short-term spatial change decisions, mainly in the preparation of local plans and the transfer of land. As a result, less attention is given to critical dimensions of peri-urban transformation such as the social, environmental, infrastructural, and spatial aspects, which require long-term thinking and planning. This increases the propensity to produce ambivalent transformation outcomes, involving favourable and unfavourable environmental, economic, and socio-spatial consequences in peri-urban areas.

Bridget Kyeremaa Anane (Wife)

Daphne Georges Anane (Daughter)

Damian Georges Anane (Son)

Cecilia Abena Anane (1948 - 2021) Mother

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List of Abbreviations

ANMA	Atwima Nwabiagya Municipal Assembly
CBD	Central Business District
GDP	Gross Domestic Product
KNUST	Kwame Nkrumah University of Science and Technology
LI	Legislative Instrument
LAP	Land Administration Project
LUSPA	Land Use and Spatial Planning Authority
MEST	Ministry of Environment, Science and Technology
OASL	Office of the Administrator of Stool Lands
PNDC	Provisional National Defence Council
SDG	Sustainable Development Goals
SPC	Spatial Planning Committee
TCPD	Town and Country Planning Department
TSC	Technical Sub-Committee
UN	United Nations
UN-ECE	United Nations Economic Commission for Europe
UN-FAO	United Nations Food and Agriculture Organisation

CHAPTER ONE

INTRODUCTION

1.1 Introduction

The world is in the urbanisation epoch, which presents many opportunities and challenges to governments and policymakers. Consequently, urbanisation has received scholarly interest as an important global phenomenon in the 21st century. Urbanisation is placing pressure on the physical and administrative boundaries of cities through peri-urbanisation. Peri-urbanisation is the process by which the contiguous outskirts of urban areas become urban in character, manifesting through their physical form and their social and economic activities (Webster, 2002; Zasada, Fertner, Piore and Nielsen, 2011). Statistics from the United Nations [UN] (UN, 2017) and Habitat III (2016) project that the dynamics that are causing urbanisation are within the urban and peri-urban areas themselves. Secondary and medium-sized cities are also experiencing an expansion of physical development in their peri-urban areas, which form the transition spaces or zones between urban and rural areas (Wandl and Magoni, 2017; Allen, 2003; Adell, 1999).

Peri-urbanisation is driven mainly by urban growth from population increases and physical development that may respond to or anticipate the former, or respond to emerging economic opportunities (UN-DESA, 2019; UN, 2017). Peri-urbanisation and land administration are closely linked because the former leads to increasing demand for land to undertake physical development, and this requires appropriate institutions and structures (Ubink, 2007). Land administration involves the necessary infrastructure and institutions to operationalise land ownership, land use, processes, and structures (Palmer, Frieska and Wehrmann, 2009). This thesis contributes to literature on peri-urbanisation by exploring the relationship between land administration systems and spatial change in peri-urban transformation. The thesis achieves this by examining everyday politics of land use planning in peri-urbanisation, including the role of traditional authorities. Overall, the thesis highlights the role of different actors in peri-urbanisation and the ensuing conflicts that occur in everyday politics of land use planning among state and traditional authorities. Beyond the general observations in conventional literature on peri-urbanisation, this thesis reveals that there are case specific issues that are easily oversimplified.

In most African countries, the demand for land for development in peri-urban areas triggers changes in land tenure (Cotula, 2007; Cotula, Toulmin and Hesse, 2004; Akaateba, Huang and Adumpong, 2018). Peri-urbanisation further leads to the emergence of land markets, increasing land values, and the loss of agricultural land. This, in turn, leads to changes in the existing land tenure system. The effects of changes in the land tenure system include disputes among customary land rights holders, with implications for the spatial, social, economic, and environmental aspects of transformation. The changing tenure system occurs in the realm of customary tenure existing side-by-side with formal tenure regimes mostly re-enforced by ‘legal pluralism’ (Kasanga and Kotey, 2001). Customary tenure is conceptualised as informal (and *de facto*) with an approach to land management under a broad concept referred to as ‘the African commons’. This implies that the granting of use rights among members of a community is done according to accepted customs, whereas formal tenure operates under state laws (United Nations Food and Agriculture Organisation [UN-FAO], 2002). Statutory lands have written and registered records of land rights, whereas land under customary ‘ownership’ is vested in chiefs, stools, families, tribes, or clans and is largely undocumented (Asiama, 2004; World Bank, 2003). At this juncture, it becomes important to understand how the two land tenure systems operate and influence peri-urban transformation.

In Ghana, the dual land tenure regime recognises “customs, statutes, and customary/statutory hybrids” (Bugri and Yeboah, 2017:18) only if they are in line with the provisions of the Constitution. However, chiefs, clan heads, and family heads under traditional authority continue to take active roles in land administration and land use planning in jurisdictions where statutory laws are expected to operate (Boamah, Gyimah and Nelson, 2012; Cobbinah and Amoako, 2012).

As this thesis unfolds, it will become evident that land seekers in peri-urban areas often traverse the authority and decision-making powers of customary and statutory laws and actors in land acquisition, registration, and use. In most cases, developers in peri-urban areas must ‘acquire’ lands from chiefs, who administer stool¹ lands. As I will explain later in this chapter, the

¹ A stool is the seat of a chief of an indigenous state (sometimes of a head of family) which represents the source of authority of the chief (or head of family). It is the symbol of unity and its responsibilities devolve upon its living representatives, the chief and his councillors. Land owned by such a state is referred to as stool land. The equivalent of the stool in Southern Ghana is the skin in Northern Ghana (National Land Policy, Ministry of Lands and Forestry, 1999).

Abuakwa and Adomako case studies show that one must register title to land with statutory authorities after acquiring it from customary authorities such as chiefs and family heads. In the dual land registration system, one can obtain land use rights from both authorities. The norm in land registration is that developers, after acquiring land from chiefs or families, need to register their title to it, or seek concurrence from the Lands Commission in the case of stool land areas. Developers who acquire land from chiefs or often families abandon the land registration process, with few people going ahead to acquire land title registration from statutory authorities. For this reason, often there is non-compliance and security can be threatened.

Traditional authorities continue to play critical roles in land administration and land use planning without a clear delineation of roles (Boamah *et al.*, 2012). Although land use planning is the legal preserve of statutory authorities, about 80 per cent of all physical development in Ghana occurs under the jurisdiction of traditional authorities outside formal planning processes (*ibid.*). This challenge continues to exist even after many years of formulating policies and laws. Obeng-Odoom (2014) present the position that land policies have impacted mostly cities adversely and alienated disadvantaged groups such as women. As I will explain later in this chapter, land management and land use planning practices can be inefficient, with customary and statutory authorities acting in ways that perpetuate their power and agency. In the face of the challenges associated with the land administration system, the Land Act 1036 of 2020 was passed to harmonise land administration in Ghana. Act 1036 seeks to inform the public about land use rights and land possession to enhance land tenure security, ‘ownership’ and public accountability in land administration. The Act also designates managers of stool or skin land as fiduciaries who hold land in trust for their subjects (Republic of Ghana, 2020).

From the foregoing, it becomes clear that traditional and statutory authorities are actively involved in land administration and land use planning in Ghana. Further, the delineation of roles between the customary and statutory authorities in land administration and land use planning are quite complex and, in some ways, can be framed as problematic. As the case studies in this thesis will show, there are instances where traditional authorities usurp the roles of statutory authorities, particularly during land use planning. As a result, there are multiple

pathways through which spatial change occurs within areas under stool lands and those vested in the state.

1.2 Background to urbanisation, land tenure, and land administration

In the section above, I introduced different aspects of urbanisation. To expand, I will provide more background on urbanisation. This will help us to connect land administration systems to peri-urban transformation, which is relevant for my topic. The increasing rate of urbanisation, peri-urban land tenure change, and land administration responses cannot be explored in isolation from one another. Building on the broad introduction above, I will expand briefly on the salient aspects of these three components, which form the backdrop for this thesis.

Recent studies have predicted that rapid urbanisation is apparent and will continue in the forthcoming decades (UN-DESA, 2014, 2019; Habitat III, 2016). The UN estimates that in 2014, 54 per cent of the world's population was made up of urban dwellers (UN-DESA, 2014). The urban population is projected to hit 6.4 billion by 2050 with most urban dwellers (90 per cent) living in Asia and Africa (Habitat III, 2016). In Africa, urbanisation has already pushed the frontiers of major metropolises into their surrounding peripheral areas, through rapid peri-urbanisation. With an urban population estimated at 6.4 billion by 2050 (UN-DESA, 2019), land will play a significant role in ensuring sustainable urban spaces in the coming decades. This has far-reaching consequences for the spatial, environmental, social, and economic dimensions of peri-urban areas.

In Ghana, the urban population is pegged at about 57 per cent in 2020 and is estimated to reach 72 per cent in 2050 (Woldometer, 2020). The increasing growth in peri-urban areas is attributable to the continuous growth in urban populations. This is coupled with the increasing desire of a growing number of urban dwellers to leave what is often perceived as a congested, poorly managed, and chaotic urban core (Yankson and Bertrand, 2012). One main outcome of urbanisation is that new peripheral areas become 'urbanised' in that they benefit from improved social services. The accompanying impacts of physical expansion of urban areas become more evident as peri-urbanisation intensifies. To this end, the position of land is critical in peri-urban transformation because almost all transformation processes depend on land and land use rights to pave the way for physical development to occur.

In Ghana and many sub-Saharan African countries, a key impact of urbanisation in peri-urban areas is the transitioning from rural to urban land uses and the consequent changes to customary

land rights among communities (Akaateba *et al.*, 2018). Therefore, changes in customary land rights are rife in areas that have been termed as ‘rurban’, urban ‘fringe’, ‘suburbs’ and ‘peri-urban’ (Jaquinta and Drescher, 2000). This is observable in the high rate and intensity of conversion of vacant parcels of land for urban development and the detrimental impacts on the spatial, economic, social, and environmental aspects of many cities and towns (Yankson and Bertrand, 2012; Owusu, 2008; Gough and Yankson, 2000). Yankson and Bertrand (2012) observe that the increasing demand for land for urban development remains a leading factor in the changing land tenure system and rapid spatial change occurring in peri-urban areas in Ghana.

Implications of urbanisation on customary land use rights and land governance have received considerable attention in land-related research across sub-Saharan Africa. One pressing concern has been how land administration systems can be better managed to bring about sustainable urban transformation in the face of changing land tenure systems (Cotula, 2007; Elhadary and Obeng-Odoom, 2012). Land administration is critical to achieving the Sustainable Development Goal (SDG) 11 on inclusive, safe, and resilient cities (Habitat III, 2016). Land tenure systems in sub-Saharan Africa differ from one country to the other because of factors such as ethnicity, culture, colonisation. Land tenure is defined by White (1959:172) as

the rights of individuals or groups over arable, grazing, and residential land, how such rights are acquired, what they consist of, how they operate in the holding, transfer and inheritance of land and how they may be extinguished (White, 1959:172).

This definition raises the concept of the bundle of rights and responsibilities in land tenure and land administration (La Croix, 2002). Several factors have induced land tenure changes across sub-Saharan Africa. Cotula (2007:1) argues that demographic, economic, socio-cultural, and political changes have birthed “diverse combinations of statutory and customary entitlements” to land with their accompanying multiple interlaced rights. I try to bring this into my working definition of land tenure, which I return to in Chapter 2.

In Ghana, land use planning is a major driver of customary land tenure changes, although it responds to other drivers itself. The preparation of planning schemes triggers the conversion of parcels of land in rural areas to plots for urban development, thereby leading to tenure changes (Akaateba *et al.*, 2018; Owusu-Ansah and Braimah, 2013; Andreasen, Andersen and Inkoom,

2011). This, in turn, triggers a transformation of peri-urban areas as land markets emerge, land values appreciate, and land speculation and land commodification increase (Ubink, 2007).

In Africa, land tenure systems and their administration vary from one place to another depending on factors such as colonisation and cultural differences. Even in the same country, land tenure systems could be different from one ethnic group to the other. In the process of peri-urban transformation, land tenure systems shift from communal rights to individualised rights. This acts as a result of and a driving force for the formation of new actor-networks or changing social relationships between individuals, families, and institutions. On the other hand, changes in the social relations among the various actors influence peri-urban transformation. In the face of the changing land tenure systems, the processes, and structures for administering land under customary and statutory tenure systems continue to emerge (Kasanga and Kotey, 2001).

Spatial change taking place in the peri-urban areas is occurring under the influence of the emergent land administration systems under the customary and formal tenure systems. The diversity in land tenure systems across Africa can also occur within one country. In Ghana, customary land tenure systems show diversity between the south and north of the country. Moreover, land tenure systems can be city-specific where different peri-urban areas fall under either customary or statutory practices, because of national laws. To examine these dynamics, the thesis was conducted in Kumasi and Sunyani, in central Ghana, to understand the relationship between land administration systems under the customary and formal land tenure systems and their social and spatial consequences.

1.3 Statement of the problem

Land ‘ownership’ and land use under customary tenure are treated as a single arrangement in rural areas as land is mainly used for agriculture. As a result, traditional authorities can easily transfer a parcel of land and determine the use to which it should be put. This begins to change in peri-urban areas when the designation of agricultural land uses changes to residential and other urban uses. Land use planning is the mandate of statutory planning authorities. Thus, the variation of land tenure arrangements among rural and peri-urban areas has implications for land administration because decisions must be made between multiple actors. This can generate conflict and misunderstanding in local planning processes that involve land subdivision.

The notions of decision-making power play a key role, as chiefs and statutory officials find ways to manage land in peri-urban areas. Thus, the successes or otherwise of ensuring proper land use planning depend on the effectiveness of land administration. Tenurial systems and land administration in sub-Saharan Africa are, however, major challenges to development due to their complex nature (Kanji, Cotula, Hilhorst, Toulmin and Witten, 2005; Ubink, 2007; Kasanga and Kotey, 2001). These complexities map onto and are, in part, generated by the legal pluralism and weak institutions in land administration (Kasanga and Kotey, 2001). This has paved the way for multiple titles to land under customary land law in many sub-Saharan African countries.

Increasing peri-urbanisation triggers the movement of many seekers to peri-urban areas and as this thesis shows, many of them seek to acquire land for current use or speculative purposes. This leads to the notion of land marketisation, which is characterised by increasing land values and the development of the land market where land is sold as a commodity to the highest bidder. In the process of land marketisation, indigenous communities are likely to lose out their customary land rights. Thus, the notion of marketisation in peri-urban areas begins the transfer of customary land rights from indigenes to the highest bidder, who may be non-indigenes or 'foreigners' (Owusu, 2008).

In Ghana, the co-existence of multiple titles and rights under customary law, namely allodial title, customary freehold or usufructuary rights, and common law freehold, make it difficult to administer land for development purposes (Bugri, 2012). Agbosu (2000:1) argues that the colonial administration introduced

English common law onto Ghanaian communal societies without [considering] the differences between the early nineteenth century capitalist economic structures and the egalitarian communal institutions of Ghana (Agbosu, 2000:1).

The efforts of the colonial administrations to supplant customary tenure, however, did not materialise due to the strong customs and traditions under which land was held and administered by traditional societies (Elhadary and Obeng-Odoom, 2012 Okoth-Ogendu, 2002). In Ghana, the British Administration deliberately employed indirect rule, a system of governance that used the chieftaincy system to control customary areas.

In Ghana, land administration is a shared responsibility among chiefs and statutory officials. Article 267 (3) of the Republic of Ghana Constitution, 1992 gives chiefs the power to allocate land for development as follows:

There shall be no disposition² or development of any stool land unless the Regional Lands Commission of the region in which the land is situated has certified that the disposition or development is consistent with the development plan drawn up or approved by the planning authority for the area concerned.

The position of the Constitution places land administration in the domain of statutory officials while chiefs hold ‘ownership’ rights over land. Thus, land use planning officially remains the sole duty of statutory officials.. However, most urban development occurs under the authority of chiefs with little state engagement. Akrofi and Whittal (2013) argue that state lands in parts of Tema in the Greater Accra Region and Kumasi in the Ashanti Region have witnessed uncontrolled physical development, while statutory authorities appear helpless. Therefore, the way chief-led and state-initiated land use planning schemes influence urban development is often not transparent.

1.4 Rationale

The initial assumption of this thesis is that land administration practices undertaken by both statutory and traditional authorities influence peri-urban transformation. However, the extent to which land administration under the customary and statutory land tenure systems influences land use planning in peri-urban areas is not well understood. This is because the interface between land administration and spatial change outcomes seems to be blurred and not easily traceable. The politics of land administration in peri-urban areas is multifaceted, considering the nuanced and complex actor relationships and networks. This offers an opportunity to explore how land administration under the customary and statutory tenure systems influences spatial change in peri-urban areas. Owusu-Ansah and Braimah (2013) and Bugri (2012) argue that land administration under the customary and formal systems influences peri-urban spatial form in the era of increasing marketisation. Given the foregoing context, peri-urbanisation and

² Refers to a land use contract that gives specific rights to a land or resource user. Examples include leases, licenses, or permits (Public Land Disposition Mapping, MNC, 2020).

land use planning create a plethora of challenges in both the customary and formal tenure systems in peri-urban neighbourhoods.

To this end, I discuss the nexus between land administration and peri-urban spatial transformation in peri-urban areas in Ghana. The point of analysis within the context of this study is the co-existence of the customary and statutory land tenure systems in Kumasi and Sunyani and how that influences the manifestations of peri-urban spatial transformation. Thus, this thesis interrogates the influences traditional and statutory authorities exert on spatial planning outcomes in peri-urban areas of Abuakwa, a former traditional village approximately ten kilometres away on the north-western outskirts of Kumasi, and Adomako, a traditional village about five kilometres away on the south-eastern corridor on the outskirts of Sunyani.

Kumasi has grown rapidly, coupled with intensive expansion in its peri-urban settlements. It is a city with a strong traditional governance system which gives considerable power to chiefs to spearhead land administration and planning schemes in peri-urban areas. This makes Kumasi an ‘ideal city’ to study planning processes in the peri-urban political economy of Ghana. Most vacant land parcels in peri-urban Kumasi fall under the control of the King (*Otumfuo*) of the Ashanti Kingdom, who acts as the custodian of all lands in the Ashanti Kingdom (Owusu-Ansah and Braimah, 2013). Divisional chiefs of the various stools administer land rights to members in their jurisdictions on behalf of the *Otumfuo* and are accountable to him (Asiama, 2004). Owusu-Ansah and Braimah (2013) estimate that about 90 per cent of all land in Kumasi is under customary tenure. The customary tenure system in Kumasi further strengthens traditional authorities to exercise greater control over land administration and land use planning than statutory authorities. In Chapter 3, I explain the choice of Abuakwa and Adomako as my case studies.

Sunyani, on the other hand, is a medium-sized city in Ghana and the capital of the Bono Region (see Figure 3.7 in Chapter 3). The city has witnessed increased peri-urban growth and expansion over the past decade (Afrane and Adjei-Poku, 2013). The growth in peri-urban settlements in Sunyani has triggered land subdivisions following demands by statutory authorities such as the Lands Commission, which is mandated by law to manage land on behalf of the President under the Vested Land Administration Regime. Thus, Sunyani presents a case of statutory authorities officially mandated by law to undertake land administration decision-making and land use planning in peri-urban areas.

Kumasi and Sunyani are relevant for this thesis because both cities present an opportunity to understand the manifestations of peri-urban spatial transformation within and between customary and statutory tenure in Ghana. I attempt to find answers by examining, over time, transformation patterns in Abuakwa in Kumasi, where traditional aristocracy exercises control over land and land rights, and in Adomako in Sunyani, where the control over land is through statutory authorities. The full rationale for the case studies is discussed in Chapter 3. The investigation allows me to compare evidence from Kumasi and Sunyani about how the different land administration systems influence peri-urban morphology. In so doing, it situates the customary and statutory land ownership and administration systems vis-à-vis spatial planning that meets urban standards. The Abuakwa and Adomako case studies seek to contribute to deepening the understanding of land administration in Ghana under the customary and statutory tenurial systems in Kumasi and Sunyani in the Ashanti and Bono Regions, respectively. This further seeks to examine how they enhance or inhibit spatial transformation in these peri-urban areas. This helps to provide a stylised description of spatial transformation outcomes in peri-urban areas at Abuakwa in Kumasi and Adomako in Sunyani.

1.5 Research objectives

The study aims to explore the relationship between land administration systems and spatial transformation, focusing on the everyday local planning processes in land delivery. The overall aim is to further our understanding of how actual approaches and routines, often divergent from established norms, influence local land use planning. The objective is not to establish which tenure regime produces the best spatial outcomes but how the two case studies can be understood in land management for the benefit of efficient peri-urban transformation.

Specifically, the study sought to:

- i. explore spatial transformations occurring in the customary land tenure system in the peri-urban settlements of Abuakwa in Kumasi and the statutory land tenure system in Adomako in Sunyani;
- ii. assess the factors driving peri-urban spatial transformation in the two cases; and
- iii. examine actor roles in the two contrasting tenure systems and their influence on peri-urban development and planning.

1.6 Research questions

The study seeks to answer the following overall research question: What is the relationship between the land administration system and spatial transformation in peri-urban areas in Ghana? This research question is further explored through the case studies of Abuakwa in Kumasi and Adomako in Sunyani. This main question is explored through the following specific questions:

- i. What patterns of spatial change are observable in Abuakwa and Adomako from 2003 to 2018?
- ii. What factors are driving spatial transformation in the two cases?
- iii. How do actors in the customary and statutory land tenure systems respond to these drivers and influence the observed peri-urban spatial transformations in the two contrasting cases?

1.7 Synopsis of methods

The diversity of land tenure systems and the multiple actors in peri-urban planning require a qualitative research design to understand the experiences, opinions, and underlying reasons behind planning outcomes. Due to the diversity and complexity of land administration under the different land tenure systems, I adopted the qualitative comparative analysis (Pattyn, Molenveld and Befani, 2019). The qualitative comparative analysis, which is detailed in Chapter 4, uses both qualitative and other methods to deepen the understanding of a phenomenon under different cases (*ibid.*). The use of the qualitative comparative analysis in this thesis allowed for the identification of common patterns and differences across the two case studies. The object of comparison between the Kumasi and Sunyani cases was the extent to which chiefs, planners and peri-urban developers exerted themselves on spatial planning practices and the associated spatial outcomes in peri-urban areas under the customary and statutory forms of tenure. To pursue the comparative case study research, I located my research within the qualitative research paradigm. As part of the study, secondary data was reviewed, which included existing research, articles, and spatial data over time, captured at time intervals. This included desk-top analysis of documents on spatial transformation and land administration systems.

I first undertook mapping of specific spatial changes that had occurred in Abuakwa and Adomako. These included maps generated from Landsat images taken from 2003 to 2018

concerning land use change (see in Chapter 4, Figure 4.1 for the process of geospatial analysis). The maps included the geographic location of the case studies in relation to their village cores and specific maps on transitional planning processes.

The secondary textual and spatial data was complemented by primary data generated in interviews conducted with knowledge-rich participants made up primarily of traditional authorities, statutory officials, and selected peri-urban developers in Abuakwa and Adomako in 2018 and 2019. In-depth interviews with 26 respondents focused on the two case study areas. The interviews were transcribed and then organised under thematic topics relating to peri-urban transformation and land administration systems. This culminated in the analysis of interview data from the participants regarding spatial manifestations of transformation and how they influenced the planning processes. The in-depth interviews with chiefs and planning officers about the planning processes helped in explaining spatial change in terms of timelines of specific transitions in the two case studies. Site visits from April 2018 to December 2019 were complemented in November 2019 by an in-situ discussion with my thesis supervisors, who joined me in Kumasi and Sunyani for this purpose.

Preliminary findings from the fieldwork were presented at a seminar on 5 December 2019, at the Department of Planning, Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana, where one of my co-supervisors is based. The presentation, which all three of my supervisors were able to attend, allowed for valuable discussions and feedback from senior academics and postgraduate students in the Department of Planning at KNUST.

The summary of the research design for this thesis is presented in Figure 1.1.

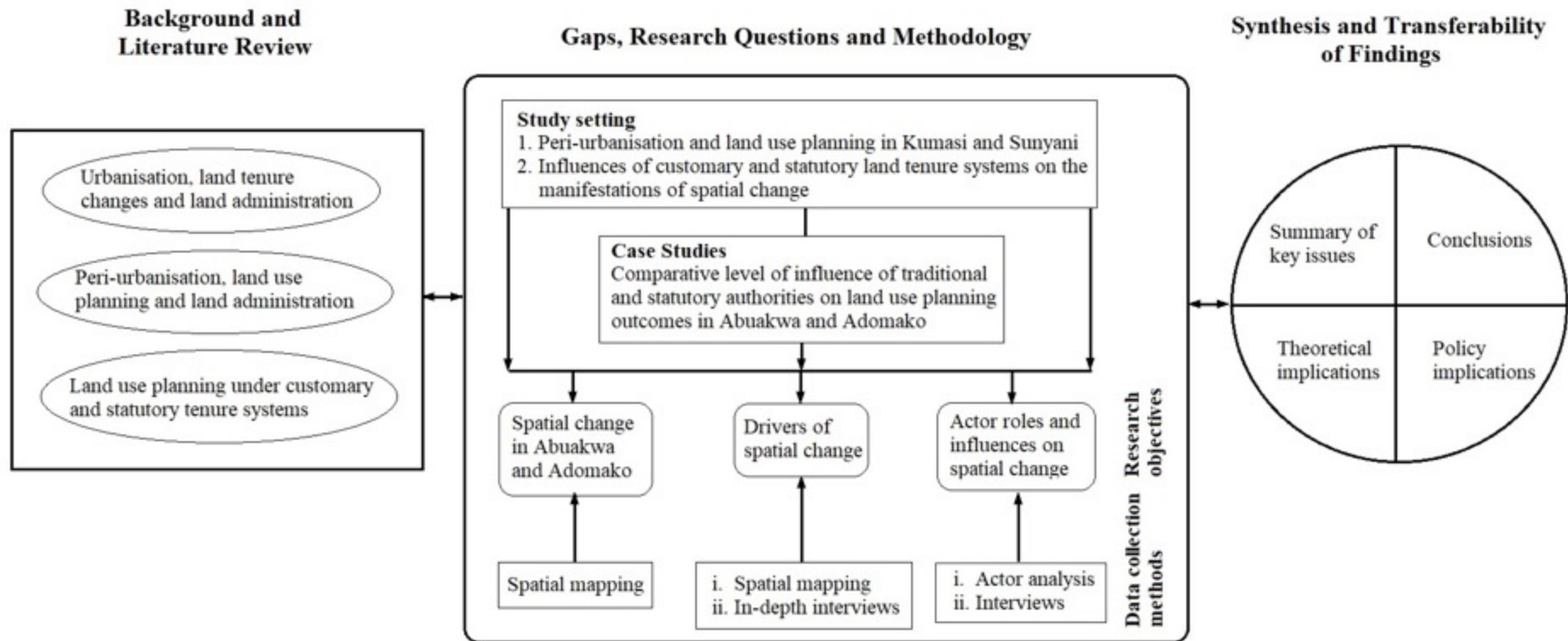


Figure 1.1: Summary of the research design

Source: Author's construction

1.8 Structure of the thesis

The thesis is organised into eight chapters. Chapter 2 reviews existing literature within the framework of peri-urbanisation, driving forces, and the influence of traditional and statutory authorities on spatial planning outcomes in peri-urban areas. Chapter 3 reviews historical accounts of urbanisation in Ghana and the growth of peri-urban areas with an emphasis on Kumasi and Sunyani within customary and statutory forms of tenure. This includes a justification of the case study areas. Chapter 4 covers the research methods adopted for this thesis. It explains the broad paradigm, approach, and research design, presents methods of data collection, sampling and analysis, ethical considerations, delimitations, and limitations of the study.

Chapters 5 and 6 trace specific spatial transformation in Abuakwa and Adomako, respectively, and discuss the driving forces as they arise from the analysis of the data. Chapter 7 provides a comparative interpretation of findings from the two case studies. The chapter reports on how the various actors in the land administration system influence spatial planning processes and spatial planning outcomes. The final chapter presents a synthesis of findings from the study and discusses these findings. It also presents the recommendations based on the main findings and draws conclusions from the study

CHAPTER TWO

LAND ADMINISTRATION, LAND TENURE SYSTEMS AND SPATIAL CHANGE IN PERI-URBAN AREAS

2.1 Introduction

The formal and informal negotiations which occur in the determination of land use rights trigger spatial change in peri-urban areas under customary and statutory land tenure systems. In a bid to reduce the conflicts that arise among the various stakeholders in land governance and land use, land administration sets out rules, processes, and procedures to govern land tenure (Dale and McLaughlin, 1999 cited in Enemark, Hvingel and Gallard, 2014). A further objective of land administration is to bring about efficiency in the wake of developing land markets (UN-FAO, 2002). Despite the introduction of land administration functions such as land registration, cadastral surveying and mapping, land valuation and land use planning, the situation remains poorly governed (Enemark *et al.*, 2014). Thus, the relationships between customary and statutory land administration systems remain unclear and unresolved.

Colonial and post-colonial governments in countries across sub-Saharan Africa have introduced policies to govern the formalisation of land holding rights and to enable a shift to legal recognition of customary rights. Landholding rights in sub-Saharan Africa are vested in customary systems such as stools, families, clans, tribes, and ethnic groupings, as well as in statutory authorities (Cotula, 2007). The outcome is that administering land rights falls under the domain of chiefs, tribal leaders, or family heads on the one hand and statutory authorities on the other hand. Access to land in the traditional customary tenure system, therefore, involves a mixture of formal and informal negotiations between actors in the customary land tenure system who hold multiple rights to land, and statutory officials who direct land use planning.

In peri-urban and urban areas, there is the co-existence of multiple land tenure systems and resulting land rights under customary and statutory tenure systems. These rights include the right to use the land, the right to exclude unauthorised people from using the land, and in some instances, the right to alienate all rights to the entire holding through sales. Peri-urban areas are characterised by increasing demand for land to undertake residential development, and often this demand is directed at agricultural land, with its use governed by customary tenure systems. This demand, when acted upon, leads to change in the customary land tenure system because land use rights held under customary or communal tenure usually shift to individual holdings

for urban development (*ibid.*). This process of land commodification manifests in spatial change such as rapid physical development, in turn responding to processes of land speculation. The spatial change may be the result of unapproved land development as well as conflict over rights to develop, with buildings erected to stake out claims to land (Obala and Mattingly, 2014).

This chapter covers the peri-urban land administration conundrum in sub-Saharan Africa as understood in the available literature. First, I review land administration systems, their emergence, and how they perform in sub-Saharan Africa. Further, I describe land tenure systems and how they underpin land administration in sub-Saharan Africa. This includes a discussion of land administration, the changing customary land tenure systems, and land reforms. Additionally, I discuss land tenure conflicts arising from land administration practices in dual land tenure systems. The chapter then turns to peri-urban areas, which are described as arenas of spatial change occurring against the backdrop of changing customary tenure systems and transformation. Here, I review the evolutionary theory of property rights as a trigger for increased demand for land, land commodification, land speculation, and rapid conversion of rural land to urban plots. The chapter concludes with a review of land use planning in the dual land tenure system involving stakeholders from customary and statutory circles.

2.2 Land administration systems, their emergence and performance in sub-Saharan Africa

Land administration forms part of broad land governance frameworks in different countries. Land governance involves the policies, processes, and institutions that help in managing land, property, and natural resources (Enemark *et al.*, 2014). Operationalising the broad goals of land governance requires specific operational processes to ensure the successful implementation of policies. Land administration has been defined in diverse ways depending on national, regional, and local factors (Williamson, Enemark, Wallace and Rajabifard, 2010). Palmer *et al.* (2009:1) describe land administration as the

rules, processes, and structures through which decisions are made about the use of and control over land, the manner in which the decisions are implemented and enforced, and the way that competing interests in land are managed (Palmer *et al.*, 2009:1).

The notion of land administration is also conceptualised as in the definition I provided in Chapter 1. UN-FAO (2002) refers to these rules, processes, and structures in more concrete

terms as infrastructure and institutions, which highlight their role in operationalising ownership of land as well as land use. As already mentioned, the objective of land administration is to make institutions, rules and processes efficient to meet the varying interests in land (UN-FAO, 2002). UN-ECE (2005:iv) cited in Enemark *et al.*, 2014) expand in particular on the processes involved in land administration, these relating to “recording and disseminating [of] information about the ownership, value and use of land and its associated resources”. According to the UN-ECE (2005:12), land administration “operates within national land policies and leadership comes from the central government”. These levels of land administration provide a universal basis for understanding its principles, even in local contexts. It identifies land administration as a state function, which falls under the domain of the state and technocrats. Land administration also acknowledges land ‘ownership’ which is embedded in the different types of land tenure systems. To this end, it is reasonable to argue that land administration seeks to oversee the governance of land in a manner that produces appropriate distribution of spatial activities and people. This remains relevant in the face of current global agendas that seek to ensure that human settlements become safe, secure, and resilient (Habitat III, 2016).

Land administration in Africa is a comparatively ‘new’ phenomenon in the wake of land rights formalisation and the development of efficient land markets. The customary land tenure system has been cited by the World Bank as an inhibiting factor to the formalisation of land markets in countries across sub-Saharan Africa (World Bank, 2003). Land administration remains under-developed as stakeholders in peri-urban areas continue to face challenges in determining land tenure systems and land use rights (Siiba, Adams and Cobbinah, 2018). Statutory authorities are yet to find their exact place in the administration of land in strong customary tenure systems (Cotula, 2007). As a result, land administration institutions operate within ‘legal plurality’, where proprietors and agents interact within diverse customs, norms, and powers within the legal framework of land tenure systems and land use rights. Further, land administration in sub-Saharan Africa has struggled to cope with the level of diversity in customs and norms, as the basic land registration systems are either not in place, under-developed, or favour the elite (Akaateba *et al.*, 2018; Enemark *et al.*, 2014; Yaro, 2012).

The lack of institutional reform in land sector agencies allows administrative inefficiencies to fester in land administration. These administrative inefficiencies may emanate from factors such as low wages, inadequate personnel with critical skills, bureaucracy, and slow execution of tasks. In varying combinations, these factors may lead to corruption in the land

administration. Palmer *et al.* (2009) expand that such inefficiencies further perpetuate bribery and corruption, particularly aimed at fast-tracking the processing of applications in the bureaucratic administrative processes. As Roth (1993:318-9) found in the case of Somalia, “registry operations are hampered by tight budget constraints and lack of facilities, while low government pay scales create an incentive for civil servants to extract a portion of the high economic rent associated with leasehold title”.

In the context of Ghana, administrative inefficiencies in land administration delay titling and registration processes, which are, therefore, a disincentive to the privatisation of rights to land (Kasanga and Kotey, 2001). As documented in Ghana by the World Bank (2003), the challenges facing land administration occur in many forms and include land use conflicts arising from the double sale of the same parcel of land to multiple land seekers. Land tenure conflicts in sub-Saharan Africa are discussed further in section 2.9.

2.3 Understanding land tenure systems as underpinning land administration

To emphasise how land administration systems function in sub-Saharan Africa, there is the need to explain land tenure systems. Land tenure systems have dominated development discourses on the African continent for several decades. The definition of land tenure in the African context is fluid and has different connotations. The UN-FAO (2002:7) defines land tenure as “the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land”. This definition uses land in the broader sense and may include other natural resources that exist on or under the surface of the land. Land tenure, therefore, will normally include the rules that regulate the behaviour of society in the use of the surface of the land or under it. Land tenure is further defined as the bundle of rights and responsibilities that govern access to land, land use and transfer of rights (La Croix, 2002). Land tenure is considered as a ‘bundle of rights’, because of the possibility that many people or groups could hold multiple rights to the same parcel of land (UN-FAO, 2002). This makes land tenure dynamic and multi-dimensional, responding to diverse social, technical, economic, institutional, legal, and political issues (*ibid.*). Customary land tenure systems are present in countries across sub-Saharan Africa and involve land holding arrangements that are largely unwritten, rooted in local norms, and flexible (Cotula, 2007). Land tenure also includes both formal and customary relationships to the use and control of land (*ibid.*).

The definition of land tenure, which I adopt in this thesis, draws on two key sources. One is the definition of land tenure by the UN-FAO (2002) because it clears a common misconception that customary tenure systems are convoluted and inefficient. The discussion of land tenure in this thesis hinges on the conceptualisation of land tenure as dynamic and multi-dimensional, as reflected in the legal (*de jure*) arrangements of right to land, exercised by individuals, groups, and the state, as opposed to statutory land tenure, in which legal arrangements involve written laws and regulations under state powers. The other key source is Okoth-Ogendu (2002), who recognises the *de facto* prevalence of customary tenure arrangements in many African societies and how land management occurs under the African commons through accepted local customs.

Land tenure can be categorised into six main arrangements (La Croix, 2002). These are owner cultivation of small and private lands; squatting on public or private land; large estates; feudal forms of tenure with bound and unbound labour; and communal forms of tenure, and smallholder leasing from private owners (*ibid.*). La Croix (2002) argues that land tenure varies between urban and rural areas, because of the use of land for agricultural purposes in rural areas and for residential uses in urban areas. As Cotula (2007) notes, any land tenure arrangements emerge and operate in diverse ways depending on cultural, ecological, social, economic, and political factors. In this study, land tenure is explored in relation to the conversion of agricultural land into urban plots for residential development.

Before colonisation, land in many African societies was held under centralised traditional communal tenure (Cotula, 2007). Under this system, community members were assured of adequate portions of land to grow crops (Kasanga and Kotey, 2001). The rights to control and determine use of land within a community were largely distributed unequally between men and women. In patrilineal societies, women are allocated use rights to customary land, but the control rights mostly rested with men. As Chigbu (2019) notes, in patrilineal customary land tenure systems in sub-Saharan Africa, women can grow crops on a piece of land, but control rights remain with men. In Ghana, patrilineal systems exist in the northern parts, Volta region, and some Ga states in the Greater Accra Region, whereas the matrilineal system is common among the Akan tribes (Kasanga and Kotey, 2001). The matrilineal systems exist in Kumasi where inheritance and property rights are through the mother's lineage. Generally, with increasing urbanisation, access, and control over customary land under the patrilineal and matrilineal systems in Ghana are changing in urban and peri-urban areas. Kuusaana, Kidido and Halidu-Adam (2013) acknowledge that women in matrilineal societies are more likely to

have access or control over customary land compared to patrilineal societies, although lineage heads discriminate against women in favour of men (Manu, 1984 cited in Kuusaana *et al.*, 2013). In the wake of commodification and commercialisation of customary land rights in urban and peri-urban areas, men and women can have equal access and control over land once they can afford it. The passage of the Intestate Succession Law (PNDCL 111) in 1985 has led to the modification of succession and inheritance of property, including customary land under the two systems (Kasanga and Kotey, 2001).

Cotula (2007) argues that colonisers saw customary tenure as inefficient and therefore introduced the statutory land tenure system as practised in ‘western’ countries. In the post-colonial era, statutory land tenure exists alongside diverse land tenure systems under the umbrella of the customary tenure, although this era is marked by the continued pursuit of modern land titling. These diverse forms of land tenure involve complex rights and interests for a variety of stakeholders. I explain in the next chapter how the different customary land tenure systems exist in Ghana.

An important aspect of land tenure systems for this thesis is their change over time, this change being a part of the dynamics of land tenure systems as in the UN-FAO definition previously stated. The advent of rapid urbanisation in countries across sub-Saharan Africa induced land tenure changes as demand for agricultural land for residential uses increased (Cotula, 2007). As La Croix (2002) notes, land tenure changes can also be induced by other factors such as government policies. In sub-Saharan Africa, land tenure changes in urban and peri-urban areas have gathered momentum (Cotula *et al.*, 2004; Locke and Henley, 2016). For example, the conversion of rural land into urban plots leads to the emergence of statutory land holdings that supplant customary land tenure arrangements.

2.4 The connection between land administration, land tenure changes, and land reforms in sub-Saharan Africa

Customary land tenure systems are changing in response to multiple factors, many of which are relevant to peri-urban areas. The changes have been induced by demographic growth, urbanisation, monetisation of the economy, livelihood diversification and cultural change (Cotula, 2007, Cotula and Neves, 2007). Land is becoming scarce in the face of increasing population and urbanisation, to the point that the traditional ways of control and use rights are changing. Toulmin (2005:27) states that land registration and titling were introduced in sub-

Saharan African countries with the expectation that they can “promote investment, reduce poverty and encourage better natural resource management”. To be able to achieve these objectives, ‘modern’ land registration systems have been pursued with a focus on securing property rights (Demsetz, 1967). However, there are challenges in the setting up of conventional land registration systems because they tend to be expensive, complex, and slow to implement (*ibid.*). In instances where the land registration system is expensive, poorer claimants to land are likely to be priced out by those who have the resources to pay. Similarly, those with powerful vested interests will make sure that any land registration and titling system will dispossess those with the least power, such as women and migrants, as Owusu (2008) found in Accra, Ghana.

Land registration and titling have shifted customary tenure systems from collective ownership to individual rights to land (Cotula *et al.*, 2004; Cotula, 2007). The formalisation of land use rights leads to shifts in rural land, from being available to all members of a community for the growing of crops, to becoming an individual property. As already mentioned, in peri-urban areas, land registration and titling lead to change in the land use from agricultural to residential purposes.

Customary land tenure systems respond differently to the formalisation of land ownership and use rights depending on local area contexts (Chauveau, 2007; Cotula, 2007). Cotula (2007:1-2) argues that the customary land tenure system functions in the following three ways:

[1] In some areas, customary authorities have managed to maintain or even strengthen their power (including through strategic alliances with central government authorities and business elites, capture of local government bodies, and control over land and related revenues), [2] in others they have been eroded by change in the demographic composition of the local population, by competition from central and local government institutions, and by changing balances of power in local economic relations (e.g. with access to financial resources acquiring growing importance vis-à-vis traditional aristocracy as a source of economic power). [3] customary authorities are still effective in regulating land access, the collegiate bodies that used to oversee their work are not; the result is a breakdown in accountability and privatisation of common lands. (Cotula, 2007:1-2)

If customary authorities form strategic alliances with state authorities in land administration, land disputes may be reduced (*ibid.*). However, if customary authorities succeed, as set out under categories 2 and 3 in the quote above, the outcomes might satisfy just a few powerful people whereas the majority suffer from poor land management. The problem is exacerbated by the complexities in peri-urban areas where multiple stakeholders steer the dual land tenure system and land use planning.

The challenges posed by the customary land tenure system to the formalisation of land use rights have been used to justify government interventions in many land reforms. Bruce (2014) notes that development partners such as the World Bank have also donated funds to many post-independent governments to undertake several land reforms in sub-Saharan Africa to correct the seeming inefficiencies. For example, land administration interventions have been implemented in countries in West Africa such as Ghana, Nigeria, and Liberia and across East Africa such as Kenya and Ethiopia through development assistance by the World Bank (World Bank, 2003). These interventions were developed with the objective of building strong institutional and administrative capacities in the land sector. There is a paradigm shift regarding efforts made by policymakers and researchers to understand land administration and the need for secure property rights in sub-Saharan Africa. From a neo-classical paradigm, secure property rights are preconditions for sustainable development (Cotula, 2007). The underlying hypothesis of the economic theory of property rights is that development depends on land tenure and land administration (*ibid.*; Ubink, 2007). The neo-classical economic theory of property rights contends that formalising rights to land leads to increased investment in land and economic growth. The neo-classical theory espouses that

utility maximising individual has an incentive to use the resource optimally or efficiently, since any inefficiency creates opportunity costs (lost income) on that individual owner only (Henry, 1999:152).

At the heart of neo-classical economic theory of property rights is the assumption that the individualisation of land rights will trigger increasing investment in land, reduce land conflicts and ensure there is security of tenure (Demsetz, 1967). The neo-classical economic theory of property rights contends that the many informal practices embedded in the customary tenure system promote land market inefficiencies that adversely affect development (World Bank, 2003). According to Demsetz (1967), holding communal rights to land over privatisation of rights is inimical to agricultural productivity. That is, the introduction of tenure exclusivity and

the elimination of overlapping collective land rights when pursued is argued to be one of the surest ways to ensure efficiency in property rights (*ibid.*). The proponents of property rights argue that land rights formalisation ensures security of tenure and the clear delineation of land boundaries through cadastral registration (Toulmin, 2005). One other popular argument in support of land rights formalisation is the ability to collateralise property (De Soto, 2000). In his book *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*, De Soto describes as ‘dead capital’ any form of real estate or land to which rights cannot be privatised. This position has been popular ground for development partners such as the World Bank to require borrowing countries to adopt land reform programmes focused on land titling (Bruce, 2014; Byamugisha, 2014). The neo-classical economic theory of property rights departs from other paradigms that favour the collective rights of land to formalising land use rights in communal systems where land is abundant. For example, Johnson (1972:271) argues that “if land is not a scarce good, it is obvious that there is no positive value to society of creating clearly defined property rights in land”. This position assumes that the cost of enforcing these rights could be high in areas where rural dwellers are scattered with low population densities (*ibid.*). In acknowledging that land rights formalisation in rural areas is expensive, Cotula (2007) and Ubink (2007) are quick to argue that secure and formal property rights are important in urban and peri-urban areas where several interests emerge over the conversion of rural land to urban plots, which requires incontestable land titles and cadastres.

The uneven way land administration systems in sub-Saharan Africa are evolving and the demands for rapid development in peri-urban areas have triggered land reform. Manji (2006) defines land reform as processes and actions for the evaluation, appraisal, restructuring and enforcement of land policies. Lipton (2009) associates land reform with legislation aimed at redistributing land ownership and land use rights. Land reform is thus often undertaken with the intention to remedy already failing aspects of traditional customary land tenure systems. Land reforms seek to address the inherent challenges in the prevailing land tenure systems as they are not able to meet the increasing demand for land in peri-urban areas (Deininger and Castagnini, 2004). In relation to this, countries in southern Africa (South Africa, Angola and Zimbabwe) and West Africa (Ghana) have seen land reforms that aim at addressing the lingering challenges that affect the customary tenure system in terms of institutional lapses, titling and record-keeping (Byamugisha, 2014).

Land reform assumes that when ‘modern’ property rights are pursued through titling and modern record-keeping is introduced, land markets can be created to ensure land redistribution (Narh *et al.*, 2016). There is evidence in countries across sub-Saharan Africa to show that land reforms do not necessarily bring about efficiency in the land tenure system. In acknowledging the ability of land reform to create a just land market, Obeng-Odoom (2015) and Narh *et al.* (2016) are quick to add that land reform outcomes have often led to the marginalisation of poor and marginalised groups. Others argue that land reform has achieved mixed results (Gough and Yankson, 2000; Kanji *et al.*, 2005; Ubink, 2007; German, Schoneveld and Nwangi, 2011). In some instances, the implementation of land reform has brought about conflict resolution in post-war countries such as Liberia and Sierra Leone, the strengthening of property rights and the support for public land management (Sesay *et al.*, 2009). In other instances, land reform triggers land conflicts, as in the case of South Sudan (Justin and van Dijk, 2017). In this context, land-related conflicts arise because the formalisation of land rights is often perceived as contradictory to customary laws.

As Enemark *et al.* (2014) found, land administration systems in sub-Saharan Africa are yet to develop to the level where they can adequately address the complex cultural, social, and economic transformation of sustainable cities amid customary and statutory land tenure systems. The outcome is often manifest in the opposing stands between actors of customary land tenure and the modern property rights regime, which leads to contestation in peri-urban areas (Ubink, 2007, Amanor and Ubink, 2008). As a result, issues of conflicts, power and accountability remain some of the lingering challenges among state and traditional authorities.

As German *et al.* (2011) found, the majority of land sector reform undertaken in sub-Saharan Africa aims at offering adequate legal backing to customary tenure but has yielded poor results. This approach, when assumed by land reform projects, seems to misinterpret the customary land tenure system, by framing it as informal and inefficient. The underlying assumption that the customary land tenure system is ‘inefficient’ and in need of remedy at all costs, poses a challenge of mistrust and ‘disrespect’, particularly on the part of customary authorities. Associated with this, Okoth-Ogendu (2002) and Cotula (2007) found that land sector policy reforms assume that the customary tenure system is ‘informal’ and needs to be formalised. While this may be the position of state institutions towards land reforms, actors in the customary land tenure system have a divergent view. This causes false starting points, namely

when formal ‘western style’ structures are superimposed on traditional land tenure systems, which are considered informal and inefficient (Deininger and Castagnini, 2004).

There are growing interests in land reform programmes in countries across sub-Saharan Africa. Recent land reform interventions aim at positioning land administration as a collaborative process that incorporates customary land tenure systems for sustainable development (Wily, 2011). This involves the development of the capacity of authorities and institutions of both statutory and customary land tenure systems. In Ghana, the Land Administration Project (LAP), which commenced in 2003, has one of its objectives to improve the legal and institutional framework of land administration to bring about efficiency. The LAP led to the establishment of customary land secretariats within various stool land areas to keep records of claims to parcels of land in peri-urban areas without necessarily going through formal administrative processes of registering title to land (Bugri, 2012). The new paradigm further emphasises land use planning and the need to manage conflicts arising from land uses in peri-urban areas (*ibid.*).

2.5 Definitions of peri-urban areas

As previously mentioned, customary land tenure systems are changing in response to land use rights in urban and peri-urban areas in sub-Saharan Africa. In this section, I review the literature on peri-urban areas as locations at the intersection of urban and rural land uses, witnessing spatial change in response to changing demands for land, which in turn is managed with various levels of efficiency and fairness by land administration systems that interface with customary as well as statutory land tenure. Simon (2008:170) highlights the importance of peri-urban areas in sub-Saharan Africa based on their diversity of activities, serving as places for “urban migrants, sources of food and areas for the disposal of urban wastes”. On the other hand, peri-urban areas have been described as showing signs of unregulated planning and land tenure complexities (Cobbinah Erdiaw-Kwasie, and Amoateng, 2015). In Chapter 1 and the introduction to this chapter, I briefly introduced the concept ‘peri-urban’, explaining it in broad terms as a dynamic area experiencing rapid change activities. My review of literature in this section finds that various perspectives are used to define peri-urban areas and the term, therefore, eludes clear conceptualisation.

The notion of peri-urban is generally applied to urban growth areas situated within former rural farming zones outside urban cores (Thorns, 2002; Zasada *et al.*, 2011). Beyond this

unidimensional conceptualisation, however, peri-urban areas have been explicated as dynamic zones that experience rapid change in the social, economic, and environmental fronts, showing swift transition from one land use to another (Simon, McGregor and Nsiah-Gyabaah, 2004). This suggests that peri-urban areas should not be defined from a single conceptual perspective. Building on this observation, the following paragraph proceeds with an overview of recent scholarship on the definitions of peri-urban areas.

The term peri-urban has been described as the “interface between rural and urban activities, institutions and perspectives” (Marshall *et al.* 2009:3). Peri-urban areas consist of a mosaic of land use patterns that can be associated with urban and rural activities such as farming and manufacturing, whereas institutions refer to the layers of authority that govern activities in often contested tenure systems. Peri-urban areas can be described as places that are neither urban nor rural in terms of land uses (Locke and Henley, 2016). In African cities, Ammann and Forster (2018) observe that it is difficult to know where the city starts and ends because of the blurring interface between urban areas and their peri-urban neighbourhoods.

As I will show in Chapters 5 and 6, peri-urban areas are interfaces that elude the precise land use types that can be found in functional zoning plans in urban areas. In other words, peri-urban areas are ‘transitional spaces’ or ‘zones’ (Locke and Henley, 2016; Wandl and Magoni, 2017). In this sense, peri-urban areas invoke locational or spatial dimensions of the type of development occurring outside densely populated urban areas. Peri-urban areas demonstrate characteristics of a mixture of formal and informal physical development, including housing and economic activities (Mbiba and Huchzermeyer, 2002; Allen, 2003; Ravetz, Fertner and Nielsen, 2013; Cobbinah and Aboagye, 2017). The informal characteristics explain peri-urban areas as transitory, with a rapid influx of people, goods, services, and the co-existence of occupations that involve rural or urban uses (Afriyie, Abass and Adomako, 2014; Mpofu, Darkoh and Gwebu, 2018). Peri-urban areas may, therefore, manifest unevenly and differ from one place to another depending on local and national factors such as trends in rural-urban migration, urban population, and employment (Owusu, 2008). This thesis describes peri-urban areas as complex and nuanced spaces, showing signs of dynamic spatial, economic, social, and environmental manifestations of human activities undertaken by customary and statutory authorities.

In a review of peri-urban developments globally, Woltjer (2014) found that peri-urban areas depict blurring relationships and activities that take place in urban and rural areas. This is

particularly so in countries in East Asia, where, with the advent of globalisation and advanced technology, activities like farming that are mostly associated with rural areas are now also undertaken in urban areas (Kozai, Niu and Takagaki, 2016). In Japan and China, agricultural practices such as horticulture, animal husbandry and aquaculture are increasingly taking place in urban areas in the form of greenhouses and rooftop farming (*ibid.*). Similarly, manufacturing, which is often associated with urban areas, is taking place in rural areas near towns, because of availability and lower prices of land; this, in turn, affects land prices in these areas resulting in the intensification of land markets (Simon, 2008; Butsch and Heinkel, 2020). In Europe and North America, peri-urban development is shaped by strong regionalisation processes in urban regions, while planning ensures the containment of urban growth and sprawling (Woltjer, 2014). The planned regionalisation process ensures that peri-urban areas are functionally interconnected with urban areas. In contrast, as the next section shows, planning in sub-Saharan Africa has not succeeded in containing sprawl, therefore, enabling rapid spatial change in peri-urban areas.

2.6 Land use planning in sub-Saharan Africa

The notion of land use planning, just like land administration across countries in sub-Saharan Africa, began as a technocratic planning practice introduced by colonial administration to regulate land use (Awuah *et al.*, 2010). Land use planning is increasingly becoming a significant developmental tool as countries devise appropriate strategies to control urban growth, particularly when urbanisation is forecast to increase immensely in sub-Saharan Africa (Bloch, 2012). Land use planning is a tool used to ensure the orderly organisation of people and things on land to avoid conflictual development (Verheye, 2009). Land has many uses and requires the proper assessment of how each use affects the social, economic, and environmental aspects of development. Lubida *et al.* (2019:1) define land use planning as the process of “finding a balance among different conflicting social, economic and environment factors”. Drawing from the definitions of Verheye (2009) and Lubida *et al.* (2019), it is reasonable to say that the use of land generates conflict situations between the different stakeholders, as already mentioned in the introductory section of the chapter and in section 2.9. Land use planning is, therefore, a process that uses appropriate knowledge, ideas, skills, and technology to ensure that people and physical development occur according to local and national laws to bring about harmony among the different stakeholders and land uses. The objectives of land use planning will often include harmony, participation, inclusiveness, discipline, and security.

The above paragraph suggests that broader issues such as urbanisation, peri-urbanisation and land administration overlap with land use planning. Based on the definitions of land use planning given previously, I define land use planning as the process by which state and state actors and institutions deliberately ‘arrange’ the use of space to promote safe, secure, and resilient spaces. This process includes the subdivision of land into plots through planning schemes and the exercise of state regulation. The review in this section finds that land use planning in sub-Saharan Africa is a collaborative process, going beyond a public sector function, because of particular land tenure arrangements and a weak public planning system that is not able to cope with the rapid levels of spatial change. This definition is adopted because it acknowledges the role of both state and non-state institutions to regulate spatial change in urban and peri-urban areas. In the paragraphs that follow, land use planning is discussed as a technocratic approach through objectives of colonial administration and the current dispensation of a ‘bottom-up’ approach (Akaateba *et al.*, 2018).

Awuah *et al.* (2010) argue that land use planning in sub-Saharan Africa has its roots in the arrival of Europeans and subsequent colonisation in the nineteenth century by the British, French, German, Belgian, and Portuguese. Land use planning policies in individual countries were imported to their ‘new’ found homes³ (Bloch, 2012). Bloch (2012:20) argues further that

The manifestation of this was reflected in the physical attributes of settlements in the layout of urban areas, building design and also planning legislation, planning regulations, planning policy and governance frameworks that facilitated development (Bloch, 2012:20).

One of the characteristics of land use planning under colonial administration was manifest in zoning policies. In the current political dispensations across countries in sub-Saharan Africa, colonial law continues to prevail (Berrisford, 2011). Zoning, along with master plans, was adopted by the colonial administrators to “regularise land use, control growth and development” in human settlements (Bloch, 2012:21). In Ghana, Njoh (2009) and Acheampong (2019) found that land use plans were drawn and implemented as a form of regulating the possibility of conflicting land uses and to segregate indigenous populations from white settlers. Due to its top-down and technocratic nature, land use planning was often undertaken by planners based on the knowledge they had acquired through training (Rydin,

³ Home is used here, because not all the Europeans came as colonisers, others came to trade.

2012). Acheampong (2019) argues that non-state actors such as chiefs and indigenous people were only recipients of land use planning and not active participants. In the post-colonial era, land use planning did not depart from colonial policies and regulations. In the 1980s and early 1990s, land use planning remained predominantly technocratic, top-down in approach, and carried out by a team of trained experts (Acheampong, 2019). Today, post-colonial states in sub-Saharan Africa continue to use land use plans, policies, and regulations with strong colonial influence. In Anglophone West African countries such as Ghana, land use planning is predominantly hinged on British colonial land use planning legislation (Kleemann, Inkoom, Thiel, Shankar, Lautenbach and Furst, 2017).

The objective of planning in contemporary Africa, just as it was in the colonial period, is to “guide land use management” to produce well-planned spaces (Okeke, 2015:154). Perhaps, what has changed is the notion of well-planned spaces. Contemporary land use planning has at the centre, sustainable land use planning that addresses issues such as safety, resilience, and inclusiveness. The central role of land in urbanisation will suggest that land administration overlaps with land use planning. In sub-Saharan Africa, urban land is becoming increasingly scarce, while demand in urban and peri-urban areas grows. As already mentioned in this chapter, the increasing demand for land in urban and peri-urban areas has, in turn, triggered land use conflicts. In this context, land use planning should involve an important mediating role among multiple stakeholders in the face of the dual land tenure system in Africa (Cotula, 2007; Bugri, 2012). Therefore, state, and non-state actors and institutions involved in planning need to address land use conflicts that may arise from multiple land users (*ibid.*).

Through land administration and the enactment of policies to regulate land use planning, there are efforts to build collaboration between public and traditional actors and institutions (Bugri, 2012). This corresponds to the changing planning system in Africa, from a more top-down technocratic process to one that is bottom-up. In this context, local knowledge is being used as part of the planning process. As Watson (2002) notes, planning has become a function of state and non-formal organisations such as non-governmental and community-based organisations. The ‘new’ focus of land use planning is expected to achieve planning outcomes that represent the social, economic, and environmental aspirations of people in urban and peri-urban spaces.

At the core of making land use planning a collaborative process is the management of the relationships between people and institutions (Healey, 2007). Rydin (2012:24) states that

the key recognition has been that many different voices, across the public and private sectors but also in civil society, need to be included in the planning enterprise for effective action. The objective is that the most deprived and powerless groups in society benefit from planning outcomes (Rydin, 2012:24).

Healey (2007: viii) describes this collaborative process as

a complex mixture of nodes and networks, places, and flows, in which multiple relations, activities and values co-exist, interact, combine, conflict, oppress and generate creative synergy. It centres around collective action, both in formal government arenas and in informal mobilisation efforts, which seeks to influence the socio-spatial relations of an urban area, for various purposes and in pursuit of various values. (Healey, 2007: viii).

Due to the possibility of disagreements among stakeholders, land use planning and land administration activities need to be mediated to avoid conflicts. The mediation role in land use planning is further necessitated by informal relations that exist between stakeholders. Akaateba *et al.* (2018) explain collaborative land use planning through the notion of hybridity. The collaboration between state and traditional authorities works through social networks, that is, established relationships between statutory officials, traditional authorities, landowners, families, and developers. These relationships may be short-term and can lead to ambivalent outcomes due to conflicting interests and goal incongruence. It is reasonable to argue that the nature of collaboration between stakeholders can influence the nature and dynamics of spatial change outcomes.

The need for collaborative land use planning in peri-urban areas under the changing land tenure systems is explained through the urban political economy approach (Pacione, 2001). By examining the various interests of capitalists to generate profits, this approach advocates for local planning as a shared responsibility among many stakeholders. Proponents of the urban political economy approach (Obeng-Odoom, 2015; Boamah and Walker, 2016) argue that to reap profits, state and traditional authorities crave to maintain the political status quo by externalising the cost of production. This situation is associated with state and traditional institutions making decisions about land transfers and land use to seek self-enrichment and power during peri-urbanisation (Yaro, 2012). As I show in my case studies in Ghana in

Chapters 5 and 6, the outcome of this can influence the typologies of land use in terms of local-level planning.

2.7 Peri-urban transformation

In the previous section, I briefly mentioned that spatial change in peri-urban areas responds to different forms of transformation. In this section, I provide a detailed explanation of these transformations, through the urban life cycle theory, because of its ability to simplify urban and peri-urban spatial change processes within the concepts of ‘cycle’ and ‘transition’ (Klaassen, Molle and Paelinck, 1981). Morelli, Rontos and Salvati (2014) define a ‘cycle’ as the time in which a demographic phase of a specific spatial unit emerges and declines, while a ‘transition’ is the period between two cycles. Rauws and de Roo (2011:272) define transition as

an emerging process of structural change from one level of relative stability to another, representing the various stages of development affecting the system as a whole. It could provide an alternative perspective on peri-urban transformations from the urban–rural divide to integrated urban-rural areas. (Rauws and de Roo, 2011:272)

Urban and peri-urban transition is multi-directional as one outcome of transformation could become a driver of another change process. As a result, peri-urban transition can be characterised as a “multidimensional, multilevel, qualitative and irreversible process” (Konijnendijk, 2009:2). Peri-urban transition involves complex processes, which may be rapid, discontinuous, or elusive, in some instances due to transitional stages in the transformation of peri-urban areas (Ravetz *et al.*, 2013; Mabin, Butcher and Bloch, 2013). Within this context, urban and peri-urban transformation happen through change in the direction of growth and population changes through time. As such, population growth or decline in an urban area can determine the level of change that one can expect to see in peri-urban areas.

Projections by the UN in recent years has forecast the world population to reach about 10 billion by 2050, much of which is expected in Asia and sub-Saharan Africa (UN, 2017). These projected population increases have implications for urban and peri-urban transformation in these regions. Rauws and de Roo (2011) further liken peri-urban transformation to social change, which results from rural-urban migration or counter urbanisation. That is, as more people migrate from rural to urban areas in the wake of demographic change, the excess population in the urban core moves to the peri-urban areas to settle. With this, it is important

to state that demographic change and transformation are important in understanding peri-urban areas and human settlement.

2.8 Drivers of peri-urban transformation

In the previous section, I mentioned broadly that peri-urban transformation is driven by multiple, interrelated factors in response to social, economic, and environmental dimensions of society. In the following section, I will give a detailed overview of drivers of peri-urban transformation from the point of view of the theory of property rights.

The point of departure for peri-urban transformation can be explained through the evolutionary theory of property rights (Demsetz, 1967). According to this theory, “the emergence of new property rights takes place in response to...new benefit-cost possibilities” (Demsetz, 1967:350). The underlying hypothesis is that property rights emerge when the value of attaining them far exceeds the associated costs. Population increases lead to land scarcity through increased demand. In many parts of sub-Saharan Africa, this triggers the transition from communal to individualised rights to land (Cotula *et al.*, 2004; Cotula, 2007). Registration of individual rights to land, in turn, increases land values. The movement from agriculture to modernised economies with a focus on commercialisation triggers population movement towards urban areas (Webster and Muller, 2002; Mpofu *et al.*, 2018). As a result, peri-urban spatial change has become a by-product of modernisation and economic restructuring. This further drives urban expansion in terms of population growth and physical expansion (Acheampong, Agyemang and Abdul-Fatawu, 2017).

In sub-Saharan Africa, land market inefficiencies have been a major driver of peri-urban transformation. The land administration system creates a market for land purchases during the formalisation of rights to land through titling. As land subdivisions occur, the elite class, including politicians, buys land at low prices for speculative purposes (Cotulla *et al.*, 2004). In countries such as Kenya, land speculation has triggered elite acquisition of agricultural land. This land is left undeveloped for a period, while speculators wait for enhanced prices or future developments (*ibid.*). The individualisation of land rights through registration may alienate indigenous populations from land by enabling the sale to the elite and middle class. Throughout the global South, private sector participation in the transformation of urban spaces is noticeable. Within liberalisation and increasing private sector-led participation in the provision of goods and services, private capital inflows trigger further transformation in urban areas (Mabin *et al.*,

2013). Through the injection of private capital in housing, development is a major contributor to the expansion of peri-urban frontiers (*ibid.*). Beyond triggering speculation, the modernisation of major cities in sub-Saharan Africa, coupled with neoliberal restructuring involving financialisation and investment flows, has caused spatial transformation in peri-urban areas through financialisation and investment flows (Yeboah, 2000). This reinforces the need by formal sector institutions for efficient land markets with legal security for private investments. Thus, land becomes a physical and financial asset, which requires legalisation that secures land rights, to safeguard private capital. Through structural economic reforms in sub-Saharan African countries, private participation in all forms of national economies was encouraged. The implementation of the Structural Adjustment Programmes (SAPs) by most countries in the 1990s, fuelled rapid urbanisation and peri-urbanisation. One main aim of the SAPs was to encourage market involvement in the provision of goods and services, including private investment in the housing market amid the state's inability to match the supply of houses with increasing demand. These interventions also resulted in rural-urban migration, which created excess population moving to settle in peri-urban areas (*ibid.*).

The investments in infrastructural facilities in peri-urban areas are observed in the many ongoing housing projects as part of the modernisation of the economy (Mabin *et al.*, 2013). Within neoliberal urban restructuring dispensations in sub-Saharan Africa, large-scale private developers engage in commercial residential housing development, changing the landscape of large peripheral areas equipped with the necessary services and streets, as in the case of gated communities (Asiedu and Arku, 2009). Through private sector-led sub-urban development initiatives, the frontiers of peri-urban areas expand over time.

Within this context, peri-urban areas are showing manifestations of urban enclaves with improved housing and municipal service (Mabin *et al.*, 2013). In major cities in South Africa, the injection of private capital in housing development has in some cases disrupted informal settlements through evictions and erasure of traditional settlements by modern buildings (*ibid.*). In certain cases, the spatial outcome is witnessed in formally planned areas standing side-by-side with informal housing. The advent of private infrastructure development in a peri-urban area may lead to a scramble for land by various classes of people and can even lead to land grabbing and speculation by multinational companies with a view to undertaking large-scale projects (Mabin *et al.*, 2013; Asiedu and Arku, 2009). Land subdivisions may occur rapidly during the transition and make land available at lower prices.

2.9 Transformation and land tenure conflicts in sub-Saharan Africa

Land conflicts during peri-urban transformation in sub-Saharan Africa have gained significant attention in the literature on Africa. Colonial and modern land administration practices by customary and statutory authorities in urban areas are assumed to have triggered conflicts during the evolution of property rights. (Whitehead and Tsikata, 2003; German *et al.*, 2011). In this section, I review some of the sources of conflicts in the land sector, citing examples from some countries in sub-Saharan Africa. The section contends that factors such as boundaries between customary and statutory land, delay in payment of compensation and lack of transparency in the distribution of monies from land sales, dominate land conflicts. I discuss these types of conflicts through the theory of property rights and Giddens' (1984) theory of structuration. These theories are adopted because they provide the basis for resource management and the overarching roles of power, agency, and structure.

Peri-urban transformation and conflicts in sub-Saharan Africa can be understood through the theory of property rights. By extension, the allocation of private use rights to land increases the value of land and can be accessed only by those who can pay for it. The connection between state or customary power and land administration in sub-Saharan Africa is observable at two levels: the level of government obtaining the power to exclude others by using legislation to take over communal land for the use of the state, and the level of customary authorities exercising their authority to convert land from agricultural to residential use. At the level of the former, access can only be granted by the government with land management functions assigned to statutory officials. Conflicts may arise from the non-payment, delayed or inadequate payment of compensation by the government for compulsorily acquired lands, as in the case of Ghana (Bugri, 2012). In the latter scenario, traditional authorities assume enormous powers in the customary system, whereas their subjects are likely to stay on the peripheries in negotiations over land.

At the levels of government and traditional authorities, the existing relationships between core (powerful) actors and peripheral (weaker) actors shape land administration and land use practices in peri-urban areas. This can be described through the theory of structuration (Giddens, 1984). Structuration theory contends that social actions are not only the outcomes of structure and agency but recognises that actors operate within a set of rules in a socially constructed manner that needs to be followed to observe compliance. As socially constructed processes, agents can modify structures to serve a purpose other than the common good (*ibid.*).

The theory evokes the notion of agency and structures. ‘Agency’ is defined as the ability or capacity of an individual to make independent free choices, whereas ‘structures’ are the factors that enhance or inhibit the ability of an agent to make informed decisions. Giddens (1984) introduced the element of domination to describe how decision-making power is deployed in the use of resources. Larkham (2006:121) argues that decision-making among these agents and structures pursues “particular goals, the nature of which can result in conflict over the form of the built environment”. The difficulty that faces agents is explained by Stevenson and Greenberg (2000:652), who state that

centrally located agents are assumed to be important, and peripheral agents are powerless centrally located agents are enabled by their power and the ability to apply sanctions to accomplish their purposes, but the peripheral agents are constrained by their position to powerlessness (Stevenson and Greenberg, 2000:652)

The more powerful agents are or become, the less powerful their subordinates. The different power relations in land administration and management, coupled with conflicts, require negotiations between the various agents, especially in the decisions about the disposition of land triggered by peri-urban expansion. The relationships between formal and informal structures demand constant mediation between agents to bring about sustainable peri-urban transformation (Zimmer, 2010).

Land in post-colonial Africa has not been only at the centre of socio-economic development, but also a contributor of conflicts arising from the formalisation of land rights (Elhadary and Obeng-Odoom, 2012). State interference in the formalisation of land rights in customary tenure systems and the marginalisation of minority groups have triggered land conflicts. In countries across sub-Saharan Africa, the allocative powers held by traditional authorities on one side and the state on the other in the land delivery processes, invoke different types of conflicts (Cotula, Toulmin and Hesse, 2007; Akaateba *et al.*, 2018). These conflicts are often prevalent in peri-urban areas where transformation is rapid.

In peri-urban areas, agents may use a set of structures to exclude other people through the privatisation of resource use rights, which invokes the concept of structuration (Giddens, 1984). Powerful agents often use customs, norms, gender, and money to alienate land from indigenous people who are the ‘owners’. As a result, conflicts between agents are rife in peri-urban areas, as agents have different levels of interests and powers concerning land. Consequently,

disagreements abound in relation to one's agency in land tenure, land administration, and the transfer of use rights among traditional leaders and families. The subdivision of land generates conflicts between chiefs and their subjects as land is taken from the latter for residential development, and the often opaque form of distribution and use of the proceeds from land sales (Ubink, 2007).

Conflicts arising from land tenure systems are social and involve "struggle over values, claims to status, power or scarce resources, in which the aims of the conflicting parties are not only to gain but also to neutralize, injure or eliminate their rivals" (Bugri, 2012:67). The incompatibility of interests between the various actors from both customary and statutory tenure systems further creates land use conflicts that create socio-economic problems. Land use conflicts arise because the frequent conversion of farmland to residential uses deprives some people of their livelihoods as they become landless, whereas others gain in the process. This leads to tenure insecurity among indigenous people (Aryeetey and Udry, 2010). Tenure insecurity triggers multi-faceted land use conflicts, which further affect transformation in peri-urban areas. These conflicts militate against transformation in peri-urban areas and further trigger changes in land tenure systems (Cotula, 2007).

The conversion of rural land to urban plots in peri-urban areas often triggers land speculation (Cotula *et al.*, 2004). In this context, land speculation seems to bring undeveloped land into current or future uses. Ely (1920) notes that the term 'land speculation' has nuanced meaning and must not be oversimplified. There is a difference between land speculation and investment. Speculation in commerce is

the act or practice of buying lands, goods, etc., in expectation of a rise of price and of selling them at an advance, as distinguished from a regular trade, in which the profit expected is the difference between the wholesale and retail prices, or the differences of price in the place where the goods are purchased, and the place where they are to be carried for market. (Ely, 1920:121-122).

Ely (1920:124) further explains that "if transaction of buying the land and putting improvements on it apparently involve no large profits", then it could be termed as an investment. The difficulty in contrasting land speculation and investment in these contexts is about who determines the level of profits to make the land transaction speculative or an investment. Land speculation is triggered by actors such as landowning individuals, chiefs,

public officials, businessmen, and politicians (Cotula *et al.*, 2004; Kanji *et al.*, 2005). Land subdivisions in peri-urban areas lead to the availability of cheaper plots. The purpose of land speculation is to buy these cheaper plots in anticipation of future development or increasing prices. Knapman, Silici, Cotula and Mayers (2017:16) observe that the “rapidity of some of the current evolutions [in accessing land] is creating challenges for the adaptive capacity of both customary and state-based land governance systems”. The way land changes hands in peri-urban areas in sub-Saharan Africa has resulted in intense competition and corruption (Kanji *et al.*, 2005), resulting in conflicts over the conversion of land from agricultural to residential uses (Ubink, 2007). These conflicts have been reported across post-independence Africa in cities like Accra (Owusu, 2008), Kumasi (Cobbinah and Amoako, 2012; Owusu-Ansah and Braimah, 2013), Kampala (Deininger and Jin, 2006) and Nairobi (Obala and Mattingly, 2014).

A further cause of peri-urban land conflicts is the sale of land in high-value areas (Chauveau and Colin, 2007). Customary land, which was considered unsaleable, now becomes a commodity that is purchased. In rapidly expanding peri-urban areas, means of customary land transfer such as inheritance and gifts are changed to cash purchases. As a result, conflicts can arise in the process of individualisation of land rights. In Uganda, Deininger and Castagnini (2004) express concern over statutory and customary tenure systems competing instead of existing and operating in complementary roles. The competition among the two systems has partly arisen because the ‘formal’ system seeks to dominate the ‘traditional’ customary system (Cotula, 2007; Okoth-Ogendu, 2002). In rural areas, traditional or customary governance practices are used to manage or govern land issues, whereas, in urban areas, it is under the ambit of municipal or local statutory authorities. While converting rural land to urban plots, the system of land governance changes from customary authorities to statutory officials. In Ethiopia, Kanji *et al.* (2005) report that the change from rural to urban land uses has at times resulted in tribal and ethnic conflicts. This is exacerbated by land individualisation in Ethiopia, which proves unfavourable to non-indigenous minorities (Lavers, 2018). Managing land use conflicts is important for spatial change in peri-urban areas, which I discuss in the next section.

2.10 Spatial change in peri-urban areas

The transitory nature of peri-urban areas introduces the concept of ‘spatial change’. Urban and peri-urban forms are characterised by physical transformations, which have been discussed in urban morphology literature (Moudon, 1997; Larkham, 2006). Moudon (1997) argues that spatial change in European and North American cities is significant and can be ‘read’ through

the physical form of these cities. It can be understood only historically through time, resolution, and form. The ability to analyse spatial change helps in understanding the processes through which human modification of the environment occurs over a period and how human settlements develop over time. Urban form can be understood as “three fundamental physical elements [namely] buildings and their related open spaces; plots; and streets” (Moudon, 1997:7).

In the global South, the three elements identified by Moudon (1997) are changing gradually due to the high demand for land and the development of land markets in the process of transition of spaces from rural to urban. Thus, spatial change evokes much of ‘spatial configuration’, which involves urban network patterns and land use (Shen and Karimi, 2015). The analysis of spatial change can therefore provide an understanding of the spatial distribution of activities and people in peri-urban areas, and their relationship with other factors such as the economic value of land, land administration, and land use.

Just like the composition of peri-urban areas, spatial change differs from one place to the other, because of different driving forces. The process of spatial change in the global South is gradual, making the development of peri-urban areas a piecemeal process, which may proceed until the outskirts become fully urban (Zasada *et al.*, 2011). Peri-urban spatial change involves physical development such as buildings, or urban projects that includes the reorganisation of land uses, introducing new typologies and zoning in response to modernisation policies. In sub-Saharan Africa, the implementation of formalisation of rights and land administration systems intensifies the process of spatial change (Cotula, 2007). The triggers of spatial change, therefore, also include land administration and land tenure systems, which in turn respond to land markets.

In sub-Saharan Africa, the phrase ‘spatial change’ connotes a complex morphology of changing peri-urban areas and is used interchangeably with physical development, human modification of space or conversion of spaces from one use to another (Simon *et al.*, 2004; Amoateng, Cobbinah and Owusu-Adade, 2013). In its physical manifestation, spatial change in peri-urban areas is associated with the clearing of vegetation for building, mining, industry, commercial, farming and other economic activities (Mubiwa and Annegarn, 2013; Amoateng *et al.*, 2013). The resultant spatial organisation is that peri-urban areas exhibit different spatial patterns of change in that “...some may resemble relatively uniform sprawl; others honeycomb structures or spines of growth along specific corridors... [which] vary in width and nature and are subject to rapid change with increasing urban pressures” (Simon *et al.*, 2004:236).

In Southeast Asia, spatial change in peri-urban areas connotes transformational processes whereby the rural-urban interface interacts functionally as both settlements and agricultural land uses coexist (McGee, 2009). Through the *desakota* model, McGee (2009) examines the functional relationship between the city and its peri-urban areas in Jakarta, Bangkok, and Manila. The term *desakota* originates from the Bahasa Indonesian words *desa*, ‘village’, and *kota*, ‘city’, and is associated with households commuting between peri-urban and urban centres in the advent of good transportation networks. The relationship between the city and peri-urban areas is such that populations in *desakota* areas supply the city with their agricultural produce and, in return, transfer urban goods and services. This nature of the relationship further leads to the intensification of daily commuting between the city and *desakota* regions (*ibid.*).

Desakota regions have also been reported outside of Southeast Asia. In the late twentieth century, urbanisation and transformation in southern China have witnessed this form of spatial development (Guldin, 1996; Xie, Yu, Bai and Xing, 2006). Cairns (2002) argues that *desakota* regions show a rural-urban gradient – spatial land use patterns with mixed land uses such as traditional agriculture and cottage industry, and mixed forms of informal housing and gated communities. The mixture of land uses makes these areas depart from functional urban land use plans with zoning of residential and non-residential land uses.

2.11 Land administration, land tenure systems and spatial change: Theoretical and conceptual framing

The chapter began with the premise that the dual land tenure system is prevalent across sub-Saharan Africa because of the introduction of ‘western’ land laws and the ability of the customary laws to evolve alongside. As a result, the post-colonial land tenure system consists of customary land holdings with traditional authorities as managers on the one hand and customary land under the management of the state or statutory land tenure with the state as the manager of lands on the other. In the next sub-sections, I discuss drivers underpinning land administration and how the formalisation of land rights manifests in peri-urban areas.

2.11.1 Drivers of land administration and formalisation

With increasing rates of urbanisation and peri-urbanisation, the customary land tenure system has been cited as inefficient and not able to cope with the pace of transformation to produce desired spatial change. Land administration and formalisation of land use rights have been undertaken from the theoretical positions of the neoclassical theory of property rights,

neoliberal theory of urban restructuring, and modernisation to deliberately influence land use outcomes. The land administration has concentrated on “the processes of determining, recording and disseminating information about the ownership, value and use of land when implementing land management policies.” (UN-ECE, 2005:99). The objective is to make land markets efficient in supporting urban and peri-urban functions. The land administration functions of deed registration, titling, taxation, and surveying have not been able to regulate spatial change outcomes, because of land tenure conflicts, institutional weaknesses, corruption, and bureaucracies in state and traditional institutions.

2.11.2 Manifestations of land administration in peri-urban spatial change typologies

The inability of land administration to deal efficiently with land use conflicts among the various stakeholders has manifested in increased demand for land, land commodification, land speculation and individualisation of land use rights. The decision to sub-divide land has commodified land and promoted speculative purchases of land (Cotula *et al.*, 2004, Cotula, 2007). There are also conflicting land uses that arise from the competition between customary and statutory land tenure systems (Deininger and Castagnini, 2004). The outcome of these manifestations leads to peri-urban spatial change typologies such as sprawl, conflicting land uses and unapproved spatial change.

Drawing from the concept of structuration, one can explain that both statutory and traditional authorities continue to administer land in peri-urban areas. Conflicting situations between the various stakeholders and the level of power exercised by traditional authorities leads to spatial change outcomes that deviate from the land administration practices and procedures set up to regulate land uses. Figure 2.1 provides a general conceptual framework for the various themes covered in this chapter. Based on this, a case-study specific conceptual framework is developed for Abuakwa and Adomako case studies as presented in the next chapter.

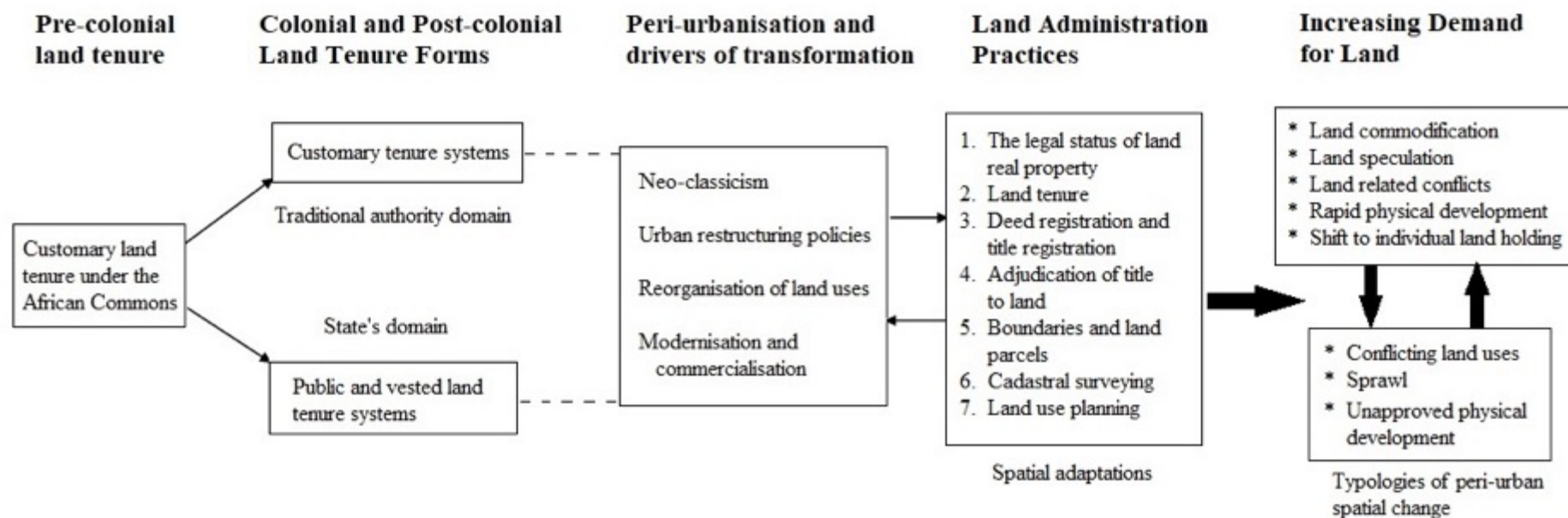


Figure 2.1: Land administration and peri-urban spatial change

Source: Author's construction

2.12 Summary conceptual framework

The dual land administration system involving both traditional authorities and statutory officials influences how peri-urban transformation unfolds. As peri-urban areas undergo transformation, land administration and land use planning involve the pragmatic collaboration of traditional authorities and statutory officials. The land administration system recognises traditional authorities as the ‘owners’ and custodians of the land and has the resource allocation power in terms of land delivery. The collaborative land use planning process, as discussed in section 2.6, serves as a basis for the participation of both traditional authorities and statutory officials in everyday land use planning processes. Using the contrasting case studies in Ghana, I explore land administration and spatial change through everyday land use planning practices involving new land allocations in peri-urban areas under the stool land tenure and the Vested Land Tenure System. Using the theories of spatial morphology, agency and decision-making power, I explored actor constellations of influence during local planning practices in the dual land administration system (see Figure 2.2 for the summary conceptual framework).

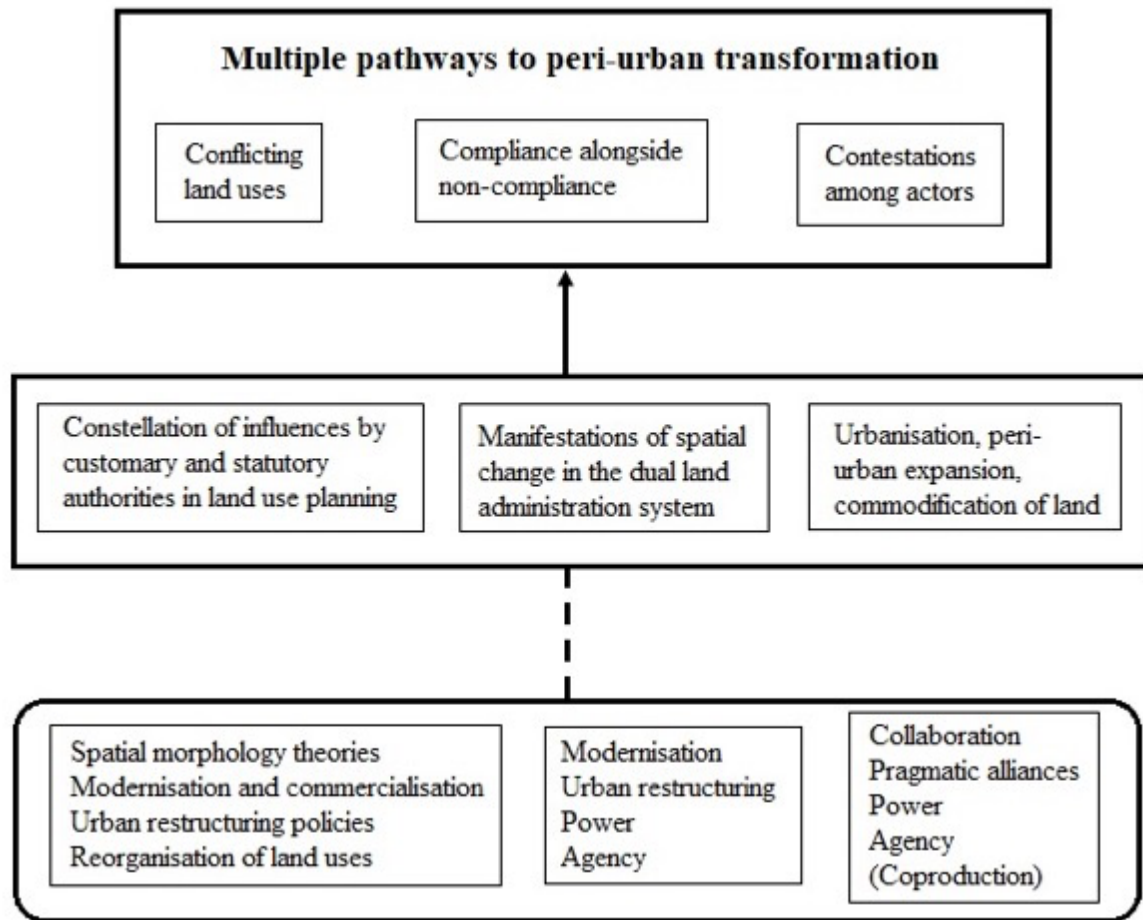


Figure 2.2: Summary conceptual framework

Source: Author's construction

2.13 Conclusion

This chapter has described the theoretical and conceptual approaches through which peri-urban spatial change and land administration systems are assumed to interact within the customary land tenure system. Research into the different aspects of peri-urban areas in sub-Saharan Africa has increased over the last two decades. There is already an important body of knowledge on peri-urban transformation concerning the environmental, socio-economic, and political dynamics and actor constellations of influence in peri-urban interfaces. Peri-urban areas are particularly interesting in the context of sub-Saharan Africa as the changing customary land tenure system is deemed to influence transformation processes through the collaborative actions of traditional and statutory stakeholders and institutions. The customary land tenure system is pervasive across many parts of sub-Saharan Africa and takes diverse forms across different ethnic and tribal groupings. Land administration is identified as

overlapping with land use and spatial change, particularly in sub-Saharan Africa. Land administration systems themselves are largely informed by neoclassical and neoliberal approaches to property rights and land markets. These have triggered increased demand for land, land commodification and speculative land purchases in peri-urban areas. Peri-urban areas show that spatial transformation is multi-faceted and cannot be oversimplified in linear cause and effect scenarios. What is important about peri-urban transformation is that it is triggered by different transitions and cycles. The literature reaffirms power and agency constellations in peri-urban areas in which land tenure and land administration produce nuanced peri-urban forms. Yet, little is known about spatial change processes and everyday local land use planning politics in peri-urban areas where several transitions are taking place at the same time. The thesis begins to fill this gap by examining everyday land use planning processes that shape peri-urbanisation, including the participation of traditional authorities. This thesis contributes to understanding more specific transformation factors such as traditions, culture, customs, and norms. Across sub-Saharan Africa, the role of culture and traditions in land administration and land use rights continues to play a central part in peri-urban transformation. Again, both the customary and statutory tenure systems and the actors involved within them trigger the peri-urban land market and how it responds to processes of spatial transformation. There are also different conflictual situations that arise between and within the statutory tenure and customary tenure systems across different countries in sub-Saharan Africa. These dimensions of peri-urbanisation present both opportunities and constraints for peri-urban transformation and land administration in the context of sub-Saharan Africa, as will be evident for Ghana in the chapter that follows.

CHAPTER THREE

STUDY SETTING: URBANISATION, SPATIAL PLANNING AND LAND ADMINISTRATION IN GHANA

3.1 Introduction

The previous chapter delved into the theoretical and conceptual underpinnings of how land administration systems under the customary and statutory land tenure forms respond to and drive peri-urban spatial change, particularly in countries across sub-Saharan Africa. Here, I build on the previous chapter to review land administration practices under customary and statutory land tenure systems and how this has been limited by peri-urbanisation in Ghana. First, I review the literature on the history of urbanisation in Ghana during colonisation and the post-independence era. Urbanisation is discussed in these distinct epochs because colonial rule, independence and further political change had implications for changing planning and land administration policies. Against this backdrop, I review the literature on the compound housing architecture as a form of housing that has its roots in pre-colonial settlement forms in Ghana and emerged into an urban typology during colonialism, and this still marks an important spatial pattern in village cores. Associated with this is how the subsequent shift to single-family housing has contributed to peri-urbanisation.

The chapter further examines economic growth and population increases as drivers of peri-urbanisation among cities in Ghana. The chapter then returns to Ghana's history to provide background to various spatial planning frameworks introduced by state powers in the pre-colonial, colonial, and post-colonial eras. The various pieces of spatial planning legislation are reviewed from the Town and Country Planning Ordinance of 1945 (Cap. 84) up to the Land Use and Spatial Planning Act 925 of 2016. Based on this review, the chapter contends that the land administration framework in Ghana influences peri-urbanisation. As pointed out in Chapter 1, I assume that the roles of the various key land sector actors, the Lands Commission, the Physical Planning Department and traditional authorities in the land administration system, influence peri-urban spatial change.

The chapter hones in and provides background on Kumasi and Sunyani, where customary land and the vested land administration practices influence spatial change outcomes in my peri-urban case study settlements of Abuakwa in Kumasi and Adomako in Sunyani. The chapter

concludes with a justification of the two contrasting cases in Abuakwa and Adomako to understand how statutory and traditional actors influence the manifestations of spatial change in Kumasi and Sunyani through different land administration practices.

3.2 Urbanisation and planning in Ghana: A historical perspective

Urban population growth and physical expansion have been attributed to rural-urban migration, natural increase (excess births over deaths) in urban areas and the reclassification of settlements (see Figure 3.1) into the urban category by virtue of their population reaching a particular number of inhabitants qualifying an area as urban. This figure is 5000 people (Songsore, 2010). In 1960 (three years after independence), Ghana's share of urban population was 23 per cent with many inhabitants living in Accra and Kumasi. The share of the urban population had reached 29 per cent by 1984. By 2000, Ghana's share of the urban population was 32 per cent, which increased to 50.9 per cent in 2010 (ten years later) and 56.7 per cent in 2019. Ghana, therefore, can be described to be in an urbanised epoch (Adarkwa, 2012). During the same period, the number of urban settlements also increased from 366 in 2000 to 695 in 2010.

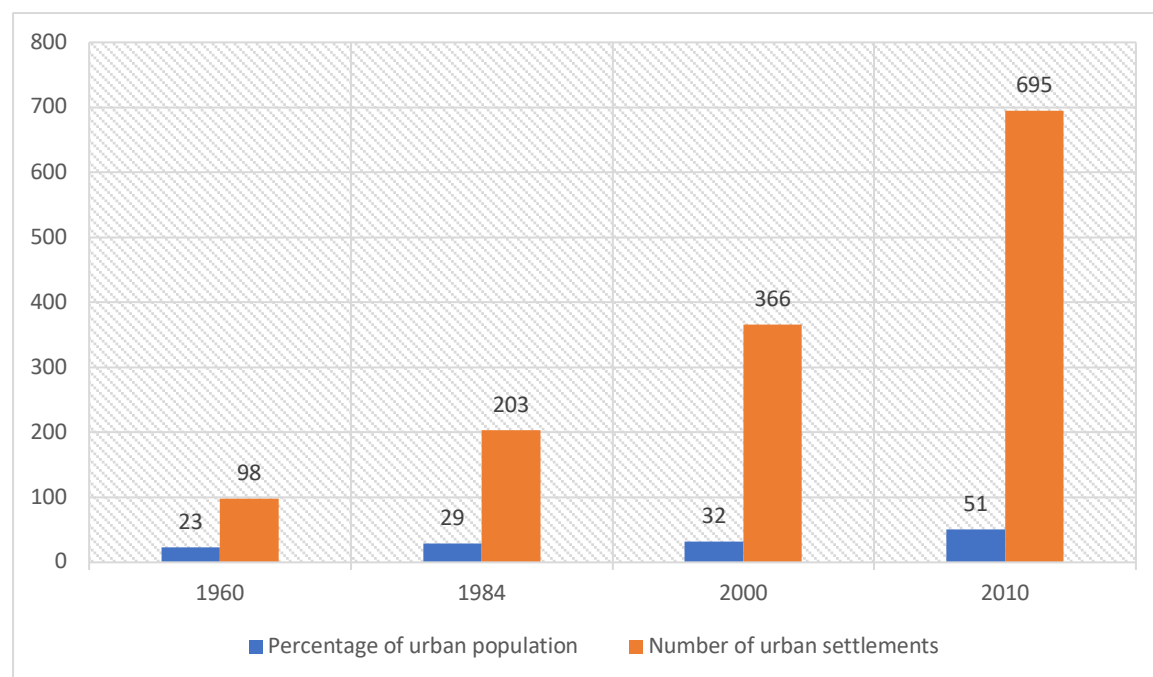


Figure 3.1: Number of urban settlements and percentage of urban population from 1960 to 2010

Source: Compiled by the author using data obtained from the Ghana Statistical Service, 2014a

Urban population among cities in the south, such as Accra, and in the central part, Kumasi, have witnessed sharp increases compared to other cities further north, such as Bolgatanga and Wa (Ghana Statistical Service, 2014a). The primacy status enjoyed by Accra in terms of political administration, economic organisation and population size has reinforced rapid urbanisation and spatial transformation, which has further accelerated peri-urbanisation. Accra currently has outgrown its municipal boundary and its built form has expanded to other municipalities, forming an urban agglomeration or city region (Korah, Mathews and Tomerini, 2019.) In terms of the urban population, 87.4 per cent of the people in the Greater Accra Region lived in urbanised areas, according to the 2010 Population and Housing Census (Ghana Statistical Service, 2012). Urban population estimates in the Accra Metropolitan area for 2019 stood at 2.1 million people out of the 4.9 million inhabitants in the Greater Accra Region (Ghana Statistical Service, 2020).

Kumasi is the fastest-growing city in Ghana, with an average annual growth rate of around five per cent from 2000 to 2010 (Ghana Statistical Service, 2014b). Out of the 5.8 million inhabitants of the Ashanti Region, Kumasi's population in 2019 stood at 2.1 million, exactly the same as Accra (Ghana Statistical Service, 2020). The increasing urban population in Kumasi has triggered increased urban expansion, which is witnessed in the continuous build-up of peri-urban areas. As in the case of Accra, many of the urbanising peri-urban areas, including my case study area of Abuakwa, are outside of the Kumasi Metropolitan Area and not included in the figure of 2.1 million people. A recent figure shows that the annual average growth in built-up areas in the Greater Kumasi Metropolitan Spatial Region, of which Abuakwa is part, is around 6 per cent (Acheampong *et al.*, 2017). Kumasi is an important city in what is referred to as the 'Urbanisation Triangle' because historically, it served as an important centre of trade in gold and was the heart of culture of the Ashanti Kingdom (Ghana Statistical Service, 2014b). The growth of Kumasi has been reinforced further by investment by post-colonial governments in road and air transportation infrastructure that connect major cities.

The history of urbanisation is important for discussions in this thesis because it helps in understanding the historical footprints of spatial transformation patterns in cities of the Gold Coast (now Ghana). Ghana depicts a similar spatial pattern to other countries in sub-Saharan Africa with rapid increases in the urban population in a small number of 'colonial cities' (Cobbinah and Niminga-Beka, 2017; Ghana Statistical Service, 2014a; Songsore, 2010).

Before the arrival of European merchants to the Gold Coast, kingdoms were involved in trade among themselves. The Ashanti Kingdom provides an important starting point to understanding urban development even before the 1900s. This is because Kumasi became the centre of the Ashanti Kingdom and triggered the growth of urban areas through trade and the formation of alliances between several states to form the Greater Asante Union (Amoako and Korboe, 2011). Thus, Kumasi's role in the Ashanti Kingdom formed a centre for trade in mineral resources such as gold. The constellation of the kingdoms explains urban organisation in Ghana because through wars and conquests, major cities emerged as populations increased (*ibid.*). These other kingdoms included those in the north, such as the Dagomba, Mamprusi, Gonja and Wala (Abudulai, 1986).

Trans-Atlantic trade and the arrival of the Europeans in the Gold Coast further triggered urbanisation, particularly in coastal towns such as Accra, Cape Coast and Sekondi-Takoradi (Yankson and Bertrand, 2012). Thus, the pre-colonial period involved commerce between European merchants who were exploring new trading grounds, mostly in gold and other minerals and the kingdoms that held traditional authority. These trade expeditions led to the Europeans building several forts, the Ussher Fort built by the Dutch in 1650, the Christiansburg Castle built by the Danes in 1651, and the James Fort built by the English in 1673 (Yankson and Bertrand, 2012). Coastal cities such as Cape Coast witnessed the construction of the Cape Coast Castle, and the Elmina Castle in Elmina, which were later used partly in the illicit Trans-Atlantic slave trade. The building of these infrastructural facilities manifested spatially as the European traders strategically sited these facilities in places that could guard them against rival merchants in the resource exploitation trade. Thus, although the building of the various castles and forts was not based on any spatial planning policy, the era marks spatial planning in the then Gold Coast (Acheampong, 2019).

During the British colonial rule from 1844 to 1957, there were no specific policies on spatial planning in the Gold Coast. The colonial administration embarked on certain reorganisations that shaped the spatial organisation in the Gold Coast. For example, the movement of the capital from Cape Coast to Accra in 1877 triggered rapid urban development in Accra and its surrounding areas (Agyei-Mensah and Ardayfio-Schandorf, 2007). The colonial administrative structure was centred in southern Ghana and witnessed investments in major infrastructural projects such as roads, hospitals, ports, and schools which manifested spatially. These projects were contained in development plans designed by governors at the time.

Ewusi (1974) argues that the 10-Year Development Plan (1920-1930) by Governor Gordon Guggisberg preceded development planning in most parts of the developing world. The Guggisberg Plan emphasised infrastructural development and not spatial planning per se. The Plan triggered further urbanisation through the rollout of major infrastructural projects that were undertaken in cities that illustrate the Urbanisation Triangle – Accra, Kumasi, and Sekondi-Takoradi (see Figure. 3.2 below). The growth and spatial distribution of Sekondi-Takoradi were influenced by the construction of the Takoradi Harbour, which was built between 1921 and 1928. The Harbour was served by the Western Rail Line that carried agricultural produce such as cocoa and minerals such as bauxite, gold, and manganese from the Western Region to facilitate the resource exploitation by the colonisers (Jedwab and Moradi, 2012).

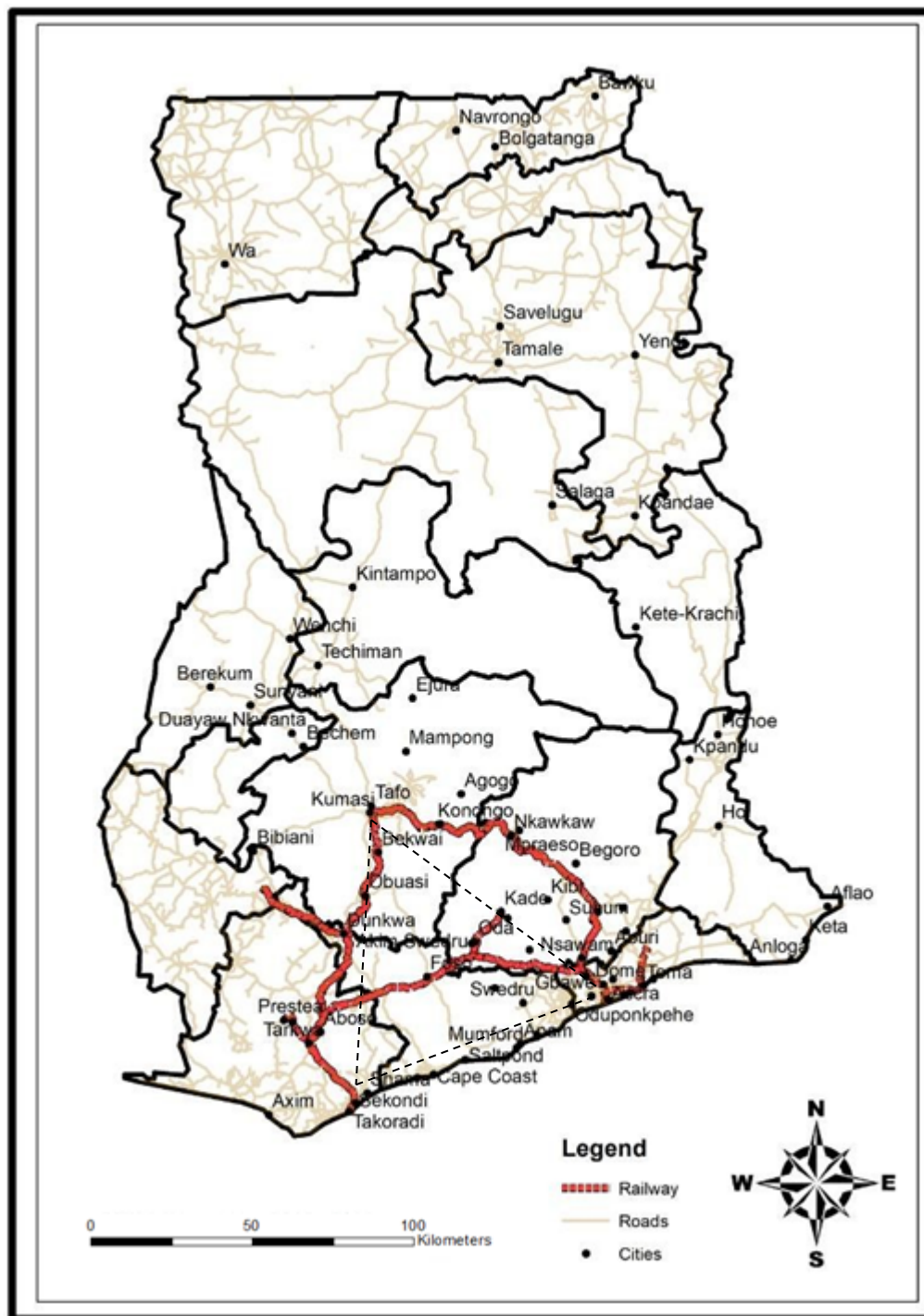


Figure 3.2: Key cities illustrating the 'Urbanisation Triangle' in Ghana

Source: Author's construction based on the map of Ghana

3.3 Drivers of urbanisation in post-independence Ghana

As mentioned in Chapter 1 and the introduction section of this chapter, urban and peri-urban areas in Ghana are witnessing rapid expansion. This can be attributed to three main factors, namely population increases, land administration practices, and land use planning regulation. This section discusses the drivers of urban transformation by reviewing theoretical and conceptual perspectives in the context of Ghana. The poorly planned urban expansion has been attributed to the trend in economic growth and demographic changes because planning during the post-independence era focused on economic planning (Yeboah, 2000). The first post-independence government (1957 - 1966) under Dr Kwame Nkrumah was preoccupied with the provision of housing and other critical infrastructure such as the Akosombo Hydro Electric Dam and the Accra-Tema Motorway to meet the demands of the new republic (The Economic Weekly, 1959). Other such examples are the opening of the Kotoka International Airport in 1958 and the modern port facilities at the Tema Harbour in 1962 (Ewusi, 1974). These new projects attracted economic development, which in turn triggered migration to Accra and Tema. The construction of the Harbour led to the setting up of many factories in Tema and Accra that employed many people. Master planning interventions in the major cities focused on critical infrastructure and this manifested in a concerted spatial pattern (Acheampong, 2019). This accordingly attracted people to these cities and towns in search of jobs.

The aspirations of the government under Dr Nkrumah were short-lived as the economic downturn resulted in slow economic growth and performance (Adarkwa, 2012). Dr Kwame Nkrumah was overthrown in 1966 by a military coup. The period from 1967 to 1979 is mostly described as the 'lost decade' because economic growth slumped with less attention on spatial planning (Acheampong, 2019). This period is associated with intermittent military coups, which derailed many projects and progress made by the Nkrumah government. The military coups further exacerbated the already turbulent political situation in the country. By 1975, Gross Domestic Product (GDP) recorded a negative 12.4 per cent growth (Republic of Ghana, 2018). The poor economic performance in the 1970s was further triggered by falling commodity prices on the world market.

The 1980s and 1990s witnessed an improved economic performance after the country experienced a comparatively stable political atmosphere under military rule. Cowan (1994) observes that rapid urbanisation in the case of Ghana could be attributed to import substitution policies that favoured urban development through industrialisation. The average GDP growth

in Ghana from 1990 to 1999 was 4.3 per cent, an improvement compared to the 1970s. Economic performance data from the World Bank (see Figure 3.3) shows that Ghana's economy picked up in the 1990s. This period saw the implementation of SAPs by the World Bank and local economic development plans by the government to improve dwindling economic fortunes in most sub-Saharan African countries (Yeboah, 2000; Mensah, Bawole and Ahenkan, 2017). Data on economic growth rates suggest that Ghana recorded an average rate of GDP of 5.7 per cent per annum from 1984 to 2013, while the average GDP growth rate from 2005 to 2013 was 7.8 per cent per annum (Republic of Ghana, 2018). This shows improved economic performance from the backdrop of poor and negative growth rates in the 1970s. This was coupled with increasing disposable income of the government and the private sector to invest in physical infrastructure (*ibid.*).

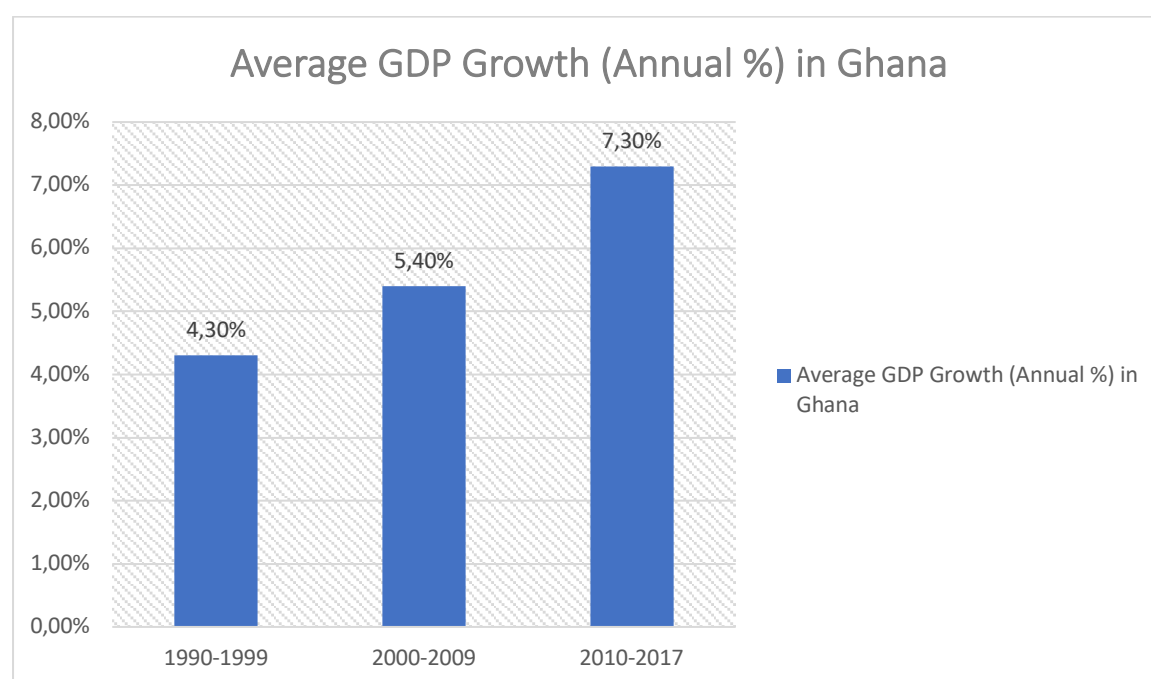


Figure 3.3: Average GDP Growth (Annual %) in Ghana (1990-2017)

Source: Compiled by the author based on data from the Republic of Ghana, 2018

Economic recovery continued from 2000 to 2009, a period in which Ghana recorded an average of 5.4 per cent annual GDP growth (Republic of Ghana, 2018). Economic growth continued to improve as Ghana recorded an average annual GDP growth rate of around 7 per cent from 2010 to 2017 (*ibid.*). The level of urbanisation has increased not only due to economic growth and

demographic changes but also due to government-led neoliberal economic policies that are urban centred (Yeboah, 2000).

3.4 The history of Ghana's spatial planning framework

Spatial planning and urban development were merged in post-World War II development planning under British colonial rule and the development plans at the time. The post-World War II planning focused on rebuilding rather than spatial planning per se, and the British Administration implemented in Ghana the sort of planning that was practised in Britain at the time (Acheampong, 2019). While the emphasis was not placed on developing spatial planning legislation, this era marked the onset of spatial planning in modern-day Ghana (*ibid.*). The 4-Year Development Plan by Sir Alan Burns (1942-1947) further triggered the development of infrastructure in major cities at the time, mostly in the southern sector to strengthen the capacity of the colonial administration to exploit resources (Acheampong, 2019). Housing development was a key component of development plans during this era, aimed at addressing overcrowding and poor sanitary conditions in urban areas, particularly in Accra and Kumasi (Arku, 2009). The construction of housing units by the state, coupled with state assistance to indigenous people who were affected by the government's infrastructural projects pushed the boundaries of Accra further into the periphery. Besides the use of legislation, the British Administration influenced the pattern of urbanisation through actions such as the re-designation of the role of cities (Ghana Statistical Service, 2014a).

In the post-independence era, policies and plans of subsequent political changes further influenced the pattern of urbanisation in cities such as Accra, Kumasi and Tema. The extent of expansion in Accra presently shows growth beyond the boundary of the 1958 Accra Master Plan. Major infrastructural projects have made Accra both the political and economic capital of Ghana (Agyei-Mensah and Ardayfio-Schandorf, 2007; Adarkwa, 2012). Thus, the role of colonial cities centred around trade and administration rather than industrial production (Adarkwa, 2012). Ghana, therefore, has experienced urbanisation without industrialisation.

In this section, I discuss the history of spatial planning in Ghana in the colonial and post-colonial periods (also set out as an overview in Table 3.1).

Table 3.1: Timeline analysis of the historical spatial planning and the planning system in Ghana

Dimension	Pre-1945	1945-1956	1957-1966	1967-1979	1980-1991	1992-1999	2000-2020
Legislative Framework on Spatial Planning	- No specific legislative frameworks that guided spatial planning - Spatial planning subsumed in development planning -Planning under the dictates of British Colonial Rule - Traditional kingdoms influenced spatial governance in their respective states	Promulgation of the Town and Country Planning Ordinance of 1945 (Cap. 84)	Town and Country Planning Act of 1958 (Act 30) and the Town and Country Planning Act of 1960 (Act 33)	- The 'Lost Decade' - Military coup d'états derailed planning - Cap. 84 remained the guiding legislation	Decentralised Development Planning under military rule	- The 1992 Constitution is formulated to guide development and planning under constitutional rule - The Local Government Act of 1993, Act 462 is developed - National Development Planning Systems Act of 1994, Act 479	- National Urban Policy of 2012 - Land Use and Spatial Planning Act of 2016 (Act 925)
Focus of Spatial Planning	Planning focused on improvement in economic and social infrastructure such as roads, electricity, hospitals, and housing	Modernist planning schemes and physical development in major cities	Decentralised spatial planning with administrative offices at regional and district levels	Emphasis on economic recovery and less of physical development	- Emphasis on development planning - Spatial planning relegated to the background	- Spatial planning as key local government objective - Spatial and human settlement policies and plans formulated - Physical development to be regulated by planning authorities	- Spatial planning recognised as a key aspect of development planning - Spatial planning in a hierarchical order at national, regional, and local levels
Spatial Plans	10-Year Development Plan of Gordon Guggisberg (1919 - 1924) 4-Year Development Plan of Sir Alan Burns (1942 - 1947)	Master Plans were developed for major cities	Designated Planning Areas to benefit from modernist spatial planning	Short-term (<i>ad-hoc</i>) plans by military governments	Projects on urban development arising out of economic plans.	Decentralised planning	- National Urban Policy Action Plan developed - Introduction of Spatial Development Frameworks
Government	British Colonial Rule	British Colonial Rule	Civilian Rule	Intermittent Military Rule	Military Rule	Constitutional Democratic Rule	Constitutional Democratic Rule

Source: Adapted from Acheampong, 2019

It could be argued that Cap. 84 marked the birth of an official legal framework, which provided zoning and building codes to guide urban development (Ghana Statistical Service, 2014a). The Act “provided for the orderly and progressive development of land, towns and other areas, to preserve and improve their amenities and for related matters” (Town and Country Planning Act, 1945: vii). Under this spatial planning regime (1945-1956), the British Colonial Administration introduced modernist planning schemes and physical development in major cities in Ghana such as Accra and Kumasi. As already mentioned, this was an extension of the post-WWII reconstruction interventions, which were being undertaken in Britain (Acheampong, 2019).

The initial focus of spatial planning during the colonial era was the development of master plans to direct and control human settlements. Spatial planning was a highly centralised technocratic function performed by the colonial administrators. Spatial planning in the early colonial days concentrated on the European dominated suburbs while the areas occupied by the natives remained largely unplanned with unsanitary conditions (Ghana Statistical Service, 2014a). The nature of spatial planning during the colonial administration is visible in the stark differences that exist in Accra, showing well-planned suburbs such as Ridge, which was a European dominated settlement area, and indigenous suburbs such as Chorkor and Madina, which depict narrow streets and clustered housing (Ghana Statistical Service, 2014a).

As previously mentioned, zoning interventions led to segregation between European residential suburbs and those of the indigenous people. The colonialists wanted to protect themselves from disease outbreaks that killed hundreds of people in places such as Accra in the early 1900s (Arku, 2009; Ghana Statistical Service, 2014a). The outbreaks led to the amendment of the implementation of planning interventions to include low-income settlement areas. The colonial government, in some instances, demolished entire suburbs occupied by the indigenous population and resettled them in areas with what was deemed proper housing (Arku, 2009).

The Town and Country Planning Ordinance was amended after independence to meet the objective of the post-independence state. The Town and Country Planning Act of 1958 (Act 30) and of 1960 (Act 33) had a mandate to decentralise spatial planning functions, which were hitherto a centralised activity. This brought about the setting of regional and district level offices to perform Town and Country Planning functions under the auspices of the Minister of Town Planning. The Minister had vested powers that required him to declare local areas as ‘Designated Planning Areas’ through the passage of Executive Instruments (Acheampong,

2019). These discretionary powers allowed him to declare which towns or villages became planning areas and subsequently required planning schemes to guide physical development (*ibid.*).

In the process of declaring planning areas, only urban areas were considered. The implication of this spatial planning regime led to the marginalisation of rural and peri-urban areas as it did not provide direction for land use planning in the latter areas. In many peri-urban areas in Kumasi, physical development occurred through negotiations among developers and traditional authorities as land delivery and physical planning processes came under the control of chiefs and sub-chiefs with minimal state control in many rural and peri-urban areas (Cobbinah and Amoako, 2012). This partly explains why haphazard development and unapproved buildings continue to dominate many peri-urban areas (*ibid.*).

Spatial planning was conspicuously ‘missing’ from 1967 to 1979 due to historical developments in Ghana in this period, commonly referred to as the ‘Lost Decade’ (Acheampong, 2019). The term derives from the intermittent military coups which severely affected all aspects of national life. The focus of the governments at the time was on economic recovery and less on physical development. Spatial plans were ad-hoc and mainly centred around public housing projects in major cities (Adarkwa, 2012; Acheampong, 2019).

Spatial planning suffered further setbacks from the early 1980s to the early 1990s under the military rule of the Provisional National Defence Council (PNDC). During this period, the various planning institutions were poorly resourced, as they had little to no funds to support spatial planning activities (Mensah *et al.*, 2017). The PNDC government adopted decentralised planning from 1981 to 1989, although under military rule, decentralisation did not happen in its truest sense (*ibid.*). The objective of the military government was economic recovery and sustaining growth. It placed little emphasis on spatial planning, and this led to the regional and national offices of the Town and Country Planning Department receiving inadequate resources to discharge their functions.

Ghana adopted democratic governance after the 1992 Constitution was finalised and adopted. Spatial planning in Ghana was given a boost from 1993, when decentralisation was pursued under the constitutional democracy, followed by a decade of the enactment of key policies and legal frameworks. This included legislation to direct development planning, with much emphasis on spatial planning, as a key national development objective (Republic of Ghana,

1993). The passage of the Local Government Act 462 of 1993 sought to “establish and regulate the local government system in accordance with the Constitution and to provide for related matters” (Republic of Ghana, 1993: v). This led to the declaration of all settlements in Ghana as planning areas. Consequently, all settlements needed to be guided by planning schemes approved by the Physical Planning Department (formerly Town and Country Planning Department). It was no longer the discretion of the Minister of Town Planning to declare places as planning areas. Further to this, Act 462 was additionally strengthened after the passage of the National Development Planning (System) Act 480 of 1994 to define and regulate planning procedures.

In 2016, the Land Use and Spatial Planning Act 925 was passed to further deepen spatial planning efforts in Ghana. The Act seeks to

revise and consolidate the laws on land use and spatial planning, provide for sustainable development of land and human settlements through a decentralised planning system, ensure judicious use of land in order to improve quality of life, promote health and safety in respect of human settlements and to regulate national, regional, district and local spatial planning, and generally to provide for spatial aspects of socio-economic development and for related matters (Republic of Ghana, 2016a:9).

The current state recognises spatial planning as a key component of development planning. Act 925 espouses a three-tiered spatial planning system undertaken at national, regional, and local levels (Republic of Ghana, 2015). At the national level, spatial planning engages in policy formulation, whereas the regional level interprets national policies that may be unclear or difficult for local spatial planning institutions, including the Metropolitan, Municipal and District Assemblies. I discuss the functions of the major institutions involved in spatial and land use decision-making in the next section.

3.5 Land use planning in Ghana

In the era of increasing urbanisation in Ghanaian cities, land use planning has an ever-increasing role to play in development planning and spatial patterns. As Ghana strives to operationalise and achieve the goals espoused by global agendas on sustainable cities, the people-land relationship remains a key planning challenge. The SDG 11 emphasises, in particular, the role of land use planning as an activity to bring about inclusiveness, safety, resilience, and sustainability in all human habitats (UN-DESA, 2020). Land use planning

involves the decisions about how land and buildings are arranged in a particular area (Bugri, 2012). This definition illuminates the interfaces between land, buildings, roads, and other physical modifications to the environment in urban and peri-urban areas. There are also the technical and legal aspects of land use planning and the role of statutory bodies to direct how human activities should be planned, organised, enabled and their excesses controlled.

Ghana has land use planning legislation contained in the Land Use and Spatial Planning Act 925 of 2016 and the Local Governance Act of 2016, Act 936. There are other laws that guide land use planning, such as the National Building Regulations, 1996 (LI 1630) and the Ghana Building Code 2018, GS 1207. Article 267 of the 1992 Constitution mandates only statutory planning authorities to approve a developer's request to put any piece of land in urban and peri-urban areas to use. Act 925 of 2016 further operationalises the spirit and letter of Article 267 by specifying land use and spatial planning processes in national development (Republic of Ghana, 2016a).

The main challenge facing the realisation of the objectives on land use enshrined in pieces of legislation is the land administration system in Ghana (Kasanga and Kotey, 2001; Bugri, 2012). As in other countries in sub-Saharan Africa, land use planning in Ghana is further made complex by the multiplicity of laws that give both statutory and traditional authorities powers in land governance. The implications of the legal plurality in land administration and the different actors present planners with a complex situation in terms of land tenure, land use planning and land development (Kasanga and Kotey, 2001.)

As Obeng-Odoom (2015) found, statutory authorities in the land sector have used their steering functions in land use planning to alienate the poor to the advantage of those holding power in the modern state. Traditional authorities derive their power from customs and the stool they occupy. This gives them freedom to undertake land redistribution to all those who require land for use. In the process of transferring land, the less powerful subjects at the fringes of power are more likely to be disadvantaged (*ibid.*). Similarly, traditional authorities sometimes accuse statutory authorities of using their offices to allocate lands that have high value to themselves and taking decisions on land and spatial development without their knowledge (Yaro, 2012). The allegation by traditional authorities is founded in instances where land allocated to the state has been used by public officials for their own purposes.

The entire land administration framework (see Figure 3.4) is fraught with challenges such as lack of transparency because an applicant in search of land or in search of a permit to commence development on any piece of land must juggle through customary tenure institutions and statutory institutional arrangements (Kasanga and Kotey, 2001; Kuusaana and Gerber, 2015). As already mentioned in Chapter 1, there seems to be confusion in the Constitution regarding the role of chiefs in land disposition and the issuance of land use permits. On the one hand, the 1992 Constitution gives traditional authorities the power to transfer land to developers, but on the other hand, they cannot issue permits for land use. As I will show in the discussion of my case study findings in Chapters 5 and 6, the interfaces between institutions, law, politics, and administration of land result in multiple pathways through which spatial transformation occurs and manifests in peri-urban areas under the customary land tenure system (Arko-Adjei, 2011).

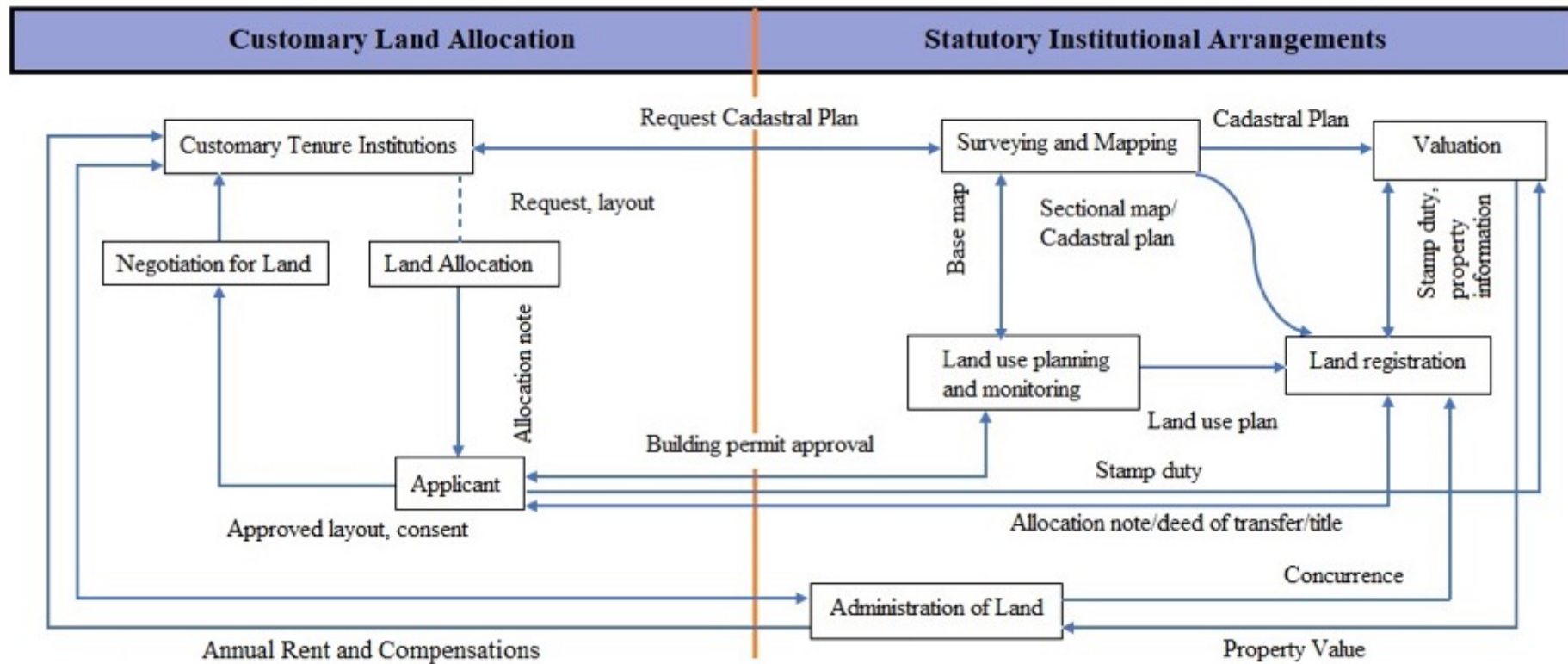


Figure 3.4: The land administration and land use planning process in Ghana.

Source: Author's own construction based on the work of Arko-Adjei, 2011

In principle, land administration, the land use planning framework and legislation in Ghana tend to suggest that land administration processes are ubiquitous in all cities. However, they are not universal due to the different land tenure systems which exist in peri-urban areas. First, the size of a city and the ability of statutory authorities to adequately perform their land use planning control functions, to a large extent determine whether the various actors will abide by the approved processes.

Furthermore, the amount of power exercised by traditional authorities in a particular place determines whether they exercise their land ‘ownership’ rights and allows statutory authorities to perform land administration functions enshrined in law. These factors make it difficult to generalise the discussion about land administration and spatial change in Ghanaian cities. As already mentioned in Chapter 1, I chose Kumasi, a city associated with a traditional governance system and the prevalence of the centralised customary tenure system, and Sunyani, a city experiencing peri-urban growth under the Vested Land Tenure System. The two cities provide contrasting case studies on how spatial change occurs in peri-urban areas under the centralised customary land tenure system and those under the customary land vested in the state.

3.6 Major stakeholders in land administration and land use planning in Ghana

The major institutions in land administration under the customary tenure and land use planning framework in Ghana are the Physical Planning Department, Lands Commission, Office of the Administrator of Stool Lands, Traditional Authorities and Metropolitan, Municipal and District Assemblies. Given their importance in my case studies, I set out each one below.

3.6.1 Lands Commission

The Lands Commission is a national institution with offices in various regional capitals. It plays a central role in land administration in Ghana. By law, the Commission oversees land administration and liaises with the Physical Planning Department to prepare planning schemes for physical development. Article 258 (1) of the Constitution summarises the functions of the Commission as follows:

- (a) on behalf of the Government, manage public lands and any lands vested in the President by this Constitution or by any other law or any lands vested in the Commission; (b) advise the Government, local authorities and traditional authorities on

the policy framework for the development of particular areas of Ghana to ensure that the development of individual pieces of land is coordinated with the relevant development plan for the area concerned; (c) formulate and submit to Government recommendations on national policy with respect to land use and capability; (d) advise on, and assist in the execution of, a comprehensive programme for the registration of title to land throughout Ghana; and (e) perform such other functions as the Minister responsible for lands and natural resources may assign to the Commission.

Items ‘a’, ‘b’ and ‘d’ in the quoted paragraph above relate to the functions of the Commission in my case studies in this thesis. The discussion of land administration practices and land use planning in the Abuakwa and Adomako case studies explains how the Commission performs its functions in the different land tenure systems. The Commission is structured in four divisions (see Table 3.2), namely Survey and Mapping, Land Valuation, Land Registration and Public and Vested Land Management. Land administration and land use planning functions discussed in the case studies of this thesis relate to the work of the Survey and Mapping, Land Registration, and the Vested Land Management Divisions. The Vested Land Management Division only applied in the Sunyani case study because the land in Adomako is vested in the state.

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Table 3.2: Functions of the various divisions under the Lands Commission

Division	Functions	Legal Framework
1. Survey and Mapping	• Supervise, regulate and control the survey and demarcation of land for the purposes of land use and land registration • Take custody of and preserve records and operations relating to the survey of any parcel of land • Direct and supervise the conduct of trigonometric, hydrographic and topographical surveys • Coordinate the preparation of plans from the data derived from the survey and any amendment of the plans • Coordinate the production of photogrammetric surveys (aerial photography, orthophoto mapping, etc). • Survey, map and maintain the national territorial boundaries including maritime boundaries • Develop and maintain the national geodetic reference network for the country • Supervise, regulate, control and certify the production of maps • Other functions determined by the Commission	Section 20 of the Lands Commission Act (Act 767)
2. Land Valuation	• Assessing the compensation payable upon acquisition of land by the Government • Assessment of stamp duty • Determining the values of properties rented, purchased, sold or leased by or to Government • Preparation and maintenance of valuation list for rating purposes • Valuation of interests in land or land-related interests for the general public at a fee • Valuation of interests in land for the administration of estate duty • Other functions determined by the Commission	Section 22 of the Lands Commission Act (Act 767)
3. Land Registration	• Publication of notices of registration upon receipt of an application for registration • Registration of title to land and other interests in land • Registration of deeds and other instruments affecting land in areas outside compulsory title registration districts • Maintaining land registers that contain records of land and other interests in land • Other functions determined by the Commission	Section 21 of the Lands Commission Act (Act 767)
4. Public and Vested Land Management	• Facilitating the acquisition of land for Government • Managing state acquired and vested lands in conformity with approved land use plans • Other functions determined by the Commission	Section 23 of the Lands Commission Act (Act 767)

Source: Compiled from Republic of Ghana, 2008

3.6.2 Office of the Administrator of Stool Lands

The administration of lands that fall under a stool is in general provided for through the Office of the Administrator of Stool Lands (OASL). This is established under Act 481 of 1994 “to provide for the administration of Stool Lands generally” (Republic of Ghana, 1994:vi). Pursuant to clause (2) of Article 267 of the Constitution, the OASL is mandated to play an important role concerning land revenue. According to Act 481, the OASL’s functions are threefold. First, the OASL establishes a stool land account for each stool. The Act stipulates that “all rents, dues, royalties, revenue, and any other payments, whether in the nature of income or capital from the stool lands are to be paid into these accounts” (*ibid.*). Second, the OASL collects these rents, dues, royalties, revenues, or the other payments, both income and capital, and has to account for them. Third, the OASL disburses the revenues determined following the prescriptions in Section 7 of Act 481 which state that

twenty-five per cent to the stool through the traditional authority for the maintenance of the stool in keeping with its status; (b) twenty per cent to the traditional authority; and (c) fifty-five per cent to the District Assembly within the area of authority in which the stool lands are situated (Republic of Ghana, 1994:1903).

There is some diversion between theory and practice about the prescriptions of the Act and what actually transpires in the management of revenues accruing from the sale of land. A recent study by Akaateba *et al.* (2018) suggests that the management of revenues by the OASL has been faced with challenges, particularly the non-disclosure of certain revenues from the sale of land. The two case studies in this thesis found that the management of revenues from the sale of land was not transparent, particularly in Abuakwa.

3.6.3 Traditional authorities

As already mentioned in the previous chapter, chiefs and other traditional authorities play significant roles in land administration. Their role in land administration practices and spatial planning on the continent predates colonialism (Kessey, 2006). To date, the chieftaincy institution remains a strong politico-traditional partner in statutory governance systems in spearheading development in Africa (Yaro, 2012).

As mentioned in the previous chapter, the Constitution recognises customary authorities who operate through their respective Traditional Councils and Regional Houses of Chiefs. The

Traditional Council is made up of the Paramount Chief as the head, Divisional Chiefs, and sub-chiefs in stool/skin land areas as members. Traditional Councils are recognised by the 1992 Constitution to undertake functions such as the adjudication of matters, for instance, conflict resolution in a chieftaincy, land disputes and boundary settlements. The Regional Houses of Chiefs is an organisation of paramount chiefs from the various paramountcies in a region, which meet to discuss matters affecting the chieftaincy institution. There is also a National House of Chiefs which operates at the national level with representation from all the 16 regions of Ghana. The Kumasi case study is under the Kumasi Traditional Council, whereas the Sunyani case study falls under the Sunyani Traditional Council. The Kumasi Traditional Council is the largest traditional council in Ghana and the most complex in structure (Manhyia Archives, 2021). Unlike the other traditional councils, the Kumasi Traditional Council is headed by the Asante King (Otumfuo) with representation from the Ashanti Region and some paramountcies in other regions such as Bono and Ahafo. The Sunyani Traditional Council is headed by the Paramount Chief of Sunyani (Sunyanihene) and supported by Divisional and sub-chiefs in some peri-urban towns in Sunyani. As already mentioned in Chapter 2, traditional authorities permeate land administration and land use planning from the local, regional, and national levels (Yiri II, 2006)

3.6.4 Metropolitan, municipal and district assemblies

Ghana operates a local governance system which is made of Metropolitan, Municipal and District Assemblies (MMDAs), Sub-Metropolitan District Councils, Urban Councils, Town Councils, Area Councils, and Unit Committees (Republic of Ghana, 2016b). In terms of distinction by population, a metropolitan, municipal, and district have a minimum of 250,000, 95,000, and 75,000 inhabitants, respectively (*ibid.*). The Local Governance Act 936 was passed in 2016

to provide for local governance in accordance with the Constitution; to establish a Local Government Service; to provide for the establishment and administration of the District Assemblies Common Fund; to provide for a National Development Planning System; to define and regulate planning procedures of District Assemblies; to co-ordinate, facilitate, monitor, and supervise internal audit activities within District Assemblies and for related matters (Republic of Ghana, 2016b:12).

Ghana has practised a local government system since 1986 and formally established legislation in 1993 (Act 462) to direct planning at the local level (Acheampong, 2019). Each Assembly has its administrative set-up and is headed by the Chief Executive, who is appointed by the President. Efforts in December 2019 by the ruling New Patriotic Party Government to make the position of Chief Executive an elected position was aborted for reasons of political polarisation (President Nana Akuffo Addo broadcast to the nation on 1 December 2019). The MMDAs are empowered by the Act to make by-laws to direct all local planning schemes, including the issuance of development permits. Those who flout these by-laws are liable for a fine or imprisonment. This is important for this thesis, because the two case study areas involve the preparation of planning schemes and physical development, and provide evidence of a level of informality in the adherence to the preparation of planning schemes and development permits.

3.6.5 Physical Planning Department

The Physical Planning Department began as the Town and Country Planning Department (TCPD) in the colonial era, as already mentioned. The mandate of the Physical Planning Department is to oversee urban planning at the national, regional, and local levels. As mentioned, the Town and Country Planning Ordinance, 1945 (Cap. 84) mandated the Physical Planning Department to manage the development of land, towns and areas according to planning guidelines developed by various government ministries and agencies such as the Ministry of Land and Natural Resources, Ministry of Environment, Science, Technology and Innovation, the Ministry of Local Government and Rural Development and the National Development Planning Commission (Republic of Ghana, 2015). The overall land use planning in Ghana is under the Land Use and Spatial Planning Authority (LUSPA), which ensures that land use plans are prepared by the Metropolitan, Municipal and District Physical Planning Departments to meet Medium Term Development Plans. Physical Planning Departments at the district level interact with the Lands Commission and traditional authorities at the level of land administration to govern land use and spatial planning (MEST and TCP, 2011). The LUSPA is headquartered in Accra and has regional and district offices to facilitate the three-tier planning system, which involves the preparation of Spatial Development Frameworks, Structure Plans and Local Plans. In 2011, the Ministry of Environment, Science and Technology (MEST) and the TCPD prepared a Manual for the Preparation of Spatial Plans (see Figure 3.5) to guide the ‘Three-Tiered Spatial Planning Model’ (MEST and TCPD, 2011).

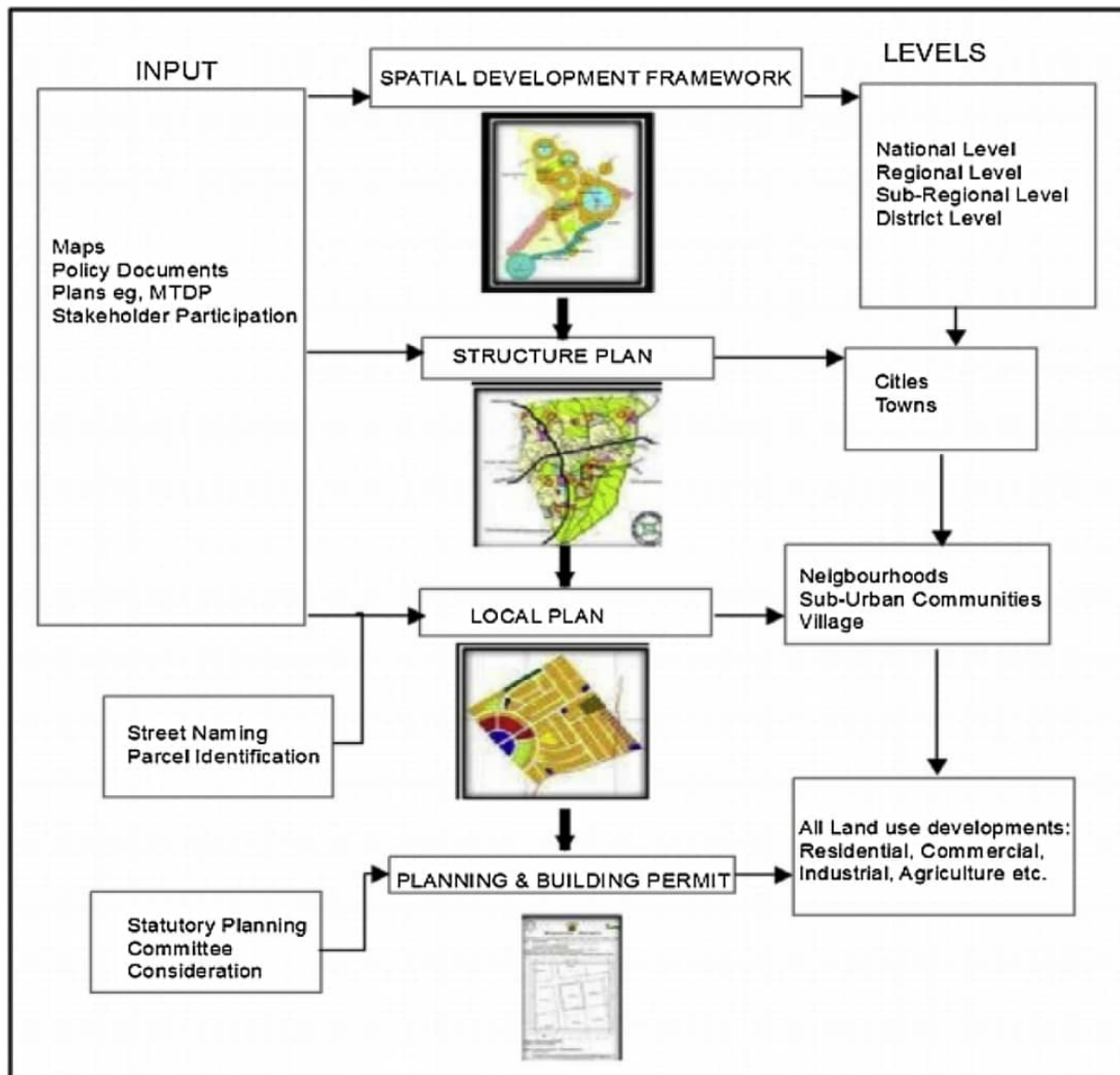


Figure 3.5: The Three-Tiered Spatial Planning Model

Source: MEST and TCPD, 2011.

Spatial Development Frameworks involve long-term planning, targeting areas of high growth, which require the preparation of a Structure Plan to guide development. Structure Plans may be developed at any level, including district, sub-district, city, or town, whereas local plans may be prepared for neighbourhoods that detail planning at plot level (Republic of Ghana, 2015). The 3-tiered planning system seeks to promote a bottom-up approach to depart from the more centralised or technocrat-led planning inherited from colonial planning systems. It also allows for spatial planning to reflect the aspirations of local people and the surroundings (*ibid.*).

3.7 The land tenure system in Ghana

Land tenure has been introduced and discussed in Chapters 1 and 2. The general definitions and types of tenure systems were explained in Chapter 2, including how land reforms have been implemented to address the seeming inefficiencies in the customary land tenure system across countries in sub-Saharan Africa. Here, I discuss land tenure systems in detail with an emphasis on Ghana. Land tenure in Ghana falls under two systems, customary and statutory, operating parallel to each other in a duality (Kasanga and Kotey, 2001).

Customary tenure in Ghana takes different forms. In the customary tenure system, land is 'owned' by the whole community, which is made up of families, clans, and tribal or ethnic groupings. As already mentioned, customary land constitutes most land in Ghana. In the different tenure systems, the chiefs and family or clan heads respectively are responsible for the management of customary lands, ostensibly for the benefit of their subjects (Bugri, 2012). As mentioned in Chapter 1, customary lands under the centralised system are associated with chiefs administering land by virtue of the powers vested in them by the stool or skin they occupy and the powers conferred on them by the state as prescribed in the Constitution.

The customary land tenure system prevails in rural areas and some urban areas in southern and parts of northern Ghana, where land remains under the control of traditional authorities such as chiefs (Bugri, 2013). As mentioned in Chapter 2, the acephalous system in some parts of northern Ghana presents different dynamics of communal landholding among kinsmen rather than a chief, as in the centralised system. To this point, one can argue that the customary land tenure system in Ghana is far from the simple conceptualisation of land held under the control of chiefs. Beyond the bigger umbrella of customary land tenure, there are specificities in terms of whether land is vested in a chief or among community members.

This notwithstanding, one of the main characteristics of the customary land tenure system is the central role of traditional authorities as the custodians of land. Customary or traditional authorities in certain parts of Ghana are influential in the preparation of land use plans, which triggers the conversion of rural lands into peri-urban plots, the creation of the peri-urban land market and the expansion of peri-urban frontiers (Akaateba *et al.*, 2018). The dominance of the customary land tenure system has a historical twist. The British Administration made attempts to expropriate land through the Crown Land Bill of 1897, but the Aborigines Rights Protection Society of the Gold Coast succeeded in rejecting such attempts (Asante, 1975). The Society

saw land as a resource for the local people and fought any attempts by the colonial administration to change the position of land in society. The colonial administration only succeeded in acquiring vacant land for public use after the payment of the appropriate compensation to the custodians (Akrofi and Whittal, 2013). In the current dispensation, parcels of land legally acquired by the state are managed by state agencies – the Lands Commission in most cases mentioned above.

In the current land use management dispensation, five typologies of land tenure systems prevail across the customary-statutory tenure divide in urban areas (Bugri, 2013:36-40). These are complex and may operate differently among tribes, clans, and families in a particular location or on a piece of land (*ibid.*). They are described in Table 3.3.

Table 3.3: Typology of land tenure systems in Ghana

Tenure	Characteristics	Overlap with other rights
Government/State land	These are lands acquired by the state for public use after the payment of compensation to chiefs and other claimants. The allodial title to such lands is legally recognised under the Constitution and the State Lands Act, Act 125 of 1962. State lands are vested in the President on behalf of the people of Ghana. The Lands Commission grants leases to applicants registrable under deeds or title registration.	Customary freehold, Common law freehold, Leasehold, Customary tenancies
Stool/Skin land vested	These are customary lands vested in the state on behalf of the respective stools/skins. The allodial title remains under the authority of traditional authorities. The Lands Commission is legally mandated to administer these lands on behalf of the President. The Lands Commission grants leases to applicants and is registrable subject to the limitations of the law.	Leasehold, Customary tenancies
Skin/Stool land	These are lands vested in customary authorities such as a chief or family head as recognised by the 1992 Constitution. This includes both the centralised system in southern Ghana and parts of northern Ghana and the acephalous system in some parts of the northern regions. The disposal of such lands is under the authority of traditional leaders and their council of elders per the dictates of the community. The allodial title is vested in the stool/skin but Article 267(3) of the 1992 Constitution requires that any disposition of land must be sanctioned by the Lands Commission and must be consistent with the development plan drawn up or approved by the planning authority for the area concerned.	Leasehold, Customary tenancies
Family/Individual land	These are lands recognised by the 1992 Constitution as vested in the family with the family head(s) or individual regarded as the body corporate for the tenure. Interests in this tenure typology are by the Lands Commission but without their consent or concurrence as in the case of skin/stool land.	Lease, Sub-lease, Customary tenancies
Communal lands	These are lands under customary tenure and are legally recognised as such. These lands in urban areas are state lands that are occupied by immigrants and squatters due to the non-development by the state. They are to be administered and recorded in customary land secretariats acting as local land registers.	

Source: Adapted from Bugri, 2013

3.8 Land administration systems in Ghana

In the previous chapter, land administration was discussed as involving policies, structures, and institutions for the governance of people-land relationships. Land administration was discussed as an attempt by the various stakeholders to respond to rapid urbanisation and peri-urbanisation, which manifest spatially through increasing demand for land to meet different uses. In this section, land administration is discussed as a set of rules, regulations, structures, and institutions that govern land and its related issues for the efficient spatial organisation of urban and peri-urban areas. Such policies are designed with nationally, regionally, and locally specific practices in mind to manage land tenure, land use rights, restrictions, and responsibilities. As explained in the previous chapter, Ghana's land administration system is shaped by remnants of colonial rule and by post-colonial land administration practices, as in other sub-Saharan African countries.

As with the tenure system, customary and state land administration practices in Ghana operate side-by-side (Karikari, Stillwell and Carver, 2003; Kasanga and Kotey, 2001). Land administration systems in Ghana are enshrined in the 1992 Constitution and other legislation in which public and customary lands are defined under the formal and traditional tenure forms, respectively. The different land administration systems operate with a set of institutions, rules, and regulations that guide land uses and transactions under statutory and customary authorities to perform functions such as land valuation, land use changes, and controls. As mentioned above, the Lands Commission undertakes these functions on behalf of the President. Article 257 (2) of the 1992 Constitution of the Republic of Ghana defines public lands as

[i]ncluding any land which, immediately before the coming into force of this Constitution, was vested in the Government of Ghana on behalf of, and in trust for, the people of Ghana for the public service of Ghana, and any other land acquired in the public interest, for the purposes of the Government of Ghana before, on or after that date.

The provisions in Article 267 (1) make all aspects of land administration a statutory function with the President as the overall 'administrator'. This is, however, not the case *de facto*, as there are traditional authorities who play diverse land administration functions. As mentioned, the prevailing land administration system involves traditional authorities across Ghana. Traditional authorities in the south and central parts, including Kumasi and parts of Sunyani,

administer stool lands while those in the north administer skin lands under their jurisdictions for their people by following customs (Bugri, 2012). Land in the Northern, Upper East and Upper West Regions, Savanna Region and Northeast Region are classified under skin land because the chiefs' authority is in the skin they sit (Akaateba *et al.*, 2018). As mentioned, there are specificities that exist among the different tribal groupings, even in northern and southern Ghana, in terms of land administration practices.

The place of traditional authorities in land administration is one of a constitutional provision. Chiefs, for example, are recognised as important partners in governing land tenure, land use, and land development functions. Article 267 (3) of the Constitution gives chiefs the power to allocate land for development as follows:

There shall be no disposition or development of any stool land unless the Regional Lands Commission of the region in which the land is situated has certified that the disposition or development is consistent with the development plan drawn up or approved by the planning authority for the area concerned.

By this authority vested in traditional authorities, chiefs are permitted to redistribute land to prospective developers in a leasehold of up to 99 years or under any other approved arrangements acting as the custodians of land under their stool or skin. Kasanga and Kotey (2001) explain that 'stools' or 'skins' of pre-colonial states acquired the right to such lands in their jurisdictions during British colonial rule just like the Crown in English law (Owusu-Ansah and Braimah, 2013). These stools or skins were vested with the allodial right to hold the lands in trust for the benefit of the community under the prevailing customs.

The evolution of the land administration in Ghana is faced with numerous challenges, including conflicts arising between the various statutory and customary actors. An Appraisal Report on the urban land market summarises the challenges of land administration and peri-urban development in Ghana as follows:

Except in few urban centres that have benefited from earlier urban renewal and development projects, there is no systematic cadastral mapping, registration, and titling program in Ghana. Indeterminate boundaries of stool, skin and family lands resulting from lack of reliable property maps and or plans and the use of old inaccurate boundary maps, lead to protracted litigation and freezing of land for development. Frequent encroachments on both public and private lands, multiple sales of residential parcels,

unapproved development schemes, resulting in haphazard developments, environmental degradation, and frequent violent confrontations between and among opposing claimants. (World Bank, 2003:7).

To improve land administration institutions and processes, Ghana enacted the National Land Policy in 1999 after identifying several challenges. As part of the objectives of the National Land Policy, the government implemented land reform projects to address the challenges. For instance, the LAP was implemented in 2003 to ensure an effective land administration system and spatial planning (World Bank, 2003). There are still challenges facing land administration in Ghana. Boamah, Gyimah and Nelson (2012) observe that about 80 per cent of all physical development in urban areas occurs under the control of traditional authorities and informal planning practices. The outcome of this situation manifests in many ways, such as haphazardly located development, building in unauthorised spaces, and conflict between different land users. This is partly manifest in the various negotiations that occur during the preparation of local plans, land subdivisions, land titling, registration, and valuation, also evident in my case studies. The result is that spatial change patterns in peri-urban areas mimic the various negotiations that are entered into by developers, traditional authorities, and statutory officials through the land administration functions in the form of spatial adaptations and physical-material practices. The Land Act 1036 of 2020 harmonises all previous land laws and land administration into a single Act. This new Act, among other things, brings together provisions on land tenure, land use rights, and responsibilities of the various land management institutions. These are expected to build and enhance the land administration framework, including land registration and tenure security.

3.9 Land speculation and commodification

As mentioned previously, the land administration system in Ghana recognises traditional authorities as active stakeholders in land management. Concomitant with the relationship between land administration and traditional authority are land commodification and land speculation. In southern Ghana, the role of chiefs in land redistribution has led to commodification (Amanor, 2001). As customary and statutory authorities engage in land redistribution in peri-urban areas to cater for the needs of land seekers such as new migrants, commodification occurs through land transactions (*ibid.*). Yaro (2012:351) argues that increasing land commodification associated with peri-urban development under customary tenure practices in northern Ghana has also resulted in benefits accruing from land transactions

to favour “political-traditional and economic elite”. Thus, the roles of traditional authorities have, in some instances, produced conflict-laden land administration outcomes in Ghana’s peri-urban areas (Owusu-Ansah and Braimah, 2013; Kasanga and Kotey, 2001).

Closely related to the concept of land commodification is ‘land speculation’ – “a situation of artificially created land shortages” by selling land in advance of development (Amanor, 2001:79). Land speculation triggers rapid expansion of development into the frontiers of agricultural lands. The outcome can be seen in sparsely populated peri-urban areas, which show a mixture of housing units interspersed with farming activities. The danger posed by land speculation is that it creates ‘artificial’ scarcity of land in peri-urban areas (Bugri, 2012).

The introduction of land administration and formalisation has given rise to individuals registering rights to land. This leads to the subdivision of land into urban plots, which are subsequently sold to land seekers. In the process, land is traded as a commodity in exchange for money. As land redistribution occurs, cheaper prices of land lead to speculation. Land speculation and commodification feature in my case study areas in Kumasi and Sunyani. The Land Act 1036 of 2020 seeks to ‘cure’ issues of land speculation, or commodification by enhancing accountability in land administration. The Act prescribes disciplinary sanctions against traditional authorities and any other persons who may misuse their fiduciary functions to engage in land speculation and commodification.

3.10 The compound housing as spatial manifestation in urban and peri-urban areas

Ghana’s rural areas are marked by a high frequency of traditional villages, some having grown into small towns and qualifying them as urban areas. Before colonial rule, most towns or urban centres in Ghana were characterised by compound housing, which can be found in the village core of almost every human settlement. In the case of Kumasi, village cores began as areas that were offered by the Asante King to conquered states or warriors who defected to join Kumasi (Blake, Kasanga, Adam, Nsiah-Gyabaah, Pender, Quashie-Sam, Warburton and Williams, 1997). This traditional form of housing saw some adaptations in the colonial and post-colonial periods. Various planning interventions incorporated former village areas which hitherto did not fall under the Town and Country Planning laws. At present, village core areas show distinct layouts from the remaining housing stock, as is the case in many other towns. In this section, I discuss compound housing as a spatial manifestation in urban and peri-urban areas. This is

relevant to this thesis, as peri-urban areas incorporate small historical towns with their village cores which are still made up of a particular form of compound housing.

Historically, the compound or courtyard housing type predates colonisation and dominates housing types in many countries. Compound or courtyard houses have a history of over ten thousand years and are known in over 40 countries across the globe (Rapoport, 2007). They come in different shapes and sizes depending on factors such as tradition, family size and cultural norms around privacy (*ibid.*). In Rapoport's analysis (2007), it is argued that depending on the above-mentioned reasons and others, compound houses take different shapes such as square, rectangular, round, or amorphous. Traditionally, compound housing accommodates several generations of maternal family members (Owusu-Ansah and O'Connor, 2010). Kumasi has a greater proportion of compound houses than other cities (Ghana Statistical Service, 2014a; Afrane and Asamoah, 2011). The compound housing stock dominates a large part of the Abuakwa case study in this thesis, but its erasure is also evident as economic uses take over from residential, as I discuss in Chapter 5.

The present-day compound housing type is a blend of pre-colonial, colonial, and post-colonial housing needs and architecture. In the pre-colonial era, compound houses were traditionally built close to each other to give a dense arrangement of houses that were occupied by kinsmen (Owusu-Ansah and O'Connor, 2010). Colonial and post-colonial era compound houses are built in a regular grid in urban and peri-urban areas in Ghana. This makes up what I refer to in this thesis as the historic 'village core', which in the present day is often surrounded by large areas of more recent housing typologies that make up small towns. Sunyani has a village core made up of compound housing, but its peri-urban areas have not yet incorporated small towns with village cores. Land in the village core areas is mostly delivered and administered through customs and traditions, which I explain later in this chapter.

Village cores depict the compound housing type built in local architecture called '*Atakpame*'- "rammed earth balls placed on top of each other in stages" (Afrane and Asamoah, 2011:72). Although the origins of the *Atakpame* building technology are not exactly known, Anquandah (2006) suggests that archaeological excavations show that the technology was known in northern Ghana as early as the 8th century. The term *Atakpame* refers to the hometown of the builders who hailed from the Togolese city of *Atakpame*.

During the colonial epoch, the *Atakpame* architecture manifested in urban areas in the building of areas of compound or courtyard houses (Afrane and Asamoah, 2011). This makes the compound housing type a combination of pre-colonial architectural style and colonial model buildings (*ibid.*). The *Atakpame* builders were trained professionals who helped in the setting out of building in grids as prescribed by the building codes of the colonial administration (Afram and Korboe, 2009).

There is usually a difference between compound houses in the small rural village setting and those in the urban setting (*ibid.*). The compound housing type in the rural village setting is built in a linear form and roofed as a standalone structure (Afrane and Asamoah, 2011). It usually contains a veranda and rooms without facilities such as a kitchen and toilets. Kitchens are usually built separately and shared by all the occupants in the house. Toilets are also built separately on the compound for the occupants of the house or there may be communal toilet facilities built for the village. With rammed earth ball walls, the roofing is usually thatch. In the post-colonial era, occasionally iron sheets are used (*ibid.*). Compound houses in the urban setting are built in a rectangular shape with several rooms around an internal courtyard accessed through a single entrance. There is also the double-storey version of compound housing that contains several rooms.

The traditional compound or courtyard housing type to date is commonly found in the village core, mostly inhabited by the indigenous people of the town. The traditional single-storey compound house may contain about ten rooms and is characterised by

unroofed interior compound of either rectangular or square shape. Rooms are arranged around the compound with shared facilities such as kitchen and toilet (Afrane and Asamoah, 2011:72).

The onset of urbanisation in the colonial and post-colonial era triggered the transition from the traditional compound house for kinsmen, to lodging houses or tenements for tenants. In this type of dwelling, multihabitation became common with different tenants living in the same compound (Acheampong, 2015). The Abuakwa case study shows different family members rather than tenants living in the compound houses.

Estimates of housing types in Ghana show that compound houses dominate the housing stock (Afram and Korboe, 2009; Malpezzi, Tipple and Willis, 1989). According to the 2010 Population and Housing Census, compound houses dominate fourth class (low income)

residential areas in Ghana (Ghana Statistical Service, 2014a). Although the growth rate of compound houses plummeted from the early 1990s to the late 1990s, data from Ghana Statistical Service (2014a) suggests that the period from 2000 to 2010 saw an increase in the growth rate of compound houses. The 2010 Population and Housing Census establishes that compound housing still dominates the housing stock in Ghana, especially among the low-income bracket, despite a general inclination towards single-family housing among the middle class (*ibid.*).

As this thesis will show in Chapters 5 and 6, state investment in infrastructural and urban redevelopment projects have triggered privately initiated redevelopment projects in village core areas in urban and peri-urban areas. This is altering the spatial pattern as compound housing gives way to modern high rising buildings and commercial uses. This has influenced new land tenure arrangements between property owners and private developers in these areas.

3.11 The shift from compound housing to single-family houses and the demand for land in peri-urban areas

As mentioned, compound housing declined somewhat from the 1990s and single-family housing has become prevalent, particularly in newly developing peri-urban areas. The prevalence of single-family housing in Ghana dates to the colonial era. The colonial administration provided housing strategically to advance its cause, noting that adequate housing was a prerequisite to social welfare and national development (Arku, 2009). Although the colonial administration made recommendations for more housing units to be built to support the workforce of the colonial government, only a few were built (*ibid.*). In the post-colonial period, Dr Kwame Nkrumah's government pursued vigorous public housing projects under his socialist ideologies. The 5-Year Development Plan (1959-64) triggered homeownership through state support to 'self-help' housing schemes. The State Housing Corporation, the Tema Development Corporation and the State Construction Corporation were incorporated by the state to oversee the construction of state housing units for the working class but dwindling funds did not allow further investment (Adarkwa, 2012; Paller, 2015). Neoliberal economic policies under the Structural Adjustment Programme in the 1980s led to the state reducing its involvement in the housing sector (Yeboah, 2000; Arku, 2009). It is assumed that the inability of the colonial and post-colonial governments to facilitate adequate housing provision triggered individual efforts by households to provide their own houses.

The growing middle-class population, according to the 2010 Population and Housing Census, is contributing to the increasing demand for freestanding and semi-detached houses and flats or self-contained apartments. Village cores are made up of compound houses (Afrane and Asamoah, 2011; Owusu-Ansah and O'Connor, 2010). Peri-urban areas are noted for the single-family houses, which were common in European suburbs during the colonial era and mostly referred to as villas (Andreasen *et al.*, 2011). They are also popularly termed 'self-contained' houses because occupants had all the facilities and space required within the house (Afram and Korboe, 2009).

The increasing prevalence of single-family housing has also been attributed to modernisation and socio-economic awareness associated with urbanisation (Korboe, 1992). The increasing demand for single-family housing and peri-urban development can be explained broadly from the modernisation of economies. The modernising economy is described as one where "cities and towns [become] hubs of trade, businesses, jobs, higher education, as well as offer high order goods and services to peri-urban areas within their catchment areas thereby facilitating development" (Adarkwa, 2012:2). Modernisation brings about industrialisation and economic growth, which trigger urban spatial change in the urban and peri-urban areas. Increasing urban population, in turn, leads to the outbidding of agricultural production through increased demand and conversion of agricultural land to residential uses. The increased demand for land for residential use, in the observation of Adarkwa (2012), heightens demand for land in peri-urban areas due to the availability of land and a developing housing market associated with cheaper rents. Consequently, peri-urban development intensifies as the demand for land in peri-urban areas by different classes of people for various purposes intensifies. The transformation of peri-urban areas, therefore, manifests in the decline of on-farm production activities in favour of non-farm production where a service economy prevails. The increasing preference for single-family housing results in increasing demand for land hitherto under customary tenure. Chiefs in peri-urban areas pursue this demand by engaging in the subdivision of former agricultural land to meet this demand (*ibid.*).

The modernising economy is associated with socio-economic awareness among people. Social change factors such as the changing extended family system in favour of the nuclear family, proclivity for 'western' forms of residential dwellings, and the inability of local architects to negotiate between tradition and culture in terms of how people dwell (Nduom, n.d; Afram and Korboe, 2009). There is a general awareness among the general populace to self-owned

housing to meet modern lifestyles (Adu-Gyamfi, 2018). This is further driven by the perceived increasing need for privacy and security, which remain at the centre of individual homeownership aspirations. The proclivity for single-family housing has resulted in rent-free family housing and multi-family living becoming less popular among the middle class and the affluent (Korboe, 1992; Addo, 2013). Nuclear families now prefer to live in housing that ensures their privacy and the ability to train children without the interference of other families.

3.12 Profile of case study cities

Kumasi in the Ashanti Region

Kumasi is the capital of the Ashanti Region, which is bordered in the north by the Bono and Bono East Regions, the Western Region to the South-West, the Central Region to the South and the Eastern Region to the South-East. As mentioned, a large part of the peri-urban area of Kumasi is outside the Kumasi municipal boundary. Abuakwa (see Figure 3.6) is selected as a case in Kumasi depicting a peri-urban area largely under customary land administration. The population of Kumasi is growing rapidly as the 2010 Population and Housing Census puts Kumasi's population at 1,730,249, representing 36 per cent of the population of the Ashanti Region (Ghana Statistical Service, 2014a). This growth further engenders spatial change occurring in the peri-urban areas of Kumasi as seen in land cover change where non-urban areas are transforming into urban areas. This is evident in the several peri-urban areas experiencing rapid development in the Greater Kumasi Spatial Region (Acheampong *et al.*, 2017; Cobbinah and Amoako, 2012). Rapid peri-urban development in Kumasi is typical of growth along the major trunk roads leading to Kumasi: Kumasi-Accra Road, Kumasi-Obuasi Road, Kumasi-Techiman Road, and the Kumasi-Sunyani Road. Within this context of peri-urban development, physical growth is occurring along the sides of major roads mostly for reasons of easy accessibility to the city centre (Cobbinah and Aboagye, 2017; Cobbinah and Amoako, 2012). Kumasi's rapid growth is further explained partly by commerce as it serves as a busy inland transportation hub in the country and the sub-region (Ghana Statistical Service, 2014b). Most lands in Kumasi (90 per cent) are stool lands (Owusu-Ansah and Braimah, 2013) apart from the land surrounding the central business district (CBD) in a one-kilometre radius. Lands in the peri-urban areas are administered by divisional chiefs who are accountable to the *Otumfuo*. A challenge regarding urban spatial planning in the peri-urban areas is the exercise of greater control in land use planning by chiefs than by statutory officials (Cobbinah and Aboagye, 2017). Chiefs normally engage their own surveyors to prepare local plans with little

or no knowledge of formal planning authorities. The World Bank (2003) suggests that the extent of power exercised by chiefs in land use planning has resulted in land speculation and haphazard development in certain cases.

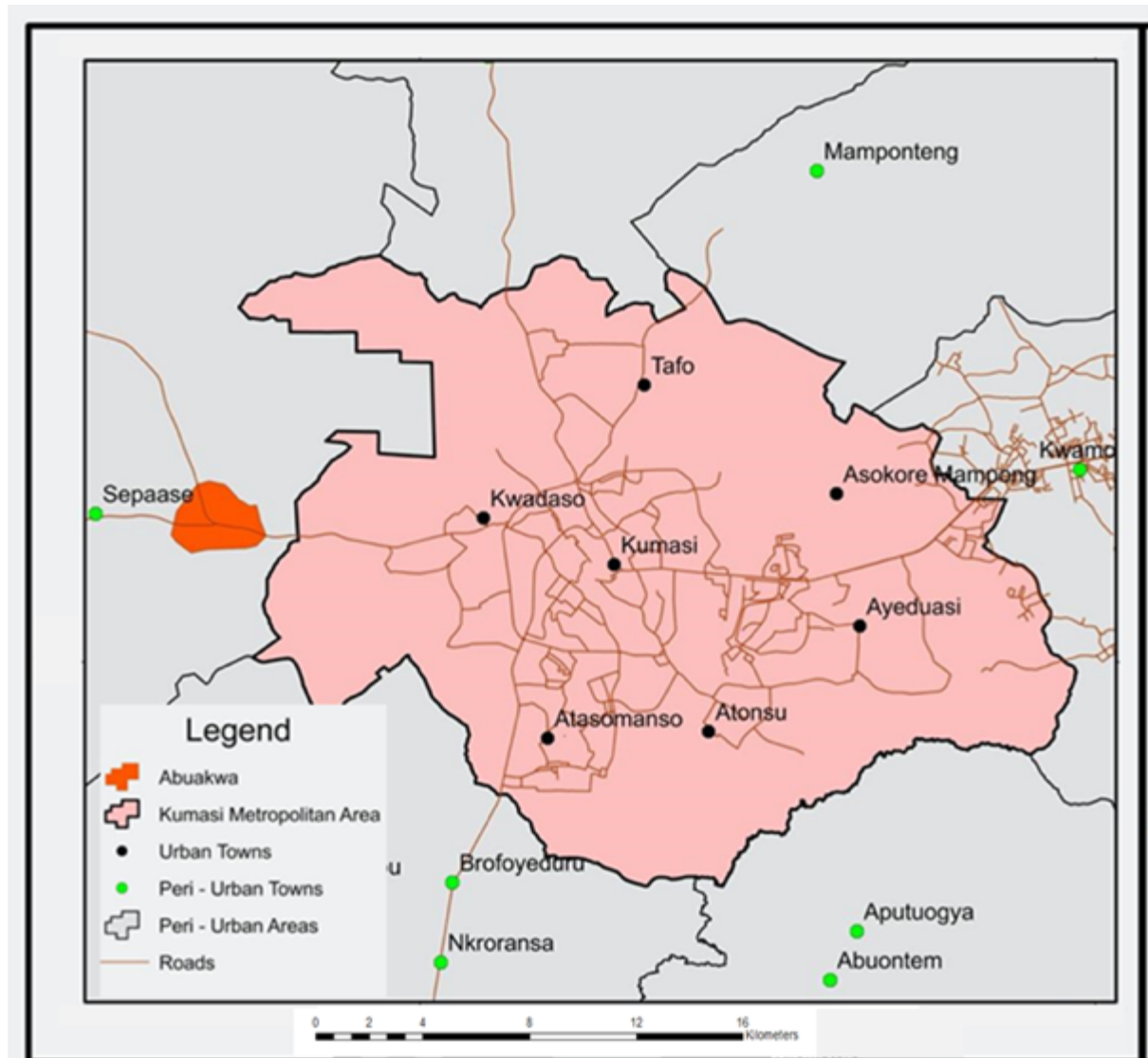


Figure 3.6: Location of Abuakwa in the context of peri-urban Kumasi

Source: Author's construct based on Google Earth imagery, 2020

Sunyani in the Bono Region

The city of Sunyani is in the central belt of Ghana, north of Kumasi. It is both a municipality and regional capital, showing rapid physical expansion (Ghana Statistical Service, 2014c). The 2010 Population and Housing Census puts the population of the Sunyani Municipality at

123,224, representing five per cent of the region's population (*ibid.*). The population of the Sunyani Municipality in 2019 stood at 152,567 (Ghana Statistical Service, 2020). The population growth rate of Sunyani is 3.8 in the period from 2000 to 2010, compared to a national rate of 2.7 over the same period (*ibid.*). Sunyani is witnessing increasing expansion in peri-urban areas as rural areas are converted into urban plots for residential development. Figure 3.7 shows increasing numbers of both pre-existing and newly forming settlements in the peri-urban region.

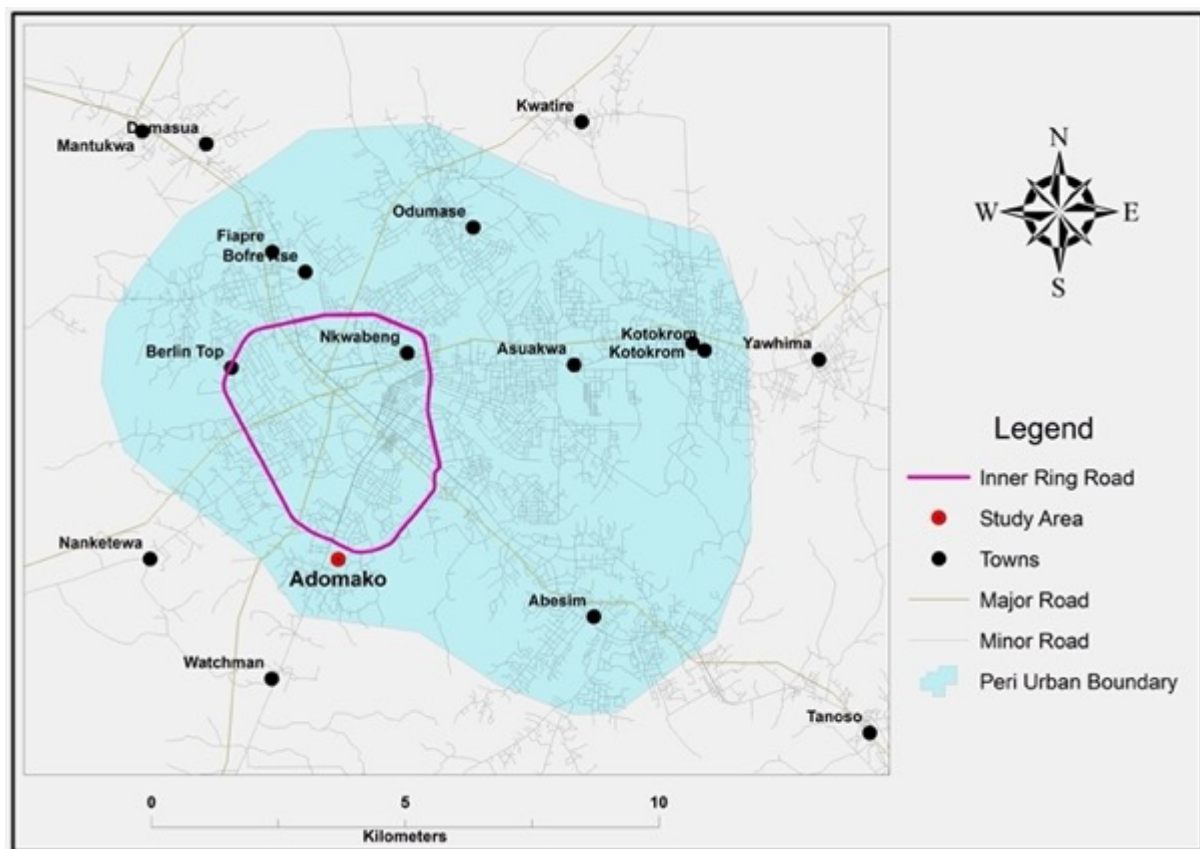


Figure 3.7: Adomako's location in relation to other peri-urban settlements around Sunyani

Source: Author's construct, based on Google Earth image, 2020

Peri-urban growth in Sunyani shows a similar trend to that in Kumasi with peri-urban growth occurring along the major roads: Sunyani-Berekum Road, Sunyani-Techiman Road, Sunyani-Kumasi Road, and the Sunyani-Kenyasi Road. My case study area Adomako (see Figure 3.7 for its location) represents a typical peri-urban area that is witnessing spatial transformation.

The land tenure system in Sunyani is the stool land vested type. The allodial right remains with the Sunyani Stool but the management of the land is the mandate of the Lands Commission. As already mentioned above, the Sunyani Stool is headed by the *Sunyanihene*, who doubles as the head of the Sunyani Traditional Council. Within the Sunyani Municipality, there are two stool land areas: the Sunyani Stool Land Area and the Dormaa Stool Land Area. The Dormaa Stool land is managed by the Dormaa Stool Lands Secretariat in Sunyani, while the Sunyani Stool Land is managed by the Lands Commission.

In a bid to understand the influence of the Vested Land Regime on peri-urban spatial transformation in Adomako, I focus on the Sunyani vested land area, which is managed by the Lands Commission. Land transfers in Adomako originally happened between traditional authorities and their subjects on the one hand and between the subjects and tenants on the other hand. Land was administered to people who required land to undertake sharecropping farming activities (tenants) or other temporary activities. As Sunyani expanded into its peripheries, land in Adomako came under pressure from multiple land uses including residential development. The pressure over land ‘ownership’ and land use rights has generated disagreements between the Lands Commission and chiefs in the administration of the Sunyani Vested Land. For example, land administration in certain peri-urban areas such as New Dormaa and Abesim has been taken over by traditional authorities, although these lands are supposed to be vested in the state. This brings about what I term the ‘third layer’ in the land administration system in Sunyani where state lands, vested lands and stool lands co-exist.

The peri-urban settlements of Abuakwa and Adomako serve as units of analysis for the enquiry in this thesis for several reasons. Customary land tenure is prevalent in Abuakwa, with land ownership and administration mainly under the control of chiefs, families, or the entire community. State institutions play peripheral roles in land administration in this case, as traditional authorities remain at the core determining the use, regulation, and management of land. This is contrary to spatial planning laws such as the Land Use and Spatial Planning Act 925 of 2016, which gives the function of land administration to statutory planning authorities. This creates a challenge for urban planners because traditional authorities combine land ownership and administration functions without or with little state control. As I will show in Chapter 7, the confusion created by the conflictual role of traditional authorities is rampant in Abuakwa, where physical development is barely regulated by the state. The resultant

relationship between traditional authorities and statutory planning authorities in Abuakwa is one where decisions are mostly short-term without any long-term planning goals.

Land use planning in Adomako on the other hand is a function of statutory planning authorities. Here, land ownership and administration are separated by law so that how land is used, regulated, or managed is different from ownership. Land in Adomako is vested in the state for effective management on behalf of the Sunyani Stool and its subjects. It is, however, not clear how the separation of the ownership and administration functions play out as there are signs of chiefs, families and individuals taking land use decisions.

As set out in Chapter 1, this thesis explores the diversity and variations in the land tenure systems and their relationship with spatial change in peri-urban areas. The contrasting case studies are deliberately selected to understand the nature of the influence land administration has on land use planning outcomes within and between the customary and vested tenure forms. This involves mapping specific activities that form part of peri-urban transformation in Abuakwa and Adomako and examining how the different land administration systems influence local planning processes. Kumasi and Sunyani are selected for this thesis particularly because they typify different dynamics of spatial change occurring in peri-urban areas within different land administration systems.

Kumasi on the one hand provides an opportunity to investigate spatial change occurring in a peri-urban area where there is greater control over land administered by traditional authorities than over that administered by statutory officials. Thus, the Abuakwa case presents a unique opportunity to examine actor influences in peri-urban development in a typical traditional authority-controlled setting where chiefs act as ‘owners’ of land and to a large extent play a central role in land use planning. Sunyani on the other hand presents an opportunity to interrogate spatial change occurring in a peri-urban area with greater control over land administration by state agencies than traditional authorities.

The object of the analysis is to examine how actors in the two different cases use land to exert their influence on the manifestations of spatial change occurring in the two peri-urban areas. The Sunyani case is rare, and relevant for this thesis because it is one of the few places in Ghana where the Vested Land Regime operates. The two cases, therefore, provide a basis to examine actor influences in peri-urban development, namely in chief-controlled negotiations in

Abuakwa and statutory bureaucratic inclined negotiations about land administration and spatial change in Adomako.

In the previous Chapter, I detailed a conceptual framework that explained peri-urban spatial change through a set of drivers and their relationships with land administration practices under the customary and statutory land tenure systems. As mentioned, the Kumasi case shows a strong customary administered land administration system with chief-initiated land transfers and land use planning. The Chief and his subjects have more control over land management and how land should be used than local statutory officials. The Kumasi case typifies purely stool land governance practices such as land subdivisions and the offering of ‘drink money’ to seal land transfers which I discuss in Chapter 5. These practices are established through tradition with land administration and spatial planning functions falling under the ambit of a chief and his council of elders. There is little involvement of state actors in the process of performing the land administration functions – land tenure, land value, land use and land development, as shown in Chapter 5.

The Vested Land Tenure System in the Sunyani case shows that land tenure, land value, land use and land development are performed by state agencies who influence spatial change according to certain agreed laws and planning schemes. Figure 3.8 redefines how the conceptual framing in Chapter 2 manifests in the case study areas, which show that spatial change in peri-urban areas is at the same time a driver and outcome of land commodification, land speculation and conflicts. For instance, apart from the recognised Lands Commission-led land administration and spatial planning mandate in the vested land tenure in Sunyani, traditional authorities also engage in practices that fall under the ambit of statutory authorities. This departs from my initial assumption that spatial change under the Vested Land Tenure System is orderly and occurs according to the dictates of statutory planning practices. The case studies show that visible signs of unplanned peri-urban transformations can occur in land administered under both customary and statutory tenure forms, particularly reinforced by drivers and outcomes of the land administration functions (see Figure 3.8). Thus, the relationship between land administration practices and spatial change in Kumasi and Sunyani is not direct, but one of a continuous process.

Case study specific drivers of peri-urban spatial change

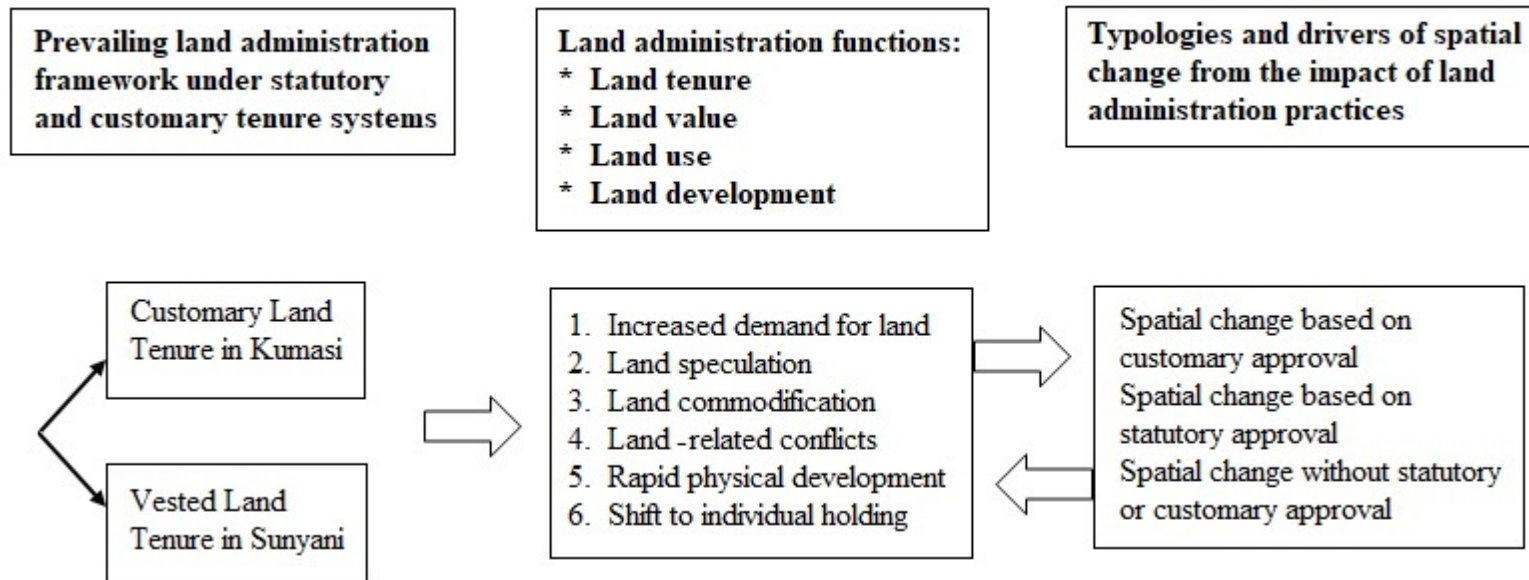


Figure 3.8: Case study specific conceptual framework

Source: Author's construction.

3.13 Conclusion

The review in this chapter presents historical urbanisation patterns and the housing types in Ghana and the different land administration systems as drivers and outcomes of spatial change in peri-urban areas. What is important for this chapter is that colonial spatial planning fragments, economic growth, and population increases are major drivers of urbanisation and peri-urbanisation in Ghana. The Guggisberg 10-Year Development Plan in the colonial period set the tone for technocratic development planning and urban expansion in Ghana. This was concentrated in southern Ghana and created what is termed as the ‘Urbanisation Triangle’. This historical trend in urbanisation has created a north-south divide, where the south is more urbanised than the north. Factors such as commerce, demographic growth, and land management practices continue to shape the patterns of peri-urban spatial change.

The review further points to urban growth in the post-independence era as being triggered by economic growth, modernisation of the economy and socio-economic awareness. Increasing urbanising is blurring urban and former village areas, which are currently peri-urban areas. Within this context, the review points to the increasing prevalence of bungalows for single-family housing compared to rent-free and multihabitation compound housing. One of the important points in this chapter is that peri-urban areas are a hybrid spatial organisation in which the village core areas are made up of the traditional compound housing type associated with the *Atakpame* building architecture and the peripheries that are dominated by bungalows with elaborate roofing. There is also the erasure of the compound housing type through redevelopment projects by private developers. Although the compound housing type for rooming remains popular among low-income suburbs, the current urbanisation trend is manifesting the prevalence of bungalows for single-family use in peri-urban areas. This increasing prevalence of single-family housing has a strong positive correlation with the demand for land as many more people require land for residential development. The outcome of urbanisation and modernisation is that the customary land tenure system is gradually changing to meet the needs of individuals.

The review in this chapter further identifies the land administration system in Ghana as one of the significant aspects of urban and peri-urban spatial change. The participation of traditional authorities and statutory officials in land administration functions and land use planning lead to multiple pathways to spatial change in peri-urban areas. As demand for land is pursued, the customary system responds to the emerging need to formalise land holding rights. The review

in this chapter points to a situation where the Lands Commission, Physical Planning Department, and traditional authorities act collectively as the major actors in land administration to influence spatial change in peri-urban areas. The Kumasi and Sunyani case study areas highlight differences in land administration practices under the different land tenure systems. There is also the transition from compound housing in the village core areas to new single-family residential development. However, there is evidence that the outcomes of the land administration systems, including land commodification, land speculation, and land-related conflicts, have combined to trigger peri-urbanisation. In turn, peri-urbanisation, and the increasing demand for land combine to trigger further land commodification and speculation. This provides a justification that the contrasting land administration systems in the Abuakwa and Adomako are worthwhile choices to provide an opportunity to deepen the understanding of land administration practices and the manifestations of spatial change.

Rapid urbanisation has raised many issues about land because of the inherent spatial and geographical nature of development. Land issues are complex especially in urban areas as spatial patterns are influenced by a diversity of factors socio-cultural factors. Urbanisation is triggering transformation of socio-cultural factors that underline land issues. One important relationship in the people-land relationship is the changing customary land tenure system in response to property rights in urban areas. As urban areas expand towards peri-urban areas, land use rights in former agricultural lands undergo transformation from customary (stool/skin) rights to individual land holding rights. Both traditional and statutory officials draw powers from a fragmentation of customs, and pieces of legislation that are embedded in the plurality of 'tradition' and laws from the 'modern' state. The fragmentation in land administration systems further affects local land use planning processes, where the influence of traditional authorities and statutory officials overlap in governing land use and physical development.

The nature of the interactions between traditional and statutory actors in peri-urban areas is complex and cannot be understood merely in terms of their material characteristics. The changing actor relationships are understood through their opinions, perceptions, power, and control over land and local planning processes in peri-urban areas. Peri-urban developers, in turn, operate with customary and statutory laws, making land use decisions based on their perceptions of customary law and statutory law. Therefore, land administration practices have a material effect on the pattern of spatial change in peri-urban areas. The complex nature of land use decisions, their spatial, and social consequences require that appropriate research

methods are adopted. The following chapter discusses the overall research methods used in conducting this study.

CHAPTER FOUR

RESEARCH METHODS

4.1 Introduction

Land administration, spatial change and peri-urban areas show complex characteristics. These can be understood through a variety of different methods. Spatial change in urban and peri-urban areas can be understood through various qualitative approaches (case studies, ethnography, interviews) and quantitative approaches such as geospatial analysis through Geographic Information Systems and mapping (Baur, Hering, Raschke, and Thierbach, 2014). In geospatial analysis and mapping techniques, use is made of quantitative parameters such as the rate of change and population growth to understand spatial change over time, as is demonstrated by Agyemang, Amedzro and Silva (2017) and Mpofu *et al.* (2018). Spatial change can also be explicated through qualitative approaches. These involve the use of in-depth interviews with knowledge-rich stakeholders and through observation, as is the case in Owusu-Ansah and Braimah (2013). The other approach to answering significant spatial change questions in urban and peri-urban areas is a combination of qualitative approaches with the use of mapping, analysis of maps, and qualitative interviews with knowledge-rich participants, as is the case in Cobbinah and Amoako (2012) and Kleemann *et al.* (2017). In this thesis, I adopt this latter approach towards the understanding of critical physical and human dimensions of transformation processes occurring in peri-urban areas in two cities in Ghana.

This chapter will explain the research methods used in conducting this study. This involves the description of the qualitative research design which was used in conducting this study and provides justifications that support the choice of the methods. It includes a review of the case study strategy and of the role it plays in this study. Next, the chapter describes the data types and data collection methods. These include interviewing and mapping as techniques for understanding spatial change. The chapter further describes the sampling techniques and sample size for the interviews. The chapter concludes with a description of the ethical considerations in undertaking the study, limitations, and delimitations.

4.2 Research design

The thesis was carried out within the qualitative paradigm and involved exploring the views, opinions, experiences, and decision-making of traditional authorities, statutory officials, and

peri-urban developers. The research design involved a case study method. The case studies were compiled through mapping and analysis of maps along with qualitative interviews. The approach to analysing maps or spatial transformation was largely descriptive as a way to understanding qualitative narratives in the two case study areas. The qualitative design, which has similarities with that of several studies which I mention below, was adopted because the research questions in this thesis ask how decision-making unfolded among stakeholders in peri-urban development. The first research question required the description of spatial transformation occurring in peri-urban areas as a measurable parameter, as is also the case in Acheampong *et al.* (2017). The remaining research questions required the evaluation of decision-making processes between traditional authorities, statutory officials, and peri-urban developers, which is the approach taken in Akaateba *et al.* (2018), Owusu-Ansah and Braimah (2013) and Ubink (2007). The mapping technique was adopted, because of its ability to provide evidence-based understanding of spatial transformation, as in the approach taken by Kleemann *et al.* (2017).

The qualitative research design was adopted because of its ability to help in understanding people's experiences, perceptions as well as traditional and statutory authorities' decision-making, as in the case in Cobbinah and Aboagye (2017). The qualitative design helped in generating words as data for analysis rather than statistics (Brikci and Green, 2007). The design further helped in generating data and verbatim quotations from in-depth interviews with 'knowledge-rich' traditional authorities and state officials. The transcripts of in-depth interviews revealed the medium through which traditional and state institutions encourage or inhibit spatial transformation under the stool land tenure system in Abuakwa and the Vested Land Tenure System in Adomako.

4.3 Comparative case study strategy

As stated, the case study method was used in this thesis under the overall qualitative paradigm. Two case studies were purposively selected and constructed through questions and map analysis that solicited the views and experiences of different actors in peri-urban development. The case study research strategy was used to select two peri-urban areas in different cities with different land administration systems to help understand actors in the two cases and the ways through which they influenced spatial transformation. The case study strategy was used because of its ability to explore contemporary phenomena in a particular context (Yin, 2003). Moreover, the case study strategy was suitable for answering critical questions of 'what', 'why'

and ‘how’ in exploratory research (*ibid.*). The main research question is a ‘what’ question and unpacked in two further ‘what’ and one ‘how’ questions. The main question asked was *What* is the relationship between land administration systems and spatial transformations in peri-urban areas of Ghana? The main question was further unpacked through the following specific questions: (i) *What* patterns of spatial change are observable in Abuakwa and Adomako over the period of 2003 to 2018? (ii) *What* factors are driving spatial transformation in the two cases? And (iii) ‘*How*’ do the actors in the customary and statutory land tenure systems respond to these drivers and influence the observed peri-urban spatial transformations in the two contrasting cases?

The comparative case study was important for understanding spatial transformation within and across the cases. As Robinson (2015) notes, there are particular similarities and differences in cities of the world. To understand cities, therefore, requires different methods and lenses. In the urban studies literature, comparative urbanism espouses the idea that to gather a repertoire of insights into cities, systematic comparison is required. This includes taking into consideration new concepts and methods that allow for rigorous comparison of the peculiar similarities and differences among and between cities without losing specific characteristics that distinguish one city from the other (*ibid.*). Comparative urbanism also allows for understanding every city without being lost in the image and functioning of another city when they are discussed side-by-side. Similarly, peri-urban research is context-specific, which can be understood when cases are investigated within and across contexts, as is the case in Mbiba and Huchzermeyer (2002). Mindful of these important considerations for studying cities, this thesis was undertaken with a full understanding of the differences and similarities that were likely to exist in the two cases. Therefore, the thesis draws from the two cases to understand the various processes and stages of land use planning in peri-urbanisation in the cities of Kumasi and Sunyani.

To recap the case study choice, the two peri-urban settlements showed areas where land administration is largely placed under the control of stools or chieftainships and one in Adomako, a peri-urban area where the greater part of land administration falls under the management of statutory institutions. This contrasting constellation helped in understanding the type and degree of spatial transformation occurring in the two peri-urban areas and the role of the actors in the land administration system in both cases. The case study strategy further

helped in drawing observed spatial patterns from the two cases and ascertain whether a particular land administration system encouraged or inhibited peri-urban transformation.

4.4 Data types and data collection methods

Multiple data sources were used in conducting this study. This ensured triangulation, with complementarity of the different instruments and the data they generated. Denzin (1970, 2015) proposes four types of triangulation: data, investigator, theoretical, and methodological. In this thesis, triangulation involved data and methods. The data triangulation involved the collection of data from both primary and secondary sources. The primary data sources also involved different categories of people as a way of validating responses. The methods of triangulation involved the use of interviews and maps. The use of a combination of methods helped in soliciting the views and experiences of chiefs, peri-urban developers, and state actors in the land administration systems on the manifestations of spatial change in Abuakwa and Adomako. The multiple data collection instruments also helped in ensuring that the weakness of one data collection method or a data set was compensated for by strengths in the others. Primary spatial data such as land cover and land use were collected through Landsat images and ground-truthing to understand peri-urban form, use and change. Primary qualitative data such as actor roles and decision-making processes were also collected through interviews. Secondary qualitative data about policies, policy outcomes, and actor roles in land administration and spatial change were sourced from books and articles about related studies, and relevant manuals on spatial planning and land governance in the applicable institutions.

4.4.1 Mapping technique

As mentioned in the introduction to this chapter, peri-urban scholars who have researched spatial change have adopted both qualitative and quantitative research methods to examine the dynamics of spatial transformation over time (Reis, Silva and Pinho, 2016; Acheampong *et al.*, 2017; Agyemang *et al.*, 2019; Korah *et al.*, 2019). The quantitative approaches involve mapping techniques that help in understanding urban and peri-urban forms and changes over time. Within mapping techniques, different spatial metrics have been adopted for the classification of patterns of spatial transformation occurring in peri-urban spaces (Reis *et al.*, 2016). These approaches include the urban spatial metrics, the Urban Cellular Automata model (see Agyemang *et al.*, 2019) and landscape analysis models (see Jo, 1998).

Spatial metrics utilise remote sensing technologies or Geographic Information System (GIS) to investigate spatial transformation patterns and urban development over time. This involved taking satellite images of Abuakwa and Adomako (2003, 2008, 2013 and 2018) from DigitalGlobe via Google Maps and converting them to land use maps. I georeferenced each of the scenes by assigning geographic coordinates to the satellite image's sectors using the World Geodetic System 84 (WGS-84).

The satellite images were ground truthed relating the images to real spatial features (land uses) in the case study areas. The ground truthing was carried out by recording the coordinates of land use features, including commercial facilities, roads, marketplaces, and chiefs' palaces. A Geographic Positioning Systems (GPS) Android Software application (Handy GPS™) was used in the recording of coordinates. This was followed by digitising the various land uses where sectors were combined to obtain a composite map from 2003 to 2018 for Abuakwa and Adomako using ArcGIS 10.5. As mentioned in Chapter 1, a reconnaissance field survey with supervisors was further conducted in Abuakwa and Adomako in December 2019 to validate spatial information reported in the satellite and drone images. The reconnaissance survey involved walks along streets and peri-urban areas that depicted interesting spatial developments in the Landsat images. The walks gave me the opportunity to examine some of the issues raised by the images.

Through the analysis of geospatial data, I researched the rate of spatial expansion by analysing spatial configuration and typologies (residential, commercial, public spaces, open spaces, and green spaces) in 2003, 2008, 2013 and 2018. I chose these four moments to trace spatial transformation over time in Abuakwa and Adomako. I purposively selected the four years because they provided a comparatively recent picture and understanding of peri-urban spatial change which has occurred in the two cities with different land administration systems. Figure 4.1 shows the geospatial data collection and processing procedure for the thesis.

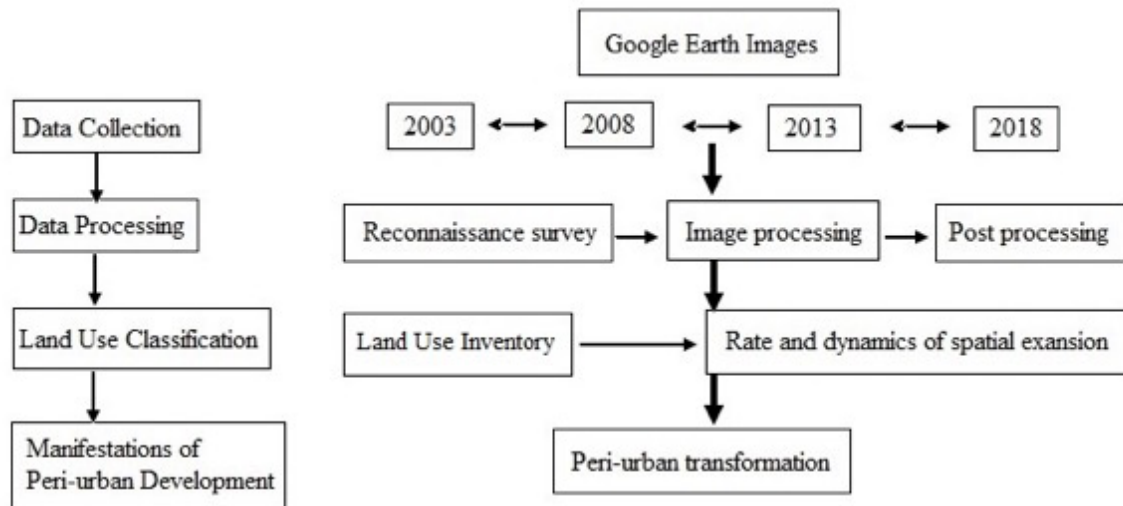


Figure 4.1: Geospatial data collection and processing procedures

Source: Author's construction.

4.4.2 Document analysis

Apart from the mapping technique, I carried out document analysis as an additional data collection method for this study. I reviewed relevant state policy documents governing land administration, land use planning, spatial planning, and local governance. They included the Local Governance Act of 2016, Act 936, Local Government Act of 1993, Act 462, the Land Use and Spatial Planning Act of 2016, Act 925, the National Land Policy of 1999, The Lands Commission Act of 2008, Act 767, and the OASL Act of 1994, Act 481. Additional documents included the Town and Country Planning Ordinance of 1945 (Cap. 84), Town and Country Planning Act of 1958 (Act 30), Town and Country Planning Act of 1960 (Act 33), Appraisal Reports on the LAP, Census Reports from the Ghana Statistical Service, the Constitution, National Development Planning Systems Act of 1994, Act 479, National Urban Policy of 2012, 10-Year Development Plan of Gordon Guggisberg (1919-1924), 4-Year Development Plan of Sir Alan Burns (1942-1947). A review of these policy documents provided me with historical data, trends and policy direction on land administration and land use planning. This approach also helped in understanding the evolution of land administration, land use planning, the role of the various actors, and spatial change that had occurred.

4.5 Case study selection

I selected one peri-urban area each from Kumasi and Sunyani based on certain criteria that are discussed in the next paragraph. I selected the Abuakwa and Adomako case studies because, relatively, they seemed responsive to the typical considerations in the case study selection process compared with other cases. The Abuakwa and Adomako cases showed characteristics of a peri-urban area, as discussed in Chapter 2. Additionally, Abuakwa and Adomako depicted a co-existence of certain land uses such as agricultural, commercial, residential and both traditional and ‘western’ iterations of these.

Both case study areas showed evidence of spatial transformation and development in the period 2003 to 2018. Additionally, both case study areas had in place traditional authority and the existence of formal local plans. The two case study areas also showed similarities in terms of the willingness of traditional authorities to cooperate and ease of access. The comparative discussions further provided a point of divergence that helped me identify and contrast the two cases. The point of divergence of the two case studies is that the land tenure system in Abuakwa is the stool land type, whereas the vested land tenure type is in Adomako. Further to the differences in land tenure, land management in Abuakwa is controlled by traditional authorities and families, whereas it is a function of statutory officials in Adomako. During my preliminary field visits in 2018, I made contacts with the chiefs or their assigns about their willingness to participate in the interviews for the study. I continued to seek approval from the chiefs until the actual fieldwork in 2019. Abuakwa was selected ahead of the other peri-urban areas in Kumasi mainly because of the ease of access to traditional authorities and their willingness to participate in the interviews (see Table 4.1). I found it quite difficult to access the chiefs in the other peri-urban areas as some declined to participate for personal reasons. Adomako was selected because it was typical of peri-urban settlements in Sunyani under the vested land administration system. Further, the chiefs were willing to participate in the interviews.

Table 4.1: Typical considerations in the selection of case studies

City/Peri-urban areas	Kumasi			Sunyani		
Typical considerations in the choice of case studies	Abuakwa	Ejisu	Deduako	Adomako	Fiapre	New Dormaa
Location on the periphery	Yes	Yes	Yes	Yes	Yes	Yes
Co-existence of land uses	Yes	Yes	Yes	Yes	Yes	Yes
Existence of a formal local plan	Yes	Yes	Yes	Yes	In some areas	No
Existence of traditional authority	Yes	Yes	In dispute	Yes	Yes	Yes
Ease of access	Yes	No	No	Yes	Not certain	Not certain
Willingness of traditional authorities to cooperate	Yes	Not certain	Not certain	Yes	Not certain	Not certain
Land Tenure	Stool land	Stool land	Stool land	Vested land	Stool land	Stool land
Land management	Traditional authorities/families	Traditional authorities/families	Traditional authorities/families	Lands Commission	Traditional authorities/families	Traditional authorities/families

Source: Author's fieldwork, 2019

4.6 Sampling technique

I purposively sampled certain actors in the land administration system since they possessed adequate knowledge in addition to their ability to discuss issues about land administration and spatial change in Abuakwa and Adomako. Table 4.2 shows the categories of respondents who were sampled in Abuakwa and Kumasi.

Table 4.2: Purposively sampled participants in Kumasi and Sunyani

Kumasi	Sunyani
▪ Head of the Lands Commission ▪ Chiefs in Abuakwa ▪ Head of the Physical Planning Department in the Atwima Nwabiagya Municipal Assembly ▪ Peri-urban developers in Abuakwa ▪ Local opinion leaders in Abuakwa	▪ Head of the Lands Commission ▪ Chiefs in Adomako ▪ Head of the Physical Planning Department in the Sunyani Municipal Assembly ▪ Peri-urban developers in Adomako ▪ Local opinion leaders in Adomako

Source: Author's fieldwork, 2019

I used the purposive sampling technique in the selection of the case studies because of its ability to produce rich information (Patton, 2001). The sampling approach, however, means that one may not use the findings to make broad generalisations (Scot and Morrison, 2005). The findings of this thesis were, therefore, not aimed at making conclusions about peri-urban change across Ghana, West Africa or beyond, but to understand manifestations of spatial change in two peri-urban areas with different land administration systems. There are, however, findings that correlate in interesting ways with those of studies in other areas, as I will discuss in Chapter 8.

4.7 Selection of the interviewees

The nature of the study required that I combined purposive and snowball sampling techniques to select participants for interviews. I adopted the purposive sampling technique because it allows the researcher to select knowledge-rich participants for interviews. This was done because the variables examined in this study required the views and opinions of specific people who possessed knowledge or who have had an encounter with knowledgeable people by virtue

of their positions or their working relations with knowledge-rich people in the course of their work.

The snowball sampling technique was used to complement the purposive sampling technique to select respondents with particular knowledge, which is known to the original respondents, or to reach ‘hard to find’ participants. Peri-urban developers and local opinion leaders were hard to find and could only be contacted with the help of other participants or leads provided by community members I spoke informally to. In Abuakwa and Adomako, the snowball sampling technique, therefore, helped in contacting, as Scott and Morrison (2005:221) put it, “research participants [in my case peri-urban developers] to direct the researcher to other potential participants”.

4.8 Sample size and composition

The sample in the two case study areas involved respondents from statutory officials, traditional authorities and peri-urban developers. The first level of interviewees were peri-urban developers who have lived in the study areas for a minimum of ten years. The 10-year period was used as a criterion to select participants who have lived in the peri-urban areas within the period of spatial change under consideration (2003-2018). These developers were considered to have gathered adequate knowledge and accumulated so much experience in the land administration dynamics and spatial change at the periphery. The total number of interviews was 26 (see Table 4.2 for details). As previously mentioned in section 4.6, the thesis used the snowball sampling technique and so, it did not start with a predetermined number of interviewees. The interviews were concluded once all the information I needed in both case studies was obtained.

Table 4.3: Total number of interviews for the study

Respondent category	Total number of interviews		Sampling technique
	Kumasi	Sunyani	
Lands Commission	1	1	Purposive sampling
Physical Planning Department	1	1	Purposive sampling
Chiefs	2	2	Purposive sampling
In-depth interviews with peri-urban developers	10	5	Snowball sampling
Local opinion leaders	2	1	Snowball sampling
Total	16	10	Overall Total
			26

Source: Author's fieldwork, 2019

The sample of interviews for each case consisted of different categories of respondents. The respondents were staff of the Lands Commission and Physical Planning Department, chiefs, peri-urban developers, and local leads who had adequate knowledge about land issues and peri-urban development in each of the case studies. The local leaders did not form part of the other categories of respondents and were deemed to be able to provide unbiased opinions. I interviewed ten peri-urban developers in Abuakwa and five in Adomako.

Further, I interviewed two traditional authorities each in Abuakwa and Adomako, making it four respondents in that category. In total, I interviewed one respondent each from the Lands Commission and the Physical Planning Department in Kumasi and Sunyani, making it four (two each in Kumasi and Sunyani). As already mentioned, I further interviewed local opinion leaders: two in Abuakwa and one in Adomako. The number of interviews for each category of participants was determined based on the concept of saturation (Glaser and Strauss, 1967). This concept is rooted in information power (Malterud, Siersma and Guassora, 2016). The underlying principle of information power is that the more a sample has relevant knowledge or information in the topic under study, the lower the number of participants required (Malterud *et al.*, 2016). Saturation is established during the interview process. Thus, Strauss and Corbin (1998:136) describe saturation as “the degree at which further data collection and analysis becomes counter-productive, and where the ‘new’ does not necessarily add anything to the overall story”. One of the advantages of saturation is that it helps the researcher to avoid collecting the same data from a large population. The concept of saturation, however, is not appropriate when collecting data from a heterogeneous population because some important data may not be collected (*ibid.*). Saturation, therefore, determines when data collection and

analysis must be discontinued, to avoid collecting more data than is needed as an adequate basis for discussion.

For my interviews with peri-urban developers in Abuakwa, saturation was reached after interviewing ten, using the same interview guide, while in Adomako saturation was reached after interviewing five. Saturation was reached because the narratives shared by the interviewees became repetitive. The different interview number at the point of saturation for Abuakwa and Adomako is explained by the different levels of physical development.

4.9 In-depth interviews

Besides the mapping technique and document analysis, which I discussed earlier in this chapter, the in-depth interviewing used to collect qualitative data also needs to be detailed further. Qualitative interviews have been adopted by researchers to understand the lived experiences of the various stakeholders in peri-urban spatial change patterns (Cobbinah and Amoako, 2012; Kleemann *et al.*, 2017). The qualitative interview approaches proved crucial in gathering information about everyday decision-making concerning land. Interviews conducted through a semi-structured questionnaire allowed respondents to give detailed information about their opinions and experiences. Following this approach, I conducted in-depth interviews with institutional heads and traditional leaders in Abuakwa and Adomako. As Owusu-Ansah and Braimah (2013:692) also found in their study, these interviews helped me in soliciting “professional insights on their operations as well as the problems perceived with the official land management system”. The interviews conducted were important for eliciting ‘knowledge-rich’ responses (Patton, 2001) from heads of the Lands Commission, Municipal Physical Planning Officers, and chiefs. My analysis of the transcripts of the in-depth interviews, while providing important information on the development trajectories in my case study areas, also helped me to validate the spatial patterns and dynamics traced through the Landsat images and field visits.

Moreover, I conducted in-depth interviews because of their ability, as set out by Scott and Morrison (2005:80), to “obtain authentic accounts of subjective or lived experience [and the ability of the interviewer to] encourage the interviewee to raise questions or tell their own stories”. This approach proved effective as the interviewees provided the different sides of the transformation processes that were not evident from the spatial analysis. Qualitative interviews were conducted at two levels: first with Regional Lands Officers of the Lands Commission and

Municipal Physical Planning Officers and second with the chiefs and peri-urban developers. The institutional constellation in the two cases differed, requiring me to interview different entities in each of the two cases. In Sunyani, I interviewed the Chief of Adomako (sub-chief) and the *Akwamuhene* (a divisional chief) of the Sunyani Traditional Council. The *Akwamuhene* of Sunyani is a Divisional Chief and serves as one of the counsellors to the Paramount Chief of Sunyani. In the pre-colonial days, the *Akwamuhene* (*Kwan-mu-hene*) was the third in command during wars. He was the one in charge of keeping all roads leading to a town secured from the enemy army. As there are no tribal wars in the post-colonial era, the *Akwamuhene* serves as a divisional chief who makes sure that aggression against Sunyani by any group of people is prevented (N. Akwamu, personal communication, 03.04.2019). On average, interviews with each respondent lasted about 60 minutes. Interviews with chiefs lasted the longest whereas those with peri-urban residents were the shortest.

At this point, it is relevant to mention that I have lived in Sunyani since 2001, something that gave me a certain level of insight into the customs, language, and local 'politics' of land. Further, my familiarity with the traditional customs in Sunyani also helped me to navigate access to the traditional authority respondents in Kumasi. Additionally, my work as a planner in Sunyani in recent years had already taken me to the planning and land management authorities in Sunyani and Kumasi, and so I knew my way around these institutions and understood how to access my respondents. For the Sunyani case selection and actual research, it was useful that at the outset of this study, I already knew some of the chiefs as well as staff of the Lands Commission and the Physical Planning Department. Therefore, it was relatively easy to build a rapport with the respondents in this study. Their knowledge of me not only as a professional but also as a resident in Sunyani further ensured a level of trust in my stated reasons for conducting the research, which was academic in the first instance, but also hoping to provide new knowledge that would be useful to the respondents. I was conscious of the fact that my profession as a planner in the city meant that most of the respondents knew me, as much as I also knew them. This could influence some of the respondents to be reluctant in their responses to the issues I was investigating. However, I used triangulation to crosscheck the information they provided and found no such situation. In contrast, in the case study selection in Kumasi and the actual research in Abuakwa, gaining access to the respondents was relatively difficult, and I had to invest more time in gaining the necessary trust. The case study selection involved unsuccessful approaches to several chiefs. The reasons included multiple claimants to the same stool arising from a dispute in the succession.

In both case studies, I first booked appointments with the chiefs. In Sunyani, I booked an appointment at the Office of the Registrar of the Traditional Council to enable me to meet the two chiefs. It is a common part of custom for chiefs in southern and central Ghana (Sunyani and Kumasi inclusive) to be presented with a ‘drink’ (bottle of Schnapps) during transactions, dispute resolutions or visits. Tradition requires that one does not go to a chief empty-handed, so I put the monetary market value of two bottles of Schnapps into an envelope to represent the ‘customary drink’. Before the interviews, I presented the ‘customary drink’ to the chiefs after telling them my reason for wishing to visit the palace. In Abuakwa, a local opinion leader who was familiar with the chieftainships and land issues in the area helped me in booking appointments with the chiefs for the interviews. The “drink money” was delivered before the interviews. The interviews were conducted at the palaces of the chiefs in Abuakwa and Adomako.

I followed a more ‘professional’ approach in booking appointments with the Regional Heads of the Lands Commission and the Municipal Physical Planning Officers for interview dates. The interviews were granted after repeated requests and were conducted in their offices on the appointment dates and times agreed. There were, however, repeated interruptions in the interviews due to the busy nature of the offices of the Regional Heads of the Lands Commission and the Municipal Physical Planning Officers.

In addition to soliciting the insights and experiences of both traditional authorities and statutory officials, I also conducted interviews with peri-urban developers in areas that showed substantial spatial transformation patterns (see Table 4.3). After identifying sub-areas that depicted recent manifestations of spatial patterns, a helpful community member who assisted me as a field guide during the preliminary field visit in 2018, accompanied me to identify peri-urban developers to interview them on how land administration practices shaped their spatial decisions and their development. This member of the community had lived in Abuakwa for over 25 years. He had acquired considerable knowledge about land and physical development in the various parts of the settlements. He accompanied me for several days of conducting the interviews and provided particular insights that I would not otherwise have gained.

Table 4.4: Summary of variables, sources of data and methods of data collection

Parameter	Variables	Sources of data	Data collection method
Spatial manifestation of transformation in Abuakwa and Adomako	▪ Peri-urban growth ▪ Land use ▪ Accessibility ▪ Land cover change	▪ Satellite images ▪ Google maps ▪ Archival records	Review of Landsat imagery
Drivers of spatial transformation in Abuakwa and Adomako	Reasons for settling in the urban periphery	▪ Peri-urban developers ▪ Regional Lands Officers and Municipal Physical Planning Officers ▪ Chiefs ▪ Local opinion leaders ▪ Policy documents	Landsat images/Interviews
Institutional framework of land administration systems in the Abuakwa and Adomako	▪ Institutional role in the spatial change process ▪ Gaps in the institutional-spatial change process	▪ Regional Lands Officers and Municipal Physical Planning Officers ▪ Local opinion leaders	Interviews
Role of the Lands Commission, Physical Planning Department and chiefs in land administration and spatial transformation in Abuakwa and Adomako	▪ Actor role in land administration and spatial change ▪ Actor relationships in land administration and spatial change	▪ Regional Lands Officers and Municipal Physical Planning Officers ▪ Traditional authorities ▪ Peri-urban developers ▪ Local opinion leaders	Interviews

Source: Author's construction and interviews

4.10 Ethical considerations

This thesis followed the ethics clearance process of the University of the Witwatersrand. This involved my application for ethics clearance from the Human Research Ethics Committee (Non-Medical), addressing concerns raised by the Committee's reviewers, and the granting of a clearance certificate. Ethics clearance application involved an online form supported by a dossier of permission letters, participant information sheets and consent forms (see Appendix I). Formal permission letters from the Lands Commission, Physical Planning Department and chiefs were also attached to the Ethics Application Form. The Ethics Clearance Certificate (see Appendix II) was granted on June 22, 2018, allowing me to commence my fieldwork in Ghana.

There were a few ethical dilemmas that I encountered in the field and navigated with guidance from the ethics clearance process. The fieldwork began with preliminary visits to the case study areas to test the interview instrument and gather initial data. To ensure confidentiality and anonymity I analysed and made use of the responses from the participants in my thesis, and secured them from access by any other person. I ensured that data was reported respectfully only for academic purposes. I ensured anonymity wherever possible, but it was evident that the position of some of the participants made it impossible to ensure they could not be identified. Traditional authorities and statutory officials in particular are known by the public by virtue of their positions. I discussed this with the respondents, and traditional authorities and statutory officials preferred to be referred to by their stool names and job titles respectively.

4.11 Delimitations

A thesis of this nature involves dynamic case studies that evolve as the research is underway. This required me to set clear boundaries. The justification of the case studies and their locations is already discussed in section 4.5. Spatial change was unfolding during the fieldwork and kept presenting me with additional angles of enquiry or additional actors such as those engaging in large-scale land acquisitions. To keep my focus on the essential issues under investigation, I resisted following these new leads and drew the line by including only change processes that were triggered by local plan preparation in this study. Further, I limited the study to processes of spatial change that had occurred from 2003 to 2018 so that I could get clear Landsat images for land use inventory.

4.12 Limitations

The thesis did not set out to generalise the findings from the two case studies, and, therefore, no such generalisations were made by me. The Abuakwa and Adomako case studies present local level spatial change as a result of the interplay between land administration practices of traditional authorities, statutory officials and peri-urban developers. The findings provide case-specific land administration practices, spatial change, and drivers of change. Therefore, the findings help in the understanding of spatial change processes through land subdivision into plots as part of the implementation of local planning schemes for individual residential developers, but not large-scale development by estate developers. Particular emphasis was placed on the role of actors including peri-urban developers and influences during the various stages of local planning processes, and not on who was doing right or wrong. The Abuakwa and Adomako case studies do not allow for the generalisation of the findings of the study. The findings provide case-specific practices among traditional and statutory officials in the implementation of local plans, which culminate in physical modifications to peri-urban spaces.

4.13 Conclusion

What is important in this chapter is that spatial change is multi-faceted and can be best understood through the application of qualitative and spatial methods. Qualitative and spatial methods help in understanding opinions, experiences and everyday practices of people and their spatial and social consequences. Within the qualitative methods, in-depth interviews proved important because they allowed me to interact with ‘knowledge-rich’ participants who have diverse experiences and opinions about land tenure, land administration and spatial change. The comparative nature of the case studies required that I followed the same time moments for the spatial analysis, but the institutions differed, and so the interviewing process was not quite as neatly parallel in each case. This generated both reinforcing and contrasting findings, which I discuss in Chapter 7. The following two chapters are case study-specific, combining findings from the document reviews, spatial analysis, and qualitative interviews.

CHAPTER FIVE

SPATIAL TRANSFORMATION OCCURRING IN ABUAKWA, KUMASI

5.1 Introduction

Rapid urbanisation induces many processes that involve spatial change, in particular through physical development. These processes, in turn, are shaped or influenced by the relationship between the stakeholders that participate in the planning and decision-making. This chapter traces and seeks to explain the dynamics of spatial organisation (i.e., the nature of change and the forms and intensities of change) in Abuakwa in the Greater Kumasi Metropolitan Spatial Area from 2000 to 2018. The analysis answers the following questions: What spatial change occurred in Abuakwa within this time? Why, and through which external and internal actors and their relationships did these changes occur? The chapter presents an analysis of maps, Landsat images, photographs and interviews with traditional authorities, local statutory officials, and peri-urban developers to answer these questions. First, the chapter traces the history of Abuakwa as a village settlement and the influence of urbanisation on its growth. The influence of urbanisation on the gridiron settlement pattern in the village core and the western-type housing in the surrounding areas are discussed. This includes population growth and physical development from 2000 to 2018. The emergence of commercial buildings along either side of the main streets and new housing typologies are also discussed. The chapter further describes the spatial planning processes in Abuakwa using three planned processes, namely the Apemhase Scheme, the Abuakwa road dualisation project and the Abuakwa market project. The actors or stakeholders in the planning processes are examined to understand their interests and the relationships that exist between them. The chapter concludes by comparing the key actors and planning approaches in spatial change projects in Abuakwa and how this induced spatial transformation.

5.2 The history of planning in Abuakwa

The settlement of Abuakwa dates back to the 18th century when the first Ashanti King allocated the land to families for settlement in this area. Chieftainships in Abuakwa formed later, and so chiefs assumed the responsibility of allocating land to families. The grid layout of buildings in Abuakwa is the result of equitable land allocation by chiefs who allocated land to families. The grid pattern of housing development identified in Abuakwa was influenced by the building

codes prescribed by Cap. 84 in 1945, which guided buildings in Ghana as introduced by the colonial administration to guide physical development (Adarkwa, 2012). In Abuakwa village, buildings were arranged in a regular grid, which remained fully intact up to the 1990s. State-led planning only began in peri-urban areas like Abuakwa during the 1990s after the enactment of the Local Government Act that sought to guide spatial change at the local level. Although Abuakwa was not declared a planning area until 1993, traditional land use planning in the village areas was largely adhered to with more respect than the modern-day schemes, as this case study will show. Until the passage of the Local Government Act 462 of 1993, it was the prerogative of the Minister in charge of town planning to designate settlements as planning areas. Village settlements like Abuakwa were excluded from the planning areas because they were not classified as urban settlements. Act 462, which declared all settlements in Ghana as statutory planning areas, introduced a major change in that before this Act, Abuakwa village and farmland was not subject to statutory planning. Thus, statutory planning in villages and peri-urban areas arrived only in 1993 and this meant *post facto* planning as these areas were already settled. *Post facto* planning hardly happened as attempts to retrofit development that had already occurred faced resistance from families.

The enactment of the Local Government Act 462 of 1993 meant that the various stool heads needed to initiate planning schemes to guide new physical development. Several planning schemes have since been initiated in Abuakwa (see Figure 5.1). The Apemhase Scheme is one of the earliest local plans in Abuakwa. It was initiated by the Apemhase Stool and approved by the Atwima Nwabiagya Municipal Assembly at Nkawie in 2012. The Scheme involved new plot allocations, but physical development occurred before the Municipal Assembly approved the plan.

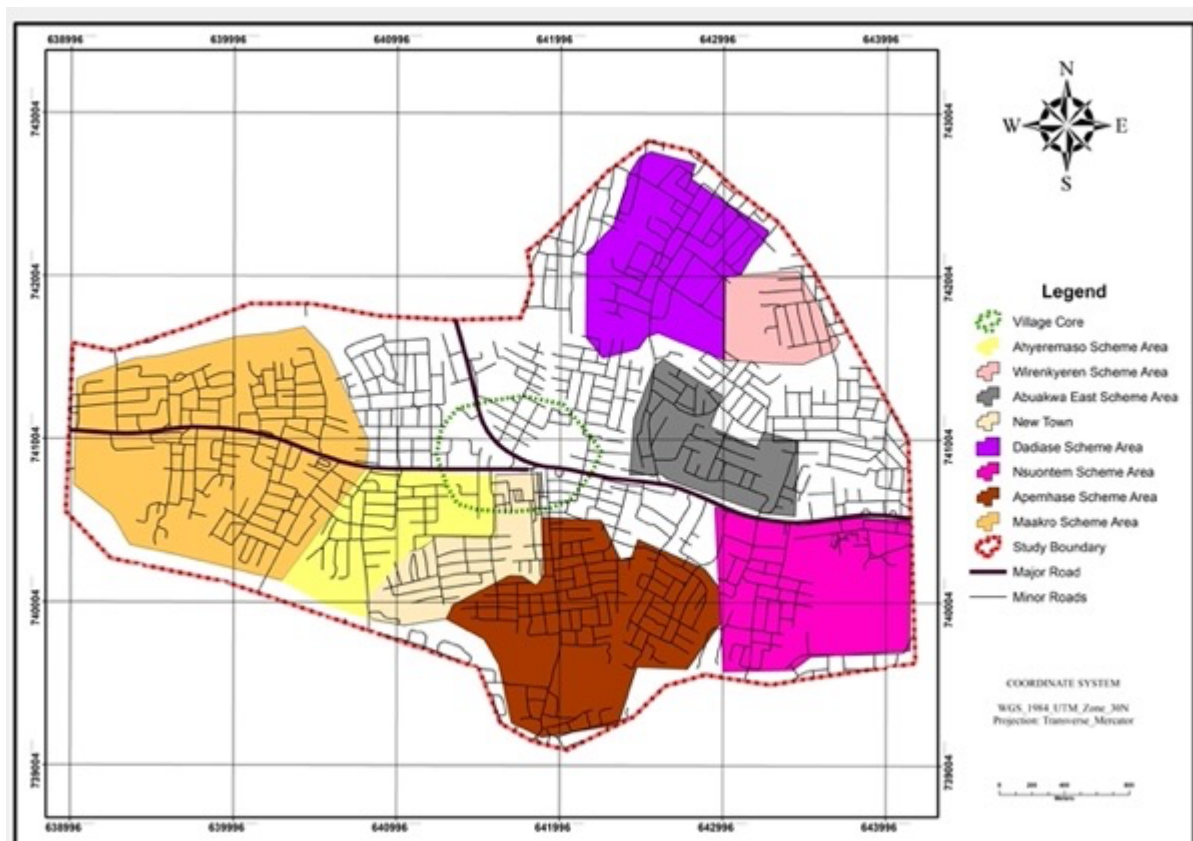


Figure 5.1: Stool-initiated planning schemes in Abuakwa showing the village core area

Source: Author's construct based on Atwima Nwabiagya Municipal Assembly, 2019

The Atwima Nwabiagya Municipal Assembly (ANMA) was established in 2004 by Legislative Instrument 1738. The Municipal capital is Nkawie near Kumasi. The ANMA is the decentralised local government authority established by law to oversee smooth local governance and statutory planning. Abuakwa and its surrounding settlements form part of the Atwima Nwabiagya Municipality and are guided by the planning processes of the Assembly.

In the 2000s, the growth of Abuakwa, like the other peri-urban areas surrounding Kumasi, became pronounced. This period saw the emergence of multi-storey buildings along the main road, beyond the village core area, which was dominated by traditional compound houses. The expansion of Abuakwa was connected to rapid urban growth in Kumasi, with people moving towards Abuakwa in search of accommodation and land for residential development. The population of Kumasi began increasing rapidly (Ghana Statistical Service, 2014b), putting pressure on residential facilities in the city centre. The price of the limited portions of vacant land in the central part of Kumasi skyrocketed with increasing demand. This partly triggered

the relocation of people to the peri-urban areas such as Abuakwa, where it was possible to purchase affordable plots for residential development.

The increasing growth in peri-urban areas required planning to guide physical development. In the case of Abuakwa, the need to enforce some form of town planning became apparent in response to urbanisation and development pressures in the area as Kumasi expanded outwards. The implementation of ‘western’ Town and Country Planning models as espoused in Act 462 of 1993 led to the conversion of farmlands into urban plots whose spatial arrangement bears no resemblance to the densely packed gridiron village pattern. A further trend is the replacement of individual compound houses (see Figure 5.2) on the village grid with commercial buildings (see Figure 5.3), particularly as the Kumasi-Sunyani trunk road developed into a major spine of commercial activity.



Figure 5.2: Typical compound house in Abuakwa's village core, December 2019

Source: Field visits, 2019



Figure 5.3: A multi-storey building in the core area of Abuakwa depicting commercial activities on the ground floor

Source: Field visits, 2019

This is accentuated by the intersection with the Bibiani Road, where a major market and bus station emerged. The extent of spatial and land use change is exemplified by commercial bank buildings and other branded high rises, though adjacent still to mostly neglected courtyard houses. At regular intervals, these house the chiefs' stool houses (see Figure 5.4), which still also host the traditional rites, administration, and decision-making processes.



Figure 5.4: A picture of the Apemhase Stool house that is used for traditional administration

Source: Field visits, 2019

Physical planning in Abuakwa falls under two different legal frameworks. On the one hand, the village core area developed under the influence and authority of chiefs and the colonial building code. Land use changes within this village core area are handled under negotiations among chiefs, family heads and family members. The current physical planning in this area is under arrangements between family members and individuals who take decisions about replacing parts of the old grid. The Municipal Assembly is required to regulate the nature of land use changes, but it becomes difficult as decisions remain at the family or individual levels. Granting of development permits remains the responsibility of the Physical Planning Department although this normally happens *post facto* after development has taken place. On the other hand, the surrounding areas are being developed based on proposed planning schemes which are prepared by traditional authorities and surveyors whereas the Physical Planning Department of the District Assembly grants approvals to the schemes and physical development. The housing typology is also different, with the traditional compound housing

found at the village core area of Abuakwa and the bungalow type of houses at areas surrounding the core area.

5.2 Physical development in the context of Abuakwa

Physical expansion in Abuakwa can be traced to the 1970s, although it remained a village by the national classification of 5,000 people seemingly up until the late 1980s. The 1984 census puts the population of Abuakwa at 4,000 (still classified as a village). The 2000s witnessed increased growth as the 2010 Population and Housing Census recorded Abuakwa's population at 23,201. Out of this number, 68 per cent was made up of non-indigenes and 32 per cent indigenes of the eight stools (Ghana Statistical Service, 2014b). At the time of conducting the fieldwork for study in 2019, a planning officer estimated the population of Abuakwa at approximately 30,000. The 'urban' rather than 'village' status has implications on planning processes, which includes urban land use planning and the involvement of different authorities. With the change from village to urban area, the demand and supply of social and commercial services increased (Interview, Physical Planner, Nkawie, 30.12.2019).

Residential development in Abuakwa can be classified under two types, the courtyard housing on the gridiron layout in the village core area (see Figure 5.5) and the bungalow type in the areas surrounding the core area. The traditional 'village core' or old residential area still consists mostly of traditional single-storey compound or courtyard houses, also referred to as the *Atakpame* building style as discussed in Chapter 3 (Afrane and Asamoah, 2011). Parts of the village core are witnessing the erasure of the compound houses and in their place commercial and residential houses built with cement blocks and elaborate roofing (see Figure 5.6).

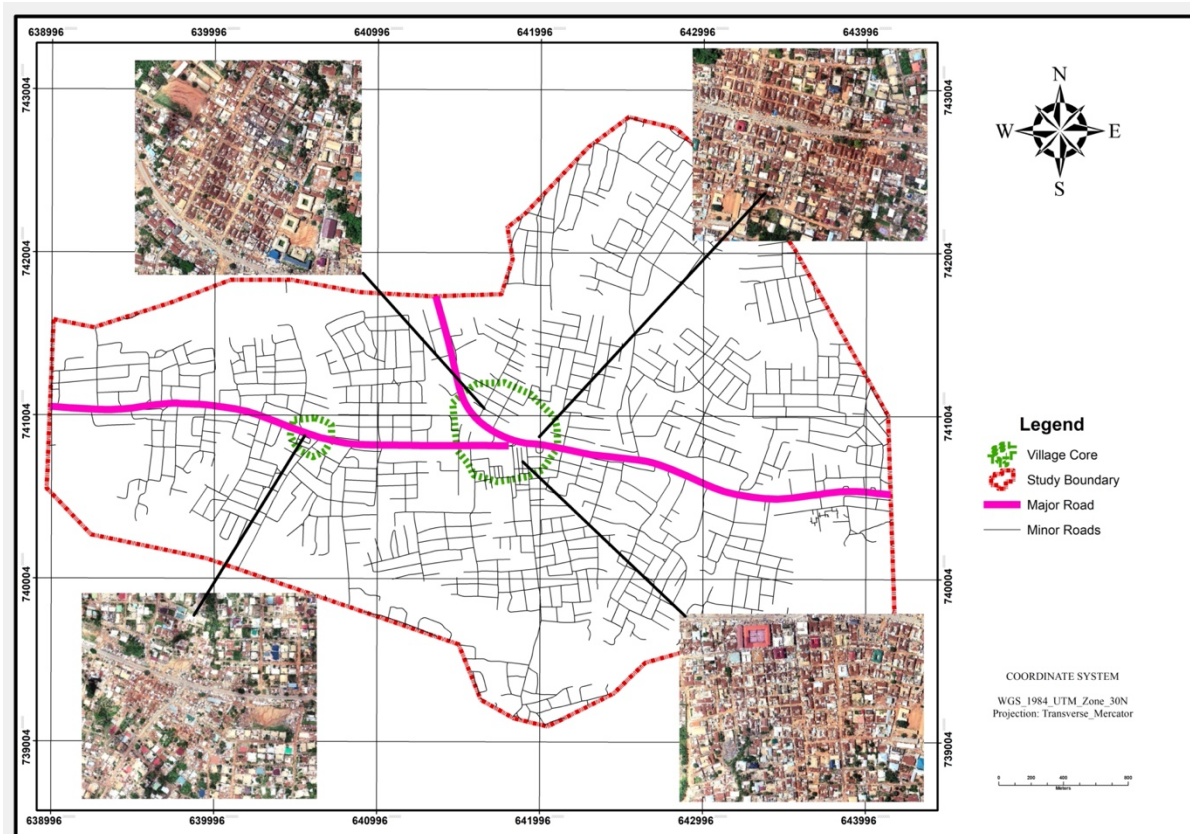


Figure 5.5: Spatial pattern in the village core of Abuakwa, and redevelopment in the bottom left corner

Source: Author's construction based on self-made drone images, 2019



Figure 5.6: New buildings (arrowed in left picture) with modern styles replacing the typical compound housing type on the right inside the grid of Abuakwa, December 2019.

Source: Field visit, 2019

Historically, Kumasi has a strong connection in terms of architecture and culture with many villages on its periphery, which today form the Greater Kumasi Metropolitan Region (Acheampong *et al.*, 2017) (see Figure 5.7). A chief in Abuakwa confirmed this in his historical account of the housing pattern in the village core as follows:

Our fathers and their families moved from Kumasi to settle in Abuakwa. This influenced the type of buildings and the street patterns because that is how the houses were built in Kumasi. To some extent, the streets in Abuakwa are better than those in the central part of Kumasi (Interview, Chief of the Apemhase Stool, Abuakwa, 06.12.2019).

Owusu-Ansah and O'Connor (2010:4) describe Kumasi “as an amalgamation of previous villages, many of which still retain their old established cores”. Thus, Abuakwa’s compound houses, arranged on a tight grid, have similarities with the village cores of other peri-urban areas in Kumasi. Abuakwa’s village core emerged along the Kumasi-Sunyani-Bibiani trunk road, on which several of the stool houses (the seat of the eight chieftainships of Abuakwa set out in Figure 5.1) are located. The stool houses are recognisable by specific spatial features, in particular the trees that are planted outside of the stool houses. The village core area expanded from the trunk road over time. The architectural influence of Kumasi on Abuakwa resulted in

the courtyard house being adopted, whereas in more rural villages a linear form of compound housing has remained predominant (Afram and Korboe, 2009).

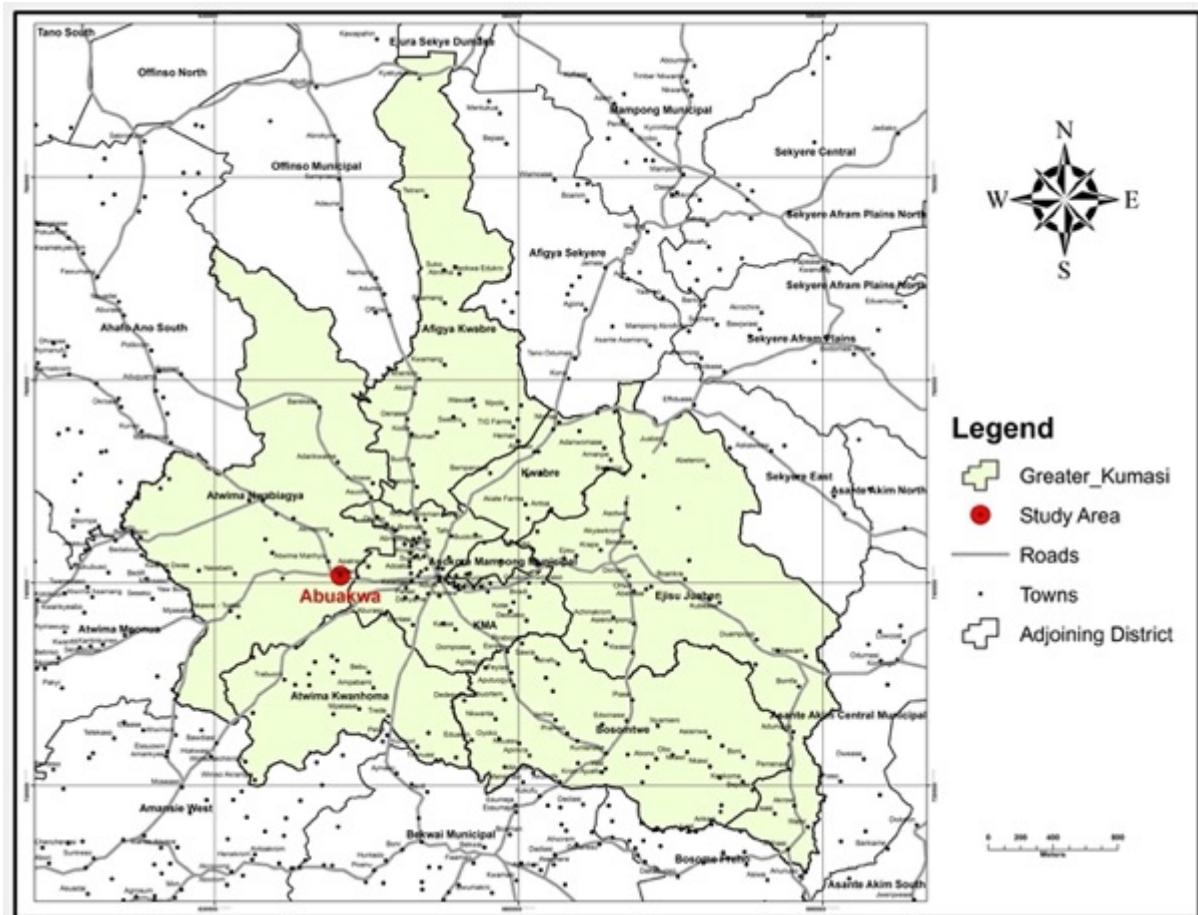


Figure 5.7: Cluster of settlements in the Greater Kumasi Metropolitan Spatial Area

The village core area shows compact development compared to the surrounding newly developing residential areas where plots are in street blocks that are separated by wider streets. However, the newly developing residential areas generally have inadequately surfaced and partly eroded access roads. The bungalow housing in the new residential areas is by and large single-family housing rather than compound housing and constructed of concrete and cement blocks with elaborate individualised designs, rather than the uniform clay brick architecture of the traditional courtyard house. Plots in the new area are on average 1000m² compared to approximately 500m² in the compound housing grid.

At the time of conducting this study in 2019, Abuakwa was part of the fast-growing peri-urban zones around Kumasi's trunk roads. Abuakwa's location is ten kilometres from the Kumasi CBD on the Kumasi-Sunyani-Bibiani trunk road. The pattern of growth and expansion of Abuakwa along a major road is a common occurrence in other peri-urban areas of Kumasi, such as Ejisu, which is also located along the Kumasi-Accra Road. Peri-urban areas further away from major arterial routes are difficult to access and often served by only unpaved pathways. The present-day preference for roadside living among peri-urban residents is also partly triggered by the availability of waterlines and electricity along major arterial routes. For example, it is easier to get connected to essential municipal services the closer one is to the major road. The extent of physical development in Abuakwa in 2019 (see Figure 5.8) showed that the once road-based urbanisation pattern has changed over time. Almost every portion of land apart from river courses, valleys or wetlands, has been used for physical development. Commercial activities, however, remain strung along the main arterial and intensified at the Y-junction in the middle of Abuakwa.

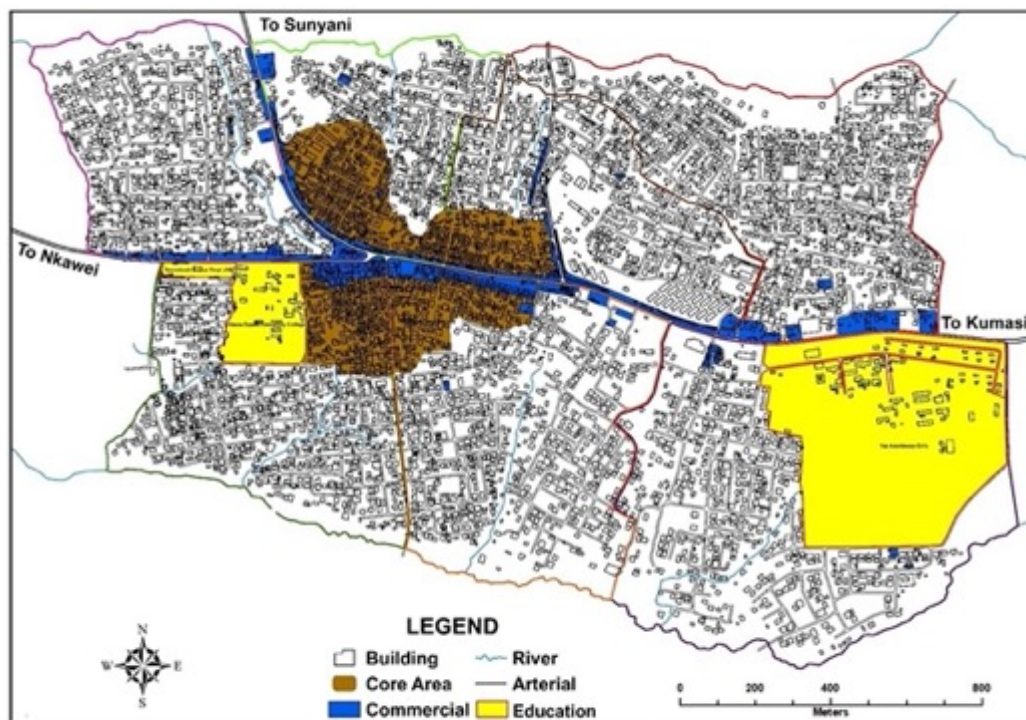


Figure 5.8: Concentration of commercial activities and land use along the trunk roads, and location of the village core around the road intersection in Abuakwa

Source: Author's construct based on Google Earth data, 2019

Whereas Amoateng *et al.* (2013) found that the increasing population in Abuakwa and concomitant physical expansion were triggered by proximity to Kumasi and available land for development, the Chief of the Apemhase Stool was of the view that the pressure on land in Abuakwa also stems from indigenes in other major cities in Ghana. He mentioned Accra, Sekondi-Takoradi as well as Ghanaians living in diaspora communities of the United States of America, the Netherlands, Germany, or the United Kingdom who are keen to invest back home (Interview, Chief of the Apemhase Stool, Abuakwa, 06.12.2019). The influence of Kumasi on the lives of the people in Abuakwa has changed and intensified due to improved transportation. Apart from the middle class living in Abuakwa, who are mostly public servants, using private cars, many local residents patronise shared minibus taxis known in Ghana as *trotro*, that ply the route from Kumasi and beyond Abuakwa. *Trotros* operate “between specific destinations with passengers alighting at designations or assumed bus stops, while others get on board” (Sarfo, 2016:15). Fares, which are usually collected by a conductor locally called ‘Mate’ (*ibid.*), are less expensive than private taxi cabs. This makes it possible for people to make several daily commutes between Kumasi and Abuakwa for work or business.

Walks in Abuakwa during my field visits in 2019 showed most people engaging in diverse trading activities, much of this being trade in crops from nearby farms, fruits and vegetables, furniture, clothing, imported rice (most likely from China and Vietnam), satellite dishes, and mobile phones. There were also thriving trading activities in sawn timber, cement, iron rods, wooden doors, and bamboo due to ongoing development. Abuakwa also has formal shops in retail buildings: pharmacies, community banks, savings and loans banks, and mobile money agents. Fuel stations serve the increasing number of vehicles that ply the Kumasi-Abuakwa corridor.

5.3 Changing land use and land cover in Abuakwa (2003-2018)

As mentioned in Chapter 2, peri-urbanisation involves land use changes, and this manifests in land cover changes. Typically, this involves encroachment of agricultural land, a rise in residential land uses, and the diversification of land uses. A comparison of land cover data and maps of Kumasi over the period of 2003 to 2018 shows the extent of physical development and, therefore, land cover. Most of the land use in Abuakwa is arranged in a series of grids that are at various angles to one another. Most of the built-up areas lie beyond the original grid. However, beyond this, the grid maintains approximately the same scale, although plot sizes are larger. The Kumasi-Sunyani Road divides Abuakwa into two halves and the Bibiani Road at

the Y-junction on the western side breaking the fabric into three portions. There are also many buildings at various stages of completion, typically with the completed part being in use.

Reis *et al.* (2016:257) explain that geospatial metrics are used by “urban planners and geographers to measure spatial patterns”. In this study, I measured the urban expansion rate in Abuakwa by computing the annual rate of conversion of urban land from non-built-up areas to built-up areas. This showed a mixture of land uses competing for space to accommodate the needs of the rapidly increasing population. At the time of the fieldwork for this study in 2018 and 2019, the old residential area and land uses such as markets, factories, shops, police stations, schools, banks, churches, mosques, commercial wood markets, fuel stations, and hotels were found along the main road. These developments have triggered physical expansion that differentiates contemporary Abuakwa from its constellation a decade and more ago. The trend in spatial change can be described as gradual from 2003 to 2018, except that the change from 2003 to 2008 seems to have been more drastic than the other two periods I examined. Figure 5.9 shows the trend in physical expansion in Abuakwa from 2003 to 2008, 2008 to 2013, and 2013 to 2018.

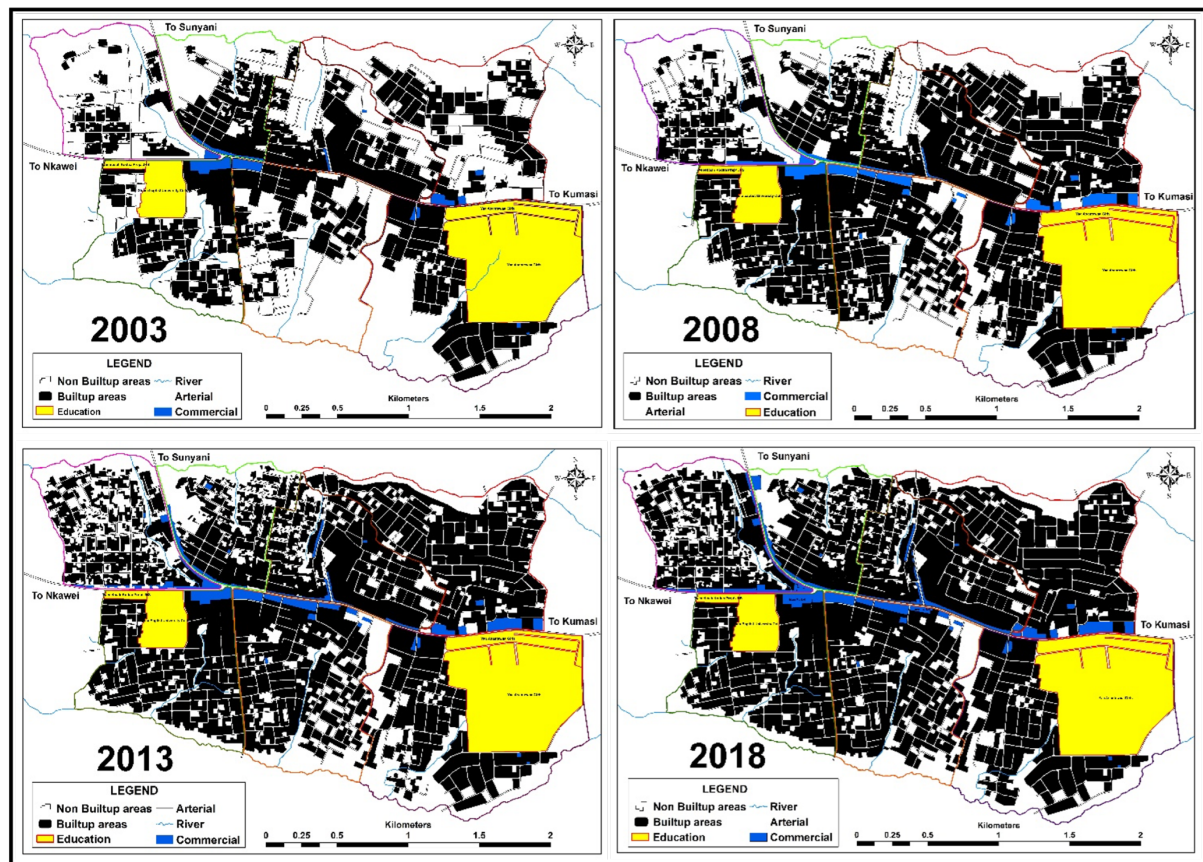


Figure 5.9: Trend in physical expansion in Abuakwa (2003 to 2018).

Source: Based on Landsat images and field visits, 2019

The Landsat data revealed that physical expansion of the built-up area in Abuakwa involved an increase from 901.1 acres (50.1 per cent) in 2003 to 1,376.3 acres (76.4 per cent) in 2018 representing a 26.4 per cent change over the 15-year period. Over the same period, the non-built-up area reduced from 899.6 acres (49.9 per cent) to 424.4 acres (23.6 per cent). As already mentioned, the physical development in Abuakwa was characterised by a spread of buildings on both sides of the main road and some infill farmlands tucked in between the existing built-up areas. The increasing rate of spatial expansion in Abuakwa is like other peri-urban areas in Kumasi, for instance, Ejisu described by Cobbinah and Aboagye (2017) and peri-urban areas in Takoradi and Bolgatanga described by Kleemann *et al.* (2017). The Landsat data for Abuakwa further revealed that residential land use contributed most to expansion. Increasing conversion of farmland to residential development accounted for the reduction of agricultural land from 7.8 per cent in 2003 to 1.17 per cent in 2018. Figure 5.10 shows the land use inventory and land cover change from 2003 to 2018.

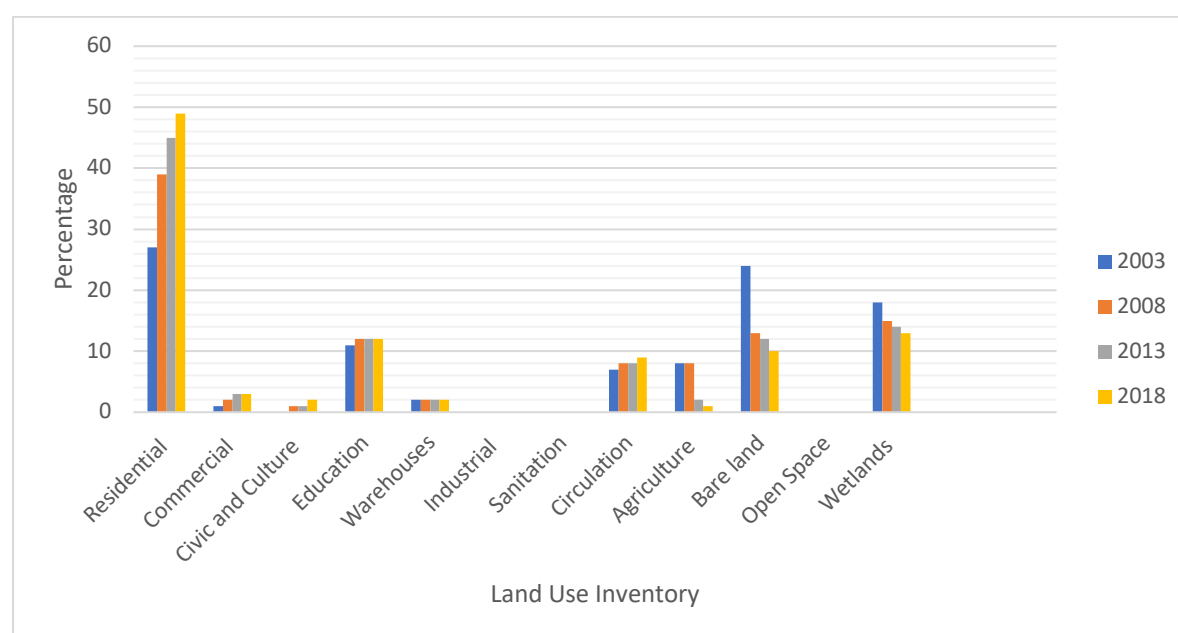


Figure 5.10: Land use/land cover inventory of Abuakwa (2003-2018)

Source: Based on Landsat images and field visit, November 2019

The reduction in farmland in Abuakwa in favour of residential development is in line with earlier research findings by Cobbinah and Amoako (2012) and Amoateng *et al.* (2013). The

displacement of agriculture by peri-urban expansion in Abuakwa also lends itself to the trend in peri-urban areas across cities in sub-Saharan Africa, as found by Kanji *et al.* (2005).

An interesting part of physical expansion in Abuakwa is the already mentioned rise in multi-storey buildings for commercial uses as of 2008. The area adjacent to the new market is also witnessing intensification and verticalisation of buildings (see Figure 5.11) in the core area, hitherto known for single-storey compound houses.



Figure 5.11: A building under construction showing verticalisation in the core area of Abuakwa, December 2019

Source: Field visits, 2019

The intensification of development around the new market appears to respond to multiple factors. Asked how the Market Project has affected the spatial pattern of Abuakwa, a planner explained that:

Because of the Market, other commercial activities are growing around the market. It has also brought about the demolition of old buildings and the rise of new and high-rise buildings which are built by private individuals. Banks have also moved in to serve the

financial needs of the market women (Interview, Physical Planner, Nkawie, 30.12.2019)

My efforts to interview some of the private developers about their motivation for their building projects yielded no results. The perception of the planner I interviewed, however, was that the Market Project and the Dualisation Project have changed the previous uses of buildings and triggered (re)development of buildings in the village core area (*ibid.*). This increase in commercial activities in Abuakwa has been triggered by complex factors. It appears the location of Abuakwa at the Y-junction has triggered retail or informal trade development. Possibly also the existence of a bus 'station' and a wholesale market around the Y-junction area bring traffic into or through Abuakwa, and commerce often follows through-traffic. It again appears that people who hitherto depended on agriculture will diversify their livelihood sources from farming activities to non-farm businesses. This seems to have triggered the proliferation of small and medium enterprises emerging along the major arterial road in Abuakwa, which used not to be entirely the case in 2003 up until 2008. The interviews with some residents revealed that the increasing trading activities along the major roads were not only triggered by the unavailability of land through peri-urban expansion. In my interaction with one trader who identified as an indigene of Abuakwa, he explained that:

Farming is no longer rewarding because you put in so much effort, but the weather will eventually fail you or when you have bumper harvest, prices of farm produce are low, and you end up not getting good prices. Selling used clothing here is better because you can always get your daily bread (Interview, Trader 1, Abuakwa, 30.12.2019).

Similarly, another trader who is not an indigene and was trading in used clothing explained that:

I do not own land here in Abuakwa, because I am not an indigene. I travelled here to look for a job and ended up trading in used clothing (Interview, Trader 2, Abuakwa, 30.12.2019).

The increasing trading activities along the main roads in Abuakwa was partly triggered by factors such as unfavourable weather for farming and low prices for farm produce (Interview, Trader 1, Abuakwa, 30.12.2019). The increasing trading activities in Abuakwa could also be attributed to the activities of non-indigenes who have travelled from other parts of the country to Abuakwa to look for jobs and do not have access to land (Interview, Trader 2, Abuakwa,

30.12.2019). Thus, increasing trading in Abuakwa is not only limited to the former farmers diversifying into trading. Non-indigenes of Abuakwa who are automatically excluded by the land tenure system were also likely to venture into trading.

5.4 Land use planning processes in Abuakwa

The process of land use planning at the local level in Ghana involves the decentralised statutory structures of metropolitan, municipal, and District Assemblies. Actors of these local statutory institutions collaborate with traditional authorities and individuals to undertake new land subdivisions or retrofit areas where development has already occurred without approved plans. These actors also collaborate with central government during the construction of infrastructural projects such as roads and markets. As a result of their collaboration in local planning processes, in particular through land allocation, local statutory institutions and traditional authorities influence processes that involve spatial change in local areas.

The decentralised governance system is achieved through the District Assembly system. The District Assembly is a conglomeration of local areas, represented by assemblymen and Unit Committees that form an important structure in the decentralisation system in Ghana. The Unit Committee consists of not more than 15 members but not below ten and are found in every community. They do not receive salaries or allowances, a situation that makes it less appealing for people to serve. They participate in decision-making at the community level, which includes local plan preparation. At times they suffer legitimacy concerns in some communities as they are regarded as ‘agents’ of politicians (Interview, Physical Planner, Nkawie, 30.12.2019). Officials of the District Assembly are not directly involved in the initiation of planning schemes in stool land areas, despite being the authorities in charge of physical planning at the local level. Act 925 requires that in the process of local plan preparation, the District Assembly through the Spatial Planning Committee and the Technical Sub-Committee conducts public consultation in the community where the local plan will be implemented to ascertain the aspirations and needs of the community. The consultation with the community also helps the Assembly to receive possible objections from people in the proposed plan area who may have concerns about the local plan. The Assembly also gets the opportunity to provide technical advice. The community engagement exercise undertaken by the Spatial Planning Committee, and the Technical Sub-Committee is stipulated in Section 76 of Act 925 which prescribes that:

The District Spatial Planning Committee shall publish a notice on its notice boards, its website, in a newspaper of national circulation and any other manner that it considers appropriate to the effect that the local plan has been approved if (a) the District Spatial Planning Committee does not receive any comment before the date for making comments expires; (b) the District Spatial Planning Committee receives a comment within the time for making comments but decides that the comment does not have to be acted on; and (c) the conditions imposed on the person submitting the draft local plan, have been satisfied by that person. (Republic of Ghana, 2016a).

The prescriptions in Section 76 suggest that the Spatial Planning Committee can dismiss submissions even if they have a basis for consideration. This provides for a grey area the Committee can act outside of its normal mandate by making discretionary decisions. The planning process must include community consultations but is silent about any requirement to go to communities. As a result, in the case of the Municipal Assembly's interpretation of the consultation needed went beyond what the applicable act requires. This appears to be the case because the Municipal Assembly was aware that the plan area was already occupied, and any attempt to enforce planning laws could affect households living in the area and cause conflicts with traditional authorities.

Land in Abuakwa is held under customary tenure in that 'ownership' and transfer follows a set of traditions and customs, as is the case in many sub-Saharan African countries discussed in Chapter 2. Typically, land in Abuakwa is held by the different stools and administered by each of the autonomous family groups that make up the eight stools. The chief of each of the stools is autonomous in terms of land allocation and report to the *Asantehene* (or Ashanti King). The Chief of the Apemhase Stool explained that the people of Abuakwa directly serve the *Asantehene* and not any other paramount chief. This suggests a strong historical connection between Kumasi and what today is its peri-urban areas, emanating from the different stools that were allocated land to form villages, as also found in Owusu-Ansah and O'Connor (2010). The chiefs, as they serve the *Asantehene*, directly have control over the land allocated to the stool.

There are planning schemes or local plans for residential areas outside of the core area in Abuakwa, but there are contestations between the local statutory officials and chiefs regarding the approval processes of in-fill layout plans. The trend in physical expansion in Abuakwa already discussed in section 5.3 shows that the Apemhase Scheme was initially a greenfield

development when initiated by the chief and involved the conversion of agricultural land use into urban use, mainly for residential plots. All the plots were allocated by the chiefs to subjects of the stool and also to land seekers who needed land for residential development. As a result, physical development began to occur on some of the plots while others were used for subsistence farming. Physical development at this stage mainly occurred before the plan was approved. A member of the Physical Planning Department in Nkawie explained that although the area was planned, approval was preceded by physical development (Interview, Physical Planner, Nkawie, 30.12.2019). The planner explained that there was the need to give development permits *post facto* to developers who had already built on their plots once the original plan was regularised by the Municipal Assembly (Interview, Physical Planner, Nkawie, 30.12.2019). As I will discuss later in this chapter, chiefs appear to have taken up the responsibility of spearheading plot allocation and encouraging development before actual approval from statutory officials could happen. As a result, local plans were approved later, after chief-initiated plot allocations and development had occurred.

Physical expansion in Abuakwa is characterised by development projects which are initiated by multiple actors such as individuals, chiefs, and the government. These development projects, in turn, contribute to spatial change. In this section, I present interviews that I conducted with chiefs, peri-urban developers, and planners, asking them about spatial change in Abuakwa from 2003 to 2018. I focused my interviews on projects in the Apemhase Scheme and on two major public development projects, namely the Abuakwa road dualisation project and the Abuakwa new market project. I chose to focus the interviews around the Apemhase Scheme to cover the full planning process through to approval. The Abuakwa road dualisation project provided an opportunity to understand how top-down government projects such as road construction affect spatial organisation in a peri-urban town. The new Abuakwa market project is linked to a medium-term development plan of the local government and therefore sheds light on official visions of spatial reorganisation and their realisation of local-level development projects.

5.4.1 Apemhase Scheme

The Apemhase Scheme involved two stages – conversion of agricultural land to residential plots by chiefs and the *post facto* approval of the plan by the Municipal Assembly. The Apemhase Scheme shares boundaries with the New Town Scheme, which was approved in 1993 and overlaps with the village core area (see Figure 5.1). The Scheme was initiated and

planned as a greenfield development by chiefs and private surveyors in 1998. As mentioned previously, the Scheme involved the allocation of new residential and commercial plots but largely for residential development. The ANMA was established in 2004, and by 2005, it began to regularise the approval of chief-initiated plans that had stalled in the approval system. The motivation of the Assembly was to ensure orderly development and enhance revenue collection from property owners (Interview, Physical Planner, Nkawie, 30.12.2019). The approval of plans was also important as it allowed for easy identification of properties for taxation purposes by the Municipal Assembly. (*ibid.*). At this stage, development had occurred, and so the Assembly needed to make recommendations to revise the initial 1998 plan. The recommendations for correction by the Assembly involved the change of uses for certain areas and increasing the width of areas demarcated as roads (Interview, Physical Planner, Nkawie, 30.12.2019). The regularisation of the initial plan was delayed as contestations occurred over retrofitting development that had occurred from 1998 to 2004 without fully adhering to the submitted plan. The regularised plan was finally approved by the Municipal Assembly in 2012 after the recommendations of the Assembly had been incorporated into the plan. The long gestation period of the plan seemed to have led to plots being developed without development permits from the Municipal Assembly. Though not providing a full explanation for the seven-year delay, a planner shared his understanding of the process as follows:

The delay came about because the proposed plan contained lapses which needed to be rectified by the chiefs before approval could be granted by the Assembly. The chiefs contracted a private surveyor to prepare the proposed plan, so our planners did not have control on the plan preparation. We could only give recommendations for them to work on (Interview, Physical Planner, Nkawie, 30.12.2019).

The Apemhase Scheme was initiated by the Chief of the Apemhase Stool, who played a central role in the planning process as the custodian of land belonging to the stool. Asked what general role he played as a chief, he stated that:

I play so many roles including the adjudication of cases involving land disputes, family issues and domestic conflicts. In terms of land, my council and I initiated the preparation of the Apemhase Scheme for development to take place. We initiated the Scheme and informed the *Otumfour*, who is our King (Interview, Chief of the Apemhase Stool, Abuakwa, 06.12.2019).

The central role of chiefs during the planning of the Apemhase Scheme in Abuakwa aligns with other cases researched by Akaateba *et al.* (2018) and Andreasen *et al.* (2011), who in their respective cases in Tamale and Mpasatia underscored chief-initiated land use planning. The role of the Chief of the Apemhase Stool in land allocation was far-reaching as he performed functions such as initiating the hiring of a surveyor and planner to provide technical assistance to prepare the layout (Interview, Chief of the Apemhase Stool, Abuakwa, 06.12.2019). The allocation of plots was first to families who had lost agricultural land in the new subdivision. The remainder of the plots went to land seekers who bought land for residential or commercial purposes (*ibid.*). The Chief also issued Allocation Notes to developers who bought plots from the stool to validate the transaction. Allocation Notes are usually type-written notes that are issued by the Chief of a stool to signify that a piece of land has been transferred. The Allocation Note is signed by the Chief of the stool, the allottee, and their witnesses to cover the lease period that is 99 years. The terms and conditions accompanying the transfer of land are also stated in the Allocation Note (*ibid.*). The Allocation Note (see Figure 5.12) is important as it is required as an instrument of claim to land, which is required to undertake land title registration at the Lands Commission.

**NAME OF STOOL LAND
ALLOCATION NOTE**

P. O. BOX KS. 8028
ADUM - KUMASI
28-07-2019

Dear Sir/Madam

KUMASI (KRAPA) PLOT NO(S).

I the undersigned have the honour to inform you that the above-mentioned plot(s) has been allocated to ... FOR: ... and shall be grateful if the necessary action will be taken.

THE ALLOCATION IS MADE SUBJECT TO THE FOLLOWING CONDITIONS:-

1. That the allottee will pay the ground rent involved.
2. That the allottee will within one year commence and within two years complete building on the plot(s).
3. That the **Name of Stool** reserves the right to re-enter on the plot if any of the above conditions is not complied with and that the allottee will have no right of claim for replacements expenses or compensation.

ASANTEHENE

I/we accepted the above conditions

.....
ALLOTTEE(S)
Jiji

cc: THE REGIONAL LANDS OFFICER
LANDS COMMISSION
P. O. BOX 43
KUMASI

Signature of Stool Head
Name

Figure 5.12: Sample Allocation Note depicting terms and conditions attached to a plot by traditional authorities

The Allocation Note is also required by the Assembly to confirm whether the plot and its land use are according to the approved plan for the area. Prior to the Apemhase Scheme, plots allocated by chiefs to both family indigenes and non-indigenes required the issuance of Allocation Notes. This enabled such developers to regularise their development permits in the future.

The nature of spatial planning in Abuakwa is such that statutory officials did not play direct roles in the initial planning of the greenfield development. The Municipal Assembly facilitated the regularisation and approval of the Scheme as required by planning legislation. In the case of the Apemhase Scheme, the Municipal Assembly granted approval to the chief-initiated plan after receiving favourable recommendations from the Technical Sub-Committee and the

Spatial Planning Committee, which has the role of ensuring compliance and hearing appeal applications for rejected plans (Atwima Nwabiagya Municipal Assembly, 2014).

The Chief of the Apemhase Stool seemed to suggest that the process of regularising and approval of the Scheme suffered undue delays from the Municipal planners. From the point of view of the Chief, the municipal planners appeared to have deliberately delayed the process over minor issues. In clarifying the perception of the Chief, a municipal planner explained that:

What we planners here [the Municipal Assembly] expect from the chiefs is that the Scheme follows the laid down laws. If we are convinced that the recommendation given by the Technical Sub-Committee have been incorporated in the proposed plan, we go ahead to approve the plan. One of the recommendations was that plots on the initial plan which were close to wetlands and flood-prone areas should be pushed back but they were reluctant (Interview, Municipal Physical Planner, Nkawie, 30.12.2019).

This account shows how the land use planning process was operationalised by stakeholders to bring about orderly development. The planning process provides for the key stages, timelines, description of tasks as per planning regulation, responsible actors, and outcomes. These help in the understanding of how the planning process actually unfolded (see Table 5.1).

Table 5.1: The land use planning process in Ghana as applied in the Apemhase Scheme

Stage	Dates	Description of tasks as per planning regulation	Responsible actors	Outcomes in the Apemhase Scheme
1. Chief initiates the Scheme and allocates plots	1998		Traditional authorities, families, private surveyors	This stage did not include the statutory planning authorities.
2. Reconnaissance survey	2005	This is an initial visit to the site of the plan to gather information about the topography and other considerations.	Municipal Planners, traditional authorities and families	Traditional authorities and families working with statutory planning authorities to gather information about existing development.
3. First stakeholder meeting	Records not available	A meeting to sensitise and solicit information from the people living around the plan area. It enables planners to solicit information on local knowledge from traditional authorities such as chiefs, family heads and possible contestations on land uses from other claimants.	Municipal Planners, traditional authorities and families.	According to the Municipal Planner, the on-site meeting took place, but details were not available.
4. Updating of maps and site analysis	2006	Accredited or professional surveyors and staff of the Physical Planning Department prepare the base maps or update these where they already exist.	Private Surveyors	Planners from the Municipal Assembly updated the base map of the area.
5. Survey of existing and identified target population	Records not available	Document the development aspirations of existing residents and target beneficiaries in the plan area.	Municipal Planners, traditional authorities and families	Planners from the Municipal Assembly undertook a survey of the existing population.
6. Analysis of the socio-economic and land use data	Records not available	Data from baseline study streamlined and fed into the Structure Plan (if it exists), including zoning and planning requirements.	Municipal Planners	No information on whether this was accomplished.
7. Generation of alternatives to ordering land uses in the local plan and second stakeholders' consultation	Records not available	Designing of alternative land uses and second stakeholder consultation.	Municipal Planners	No information on whether this was accomplished.
8. Draft local plan	2006 to 2008	This involves the drafting of the local plan.	Private Surveyors	Draft retrofitted plan was done.
9. Third Public Hearing	Records not available	This stage allows the Assembly to discuss the draft local plan with stakeholders. These comments are used to streamline the aspirations and needs of stakeholders.	There is no information on who was involved.	No information on whether this was accomplished.
10. Placement of local plan in the Public Data Room	No records available	This stage involves the issuance of notices to all stakeholders to comment on the draft local plan.	There was no information on who was involved.	Retrofitted Scheme placed made available for comment.
11. Final Plan and Report and the signing of plans	2012	This is where final comments and suggestions are made and the plan approved for implementation.	Spatial Planning Committee of the Municipal Assembly	Scheme was approved with some 'reservations' from the Municipal Planners, traditional authorities and developers.

Source: Author's compilation drawing on MEST and TCPD, 2011

Most of the stages prescribed by land use planning laws in Ghana were not properly followed. As already mentioned, the customary land tenure system in Abuakwa gives traditional authorities power over the planning process, particularly in the disposal of land. Traditional authorities are recognised by state laws and are empowered both traditionally and legally to hold land in trust for their subjects. The Abuakwa case study illustrates that chiefs can use their powers to negotiate and to transfer land through customary law, which includes the right to engage their own private surveyors in land use planning. Typically, chiefs initiated their own processes in the preparation of layouts and the transfer of plots to land seekers before the approval of the plan. Asked what role the Municipal Assembly played in the preparation of the Apemhase Scheme; a planner stated that:

The Spatial Planning Committee and the Technical Sub-committee of the Assembly were somehow involved in the planning stage of the Scheme. These Committees went to the community [people already living around the area where the plan is to be implemented] to listen to their aspirations and concerns when the traditional authorities submitted the proposed Scheme. The Technical Sub-Committee made recommendations for correction on the proposed Scheme. The Spatial Planning Committee reviewed the final proposed Scheme and approved it for use” (Interview, Physical Planner, Nkawie, 30.12.2019).

My interviews with the Chief of the Apemhase Stool brought to the fore that the disbursement of plots in the Apemhase Scheme was carried out by the Chief and his Plot Allocation Committee. The role of the Plot Allocation Committee is discussed in Chapter 7. Prior to the approval of the plan, the Chief allocated plots to the families under the stool, which was proportionate to the land under their control (Interview, Chief of the Apemhase Stool, Abuakwa, 06.12.2019). Families then decided to sell additional plots to land seekers. The families also set aside some of the plots for future family use or sale. These plots are normally used by some family members for subsistence vegetable production until actual development commences. The Chief indicated that leadership of the stool sold the remaining plots to defray the cost of surveying and other administrative costs incurred during the plan preparation (*ibid.*). A portion of the proceeds of the sale of plots was used for taking care of expenses that came up in the Chief’s family, such as funerals and maintenance of the stool house (*ibid.*). The Chief of the Apemhase Stool was required by custom to inform the *Otumfuo* about the Scheme because he has allodial authority over all the lands in the Ashanti Region. A portion of the

proceeds of the disposal of the land after the Scheme is also sent to the *Otumfuo's* Lands Secretariat, as required from every chief who undertakes land subdivision (Interview, Chief of the Apemhase Stool, Abuakwa, 06.12.2019).

In my interviews, the chiefs stopped short of explaining the sharing formula used by the chiefs and the disbursement of proceeds from the sale of plots. I was, therefore, not able to ascertain whether this was following customs or whether there was an element of enrichment by the chiefs, who certainly appeared to have accumulated wealth, a trend which Andreasen *et al.* (2011) document for the Mpasatia area in the Ashanti Region. The management of revenues from land transactions has raised concerns due to misappropriation and wealth accumulation among some stools. In 2017, the *Otumfuo* temporarily closed his Lands Secretariat due to alleged financial malfeasance on the part of the revenue administrators and the unauthorised sale of plots involving the Chief in charge of the Lands Secretariat (PeaceFm, 2017). The financial misconduct in the management of proceeds from the sale of plots by chiefs is also acknowledged in Akaateba *et al.* (2018). The Land Act 1036 of 2020 seeks to correct the accumulation of wealth and the misappropriation of land revenues among chiefs by ensuring that chiefs who misappropriate land revenues face punishment. The Act aims at ensuring proper land administration and effective tenure. This cannot be evaluated as yet because the implementation of the Act has only recently begun. It, however, appears from previous cases that the true test of Act 1036 will be the ability to punish traditional authorities who engage in wealth accumulation from land transactions.

The objective of planning to ensure effective land uses is sometimes lost when approved plans are flouted by developers, as in the Abuakwa case study. The post-approval phase of the Apemhase Scheme produced spatial outcomes different from the approved plan. The aftermath of the approval in 2012 witnessed unauthorised developments in wetlands and the conversion of public spaces into residential development or for religious purposes (Interview, Physical Planner, Nkawie, 30.12.2019). In the assessment of a planner at the ANMA, traditional authorities will normally want to maximise the revenue from the sale of plots and do so by engaging in land use changes to meet emerging demand before the plan is approved as in the case of the Apemhase Scheme (Interview, Physical Planner, Nkawie, 30.12.2019). The non-compliance in the Apemhase Scheme after the approval arose because developers flouted the recommendations of the Spatial Planning Committee to undertake development outside the land uses approved in the plan (*ibid.*). As a result, the Municipal Assembly did not issue

development permits to such developers. This, in turn, did not allow for such developers to register their plots and be able to use their properties as collateral in bank transactions.

Local plans manifest spatially according to or in defiance of approved plans and the objectives of planning. In this case, after the approval of the Apemhase Scheme in 2012, the chiefs staked out further plots, for instance towards the riparian strips of rivers and closer to wetlands, in areas which the approved plan did not deem suitable for development (see Figure 5.13 for details about unauthorised land use changes). In addition to residential encroachment onto the riparian strips (see Figure 5.13 sector C), there was also evidence of unauthorised conversion of land uses (see Figure 5.13 sector A) in which an area demarcated for worship has been converted to residential uses. In the case of Figure 5.13 sector B, buildings appeared to have encroached on a road as they did not align with the Scheme. The encroachment of some buildings on the road occurred because of development happening before the Scheme was approved. Current development revealed that areas demarcated as wetlands or flood-prone areas (see Figure 5.13 sector D) have been converted to residential uses, although they were marked as uninhabitable areas. In the assessment of a planner, some of the developers who had built in these uninhabitable areas can produce evidence of allocation from a chief, whereas others were considered squatters (Interview, Physical Planner, Nkawie, 30.12.2019).

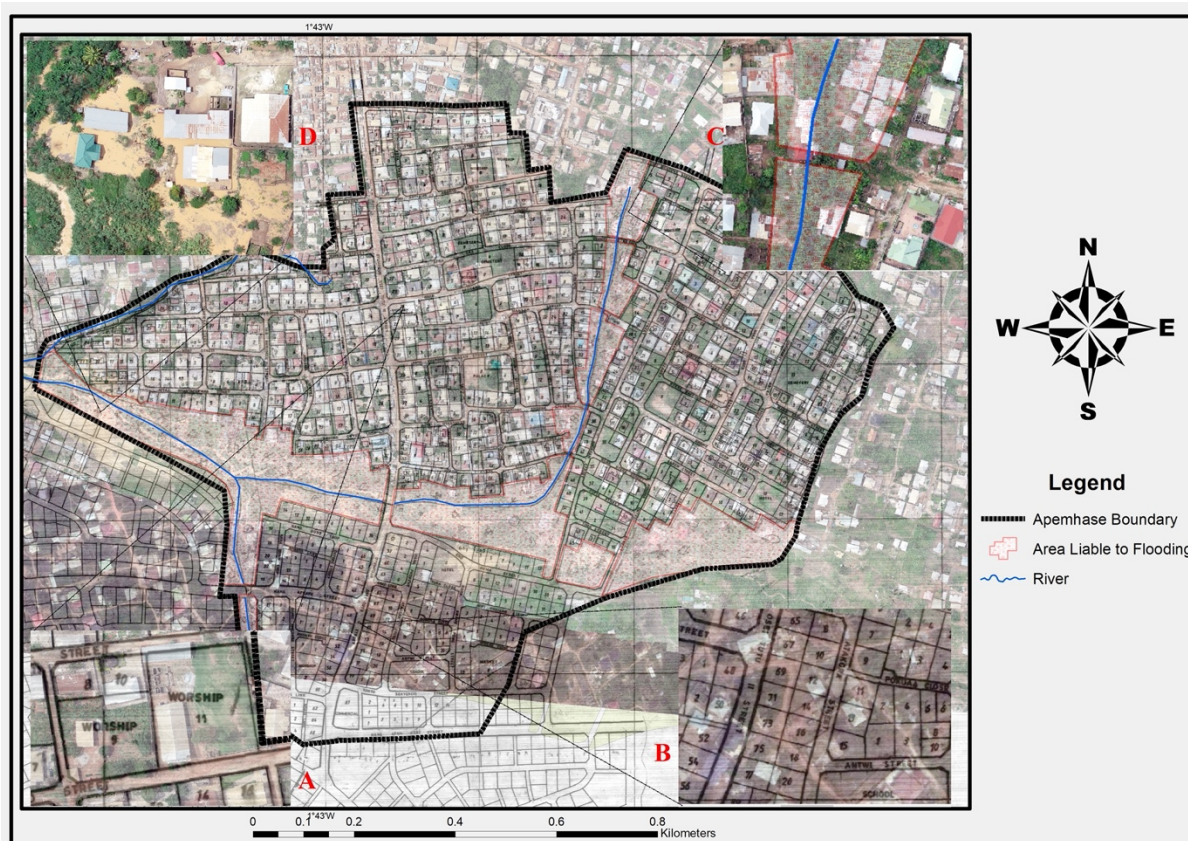


Figure 5.13 The Scheme approved in 2012 overlaying development on the ground as of 2019.

The bottom left insert illustrates the conversion of worship areas into residential plots, the bottom right is an encroachment on a road, top left is physical development in a flood-prone area, and top right is an encroachment on the riparian strips of a river.

Source: Author's construction superimposing the 2012 approved Scheme on the 2019 Google Earth image

The planning regulation prescribed in Act 925 gives the MMDAs the power to demolish structures that do not conform to approved plans. Further, the Local Governance Act 936 of 2016 stipulates the following in Section 94 (1) with respect to unauthorised development:

(1) Where (a) a physical development has been carried out without a permit or is being carried out without a permit, or (b) conditions incorporated in a permit are not complied with, a District Planning Authority shall give written notice in the form that shall be prescribed by regulations, to the owner of the land to require that owner on or before a date specified in the notice to show cause in writing addressed to the District Planning Authority why the unauthorised physical development should not be prohibited, altered, abated, recovered or demolished (Republic of Ghana, 2016b).

As a result, buildings in areas not demarcated for development in the approved plan and those in flood-prone areas need to be demolished. Persons who engage in unauthorised development are liable for approved fines or imprisonment. The Physical Planner explained that

Chiefs make a lot of changes to the approved Scheme to suit their own interests. There are certain areas on the schemes which have been converted to other uses without the knowledge of the Assembly. What we do is that we do not grant development permits to people who purchase these plots. So, they have developed the plots alright, but they cannot get permits...We also earmark any such physical development for demolition” (Interview, Physical Planner, Nkawie, 30.12.2019).

The Municipal Assembly normally earmarks for demolition any physical development on unapproved plots. As already mentioned above, the Municipal Assembly also has the authority to demolish the building if the owner refuses to produce the building permit (see Figure 5.14, the inscription on the wall giving the owner notice to produce the permit by a particular date). Actual demolition hardly happens as traditional authorities restrain the Municipal Assembly to undertake demolitions (Interview, Physical Planner, Nkawie, 30.12.2019). The Municipal Assembly regularises the development permit for areas that fall within the plan area, whereas those in wetlands or river courses are not issued permits (*ibid.*). The planner expressed worry about this, citing interference by both traditional authorities and politicians (*ibid.*). In the account of the planner, the reason that chiefs intervene to stop demolition is that they are complicit in allocating the land to developers. In other instances, chiefs intervene as custodians of the land, required by tradition to protect their subjects (*ibid.*).



Figure 5.14: Building on an unauthorised plot earmarked for demolition for non-compliance

Source: Field visit, 2019

The Apemhase Scheme shows how traditional authorities demarcate land for allocation and the collaboration of statutory institutions to ensure compliance of development according to approved plans. The Apemhase Scheme demonstrates the ability of traditional authorities to engage in planning practices and influence spatial change through land delivery. The issue of non-compliance remains a challenge facing traditional authority-initiated plans, but this case study shows that close collaboration with statutory institutions can enhance the power to enforce compliance in peri-urban development.

5.4.2 The Abuakwa Road Dualisation Project

As mentioned in Chapter 3, state infrastructure projects from the colonial and post-independence eras have been major triggers of spatial transformation in Ghana (Acheampong, 2019). These may be roads or social infrastructures such as hospitals and schools. In Kumasi, road infrastructural projects are justified in the comprehensive development plan for the Greater Kumasi Metropolitan Area based on population increases in Kumasi, coupled with a backlog in development of road infrastructure to match vehicular traffic resulting in congestion which in turn retards trade and economic development (Republic of Ghana, 2013).

The Abuakwa road dualisation project is part of the Sofoline Project, a government-led infrastructural project recently initiated with the objective of modernising road infrastructure to activate urban centres as corridors of trade in the Kumasi Metropolitan Area (Republic of Ghana, 2013). The project covers 11km from the Komfo Anokye Teaching Hospital to Abuakwa. It involves the widening of an existing trunk road into a dual carriageway to address heavy vehicular traffic congestion from the Komfo Anokye Teaching Hospital to Abuakwa, construction of two interchanges (one at the Komfo Anokye Teaching Hospital and the other at Sofoline), five underpass bridges - one each at South Suntreso, Agric College, Akenten Appia-Minka University of Skills Training and Entrepreneurial Development (formerly UEW Kumasi, campus), Apatrapa Junction and IPT Junction (Ministry of Roads and Highways, n.d). The project was initiated by the central government as part of the policy to build key road infrastructure for economic growth (Atwima Nwabiagya Municipal Assembly, 2014). The project aimed at achieving its goal of economic development by reducing traffic congestion on the road, which was negatively affecting commuters and businesses (Ghana Web, 2013).

My enquiries at the Department of Urban Roads revealed that the Government of Ghana, through the Ministry of Roads and Highways and the Department of Urban Roads, were key actors in the initiation and execution of the project. The project was awarded to China Geo Construction Limited at an initial cost of USD 80 million (*ibid.*). The project was initiated and planned by the New Patriotic Party Government after assuming office on January 7, 2001. The project was approved in 2003, and construction started in 2007 with expected completion in 2010. The New Patriotic Party government lost the elections of December 2009 and left government on January 7, 2010 (Ghana Web, 2013). The project faced delays mainly from irregular financial releases to the constructor, thereby affecting the section of the road passing through Abuakwa.

The widening of the trunk road had implications for the urban fabric of Abuakwa. The original single carriageway had a width of 7.3 metres, with a nine metre-reserve on each side. The existing building line was set back 16 metres from the centre of the road. The total width of the dualisation was approximately 16 metres for a two-lane highway for the two traffic directions, including the median of the road. Some of the buildings along the existing single carriageway had encroached on the nine metre-reserve on each side of the road. The dualisation was expected to lead to demolition of these buildings and other properties, particularly as it passes through the centre of the historic village core. The project also affected a major part of the Old

Abuakwa Market, resulting in plans to relocate the market to a new site (this is discussed in section 5.4.3). My enquiries with the Chief of the Apemhase Stool revealed that the government paid monetary compensations to owners of properties that were affected by the project (Interview, Chief of the Apemhase Stool, Abuakwa, 06.12.2019). My enquiries from the Department of Urban Roads in Kumasi confirmed this and further revealed that the valuation of affected properties and the payment according to valuation began in 2005 (A. Felix, personal communication, 05.01.2020). Contestations about valuation amounts by affected persons delayed the start of the actual construction until 2007. The Chief of the Apemhase Stool explained that traditional authorities were aware of the contestations over payment of compensation but could not intervene because the project consultants dealt directly with individual property owners (Interview, Chief of the Apemhase Stool, Abuakwa, 06.12.2019).

As at the time of the study in 2018 and 2019, some of the properties had been demolished with others marked for demolition. Delays in this appeared to be due to the contestations over the payment of compensation and the delays by the government to release additional funds to the contractor. My interaction with the Physical Planner at the ANMA revealed that the project commenced in 2007 but was yet to be completed and handed over by the contractors at the time of my interview late in 2019 due to low financial inflow from the government (Interview, Physical Planner, Nkawie, 30.12.2019). Towards the end of my fieldwork in December 2019, only the Abuakwa section was yet to be completed by the contractor.

At the time of my fieldwork, stakeholders I spoke to were optimistic about the beneficial implications of the projects, with some of these evident and affecting transformation in Abuakwa. A member of the Physical Planning Department at the ANMA articulated the economic implications:

Commercially, the project was initiated to improve transportation by improving accessibility and growth. The project has opened up Abuakwa because commercial activities have increased and travelling time improved, despite the project suffering completion deadlines (Interview, Physical Planner, Nkawie, 30.12.2019).

The Physical Planner of the Municipal Assembly further explained that Abuakwa has been identified by development partners such as the Japanese International Cooperation Agency as

a potential economic hub for commercial development. He substantiated this claim by emphasising that:

The road network is precondition for the take-off of the Abuakwa economic hub project and so for us as planners the road construction is an important development condition (Interview, Physical Planner, Nkawie, 30.12.2019).

The Chief of the Apemhase Stool also expressed his excitement about a different impact of the project, namely the anticipated visible modernisation and image change, although he was worried about the undue delays:

The construction project has further opened up Abuakwa to Kumasi. When the project is completed, it will beautify Abuakwa (Interview, Chief of the Apemhase Stool, Abuakwa, 06.12.2019).

The Chief also commented on the “increased traffic on the road” (*ibid.*). The increasing demand for land in Abuakwa for residential development was partly triggered by the anticipated relief of traffic congestion on the Abuakwa road after completion (*ibid.*).

The opinions of the Chief and planner reflect their ambition of achieving ‘good’ roads in Abuakwa with road markings which eliminate vehicular and human congestion. The Chief’s motivation to get the road completed may be informed by similar roads he has seen during his travels to the United Kingdom and Germany, which he disclosed during the interviews (Interview, Chief of the Apemhase Stool, Abuakwa, 06.12.2019). The Chief’s motivation for the Road Project suggests he values modernisation projects such as roads over the preservation of traditional compound houses along the main road. The views of the Chief suggest that the wider the road, the more cars will try to pass, which in itself reproduces traffic. The views of the planner, however, are informed by the objectives of the Medium-Term Development Plan of the Municipal Assembly, which seeks to make Abuakwa a commercial hub in the Greater Kumasi Metropolitan Area.

The dualisation of the single carriage road passing through Abuakwa will provide a much wider road, but the aim of activating trading in the Abuakwa corridor may not be achieved. Wider roads will trigger faster-moving traffic, which is usually dangerous for pedestrians. During the study from 2018 to 2019, much of the traffic in Abuakwa was through-traffic which encouraged trading activities along the road and in traffic. Once channelled into a dual

to materialise as residents in Abuakwa wait for the recommencement of work by the contractor and subsequent completion.

5.4.3 The Abuakwa Market Project

As mentioned, the development of a new market in Abuakwa was triggered by the road dualisation project. While the market relocation was necessitated by the road widening, the new market with larger and more modern facilities also responded to the increasing commercial importance of Abuakwa, which in turn resulted in part from the drawn-out road dualisation project. At the time of the fieldwork, the old market continued to operate alongside the new market, which was a mere 500m to the east. Both markets were attracting a substantial number of people to trade in Abuakwa. My enquiries about when the old market was established could not produce specific dates, although it appeared to have originated with the Abuakwa settlement. With its wooden structure, it had burnt down several times and had been rebuilt by the Municipal Assembly. The Municipal Assembly collected market tolls and taxes from traders in the market and would lose revenue each time the market caught fire (Interview, Physical Planner, Nkawie, 30.12.2019). At the time of my fieldwork, the old market structure still appeared vulnerable to fire. Traders displayed their wares on wooden tables and exposed cables formed the electric supply. As already mentioned, it has since been permanently demolished.

In contrast to the old market, the new market was planned to have modern facilities such as electricity supply, access control, and higher levels of hygiene as the construction of the old market did not lend itself to regular cleaning (Interview, Physical Planner, Nkawie, 30.12.2019). In the account of the Physical Planning Officer, the new Market Project was initiated based on two main factors. The first was that the old market had been gutted by fire on numerous occasions due to poor access and illegal electrical connections and lacked modern market status in terms of facilities such as secure storage spaces, toilets, and running water. The second reason was that the old market was going to be affected by the Abuakwa road dualisation project, which further necessitated the relocation of the market once the construction of the road reached the Abuakwa section.

The new Abuakwa market project was initiated in 2014 by the ANMA as part of its District Medium-Term Development Plan 2014-2017. The lead implementing agency for the new Market Project was the Works Department of the Municipal Assembly with the Municipal

Assembly acting as the collaborating lead agency. The construction began in 2014 and was completed in 2017. My enquiries from the ANMA did not yield results about the total estimated cost of the project. Interviews with a planner at the Municipal Assembly showed that funding for the project was through the District Assembly Common Fund (Interview, Physical Planner, Nkawie, 30.12.2019).

5.5 Spatial implications of planning initiatives in Abuakwa

The different planning initiatives undertaken by traditional authorities and state institutions in Abuakwa have implications for the spatial organisation of Abuakwa. These implications are witnessed through land delivery practices by traditional authorities, the provision of market infrastructure by municipal authorities, and the central government-initiated road dualisation project (see Table 5.2). These planning initiatives involve different actors who adopt various planning approaches to plan and implement projects in Abuakwa.

Table 5.2: Comparison of spatial change projects in Abuakwa

Key actors/Case studies	Apemhase Scheme	Abuakwa road dualisation project	Abuakwa new market project
Key actors	Traditional authorities, clan heads and family heads	Central government	Municipal authorities, chiefs and residents
Planning approach	Traditional authority-initiated bottom-up planning	Top-down planning by central government	Hybrid planning initiated by municipal authorities
Nature of the spatial implication	Conversion of farmlands to urban plots Transition from on-farm to off-farm economic activities	Intensification of traffic at the Y-junction Erasure of historical compound housing and chief's palaces	Intensification of commercial activities and physical development around the Y-junction Congestion on the shoulders of the main road

Source: Author's fieldwork, 2019

Abuakwa used to be largely an agrarian economy depending on the production of food crops (Atwima Nwabiagya District Assembly, 2014). The ongoing transition from agrarian to non-farm trading activities because of peri-urbanisation is a common thread running through the process of spatial change in this case study and formed a shifting context for Abuakwa's markets. The economic transition has also manifested in some conversion of old compound houses to modern multi-storey buildings for use by banks and retail catering for the increasing businesses opportunities in the area. During my fieldwork, both the new and old markets served as vending points for food items and other consumables, although the old market was in a deplorable state (see Figure 5.16 for the image of the Old Abuakwa Market on the right). Figure 5.16 shows congestion outside the new market off the main road. The congestion comes from traders who preferred to take advantage of through-traffic trade. This has created heavy vehicular traffic off the main road as the bus station has become part of the market. Ironically, this has intensified the very congestion which the road dualisation sought to relieve. Trading activities along the shoulders of the road were continuing, but the completion of the dual carriage road would pose a threat to traders who continued to trade along the road. There is an intensification of development around the new market and commercial development along the Y-junction. My interviews with a planner showed that these investment projects mainly involve families (Interview, Physical Planner, Nkawie, 30.12.2019).



Figure 5.16: The New Abuakwa Market (left) and the Old Abuakwa Market (right)

Source: Author's construction based on fieldwork, 2019

A comparison of the planning initiatives (see Table 5.3) in Abuakwa shows that all three projects are collectively influencing spatial re-organisation. The conversion of rural land into urban plots has triggered a major shift in Abuakwa from rural on-farm uses to urban non-farm uses. This has triggered the need for the state to intervene by providing developmental projects to serve residential and commercial uses. The road dualisation and market projects were undertaken to serve the increasing population in Abuakwa. The emerging spatial pattern depicts a possible erasure of compound houses, trees, and chief's palaces along the road and in their place, the development of public infrastructure projects, multi-purpose high-rise commercial buildings that house stores, office spaces, and flats for residential uses. However, it is not clear whether this trend will reach more deeply into the old gridiron fabric in the core area, particularly given the deficient infrastructure in the village core and the absence of a planning scheme.

5.6 Conclusion

The chapter described spatial change in Abuakwa, which developed from a gridiron settlement pattern in the village core to commercial strip development as well as a ‘western’ type of subdivision scheme and bungalow housing in the surrounding areas. The chapter further showed that statutory or western planning arrived late in Abuakwa after the passage of Act 462 of 1993. The difference between the settlement pattern in the village core area and the periphery can be witnessed in the housing typology. In the village core area, the compound housing typology encourages multihabitation, but the bungalow type of buildings in the peripheries are predominantly single-family units mainly occupied by nuclear families. The resultant spatial organisation in Abuakwa is one that juxtaposes the compound housing and multihabitation at the village core area with ‘western’ style buildings and single-family tenancies in the surrounding areas, which were formerly agricultural fields.

Spatial change in Abuakwa is characterised by a complex set of multiple processes that are occurring in parallel and trigger particular forms of development. There are both intended and unintended outcomes of the various forms of development. Through the land allocation powers vested in traditional authorities, the Apemhase Scheme reveals how local-level decisions about land delivery trigger processes that influence spatial change. The Abuakwa case sheds light on how the very orderly development that was anticipated in approved plans can produce ‘unwanted’ outcomes when the regulatory powers of traditional authorities and statutory institutions delay approval processes and fail to enforce compliance. The strong customary land tenure system puts chiefs at the centre of land delivery. The role of the Municipal Assembly as the local level planning authority was noticeable in the changes that had occurred in Abuakwa. The difficulty for the Municipal Assembly was the inability to control the level of land transfers and physical development by chiefs and individuals before plans are approved. The Municipal Assembly appeared to be unable to regulate land administration, land tenure, and processes that involve spatial change occurring in Abuakwa. This was evident in the retrospective regularisation of chief-initiated plans after development has occurred. The finding in this chapter is that demolition notices displayed on buildings in Abuakwa show the increasing levels of non-compliance to statutory planning laws by traditional authorities and peri-urban developers.

The growth of Abuakwa is attributable to diverse factors, such as the increasing urbanisation of Kumasi. The influence of Kumasi is not only on Abuakwa as many other peri-urban

settlements along major road arterials are experiencing rapid physical development. Increasing physical development is not peculiar to Abuakwa but also to other settlements in the Greater Kumasi Metropolitan Area. Abuakwa has witnessed the implementation of the Apemhase Scheme, the new Abuakwa market project, and the road dualisation project leading to spatial change. Spatial change in Abuakwa is induced by state-led infrastructural projects such as the Abuakwa road dualisation project. The various changes in Abuakwa showed the decisions of different actors working to bring about economic development and trade.

The chapter shows that the land use planning process is dominated by traditional authorities who actively lead land delivery and physical planning, but this was not the case in the road dualisation and market projects. The chapter revealed that, contrary to the prescription of planning regulation that physical planning was the responsibility of statutory institutions such as the Physical Planning Department, they played peripheral roles in the case of Abuakwa. Physical development and land delivery in Abuakwa could be described as fluid, which is experiencing relatively regular transitions or changes due to the ongoing projects initiated and executed by traditional authorities, individuals, and statutory authorities.

The next chapter discusses spatial change occurring in Adomako, a peri-urban area in Sunyani where, contrary to the case in Abuakwa, land is administered by statutory authorities.

CHAPTER SIX

SPATIAL TRANSFORMATION OCCURRING IN ADOMAKO, SUNYANI

6.1 Introduction

Land in Adomako is vested in the state and managed by the Lands Commission on behalf of the Sunyani Stool and its subjects. Land under the entire Sunyani Stool was vested in the state in 1962, after which the Lands Commission was enjoined by law to ensure proper land management on behalf of the President of the Republic of Ghana. As already mentioned in Chapter 3, the Vested Land Tenure System exists in the Adomako and other peri-urban areas in Sunyani and is different from stool land areas where traditional authorities are directly involved in land administration. The Adomako case covered in this chapter is therefore illustrative of the ‘separation of powers’ between ‘land ownership’ and land management among traditional authorities and statutory officials, respectively. The separation of powers emanates from the vested land tenure, which gives land ‘ownership’ powers to the Sunyani Stool and land management powers to the Lands Commission. The case presents an opportunity to examine how local statutory officials perform their functions of land management and physical planning in a Vested Land Tenure System. This chapter discusses the findings on spatial change in Adomako from 2003 to 2018. The chapter is guided by the following questions: What spatial change occurred in Adomako within this time? Why, and through which external and internal processes did these changes occur? Local maps, Landsat images, photographs and interviews have been analysed to answer these questions.

This chapter follows the same structure as Chapter 5. It begins with a discussion of growing settlements in the Sunyani-Adomako enclave and the influence of urbanisation on peri-urban areas with implications for facilities and services, land use, and land access. Further, I discuss the land use planning process in Adomako and the role of the various actors. Case-specific reference is made to the preparation of the Adomako Scheme. The chapter analyses how the separation of powers between ‘land ownership’ and land management unfolds and how this dynamic impacted spatial change. Under the Vested Land Tenure System, preparation and implementation of the Adomako Scheme were initiated by the Lands Commission and the Physical Planning Department. The chapter also discusses other state-initiated activities in Adomako which together are contributing to spatial transformation, such as the Ring Road Project.

6.2 Physical development in the context of Adomako

Adomako is a peri-urban settlement along the Sunyani-Atronie Road. Administratively, it falls under the Sunyani East Municipal Assembly and is located approximately five kilometres from the core area of Sunyani. Adomako's population, though not documented in reports that were available to me, is believed to have consisted of approximately 5000 people. In contrast to Kumasi, the pace of overall population growth and physical expansion of Sunyani can be described as moderate. Most of the growth takes place at the peri-urban frontier of Sunyani, where my case study, Adomako is located (see Figure 6.1), characterised by a transition from rural farmland to urban plots for residential development.

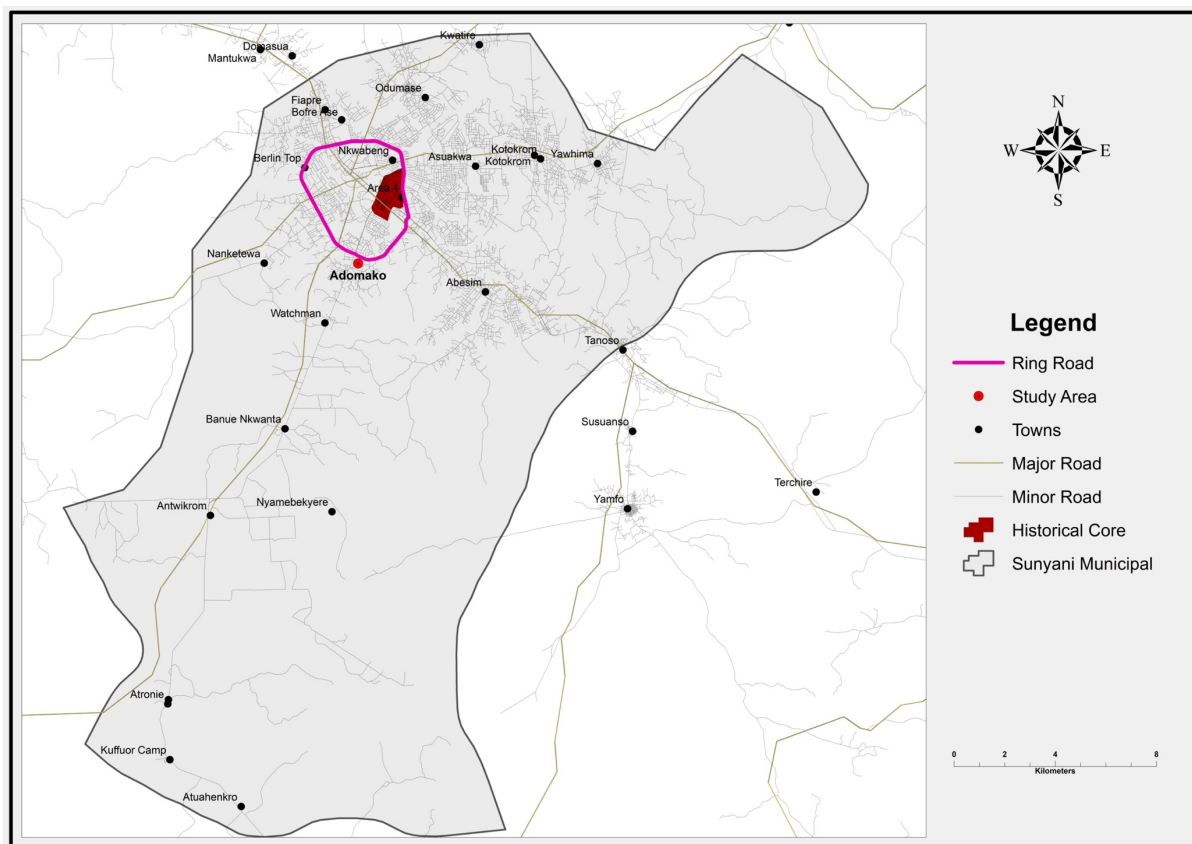


Figure 6.1: Cluster of settlements in the Sunyani Municipality

Source: Author's construction based on Landsat images, 2019.

Until recently, Adomako was a farming area for the subjects of the Sunyani Stool. Unlike Abuakwa, it, therefore, does not have a village core. Although there are several village core areas to the north of Sunyani's core, there are none in the peri-urban area south of the centre of Sunyani. The farmers tilling land in the Adomako area originally lived in the historical core area of Sunyani and commuted to their fields. Over time, they began to put up temporary houses

on the farms. According to the Chief of Adomako, the unapproved building of residences in Adomako began in the late 1990s before the planning of the Adomako Scheme in 2000 (see Figure 6.2 sectors A, B, C for remaining traces of such developments). The Lands Commission anticipated potential for further unapproved development in the area and initiated the preparation of a land use plan in 2000, resulting in the planning scheme in 2001, which I discuss below (Interview, Lands Commission Official, Sunyani, 27.03.2019). The Inner Ring Road was initiated before the 2000s and triggered the Scheme. There seemed to be the possibility that both land seekers, planning authorities, and traditional authorities anticipated that Adomako offered an opportunity to undertake physical planning ahead of development in the future.

An official of the Lands Commission explained how the infrastructure in the area was contributing to the land value increase:

Many of the plots in Adomako were purchased by land seekers who saw the location as a prime area with prospects. The Inner Ring Road passes through Adomako, so many people anticipated that living there would be good but at the same time prices of plots in the area would appreciate fast if they wanted to re-sell plots to others at higher prices in the future. (Interview, Lands Commission Official, Sunyani, 27.03.2019).

In the period after initiation of the plan and before its implementation, when it was clear that the land would ultimately change from agricultural land uses to residential uses, subjects of other chiefs in the area approached the Chief of Adomako requesting temporary use of some of the land for agricultural purposes. Thus, in 2000, the Chief allocated parcels of farmland to tenants to temporarily undertake farming (Interview, Chief 1, Sunyani Palace, 03.04.2019). Some of these remain in areas of Adomako where the residential scheme has not been implemented. As shown in Figure 6.2, many of the unapproved buildings that are still visible in the area are farmhouses or linear compound house types, which, as mentioned in Chapter 3, are common in rural village settings (Afram and Korboe, 2011). The *Akwamuhene* of the Sunyani Traditional Council explained that the tenants farming on the Adomako land built the traditional linear compound houses rather than investing in modern structures because they knew their stay was only temporary (Interview, Chief 1, Sunyani Palace, 03.04.2019). He further confirmed that the tenants knew that during future planning for development, they were going to vacate the land.

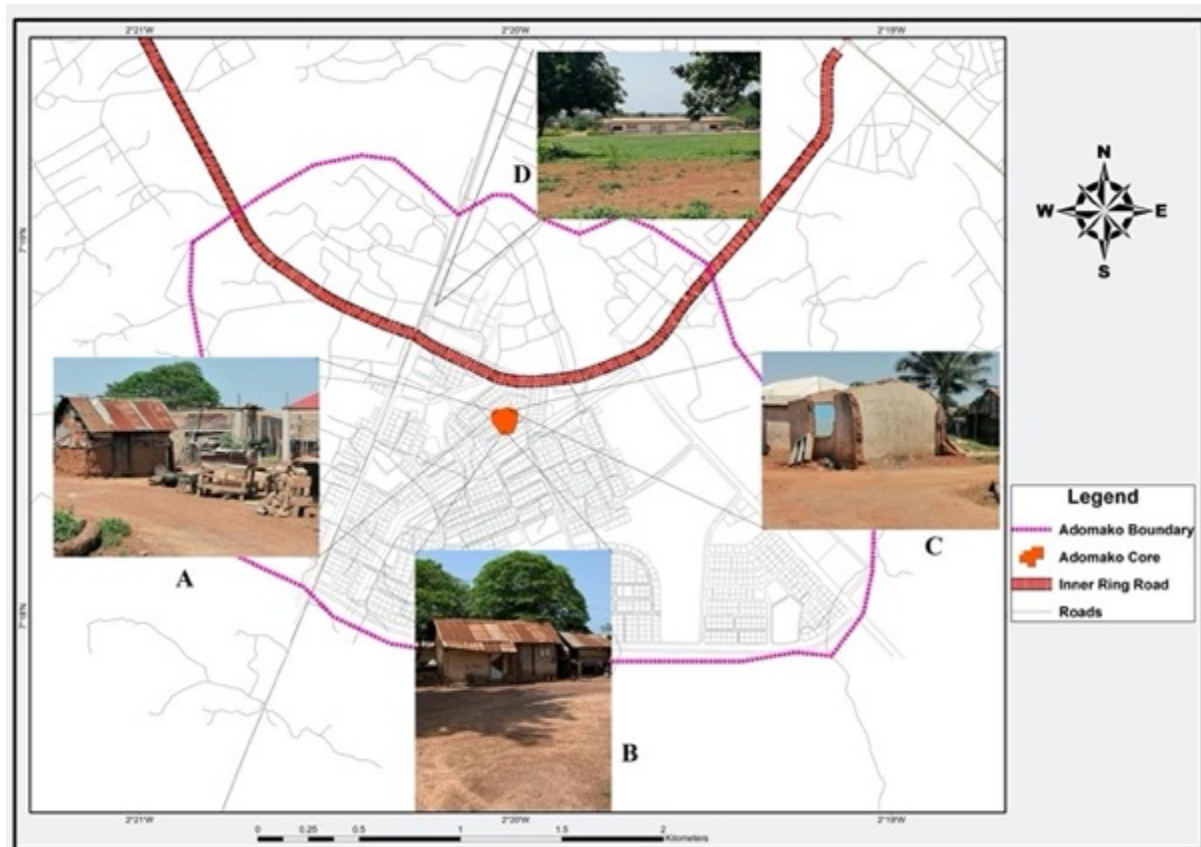


Figure 6.2: Remnants of the housing of temporary farmers in parts of Adomako

Source: Author's fieldwork, April 2020

As of the time of conducting this study in 2018 and 2019, most of the remnants of housing belonging to the farmers had been vacated by their owners. Some of the housing for the farmers had been demolished, and, in their place, ongoing construction works for residential buildings was evident. The transformation of Adomako to an urban residential area also involved the construction of a new chief's palace to replace the old palace located in the core area of Sunyani to Adomako (see Figure 6.2 sector D). The construction of the palace began in 2004 and was completed in 2011. The site for the palace was reserved during the preparation of the Adomako Scheme because the Traditional Council had already chosen the site for such a purpose. This indicates the customary system in Adomako is investing itself in the future that is brought about by peri-urban change, its economic opportunities included. To achieve this, the study revealed that traditional authorities took interest in the land at Adomako, which I discuss under the land use planning process in section 6.4.2. In the assessment of the *Akwamuhene*, the investment in a palace in Adomako is "an intentional act aiming to strengthen the presence of traditional authorities on the land although it is vested in the state and mainly managed by the Lands

Commission” (Interview, Chief 1, Sunyani Palace, 03.04.2019). This shows how vested the traditional authority is in the urbanisation process in Adomako as they steer the functions of state institutions such as the Lands Commission from behind. This is different from the overt roles of chiefs in the Abuakwa case.

6.3 Changing land use and land cover in Adomako (2003-2018)

Physical development in Adomako is characterised by changing land use, and land cover as rural land is converted into urban plots for residential and commercial development. To measure the rate of physical expansion in Adomako, I analysed Landsat data of Sunyani from 2003 to 2018. My choice of 2003 as the base year for the analysis, as in the case of Abuakwa, was because it presented the earliest period I could obtain clear Landsat images with evidence of physical development (my intention was also to gather comparative data across the two cases). Unlike in Abuakwa, prior to 2003, the main physical structures in Adomako were the few linear traditional compound houses that were occupied by farmers (both subjects and tenants). Physical development in Adomako was approved through the statutory planning process commenced after 2001 when the Scheme was approved, and so 2003 also served as a good starting point to understand the influence of local land use planning on spatial change. Landsat data reveal that physical development in 2003 was at its incipient stage, as illustrated in Figure 6.3.

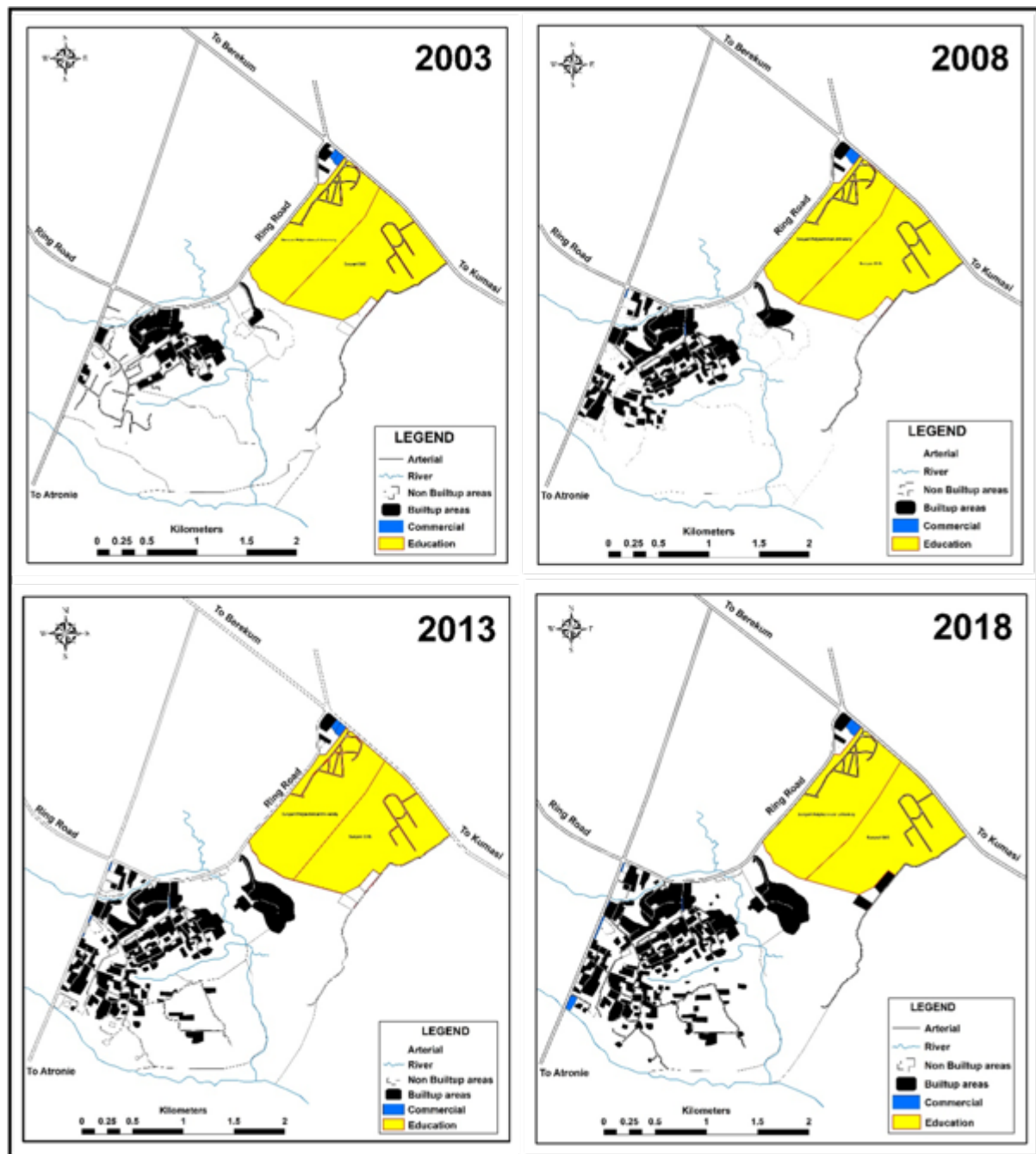


Figure 6.3: Extent of physical development in Adomako (2003-2018)

Source: Author's construction based on Landsat images

Landsat data and field visits revealed a high proportion of non-built-up areas in Adomako. There was less than 50 per cent of the density envisaged in the planning scheme as of 2018. Physical development in the area during my fieldwork in 2018 and 2019 consisted of residential buildings, schools, and untarred roads. Land use in Adomako was made up of completed houses, uncompleted buildings, and undeveloped plots. My interviewees in the traditional authorities, the planning profession, and the Lands Commission attributed the slow pace of

physical development in Adomako to land speculation (Interview, Chief 1, Sunyani Palace, 03.04.2019, Physical Planner, Sunyani, 4.4.2019; Lands Commission Official, Sunyani, 27.03.2019). The fact that the area had not as yet attracted a high population and the fact that chiefs and individuals were speculating with land made land access unaffordable to those who may otherwise have moved into the area.

Landsat images showed that the area for dwellings in 2003 was five per cent of the area covered by the planning scheme and increased to 12 per cent in 2018, representing a modest seven per cent growth over the 15-year period. Conversely, non-built-up or undeveloped plots reduced marginally from 66 per cent to 54 per cent but remained the dominant pattern in Adomako. Apart from the remaining old residential areas of farmers (Figure 6.4 sector A), other land uses in Adomako included privately owned schools (see Figure 6.4 sector B) that have been built on residential plots and a section of the Ring Road (see Figure 6.4 sector C), which was yet to be completed during the period of fieldwork from 2018 to 2019. Figure 6.4 (sector D) showed new foundations for a residential building, whereas sector 'E' depicted the ongoing construction of an underground storage tank. The Scheme also has large areas, which are waterlogged and marked as open space for future development for recreational purposes or the protection of natural areas. Whereas the waterlogged areas in Abuakwa were facing encroachment from developers, those in Adomako were largely untouched. This could be attributed to the more moderately paced development in Adomako when compared to Abuakwa, and it is not known if encroachment will occur in the future. My follow-up visits to the site in May 2021 showed that the level of physical development as recorded in the land use inventory in Figure 6.4 had not changed much since December 2019. Development may have slowed down due to the implications of the COVID-19 pandemic restrictions on the construction and property sectors, as found in Agyekum, Kukah and Amudjie (2021).

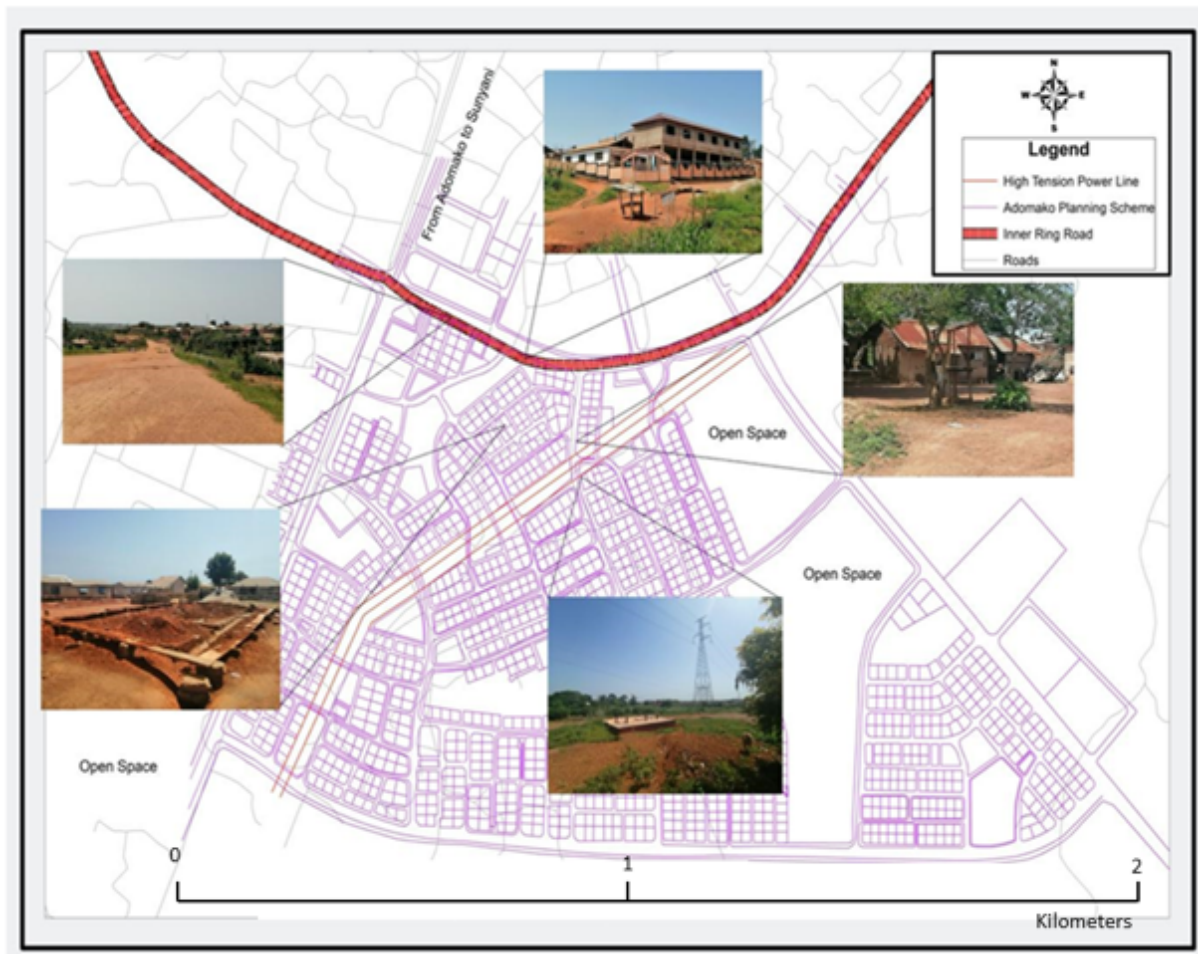


Figure 6.4: Mixed land uses in Adomako

Source: Author's fieldwork, 2020

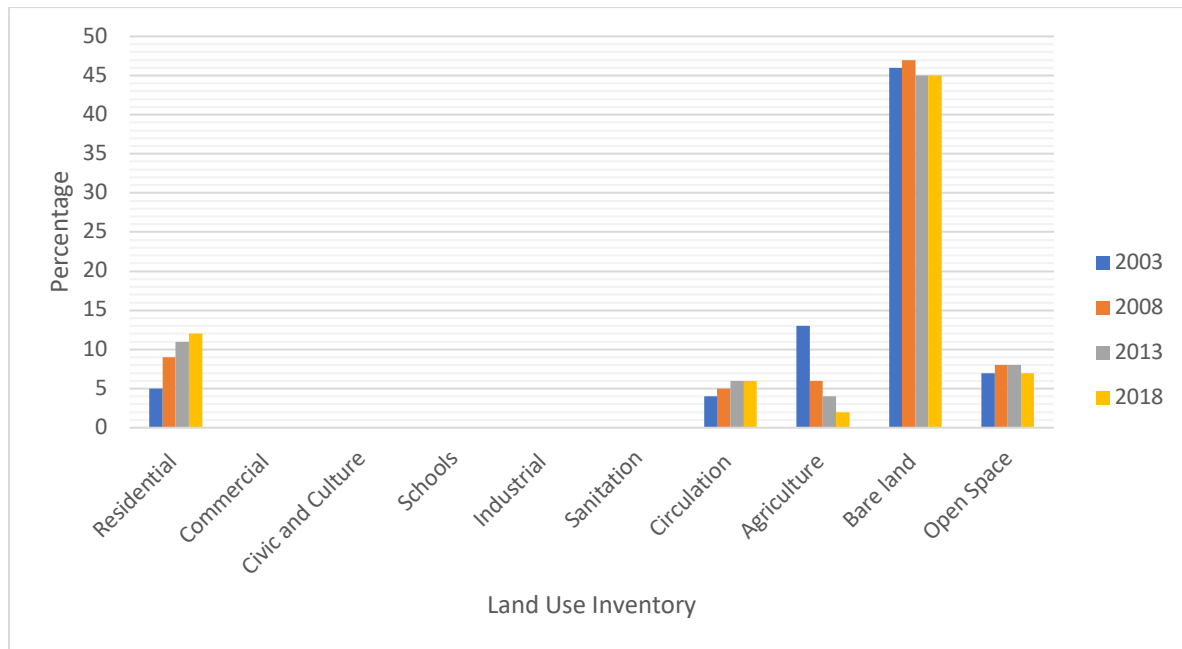


Figure 6.5: Peri-urban land use inventory in Adomako showing reduction in agriculture and gradual growth in residential development (2003-2018)

Source: Author's construct based on Landsat images, 2019

According to the chiefs and officials of the Lands Commission and Physical Planning Department, the slow rate of growth of built-up areas in Adomako was believed to be the result of land speculation. This had triggered acquisitions which became widespread as soon as the Scheme was approved in 2001. The Lands Commission official and the professional planner who I interviewed both concluded that the spatial transformation occurring in Adomako was driven by market forces, formalisation of land rights, and individualisation of land use rights, which in turn enabled land values to rise and speculation to occur (Interview, Physical Planner, Sunyani, 04.04.2019; Lands Commission Official, Sunyani, 27.03.2019). The formalisation of land rights in Adomako supports the interpretations by Cotula (2007) and Ubink (2007), who find that secure and formal property rights are important in urban and peri-urban areas where several interests emerge over the conversion of rural land to urban plots, which requires incontestable land titles and cadastres. In the Adomako case, land rights formalisation seems to have induced land speculation arising from the conversion of rural land to urban plots.

Contrary to the Abuakwa case study, there was evidence during my fieldwork of farming activities on plots that were yet to be developed for residential purposes. My interactions with the *Akwamuhene* of the Sunyani Traditional Council revealed that the people who were undertaking farming activities on the yet to be developed plots were engaged in a long tradition

called '*Hwe so mame*', which means 'caretaking' in the local Twi dialect (Interview, Chief 1, Sunyani Palace, 03.04.2019). He explained that this practice was also common among house owners in the peri-urban areas who permitted people to live in their uncompleted buildings as 'caretakers' until the owner was ready to occupy the house. Part of the function of '*Hwe so mame*' is to prevent encroachment. This suggests a tenancy system that is different from earlier ones in which temporary farmers rented land from the chiefs. As the *Akwamuhene* explained, 'caretakers' were usually the Chief's subjects who had originally farmed on the land, initially living in Sunyani, and then having moved onto the land to be closer to their fields before the Scheme was conceived (Interview, Chief 1, Sunyani Palace, 03.04.2019).

6.4 Land use planning processes in Adomako

As was evident in the Abuakwa case in Chapter 5, the onset of local plan preparation may have triggered a variety of factors that contributed to bringing about spatial change. In this section, I discuss the initiation, planning, and implementation of the Inner Ring Road Project and the Adomako Scheme in Sunyani as two of the projects that triggered peri-urban growth in the Adomako enclave in Sunyani. As mentioned in the introduction to this chapter, the government-initiated Inner Ring Road Project served as an entry point for my exploration of peri-urban transformation in Adomako. I examined how the Scheme influenced further peri-urban development in Adomako. The Ring Road Project cannot be understood in isolation from the Adomako Scheme, which I discuss below, and marked the beginning of formal land use planning to direct peri-urban expansion.

6.4.1 Initiation, planning, and implementation of the Inner Ring Road Project in Sunyani

The Inner Ring Road (see Figure 6.6) in Sunyani was initiated by the government to open the city to its peri-urban areas and reduce traffic congestion in the central area (a village core on a traditional grid located at the intersection of the main radial roads) (Sunyani Municipal Assembly, 2014). The Urban Roads Engineer of the Department of Urban Roads in Sunyani stated that the project was part of the Sunyani Master Plan which was drawn in 1958, but work commenced in the late 1990s when Sunyani began to expand beyond the traditional grid. The Urban Roads Engineer explained the long gestation period of the project as follows:

The project forms part of the broader Master Plan for Sunyani which was prepared in the 1958. The project, ever since it commenced in the 1990s, has suffered budgetary constraints which is why it is yet to be completed after several years. Although portions

have been completed, the whole road is yet to be completed to form the ring (Interview, Urban Road Engineer, Sunyani, 16.01.2020).

The construction of the Ring Road was undertaken in phases and reached the Adomako section in 2015. The portion crossing Adomako between the Sunyani-Kumasi Road and the Sunyani-Kenyasi Road was to be bituminised by the close of 2016 (Interview, Physical Planner, Sunyani, 4.4.2019). However, my field visits to Adomako through to December 2019 showed no signs of the project progressing. Instead, this section of the Ring Road formed a wide sand road with certain areas deeply eroded.

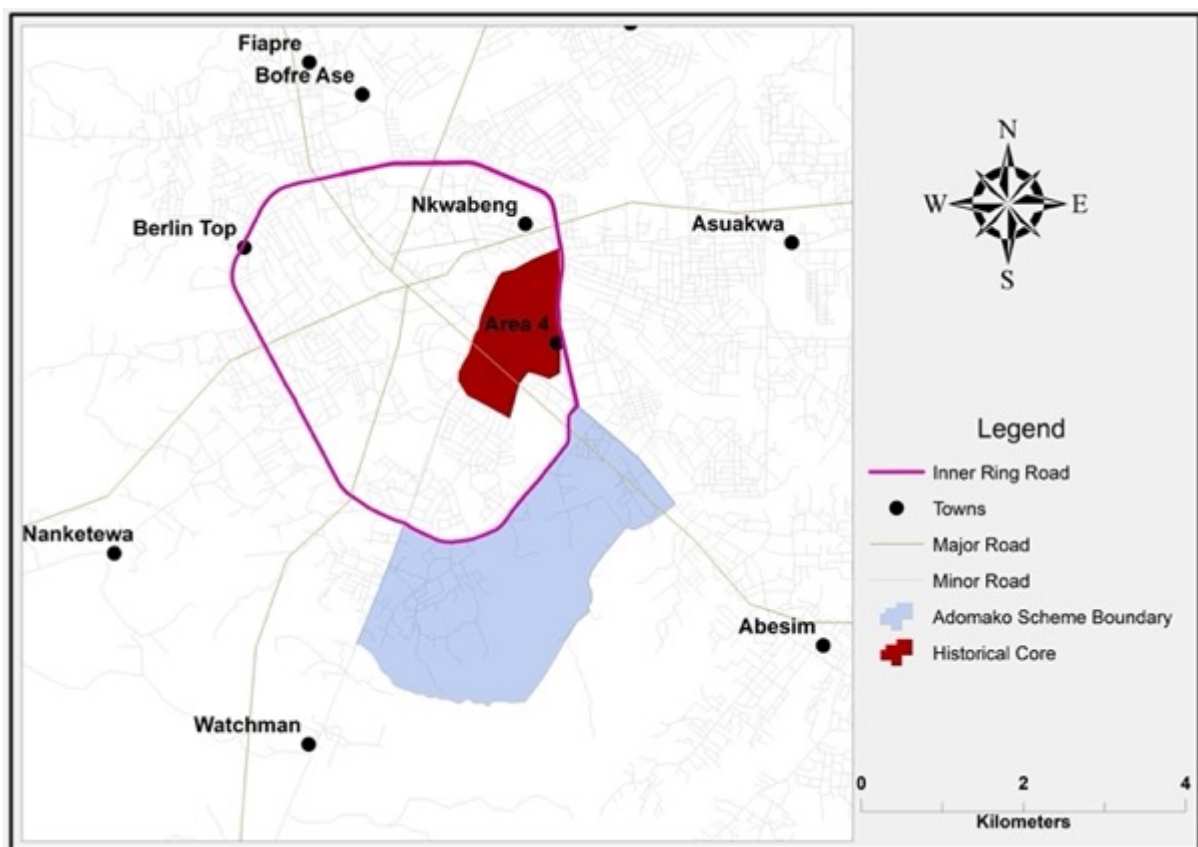


Figure 6.6: The Inner Ring Road in the context of the Adomako Scheme and the historical core area of Sunyani

Source: Author's construction based on Google Earth images and field visits, 2019

It was dusty during the harmattan and muddy during the rainy season, degrading the quality of the attractively undulating landscape of the Adomako area. A planner at the Physical Planning Department at the Sunyani East Municipal Assembly cited the project as one of the factors that

triggered speculative demand for plots in Adomako for residential development after the preparation of the local plan. The planner intimated that

The Inner Ring Road Project passes through Adomako and will provide easy accessibility when it is completed. It should have been completed by now, but you know how politics affect some of these projects (Interview, Physical Planner, Sunyani, 04.04.2019).

The Ring Road Project triggered speculation as it raised interest in developable land. The delay in the construction or completion of the road prolonged the period of speculation or the onset of actual physical development. This means it is unclear whether individual owners were, at the time my fieldwork, not building because they were speculating with the land value, possibly intending to sell the vacant land, or whether they already had concrete plans for development, but these had to be delayed because of compromised accessibility of their sites for construction vehicles, or compromised accessibility for actual living in the area. The planner explained that in his analysis, although the project triggered development in Adomako, the inability of the government to complete it has negatively affected the level of anticipated physical development and investment. The reasoning of the planner is supported by the slow pace of physical development evident in Adomako.

6.4.2 Initiation, planning, and implementation of the Adomako Scheme

The Adomako Scheme involved initial planning of 500 plots for residential uses and separate parcels for public uses. The number of plots was later increased to about 800 when some lands reserved for civic and commercial uses were converted to residential uses according to the revised layout (Interview, Lands Commission official, Sunyani, 27.03.2019). The Lands Commission divided the total number of plots into three, with one-third allocated to the Lands Commission, one-third to the Traditional Council, and one-third to families. The Lands Commission official explained that this one-third sharing formula is not stipulated by law but has been adopted by convention to ensure that there is harmony between the various actors (*ibid.*). Each of the beneficiaries of the plots determined how to use their portion after they received their allocation. The heads of the various families made sure that the plots allocated to the families were shared among all the prospective family members whose lands formed part of the plan area (Interview, Lands Commission Official, Sunyani, 27.03.2019; Chief 1, Sunyani Palace, 03.04.2019). The Lands Commission sold its portion of plots to land seekers in the

open market (Interview, Lands Commission Official, Sunyani, 27.03.2019). The Traditional Council also sold portions of the plots allocated to it and reserved the remainder for future development (Interview, Chief 1, Sunyani Palace, 03.04.2019). The proceeds from the sale of plots were normally used to fund projects of the Traditional Council, such as the construction of a new palace and scholarships for deserving students (*ibid.*). As in the Abuakwa case study, the Chief did not comment when I enquired about how many of the plots were sold, how much revenue accrued from the sale of plots, and how many plots were left for future development. The Chief sold some plots to outsiders and allocated others to his subjects who previously had farmland in the Adomako area. My enquiries revealed that the subjects received several plots proportionate to their farm sizes, as in the Abuakwa case study.

The Scheme was initiated by the Lands Commission in fulfilment of its mandate of land governance and spatial planning in Sunyani (Interview, Lands Commission Official, Sunyani, 27.03.2019). This is contrary to the case in customary land administration regimes such as the Abuakwa case study, where planning schemes initiated by chiefs or individuals were undertaken in collaboration with the Physical Planning Department as also found by Akaateba *et al.* (2018) in selected peri-urban areas in Tamale. Section 23 of Act 767 mandates the Lands Commission to manage the vested lands according to regulation. To achieve the proper planning of Adomako, the Lands Commission and the Physical Planning Department initiated the Adomako Scheme in consultation with the Sunyani Traditional Council. Asked about the role of the Lands Commission in the planning scheme in Sunyani, one Lands Commission official gave the following account:

The Lands Commission is the state agency mandated to manage lands vested in the state. The Lands Commission is the manager of public lands including leasing, development and mediating between the various land sector actors. The Commission was established by Article 258 of the 1992 Constitution and the Lands Commission Act 767 of 2008 to do the following: (a) promote the judicious use of land by the society and ensure that land use is in accordance with sustainable management principles and the maintenance of a sound eco-system; and (b) ensure that land development occurs in conformity with the nation's development goals. Therefore, it is the Lands Commission that initiated the Adomako Scheme and not the Traditional Council (Interview, Lands Commission official, Sunyani, 27.03.2019).

Section 23 of Act 767 is silent on how the Lands Commission can ensure transparency and fairness in its land governance efforts. As a result, officials of the Lands Commission may ignore local needs and concerns about land so long as they are pursuing land management practices that appear sustainable, ecologically sound, and according to the national development goals. Although sustainable land management can be understood to include local consultation, interviews with chiefs and officials of the Lands Commission and Physical Planning Department reveal that there has instead been a tendency to trigger contestations between the Lands Commission, traditional authorities, and families. The planning process requires that layouts or land use plans are prepared and approved by statutory authorities before physical development could occur. In addition to the Lands Commission Act 767 of 2008 mentioned in the quote above, physical development needs to follow the prescriptions in the Land Use and Spatial Planning Act 925 of 2016 and the Local Governance Act 936 of 2016.

The planning process in the Adomako Scheme followed the same planning regulation as in Abuakwa, but unlike the Abuakwa case study, the Adomako Scheme was initiated by the Lands Commission. The Lands Commission has surveyors and planners who worked on the Scheme, and this prevented any delays from the initiation to the approval stages. Contrary to the Abuakwa case study, the Lands Commission has the capacity in terms of expertise to undertake all the steps involved in the planning processes leading up to the approval of the Scheme. This process with its different stages is described in detail in Table 6.1.

Table 6.1: The land use planning process in the Adomako Scheme

Stage	Dates	Description of tasks as per planning regulation	Responsible actors	Outcomes in the Adomako Scheme
1. Reconnaissance survey	2000	This is an initial visit to the site of the plan to gather information about the topography of the land.	Staff of the Lands Commission, Physical Planning Department, traditional authorities and their subjects	Survey Report about the topography of the land and other features produced.
2. First stakeholder meeting	2000	A meeting among stakeholders to sensitise and solicit information from the people living around the plan area. It enables surveyors and planners to solicit information on local knowledge from traditional authorities such as chiefs, family heads and possible contestations on land uses from other claimants.	Staff of the Lands Commission, Physical Planning Department, traditional authorities and their subjects	Various meetings held with traditional authorities and families.
3. Updating of maps and site analysis	2000	Accredited or professional surveyors and staff of the Physical Planning Department prepare the base maps or updates it where it already exists.	Staff of the Lands Commission, Physical Planning Department, traditional authorities and their subjects	Base maps prepared for the area.
4. Survey of existing and identified target population	2000	Documentation of development aspirations of existing residents and target beneficiaries in the plan area.	Staff of the Lands Commission, Physical Planning Department, traditional authorities and their subjects	Social survey undertaken.
5. Analysis of the socio-economic and land use data	2000	Data from baseline study streamlined and fed into the Structure Plan (if it exists) including zoning and planning requirements.	Staff of the Lands Commission, Physical Planning Department, traditional authorities, and their subjects	Socio-economic and land use data analysed.
6. Generation of alternative land uses in the local plan and holding second stakeholders' consultation	2000	Design of alternative land uses and hold second stakeholder consultation.	Staff of the Lands Commission, Physical Planning Department, traditional authorities and their subjects	Alternative land uses generated, and second stakeholder consultation held amidst disagreements from some family members about the number of plots they were likely to get or otherwise.
7. Draft local plan	2001	This involves the drafting of the local plan.	Staff of the Lands Commission and Physical Planning Department	Local Plan was drafted amidst families requesting for the payment of compensation.
8. Third stakeholder meeting	2001	This meeting allows the Assembly to discuss the draft local plan with all stakeholders. Comments, suggestions, and objections are used to streamline land uses on the plan.	Staff of the Lands Commission, Physical Planning Department, traditional authorities and their subjects	Third public hearing held with stakeholders to address the concerns of chiefs and families.
9. Placement of local plan in the Public Data Room	2001	This stage involves the issuance of notices to all stakeholders to comment on the draft local plan.	Staff of the Lands Commission, Physical Planning Department, traditional authorities and their subjects	The public was offered the opportunity the opportunity to comment on the plan.
10. Final Plan and Report and the signing of plans	2001	This is where final comments and suggestions are made and the plan approved for implementation.	Staff of the Lands Commission, Physical Planning Department and traditional authorities	Local Plan was approved with some 'reservations' from traditional authorities and families about not receiving enough plots.

Source: Drawn based on MEST and TCPD, 2011

The study shows that the planning process was generally adhered to as outcomes in stages one to ten suggest that all the accepted standards of local planning were followed. The fieldwork revealed that the planning process was dominated by local statutory officials from the Lands Commission because of the Vested Land Tenure System. This was to be expected because the management of the land is vested in the state. For instance, the reconnaissance surveys to understand the topography of the site were undertaken without the involvement of traditional authorities or families. The traditional authorities were not happy about the Lands Commission not including them during this stage (Interview, Chief 1, Sunyani Palace, 03.04.2019). Stages 8, 9, and ten show that the Physical Planning Department was conspicuously missing. This was due to misunderstandings between the two statutory authorities about aspects of the plan (Interview, Physical Planner, Sunyani, 04.04.2019). As a result, the final plan approval stage was carried out by the Lands Commission without the involvement of the Physical Planning Department. The outcome in stage ten shows that there were contestations between the Lands Commission and traditional authorities in the approval of the final plan. Already mentioned, the contestations centred on the sharing formula and the claim that the Lands Commission allocated to itself plots in areas with higher monetary values.

Contestations among chiefs and statutory authorities over the initiation of the Adomako Scheme triggered unapproved land plans. An official of the Lands Commission explained

There is evidence that some of the chiefs had started allocating certain areas to themselves or land seekers without the knowledge or approval of the Lands Commission. It is a challenge we are facing but there are interventions to discourage the practice (Interview, Lands Commission Official, Sunyani, 27.03.2019).

The assessment of the Lands Commission official underlined the urgent need to manage land for proper development to occur (Interview, Lands Commission Official, Sunyani, 27.03.2019). An official of the Sunyani Municipal Assembly's Physical Planning Department corroborated the above assertion and said the 'strategy' of putting up unapproved houses on the appropriated plots was an informal signal of registering right to the land so that during the Scheme preparation, the chiefs and the occupants could lay claim to those lands by virtue of their stay on the land. The planner explained that:

You know that because the lands there are vested, family members [who 'own' land in the plan area] knew that they were not going to get enough plots when the city catches up with

the peri-urban areas. The people knew that once they put up those structures on the land, it was difficult for us to demolish them, so they started to use that 'strategy' to lay claim to portions of the land there with the Chief's endorsement. (Interview, Planner, Sunyani, 04.04.2019).

According to the planner, statutory planning authorities in Sunyani were aware of the general practice whereby family members laid claim to portions of land through the construction of makeshift structures so that during planning, they could be given such portions. As already mentioned, the study found that it was when the staff of the Lands Commission anticipated the unapproved development that they activated the planning process by preparing the Adomako Scheme. This was done so that planning would precede informal spatial transformation activities. The fieldwork revealed that with the preparation of the Adomako Scheme, traditional authorities who were aggrieved by the Vested Land Tenure System assumed allocation powers and transferred portions of the land to themselves or sold plots to private people other than their subjects, although they were aware that the Lands Commission was the manager of the land in Adomako (Interview, Lands Commission Official, Sunyani, 27.03.2019). In the Vested Land Tenure System, chiefs could only sell plots from the one-third they received after the approval of the Scheme. The unproved land transactions by some members of the Traditional Council after the approval of the Scheme were mainly informed by the contestations about the Vested Land Tenure System, which I discuss later. Currently, land 'ownership' and right of use in the Sunyani Stool Land Area are contested issues because there seems to be tension between statutory authorities and chiefs as to who 'owns' the land and who manages it. The emergence of contestations between statutory authorities and traditional authorities defeats the very purpose for which the land in Sunyani was vested in the state for proper management.

Interviews revealed that the initiation of the Adomako Scheme triggered the development of an active land market, which in turn induced land speculation (Interview, Planner, Sunyani, 04.04.2019; Interview, Lands Commission Official, Sunyani, 27.03.2019; Interview, Chief 1, Sunyani Palace, 03.04.201). As a result, both statutory officials, traditional authorities, and families, after receiving plots according to the one-third arrangement, speculated with some of their plots in anticipation of land price appreciating in the future and not for immediate development. In the opinion of a planner, land speculation was prevalent in Adomako after the approval of the Scheme. He explained that the land administration regime in Adomako made it possible for people to abuse land acquisition. His reasoning was supported by the following:

Anybody could purchase land even if they were not ready to develop it. Once people purchased plots, they left them there for so many years without developing them because they did not have the intention of developing the land at the point of purchase but to re-sell it at a later time and make money or build later [pause] You see, many of the undeveloped plots in Adomako is not because they do not have owners, but it is because the owners are waiting for the right prices to re-sell them or develop them later (Interview, Planner, Sunyani, 04.04.2019).

An official of the Lands Commission corroborated the opinions of the planner by explaining that land seekers acquired plots in Adomako with the intention not to develop them but to re-sell in the future when the prices of plots appreciated. He remarked that:

The anticipated rapid growth of Sunyani as a regional capital continues to draw people from other parts of the country and natives who live in Europe to acquire lands at prime locations so that the ‘good’ locations are not sold out by the time they returned home to build (Interview, Lands Commission Official, Sunyani, 27.03.2019).

Like the views expressed by officials of the statutory institutions, a chief explained that land speculation was a major driver of increasing demand for land in Adomako (Interview, Chief 2, Sunyani, 03.04.2019). He explained that land speculation in Sunyani was business for certain people who bought large tracts of plots at lower prices during the planning stage and re-sell them later for profit. The Chief described land speculation as ‘*tonaton*’, which means buy and sell in the future. Land speculation has created a spatial pattern in Adomako, which is characterised by fewer built-up areas mixed with many undeveloped parcels of land. This practice is spearheaded by individuals, churches and corporate bodies.... (Interview, Chief 2, Sunyani, 03.04.2019).

The perspectives of the officials of the Lands Commission, Physical Planning Department and chiefs support the view that the growth of interest in land purchasing in Adomako followed the initiation of the Scheme. Land seekers who purchased plots in anticipation of future development or of future resale were yet to develop the plots. During my field visit in May 2021, many building projects which had commenced during my fieldwork from May 2018 to December 2019 did not progress from the stages when I first saw them (see Figure 6.7). There were also a few new building projects that started over the course of my fieldwork but did not progress. The *Akwamuhene* of the Sunyani Traditional Council explained that land speculation was not the only cause of the slow

development in Adomako (Interview, Chief 1, Sunyani Palace, 03.04.201). He intimated that the non-completion of the Inner Ring Project had slowed physical development in Adomako.



Figure 6.7: An incomplete building project in Adomako

Source: Author's fieldwork, 2019

Regarding the extent of physical development, Landsat images and field visits revealed that residential building projects dominated the area and were often undertaken by individuals for owner occupation or to rent out. Because land reserved for educational purposes was being sold for residential development, private-owned schools are built on residential plots allowing little space for a playground and other facilities (see Figure 6.8 sector C and D). Like the Abuakwa case study, my analysis of Landsat images and my field observations further revealed that actual development in Adomako was different from the Scheme. For example, land earmarked for education (see Figure 6.8 sector A) has been converted to residential uses. Again, Figure 6.8 (sectors B and C) also showed that land demarcated for public space has been converted into residential uses. During my fieldwork, I detected residential development under the high tension power lines, which is considered a high-risk zone (see Figure 6.8 sector D).

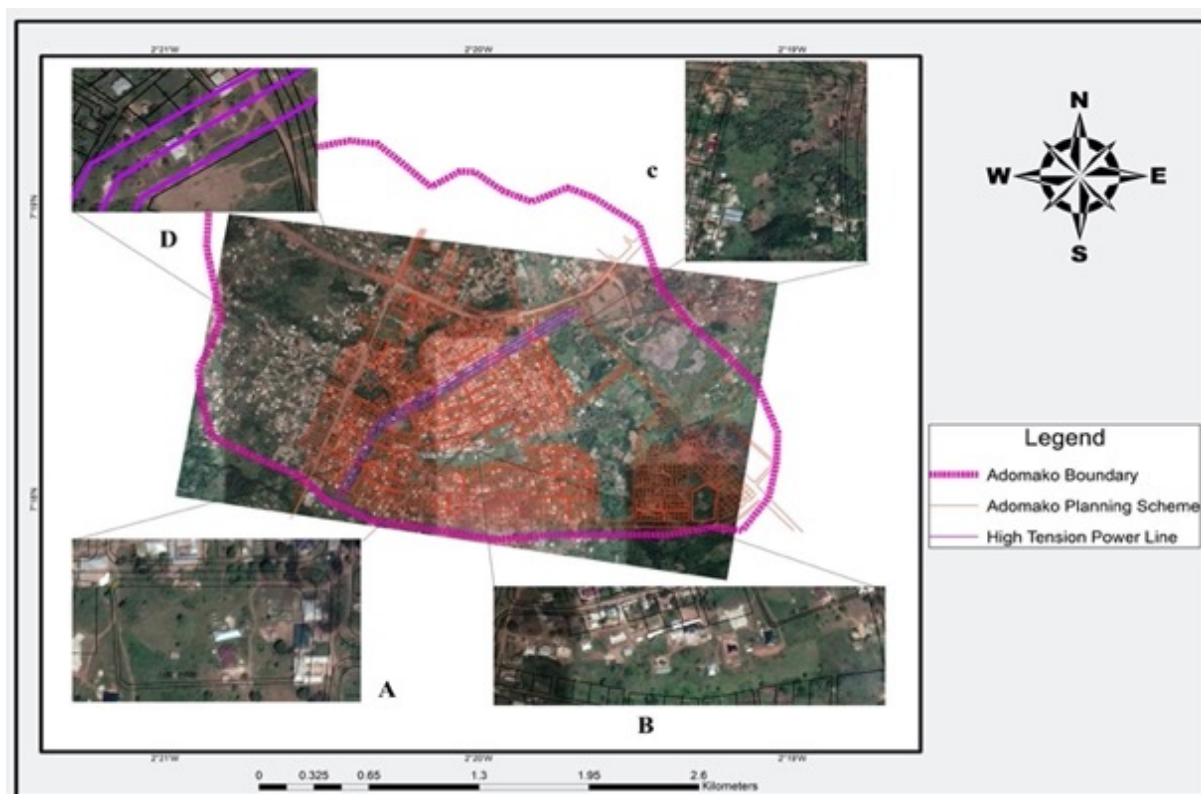


Figure 6.8: Unauthorised land use changes in Adomako

Source: Author's construction based on Google Earth images and fieldwork, 2019

The Physical Planner I interviewed indicated that the practice of unapproved land use changes in Adomako was rampant and presented a major challenge to planning (Interview, Physical Planner, Sunyani, 4.4.2019). This view is supported by a member of the Sunyani Municipal Assembly who explained that:

A lot has happened in Adomako after the preparation and approval of the Scheme. It is evident that some of the developments going on there are not according to the Scheme, but that is a risky issue to address. Some planners, politicians and some traditional authorities are involved in these land use changes. As a planner you may end up being transferred when you insist on correcting these anomalies. For example, the developers under the high-tension power lines are undertaking illegal development because that place is categorised as high-risk zone (Interview, Physical Planner, Sunyani, 04.04.2019).

The Physical Planner indicated that statutory authorities knew about unapproved development underway on the Adomako Scheme but that it was difficult to stop this due to the risk of being victimised. The planner further expressed frustration about his inability to control development

after the Scheme approval in Adomako. This is because there were more ‘powerful people’ who were engaging in unapproved land use changes (Interview, Physical Planner, Sunyani, 04.04.2019).

The Adomako Scheme highlights the situation where traditional authorities continued to exercise their role as custodians of land in the Vested Land Tenure System and considered themselves legitimate actors in the initiation of land use changes in an approved Scheme in response to actual demand for land. Although the Lands Commission was the manager of land in Adomako, traditional authorities were assuming land governance responsibilities in defiance of the Vested Land Tenure System that mandates the Lands Commission to manage land. The nature of development after the approval of the Adomako Scheme aligns itself to the general trend also described in Cobbinah and Amoako (2012) and Cobbinah and Aboagye (2017), who identified a divergence between local plans and actual development because of the non-alignment of interests and responsibilities of traditional authorities and statutory officials in land governance in Ghana.

6.5 Spatial implications of planning initiatives in Adomako

Adomako’s development is explained from a state infrastructure project as well as by a subdivision scheme. The Adomako Scheme and the Inner Ring Project together induced increased demand for land, but not in a straightforward manner. The Lands Commission and the Physical Planning Department remained key throughout all stages and engaged in consultation with traditional authorities and their subjects. The Apemhase Scheme in Abuakwa, on the other hand, reflected a much stronger role of local actors. Table 6.2 provides a comparison of key actors and approaches used by the different actors in the various planning initiatives in Adomako.

Table 6.2: Comparison of spatial change projects in Adomako

Case studies/Key actors	Inner Ring Road Project	Adomako Scheme
Key actors	Central government and municipal authorities	Lands Commission, Physical Planning Department and traditional authorities
Planning approach	Consultative planning to address national and local planning objectives	Consultation between local statutory officials and traditional authorities
Nature of spatial implications	Stalled project completion degrades the attractiveness of the Scheme Slow uptake of physical development	Change in the formal land use designation Relocation of the Palace to Adomako Slow uptake of physical development Non-compliance in parts of the Scheme

Source: Author’s fieldwork, 2019

The approval of the Adomako Scheme meant that the formal land use designated changed from farmland to peri-urban plots. In the Adomako case, there is pressure on land as demand increases. During the fieldwork, there was evidence of completed and ongoing physical development in the accessible parts of the Scheme (see Figure 6.9). Development involved private residential buildings (see Figure 6.9 sector A), ongoing construction of works for storey buildings for residential use (see Figure 6.9 sector B). There were also privately owned basic schools (see Figure 6.9 sectors C & D) and mansions (see Figure 6.9 sector E).



Figure 6.9: Physical transformation activities in Adomako showing unapproved land use changes to the Scheme.

Source: Author's fieldwork, 2020

One key spatial implication in Adomako is the slow pace of work on the Inner Ring Road Project. The stalled project degrades the attractiveness of the Adomako landscape as the dusty road gets eroded by running water during the rainy season. The poor nature of the road further delays speculation as many sections of the Scheme remain undeveloped. Another spatial implication of the Adomako Scheme is the relocation of the Chief's Palace from the traditional grid to Adomako. The Palace (see Figure 6.10) adds to the beautiful spectre of other buildings in Adomako. The Palace serves as a modern seat befitting the power and authority of the Sunyani Stool. Further, the

physical presence of the Palace in Adomako reaffirms the traditional authority as ‘owners’ of the land and their resolve to participate in the land governance process.



Figure 6.10: The Sunyani Palace in Adomako

Source: Author's field visits, 2019

The Adomako case study shows some implications of non-compliance to the Scheme by some actors. Traditional authorities were engaged in altering the original land uses, which led to unapproved allocations outside the approved Scheme (Interview, Lands Commission Official, Sunyani, 27.03.2019). Around 2015, disagreements ensued between traditional authorities and the Lands Commission in Adomako (*ibid.*). According to the Lands Commission official, the Traditional Council contracted private surveyors to undertake the subdivision of some parcels of land allocated for education and markets for onward sale to prospective land seekers. A chief explained that the Traditional Council has in some instances called for the Lands Commission to make changes to the Scheme to meet current needs. He stated that:

Why would you allocate vast land for public use in Adomako when actual demand is for residential use? For example, Adomako is close to Sunyani and children can go to school there without any challenges. So, we [traditional authorities] have called for change in certain land uses to bring about development (Interview, Chief 2, Sunyani Palace, 03.04.2019).

Physical development in Adomako continues to grow over time, but the unauthorised land use changes occurring in the approved Adomako Scheme contravene the very orderly planning scheme which was contained in the Sunyani Master Plan. Some of the non-compliant activities in Adomako are temporary such as roadside kiosks and fabrication shops (see Figure 6.11), which are expected to be erased in the future.



Figure 6.11: Temporary roadside kiosks along a section of the Inner Ring Road in Adomako, December 2019

Source: Author's field visits, 2019.

The Adomako Scheme and expected completion of the Inner Ring Road are likely to trigger a more rapid uptake of development opportunities in the area. The interplay of the Scheme and Ring Road Project will trigger further processes such as the extension of electricity, water, municipal services, and roads to other parts of the Scheme. However, if the Ring Road Project is not completed, the Adomako Scheme may not be able to produce the kind of development area which was envisaged by all the actors in terms of its aesthetic, ecological and physical functions.

6.6 Conclusion

This chapter presented an analysis of processes of spatial change in Adomako, a peri-urban area under the Vested Land Tenure System in Sunyani, Ghana. The Adomako case study shows the role of chiefs in relation to the Lands Commission in land governance. Unlike peri-urban spatial transformations occurring in wholly customarily administered land areas, spatial change in Adomako has been driven by consultative state-initiated processes such as the Adomako Scheme and the state-funded Inner Ring Road Project. Thus, spatial transformation in Adomako could best be described as physical development triggered by planning processes by both national and local-level government initiatives in consultation with traditional authorities. Development in Adomako sheds light on the Inner Ring Road and how its construction triggered the preparation of the Scheme. It also shows how the delay in the Inner Ring Road Project stalled the development of the Scheme. The slow uptake of building opportunities opens chances for deviations from the plan for Adomako. For example, the slow pace of the Municipality to put up schools on the land reserved for educational purposes has opened the way for the chiefs to subdivide it for residential plots.

The Adomako case study shows that the Lands Commission, in initiating the Scheme itself, was responding to the beginnings of peri-urban development in the area and sought to steer this through the Scheme. However, the separation of land ‘ownership’ and management functions in Adomako sheds light on how traditional authorities try to steer land governance from behind even when the state is formally assigned this role. The Adomako case study further shows how contestations play out between chiefs and the Lands Commission. Contestations are mostly covert but became overt during and after the Scheme. The inability of the Lands Commission and chiefs to effectively discharge their land governance roles as expected by them in the area leads to some sort of defiance on both sides. The defiance is caused by different factors coming to play, and this is what made land governance a difficult task in Adomako.

CHAPTER SEVEN

CROSS-CASE ANALYSIS OF THE TWO PLANNING SCHEMES IN ABUAKWA AND ADOMAKO

7.1 Introduction

When comparing Abuakwa and Adomako, the very different sizes and urbanisation speeds of both, Kumasi and Sunyani need to be considered. Kumasi has a greater population than Sunyani, and this manifests in the way population triggers peri-urban spatial change in Abuakwa and Adomako. The increasing population in Kumasi (approximately 3.4 million with a corresponding annual growth rate of 4.4 per cent in 2020) induces high demand for land in peri-urban areas. My research shows increasing peri-urban development with the rapid blurring between urban and peri-urban areas, particularly along the major trunk roads. Sunyani, on the other hand, is a medium-sized city, which is experiencing moderate growth and gradual expansion of peri-urban areas. The Sunyani Municipal Area had a population of approximately 156,000 with a corresponding annual growth rate of 2.4 in 2020. The growth of peri-urban areas in Sunyani is much slower compared to Kumasi. Peri-urban areas in Sunyani are at the incipient stage and influenced by plot purchases for speculative purposes as part of the urbanisation influence. As a result, urban and peri-urban areas are yet to see blurring boundaries.

This chapter draws on the two case studies to discuss key findings of the town planning schemes in Abuakwa and Adomako, discussed respectively in Chapters 5 and 6. In correspondence with the main research question, the analysis will focus on the customary and statutory land tenure systems and how they respond to these drivers and influence the observed peri-urban spatial transformations in the two contrasting cases. This discussion will highlight similarities and differences in the complex dynamics that arise from everyday planning. This chapter does not revisit the planning processes relating to the road infrastructure and Market Project in Abuakwa and the Ring Road Project in Adomako because they follow a more normative national project planning process. As a result, the planning processes for such projects are relatively straightforward compared to the more complex decision-making relating to the preparation of planning schemes. The chapter discusses the preparation of planning schemes and the emerging issues at the level of each case study settlement and focuses on the following questions: How do actor roles differ in the impact they exert on the preparation of planning schemes in Abuakwa and Adomako? How do actor constellations differ in the planning processes?

Specifically, the chapter focuses on comparing the roles of six specific actor groups: The Lands Commission, Physical Planning Department, traditional authorities, private surveyors, land allocation committees, and peri-urban developers. These analyses help in building a broader understanding of how traditional authorities and statutory officials influence local planning schemes. In section 7.2, I discuss the actors and their roles in land use planning in both case studies, whereas section 7.3 focuses on the interrelations.

7.2 Analysis of the influence of actors in land use planning in Abuakwa and Adomako

As already mentioned in Chapter 3, land ‘ownership’ and land use rights across Ghana rest with differentiated responsibilities of traditional authorities and statutory officials, respectively. Chiefs were found to be powerful actors in the spatial transformation processes in Abuakwa and Adomako because they are the custodians of land. Land, often in complex and shifting tenure arrangements, is an underlying factor of peri-urban development (Cotula, 2007) and so chiefs, by virtue of their role in land governance, are often at the core of peri-urban planning processes. There is also evidence of what Watson (2003) terms as conflicting rationalities ensuing among stakeholders in the planning process as in the case of South Africa. The Abuakwa and Adomako cases show that the various actors in peri-urban areas allowed for the cooperation of chiefs, heads of clans, families, individuals, and statutory officials. In both cases, statutory officials needed to work and negotiate with traditional authorities when land is disposed of or when government-led infrastructural projects are initiated. The objective of such consultations was to seek legitimacy for the project from traditional authorities as a sign of respect to ‘custodians’ of the land. The consultations ensured the legitimacy of projects by building trust, securing ownership, support, and cooperation. Negotiations by statutory authorities with traditional authorities could be observed in the two planning schemes in Abuakwa and Adomako. Yet my study also showed that the level of influence exercised by traditional authorities and statutory officials in the planning schemes differed between Abuakwa, where land was held under customary control and in Adomako, where the state acted as the manager of stool land. The research in this thesis shows that traditional authorities used their powers to prevent the municipal assembly from carrying out demolition of unauthorised development in Abuakwa.

To compare the different levels of influence of the various actors on the different stages of the land use planning process, I used the core-periphery analysis (Wellhofer, 1989). The core-periphery analysis shows the territorial nature of political behaviour among multiple actors and their different roles and positionality in terms of decision-making. The different phases of the two planning

schemes are depicted in see Figure 7.1 for Abuakwa and Figure 7.2 for Adomako. Actors who played little to no role are shown in the outer circle (periphery), whereas the main actors are located within the inner circle (core). Actors whose level of influence was considered medium are placed in the second circle.

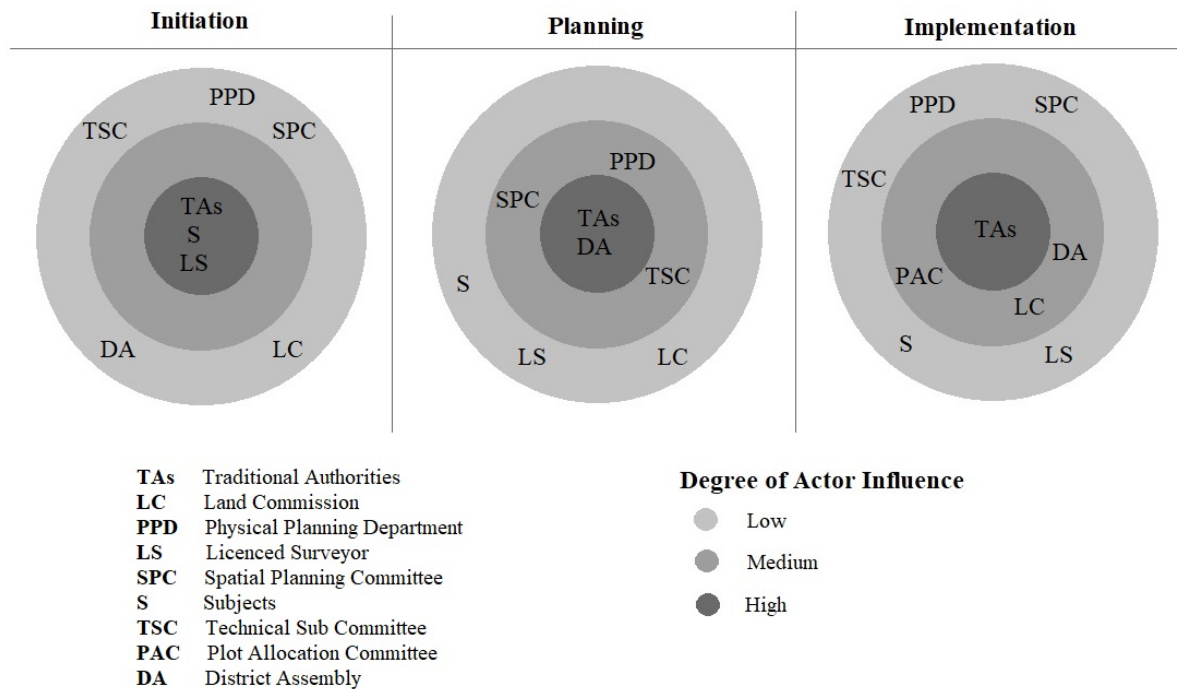


Figure 7.1: Degree of actor involvement and influence during the planning process in the Apemhase Scheme, Abuakwa.

Source: Author's construction

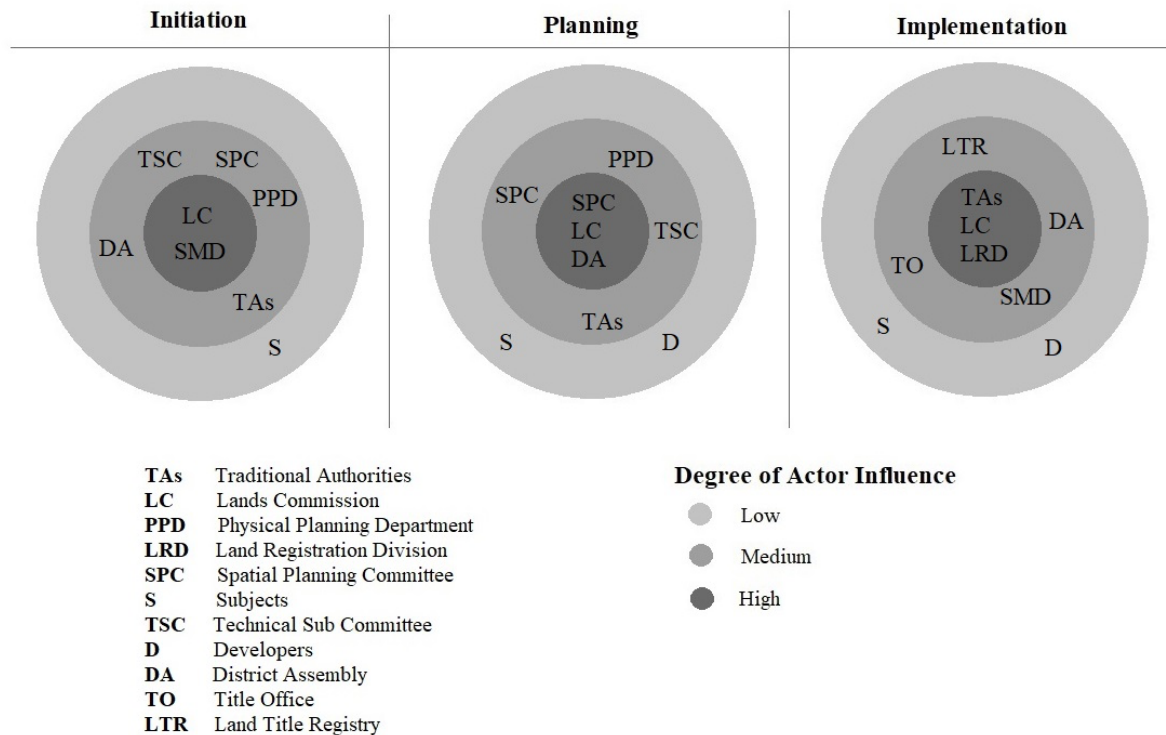


Figure 7.2: Degree of actor involvement and influence during the planning process in the Adomako Scheme, Sunyani.

Source: Author's construction

To draw on actor roles in the two cases, I solicited the perspectives of both traditional authorities and local statutory planning officials to understand their roles and influence in the preparation and implementation of the Apemhase Scheme in Abuakwa and the Adomako Scheme in Adomako. In both cases, the main actors played different but complementary roles in the initiation, planning, and implementation of the Scheme. The study showed changing roles of the various actors (diminished or appreciated) during different stages of the plan preparation and implementation. Yet, the role of traditional authorities remained strong throughout the initiation, planning, and implementation processes. This partly occurred in Abuakwa because of the nature of the stool land tenure system and the accompanying land administration practices, which give traditional authorities significant powers in land administration.

The role of statutory authorities remained limited except at the approval stage, where the District Assembly (DA) approved the Scheme through the work of the Spatial Planning Committee (SPC) and the Technical Sub-Committee (TSC) to enforce land use planning laws. I discuss their roles later in this section. In terms of the territorial politics that played out among the various actors, the study showed that traditional authorities had high levels of influence in all the stages in the

Apemhase Scheme. Statutory actors only had a strong influence during the planning stage because of the requirements of spatial planning laws. Beyond the planning stage, the degree of influence by statutory actors can be described as ‘low’ to ‘medium’ (see Figure 7.1). The implication of this on peri-urban planning processes is that traditional authorities have the power to encourage or inhibit land use planning. In addition, traditional authorities can steer local planning processes to suit their interests to the detriment of national laws.

Contrary to the Abuakwa case study, statutory officials, particularly in the Lands Commission, had a high level of influence in the initiation, planning, and implementation of the Adomako Scheme. Unlike in the Abuakwa case study, traditional authorities played an ‘in-between’ role, not entirely at the core and not entirely at the periphery. This was the case because, once the land use planning process had begun in a Vested Land Tenure System, the Lands Commission and the Physical Planning Department were mandated by pieces of regulation such, as Act 925 of 2016 and Act 936 of 2016, to initiate and approve the Scheme for the benefit of the Sunyani Stool. Findings from the Adomako case study showed that although statutory actors were at the core of the initiation, planning, and implementation stages of the Scheme, chiefs had medium levels of influence on the processes as they engaged the Lands Commission and Physical Planning Department only in negotiations about areas that were to be left for use by the Traditional Council and sacred lands to be reserved for their deities. The medium level of influence by the chiefs comes from their roles as the custodians of the land who must be consulted before it is converted for any use. As mentioned in Chapter 3, the Sunyani Traditional Council is made up of the Sunyani Paramount Chief, divisional and sub-chiefs who are chiefs of the various peri-urban areas. They meet regularly to settle disputes among their subjects including those related to land. The interviews and field visits showed that traditional authorities had a strong influence during the implementation stage of the Plan. As discussed in Chapter 6, chiefs were found to be engaging in land sub-divisions in the post-implementation stage. Building on the more general analyses above, I now begin to focus on six actor groups in more depth which have, in my study, helped in the understanding of the different actors and their roles in land use planning processes in Abuakwa and Adomako. The actor roles are also compared in terms of how they responded to prescribed land use legislation.

7.2.1 Analysis of the role of traditional authorities as core actors in local land use planning in Abuakwa and Adomako

As mentioned in previous chapters, the role of traditional authorities in peri-urban transformation and land administration in Ghana cannot be overemphasised. This is so because the chieftaincy institution in Ghana is enshrined in the 1992 Constitution, which gives traditional leaders authority to participate in national development, including spatial planning. Traditional authorities serve as leaders in the various settlements, and in most cases, as the custodians of land for their subjects in centralised customary societies. As a result, they are key actors in all decisions, especially those that have bearing on land. One of the key peri-urban transformation processes that is mostly initiated by traditional authorities is conceptualisation and implementation of planning schemes in response to increasing demand for land for development. The Land Use and Spatial Planning Act 925 of 2016 further re-enforces the role of traditional authorities in land use and spatial planning functions at the local level. The preparation of a local plan is a requirement for anyone who intends to subdivide land into plots for development in Ghana. Section 72(6) of Act 925 states that:

Each estate developer, owner of land of a size specified by the Authority or a traditional ruler who owns that land shall submit to the District Assembly local plans in respect of estate schemes or schemes to develop the land for sale in the district (Republic of Ghana, 2016a).

This explains how it could be that the Apemhase Scheme was initiated by the chiefs. Abuakwa is a planning area and must conform to the guidelines stipulated in Act 925 and any other planning laws. Asked about how the Apemhase Scheme was initiated, the Chief of the Apemhase Stool in Abuakwa explained that:

We met as a family and decided to sub-divide our land into plots for sale when we realised that development was approaching our lands. We contracted a surveyor to map the area and came out with a site plan for the area. We all want to see development so when the town expanded into our lands, we needed to give way for development (Interview, Chief of the Apemhase Stool, Abuakwa, 05.05.2019).

The family head of a stool is a powerful actor (alongside the Chief of the stool) in the land delivery system under customary land administration, so his involvement in key decisions such as the initiation of the local plan cannot be underestimated. The family head corroborated the position of the Chief by stating that:

I informed *Nana* [the Chief] about encroachment on our lands which required us to subdivide the land into plots for sale. We met all the family members who farmed on the land

and agreed to initiate the planning scheme (Interview, Family Head of the Apemhase Stool, Abuakwa, 07.05.2019).

As reported in Chapter 5, the Apemhase Scheme is one such example where traditional authorities, who serve as caretakers of the Apemhase Stool lands initiated the Scheme by subdividing land for onward delivery to land seekers. The main objective of initiating the Scheme was to ‘give way’ for physical development to occur in areas that served as agricultural lands. From the foregoing, it became apparent during the interviews with the Chief and Family Head that the centrality of the role of traditional authorities in customary land administration was not accidental but deep-rooted in customs and further reflected in the acceptance and recognition of chiefs by statutory planning laws. This was evident in the post-approval phase of the Scheme, where the land delivery system is characterised by family brokered decisions and land transfers that occurred without the involvement of statutory authorities. This places chief-brokered negotiations at the core of the land delivery system in Abuakwa. The implication is that most of the peri-urban transformation processes in Abuakwa were triggered by traditional authorities exercising land use planning rights.

Contrary to the Abuakwa case, my earlier assumption in the Adomako case was that where the state acted as the manager of stool land, traditional authorities are located at the periphery of land governance. The study of Adomako, however, showed that traditional authorities were seeking, with considerable success, to expand their roles in the demarcation, approval, and implementation of the Adomako Scheme. The role of traditional authorities is summarised by a subdivisional chief in Sunyani who explained that:

The land is for us, and we must have a say in how it is disposed. We have always challenged the EI 62 [the specific Executive Instrument that vested the land] because it makes us appear as tenants on our own land. The Lands Commission cannot go ahead and dispose of our land without the knowledge and input of the Traditional Council (Interview, Divisional Chief 1, Sunyani Palace, 03.04.2019).

The Adomako case study shows that traditional authorities in Sunyani are gradually taking on a core role in the entire land administration system. Although the state was exercising eminent domain by vesting in itself land management and land use rights in Adomako according to EI 62, the perspectives of the traditional authorities showed renewed efforts to participate in the process. Traditional authorities were considered as taking an active role in land management in Adomako through negotiation with officials of the Lands Commission. The decision of the traditional authorities to participate in managing land in Adomako is borne out of contestations and the belief

that families that hitherto undertook farming on the land would not be made worse off because of the land Scheme (Interview, Sub-Divisional Chief 1, Sunyani Palace, 03.04.2019). Unlike the Abuakwa case, the Adomako case showed that the negotiations between traditional authorities and the Lands Commission officials brought about transparency in the process because traditional authorities were able to discuss the Scheme with their subjects and conveyed their concerns back to the Lands Commission. This was considered an important stage in the planning process in the Adomako case study because customary authorities and statutory officials had the opportunity to resolve any differences that could trigger conflicts in the process. A divisional chief explained that:

The negotiations enabled us [chiefs] to convey the concerns of our people [families] to the Lands Commission. Some people had their crops on the land which needed to be protected until they were harvested. We used such negotiations to discuss the sharing formula and also showed them sacred areas that need not to be touched. During the Adomako Scheme, I went to the Lands Commission and complained about the plots they allocated to *nananom* [collective term for a group of chiefs], because the plots were in a waterlogged area which was not suitable for development. (Interview, Sub-Divisional Chief 1, Sunyani Palace, 03.04.2019).

The mediating role played by traditional authorities in the Adomako Scheme was noteworthy and could improve the spatial transformation process in terms of land governance. It offered an opportunity for the various stakeholders (the Lands Commission, traditional authorities, and families) to negotiate land governance and spatial planning in Adomako. There were, however, contrary perspectives that pointed to the abuse of trust by traditional authorities in the approval phase. A local opinion leader in Sunyani remarked that:

During the negotiation processes, the chiefs negotiated for plots in prime areas. They connived with the Lands Commission officials to advance their personal interests. After the preparation of the Scheme, some families did not get a fair share of the plots proportionate to the land they farmed on. Others got plots in places which were undesirable for building (Interview, Sunyani, 10.04.2019).

The interview revealed that statutory officials in Sunyani were found to be exercising their legal mandates in land governance and land use rights. The agency of traditional authorities, or their capacity to make free choices, however, produced grey areas as their motives were not clear as to whose interest they actually negotiated. It appeared from the interviews that traditional authorities

capitalised on their authority to immerse themselves in steering land administration from behind. This way, traditional authorities covertly influenced land governance leading to self-enrichment of the traditional authority. There is the possibility of problems arising in the consultation phase in Adomako because the different levels of knowledge (such as technical know-how) among the Lands Commission, traditional authorities, and families about the formal planning process may not have produced optimal outcomes. The agency of traditional authorities and families in Adomako aligns itself to the general trend in the literature (Kasanga and Kotey, 2001; Larkham, 2006; Akaateba *et al.*, 2018) about the possibility of actors with enhanced capacity to engage in self-enrichment to the detriment of those with little or no capacity in the land governance system in urban and peri-urban areas.

7.2.2 Plot Allocation Committees as intermediaries between traditional authorities and land seekers in Abuakwa

The findings of the studies showed that the Plot Allocation Committee was peculiar to the Abuakwa case study. The Plot Allocation Committee is constituted by the Chief and his council of elders, and the membership comes from members of the stool. The members are people of high reputation as land transactions involve money. The study found that members of the Plot Allocation Committee became key actors during the local plan implementation stage in Abuakwa. The Committee assisted the chiefs to allocate plots to land seekers and kept records on plot sales. The Committee's task was also to make sure that land transactions were transparent, although the extent to which their role served this purpose in the Apemhase Scheme was not fully investigated because none of the committee members was available at the time of the interviews. The Chief of the Apemhase Stool explained the role of the Allocation Committee as follows:

The Committee members took land seekers to the site for inspection of plots before allocation of plots was done. The members ensured that the Chief issued 'Allocation Notes' to land seekers after the presentation of drinks and cash. The Committee further helped me to account for the plots so that in future, everybody can verify details of the plot transactions (Interview, Chief of the Apemhase Stool, Abuakwa, 05.05.2019)

The Allocation Note is a type-written agreement that is issued by the Chief as evidence that the land seeker (allottee) has paid the 'head drinks' and/cash for the plot of land. The Allocation Note is used as a land instrument during the registration of title to the land at the Lands Commission. A land instrument is described by the Land Instruments Law as any document that determines any

interest in land, in this case, a document stating that the allotter transfers, limits, charges, or extinguishes his ownership right to an allottee. Due to its significance, the Allocation Note is required as part of the land instruments for the registration of title to land because it confirms that the transfer of ownership has been sanctioned by the Chief.

7.2.3 Private licenced surveyors as allies of traditional authorities in local land use planning in Abuakwa

My interactions with the Chief of the Apemhase Stool and the Physical Planner at the ANMA revealed that private licenced surveyors played active roles. The chiefs hired the services of the private licenced surveyor to demarcate the plots on the plan that was submitted. A surveyor was contracted by the traditional authorities because it was a condition for the proposed plan to be approved by planners at the Assembly. Act 925 stipulates that any planning scheme must be prepared by a licenced surveyor before approval could be granted to any scheme by the SPC of the respective District Assemblies. In the case of the Apemhase Scheme, the traditional authorities contracted a private licenced surveyor (who is not a staff member of the Assembly) to undertake mapping and demarcation of plots. The Chief of the Apemhase Stool explained the role of private licenced surveyors in the Plan preparation as follows:

We contracted our own surveyor at the plan preparation stage because the land belongs to us, and we must determine how we sub-divide it. The surveyors at the [District] Assembly charge expensive rates, so we contracted out a private licenced surveyor to undertake the Scheme preparation. Once we got a surveyor whose fees or terms were tenable, we contracted him to do it for us.... The land is for us, so we have the biggest say how it is used (Interview, Chief of the Apemhase Stool, Abuakwa, 05.05.2019).

The interview revealed the centrality and authority of the Chief in land ‘ownership’, subdivision, and disposition of land and land use rights in Abuakwa. The Chief influenced who was contracted to work on the Plan preparation or otherwise. The selection of a surveyor was mainly influenced by the fees charged by the surveyor. The position of the Chief presupposes that a surveyor who proposed a lower charge (whether licenced or not) was likely to be selected to undertake the survey works during the plan preparation. It is interesting to note that Sasu, Asante and Kidido (2016) and Akaateba *et al.* (2018) found that traditional authorities normally contracted unlicenced surveyors to undertake survey works because their charges were lower. However, the Physical Planner at the Assembly explained that plans by unlicenced surveyors are not approved:

The chiefs had the liberty to contract their own surveyors to prepare the layout for them. We don't prepare the layouts for them but when they contact us, we can recommend a licenced surveyor for them. The use of a licenced surveyor is important in local plan preparation because without that the Assembly will not approve the Scheme. The challenge is that sometimes the Chief contracts unlicensed surveyors to do a shoddy work for them at a lower cost. Therefore, some of the stool land areas still do not have their schemes approved in Abuakwa (Interview, Physical Planner, Nkawie, 30.12.2019).

The planner said this was not the case in the Apemhase Scheme but planners at the Assembly were always cautious in the approval of plans due to their experiences in dealing with plans prepared by unqualified surveyors. The planner stated that the delay in the approval of the Apemhase Scheme was about the need to retrofit the plan as development had already occurred before approval.

7.2.4 Analysis of the role local of statutory planning authorities in local land use planning in Abuakwa and Adomako

As already mentioned in Chapters 3, 5 and 6, the legal framework regulating land use planning and spatial change gives the mandate for local planning, including determination of land use, to state agencies, namely metropolitan, municipal and District Assemblies. The regulating body for local land use planning in Abuakwa is the ANMA in Nkawie. The key Department that oversees land use planning in the Assembly is the Physical Planning Department of the Assembly. The Abuakwa case study showed that the role of the Assembly in land delivery was minimal as it was not directly involved in the initiation of local plans.

Initially, the role of the Physical Planning Department in the Apemhase Scheme was limited to the *post facto* approval of the Scheme. The Assembly carried out these functions through the SPC and the TSC. The TSC engaged the community where the Scheme required retrofitting to listen to the people and their aspirations regarding the physical development of the area. The outcome of the engagement enabled the TSC to suggest corrections to the plan proposed by the chiefs through their private surveyor (Interview, Physical Planner, Nkawie, 30.12.2019). The corrected draft was resubmitted by the Chief to the Assembly for approval (*ibid.*). There have been challenges in the discharge of the role of local planning authorities in Abuakwa, as it involves the detection of change of use and to develop modified schemes. The Physical Planner stated that:

The kind of development you see on the ground is different from the land uses agreed on the Scheme. This is because the Chief followed the procedure to obtain approval for the

Scheme, but they went back to do change of use without our knowledge. The chiefs are supposed to present a modified Scheme every five years to the Physical Planning Department to detect change of use and unapproved land uses, but they don't do it. We are now trying to do it ourselves (Interview, Physical Planner, Nkawie, 30.12.2019).

The non-compliance of traditional authorities to submit to physical planning laws and the lack of capacity by planners to enforce adherence in local plan preparation in the Apemhase Scheme supports the observations made by Cobbinah and Amoako (2012), namely that not all the stools have approved planning schemes to direct activities involving spatial change. Asked why the Assembly was unable to enforce physical planning laws in Abuakwa, the Physical Planning Officer lamented that:

Sometimes it is difficult in working with traditional authorities in land administration. Chiefs have the power of the people and so the allegiance of the people is very much skewed towards traditional leaders and not statutory authorities. We collaborated with them to correct the deficiencies in the Plan they submitted for approval, but they almost always had their way... The major challenge is that by the time we set out to correct the plan, development would have occurred (Interview, Physical Planner, Nkawie, 04.05.2019).

To understand the extent of authority demonstrated by traditional authorities in the planning process in Abuakwa, the Physical Planning Officer responded that:

It is a complex situation, because the traditional authorities are powerful to the extent that they have 'political influence'. Demolition of buildings without permits is difficult to undertake because you may end up incurring the displeasure of the chiefs. When we go on inspection and write on these building 'Stop Work, Produce Permit', you would see chiefs and certain political figures asking you not to demolish such buildings. When it happens, we try to harmonise the plan and the structure to bring about peace (Interview, Planner, Nkawie, 04.05.2019).

In the face of the authority of traditional authorities, planners face significant challenges in the enforcement of planning laws. It is not only in the face of traditional authorities who have assumed authority that the law does not bestow on them, there is a political dimension. Traditional authorities are 'connected' to people in government and have influence over those who govern the MMDAs. As a result, a planner may be constrained by working under superiors who can have the

ultimate word on whether a demolition goes ahead or otherwise. This is not limited to the Abuakwa case, as the Adomako case also shows similar situations.

Contrary to the Abuakwa case, the Physical Planning Department of the Sunyani Assembly prepared the layouts plan in Adomako, which gave zoning guidelines to the various land uses. Apart from producing the layout plan, the Physical Planning Department issued development or building permits to developers as prescribed by Act 925 of 2016 and Act 936 of 2016. Through development permits, the Physical Planning Department influenced spatial change through the various units such as the Building Inspectorate Division that monitors physical development in line with the planning scheme. Asked how the Department managed activities that involved spatial change in Adomako, a planner explained that:

In areas where we have done our monitoring well, physical development has occurred according to the planning scheme making sure that what was planned is what is found on the ground (Interview, Planner, Sunyani, 04.04.2019).

There were, however, cases of physical development occurring without recourse to the approved Scheme. A planner lamented that:

We (Physical Planning Department) are faced with political interferences which have resulted in change in land uses without recourse to re-zoning guidelines. Some open spaces sited on the Adomako Scheme have now been converted to residential use, because the Department has not been able to enforce its mandate as a result of political interferences and lack of resources. You see, city planning is purely a technical work and not for politicians or traditional authorities, but that is what we are experiencing here (Interview, Planner, Sunyani, 04.04.2019).

Asked if the Department was able to deal with physical development occurring without permits in Adomako, a planner responded with similar dilemmas facing the Physical Planning Department planner in the Abuakwa case study:

It is difficult to pull down a structure even if it flouts the planning scheme, because as the planner you are going to have problems with the chiefs and political figures. Some people develop their plots only when their political party is in power because that way, they have the backing of certain politicians to support them when they go against spatial planning guidelines (Interview, Physical Planner, Sunyani, 04.04.2019).

The opinions expressed by the planner about non-compliance and lack of enforcement capacity suggest that it is not all in the power of traditional authorities. Interferences by political parties are also deepening non-compliance by traditional authorities and peri-urban developers. This accentuates the challenges facing planners to enforce planning laws at the local level.

The Abuakwa and Adomako cases show that planners are aware of the limitations that political realities place on their statutory roles. In Abuakwa and Adomako, the planners shared measures they take to resolve this – not approving such plans or not issuing development permits. The planners continue to find ways to navigate around the obstacles presented by non-compliance and interferences.

7.2.5 Analysis of the ‘contested role’ of the Lands Commission in land administration in Abuakwa and Adomako

As explained in Chapter 3, the role of the Lands Commission in stool land areas is to give consent and concurrence to the disposition of stool lands. It, therefore, played a particular role concerning the subdivision schemes in Abuakwa and Adomako. In Abuakwa, developers who purchased plots in the Apemhase Scheme were required to go to the Commission to do concurrence or seek approval for the transfer of stool lands and registration of the title deed. The approval process requires that a land instrument for title to land, which is the map or plan attached to the instrument of registration, must have been prepared by a licenced surveyor. The Survey and Mapping Division of the Lands Commission must certify that the intended development conforms with the planning scheme of the area. The title registration process in stool land areas is often delayed because the Lands Commission was not involved in the planning of the Scheme. This serves as a disincentive for developers to seek concurrence or approval from the Lands Commission. An official of the Land Commission in Kumasi explained that:

The concurrence process delays because the Commission was not involved in the planning process, so the SMD [Survey and Mapping Division] had to do a thorough work to ensure that intended development is within the planning scheme. Certain maps presented by developers from Abuakwa are not accurate, so it becomes difficult to grant concurrence (Phone interview, Lands Commission official, Kumasi, 05.07.2019).

The interviews in Abuakwa revealed that traditional authorities and family heads of the Apemhase Stool were able to steer the land administration system in such a manner that the Lands Commission remained at the periphery throughout the planning process (Phone interview, Lands

Commission official, Kumasi, 05.07.2019). The interviews further suggested that chiefs, acting as custodians of land, arrogated to themselves statutory planning roles, because in their view, once they 'owned' plots of land, they could equally authorise physical development (*ibid.*). This way traditional authorities of the Apemhase Stool used their customary authority as custodians of the land to give developers the assurance that they could go ahead and develop plots and face no sanctions from local statutory authorities. The role of traditional authorities in the land delivery system in the Apemhase Scheme presents a recipe for disagreements between traditional authorities and local planning officials around land 'ownership' and land use rights because traditional leaders were found to be usurping statutory powers. The role of traditional authorities in Abuakwa had a greater potential to influence spatial outcomes such as physical development without the approval of statutory officials. The ultimate responsibility lies with the metropolitan, municipal and District Assemblies to undertake demolition of such developments or regularise them after the necessary fines are paid by the owners. An official of the Lands Commission bemoaned that:

The danger in stool land areas such as Abuakwa is that chiefs normally negotiated with developers and agreed on a lease. We at the Lands Commission do concurrence or approval without knowing what agreements were reached. This way, chiefs have the chance to short-change developers or even their own people in terms of the revenues generated from leasing of lands (Phone interview, Lands Commission official, Kumasi, 05.07.2019).

The opinions expressed by the Lands Commission official are in line with the trend in the literature. Bugri (2012) alludes to the challenges facing land administration and land use planning. The inherent weaknesses in the land administration and planning system mean that only a few individuals find it necessary to formalise land acquisitions and obtain the necessary documentation.

The interviews revealed that traditional authorities in Abuakwa had immersed themselves in the planning process by staying at the core and taking substantial control over the land administration system while statutory actors such as the Lands Commission remained at the periphery. Consequently, traditional authorities were able to induce spatial change that was not officially sanctioned by acting as trustees and beneficiaries at the same time. In doing this, traditional authorities, families, and developers operated in a spontaneous order to initiate planning schemes and undertake development as demand for land increased. The Lands Commission has little chance to assert itself in the administration of land; therefore, it played along and rectified the challenges

posed by the decisions of traditional authorities and families that owned land. The interviews revealed that in the case of Abuakwa, the preparation of planning schemes was spearheaded by chiefs together with the family heads and families who held land rights. Act 925 stipulates that the one who ‘owns’ the land must prepare the plan for the area but must receive approval from the District SPC. Although the chiefs mentioned contracting surveyors to undertake the layouts, the involvement of local statutory planning authorities was inconspicuous.

As mentioned in Chapter 3, and contrary to the situation in the Abuakwa case study, the Vested Land Tenure System prevails in the Adomako case study. There the Lands Commission manages land for the benefit of the Stool. The mandate of the Lands Commission is also to implement planning schemes during local land use planning. Therefore, it is the Lands Commission that implemented the Adomako Scheme, as discussed in Chapter 6. My interactions with the Regional Lands Officer suggested that the consultation with the Traditional Council aimed at bringing about transparency and also to reduce to the barest minimum, contestations arising out of local plan preparation in vested land areas. The interview revealed that although the Lands Commission was not obliged by law to hold such discussions with traditional authorities, it was done to bring about peace and show respect to the chiefs as a way of building long-term relations.

As mentioned in Chapter 3, the technical works of the Lands Commission were carried out by the various divisions, namely Survey and Mapping, Land Valuation, Land Registration, and Public and Vested Lands Division. The preparation of the Scheme was undertaken in stages (see Figure 7.3) with the Survey and Mapping Division (SMD) undertaking survey and mapping works of Adomako lands.

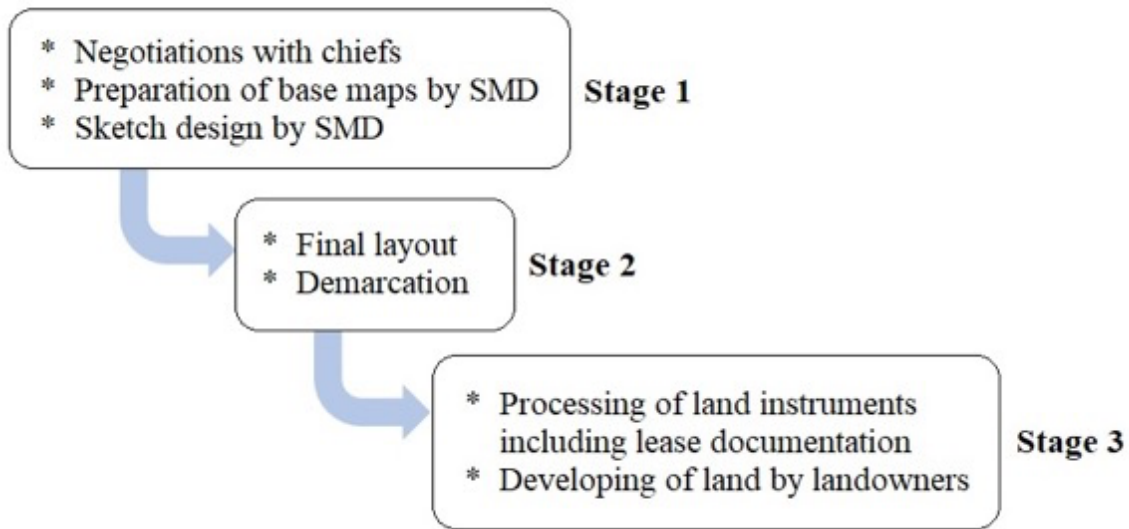


Figure 7.3: Stages in the preparation of the Adomako Scheme

Source: Author's construction

The interviews showed that the survey and mapping works included the preparation of the base map of Adomako lands. The base map contains important geospatial data that helps in zoning the land into parcels for specific uses. The next stage involved the submission of the base map to the Physical Planning Department at the Sunyani Municipal Assembly for the preparation of the layout of the area. The layout was discussed by planners and officials of the Lands Commission to agree on the Adomako Scheme. The SMD demarcated plots in the Adomako Scheme after the layout was approved (Interview, Lands Commission official, Sunyani, March 27, 2019). This involved the fixing of concrete pillars (survey beacons) to demarcate plot boundaries. The demarcation culminated in the production of site plans and the Adomako Area Master Plan, which shows all the land uses in the area. At this stage, the Adomako Scheme was ready for plots to be officially leased to land seekers after approval. The Adomako Scheme marked the beginning of the formalisation and shifting of land use rights from the stool to individualised land holding rights. Although the land was vested, the Scheme led to a shift in use rights towards individual land holding. Compared to the Abuakwa case study, the preparation of the Adomako Scheme had detailed technical processes, which could make it expensive. This may be a reason why the chiefs in Abuakwa considered the involvement of statutory planning authorities in the plan preparation expensive.

The Lands Commission remained the main actor at the core of preparing the Adomako Scheme because its functions started from the initiation phase through to implementation. At the implementation stage, the Lands Commission performed its functions through the Land Registration Division. Multiple laws regulate the transfer and registration of title to land in Ghana. The Lands Commission used these laws to regulate land transfers and leasing processes in the Adomako Scheme. These laws include the Stamp Duty Act, 2005 (Act 689), the Land Registry Act, 1962 (Act 122), and the Land Title Registration Act (PNDC Law 152). The advantage of these laws includes, *inter alia*, that they reduce litigation and make land a bankable asset (collateral). The disadvantage is the seemingly bureaucratic and ill-resourced institutions that make land registration a challenge for developers. In principle, physical development cannot only occur in Adomako unless a developer has gone through the leasehold title registration process and is issued a title certificate by the Lands Commission. This title certificate becomes a condition to receiving a development permit from the Physical Planning Department. Figure 7.4 shows the process in the title registration process in Adomako.



Figure 7.4: Land title registration processes at the Lands Commission in Sunyani

Source: Author's construction

The title registration process appeared cumbersome, slow, and expensive. The interviews showed that officials of the Lands Commission were aware of these challenges. Asked about the level of adherence to title registration by developers in Adomako, an official of the Lands Commission explained that:

Title registration is done by most of the developers, because once you purchase the land from the Lands Commission, the transaction is not complete until you have the title certificate to the land. The challenge has to do with delays in the process so, a developer may start the process and terminate along the line. Because some of the lands are leased by traditional authorities and families, we have some people not commencing the process at all. Some come to us when they encounter challenges or want to use the land as collateral (Interview, Lands Commission official, Sunyani, 27.03.2019).

7.2.6 Peri-urban developers at the ‘crossroads’ between traditional authorities and local statutory officials in Abuakwa and Adomako

As mentioned in Chapter 3, residential development is often the most prevalent manifestation of peri-urban transformation in Ghana. This is mostly initiated by individual home seekers who build for their own accommodation needs. There is increasing demand for land for residential development. The land acquisition stage of residential development involves negotiations between land seekers and chiefs. Developers must also register title to the plot by seeking concurrence from the Lands Commission. The interviews revealed that the non-adherence to planning laws by chiefs and ‘political influence’ were affecting developers in Abuakwa and Adomako in registering their lands. Developers also faced challenges in trying to secure permits to undertake development. The ultimate challenge was that developers found themselves caught up between traditional authorities and statutory authorities in an attempt to secure land use rights. A developer in Abuakwa complained that:

The way the chiefs and families prepared the Scheme is such that in most cases the Lands Commission cannot give you the developer concurrence because there could be litigation in the future among multiple claimants to the same piece of land or land uses. In my case, the Plan I submitted was not valid when the survey people verified it. Their checks revealed that where my plot was located was earmarked for playground, but it was transferred to me as a residential plot without any evidence of approval of change of use on the approved

Scheme. Because of this I have not been able to get my land title registered (Interview, Abuakwa developer, Abuakwa, 10.04.2019).

Asked why he was developing his plots before applying for permits, one developer stated that:

The permit regime must be revised to make it easier to acquire it. They [Assembly] have not given me the permit because they claim I built the house before going for the permit. At least they must consider the fact that I have built the house and cannot do anything about it (Interview, Abuakwa developer, Abuakwa, 10.04.2019).

Out of the ten developers interviewed in Abuakwa, six claimed they had building permits from the Assembly, whereas the rest claimed that they built before applying for the building permit. The interviews showed that there were two main pathways to peri-urban transformation in the Apemhase Stool land area; developers who secured building permits and those who had completed physical development and were now in the process of seeking building permits.

In Adomako, as in Abuakwa, the construction of residential buildings was the main spatial manifestation. This was triggered by the demand for self-owned houses by individuals rather than estate developers. Over the course of the fieldwork, I found residential building projects, schools, and other non-residential buildings either completed, stalled, or ongoing in Adomako. The slow rate of housing development in Adomako is further triggered by land speculation. Out of the five developers interviewed in Adomako, four stated that they had acquired both land title certificates to the land and building permits, whereas one claimed he had acquired a Land Title Certificate but not a building permit (Interview, Adomako developer, Sunyani, 10.04.2019). The interviews further revealed that two out of the four developers who claimed they had completed all the registration processes started physical development activities on their land before they applied for the permits. One developer intimated that:

I developed my plot without permit, but I am in the process of rectifying that because I have not been able to apply for owner occupier housing allowance at my workplace, because I do not have a Land Title Certificate and building permit for my house. You see, our system is slow so I could not wait for the permit process to be completed before putting up my house (Interview, Adomako developer, Sunyani, 10.04.2019).

The building permit regime has been cited by Cobbinah and Amoako (2012) as outmoded due to its bureaucratic bottlenecks. The acquisition of building permits or title certificates by developers

could take years before issuance. The registration system largely remains manual, which consumes time. Another developer complained about the land registration procedure in Sunyani:

Processing the title certificate is a long process and expensive too. Anything about the processing of the lease is money, money, money. I only have the Indenture, which was given to me when I purchased the plot, which is equally a proof that the land is for me. I do not think someone will come here and claim ownership (Interview, Adomako developer, Sunyani, 10.04.2019).

Another developer observed that:

Sunyani is not like Accra where there is pressure on land. I have built my house and lived in it for about five years, but I am yet to process the lease (Interview, Adomako developer, Sunyani, 10.04.2019).

In my interviews with developers, there was evidence that traditional authorities in Sunyani also encouraged developers to undertake physical development without permits. One developer explained that he did not have title to land or permit to undertake development because he purchased the land from a chief. He confidently stated that:

I purchased this plot from one of the chiefs and he assured me that I could develop the land and later go to the Lands Commission and the Town and Country Planning Department. Once you deal with the chiefs there is nothing to fear because they are the true owners of the land (Interview, Adomako developer, Sunyani, 10.04.2019).

The fact that the land is vested presupposed that there would be less interference from traditional authorities and families than in Abuakwa. However, traditional authorities encouraged ‘squatters’ (Interview, Lands Commission official, Sunyani, 27.03.2019). They were deemed ‘illegal’ settlers because of unlawful occupation, though with chiefs’ permission. The perception of developers about the legal framework on registering title to land and obtaining land use rights before undertaking physical development was only prescriptive (Interview, Physical Planner, Sunyani, 04.04.2019). This is because traditional authorities seemed to give a degree of ‘assurance’ to developers that physical development can occur without facing sanctions from statutory officials (*ibid.*).

The planner in the Sunyani Municipal Assembly pointed to the difficulties presented by the mandates of the various state agencies in charge of administering land and development control in

Adomako (Interview, Physical Planner, Sunyani, 04.04.2019). The study identified two main pathways to physical development in Adomako: First, developers registered title to lands at the Lands Commission and did not go to the Physical Planning Department for building permits, or they acquired all the necessary documents before commencing physical development activities. The practice is that once developers obtained documentation on land from the Lands Commission, they went straight to undertake development without permits from the Physical Planning Department. The spatial implication is that developers had title to land but not land use rights. Secondly, developers who purchased plots from the chiefs or families either went straight to start developing the plots without acquiring the necessary permits or went for permits after they had commenced physical development activities. This manifested spatially in change occurring without prior approval by the relevant local statutory planning authorities.

7.3 Analysis of the nature of relationships among major actors in land administration and spatial change in Abuakwa and Adomako

The analyses made between the various actors above show that complex relationships developed in the land use planning process. The actors negotiated the planning process based on their mandates and roles prescribed in the various planning and land administration laws. In this section, the interests of the various actor groups are discussed and the relationships that developed along the lines of land use planning. The key actor relationships (see Table 7.1 and 7.2) include a mixture of collaboration, contestations, and mediation of conflicting situations.

Table 7.1: Key actor relationships in land use and spatial change in Abuakwa

<i>Relationship between:</i>				
	Lands Commission	Physical Planning Department	Traditional authorities	Peri-urban residents
Lands Commission	N/A	- Mixed relationship often with contestation in the preparation of layouts for onwards demarcation of plots. - Some staff of the Physical Planning Department undermining the relationship by dealing with some traditional authorities by preparing layouts for chiefs to commence the sale of lands, contrary to law.	- Relationship fraught with contestations - Some chiefs engage their own surveyors to prepare layouts so they can sell all lands for their benefit.	- Cordial relationship with peri-urban residents through registration processes. - Peri-urban residents often collaborate with traditional authorities and less with the Lands Commission. - Peri-urban residents have helped chiefs to flout spatial planning laws.
Physical Planning Department	- Often cordial relationship in the preparation of layouts. - Seldom misunderstanding on the implementation of layouts.	N/A	- Collaborate with TAs to resolve boundary litigation. - Collaborate with TAs to receive complaints and input from peri-urban residents. - Relationship fraught with contestations about land use planning. - Some TAs engage their own Surveyors to prepare layouts for development without authorisation from the Physical Planning Department.	- Physical Planning Department helps peri-urban residents to regularise building permits while ensuring the right land uses take place in the peripheries. - Conflictual relationship between the Physical Planning Department and peri-urban residents due to non-compliance. - Occasional confrontation with peri-urban residents who acquire lands in peripheries without layouts and those who begin development without permits.
Traditional authorities	Occasional disagreement about land 'ownership' and land administration.	- Often collaborate to determine where development is sited at the peripheries - Inform the Physical Planning Department about sacred places to be excluded from layouts.	N/A	- Mediate and resolve conflicts among land users at the peripheries. - Facilitate land acquisition by providing consent letters to peri-urban residents to process their lease documents.
Peri-urban residents	Seldom contestations over processing concurrence from the Lands Commission.	Generally mixed relationships due to issues of permits, bureaucracies, bribes, and enforcement of development laws.	- Have a cordial relationship with chiefs as 'custodians' of the land. - Sporadic conflicts with chiefs over re-entry and double sale of same plot of land to multiple developers.	N/A

Source: Author's fieldwork, 2019

Table 7.2: Key actor relationships in land use and spatial change in Adomako

<i>Relationship between:</i>				
	Lands Commission	Physical Planning Department	Traditional authorities	Peri-urban residents
Lands Commission	N/A	- Relationship is often supportive in the preparation of layouts for onwards demarcation of plots. - Some staff of the Physical Planning Department undermining the relationship by dealing with some traditional authorities by preparing layouts for chiefs to commence the sale of lands, contrary to law.	- Relationship with chiefs often supportive. - Lands Commission has tried to build peace by designing a befitting sharing formula after layouts are done (2/3 of plots given to chiefs and customary freeholders to foster peace). - Some chiefs engage their own surveyors to prepare layouts so they can sell all lands for their benefit.	- Supportive relationship with peri-urban residents through registration processes. - Peri-urban residents often flout land registration requirements. - Peri-urban residents have helped chiefs to flout spatial planning laws.
Physical Planning Department	- Often cordial relationship in the preparation of layouts for peripheries - Seldom misunderstanding on the implementation of layouts - Lands Commission does not consult the Physical Planning Department beyond the preparation of layouts.	N/A	- Supportive relationship with TAs in vested land areas during the preparation of layouts and ensuring discipline in spatial change. - Collaborate with TAs to resolve boundary litigation in the peripheries. - Collaborate with TAs to receive complaints and input from peri-urban residents. - Sporadic contestations between the Physical Planning Department and some TAs who engage in unauthorised land subdivisions. - Some TAs engage their own Surveyors to prepare layouts for development without authorisation from the Physical Planning Department.	- Supportive relationship between the Physical Planning Department and peri-urban residents. - Physical Planning Department helps peri-urban residents to regularise building permits while ensuring the right land uses take place in the peripheries. - Occasional confrontation with peri-urban residents who acquire lands in peripheries without layouts and those who begin development without permits.
Traditional authorities	- Supportive relationship with Lands Commission in granting consent letters for the preparation of layouts. - Occasional disagreement on the sharing formula of demarcated plots.	- Collaborate to determine where development is sited at the peripheries - Inform the Physical Planning Department about sacred places to be excluded from layouts - Contestations about chief-initiated planning schemes	N/A	- Mediate and resolve conflicts among the different land users at the peripheries. - Facilitate land acquisition by providing consent letters to peri-urban residents to process their lease documents.
Peri-urban residents	- Relationship generally supportive. - Complaints about corruption and delays in land title registration.	Generally mixed relationships due to issues of permits, bureaucracies, bribes, and enforcement of development laws.	Supportive relationship with chiefs as 'custodians' of the land.	N/A

Source: Author's fieldwork, 2019

Different forms of relationships existed among the actors, some antagonistic, some indifferent, others supportive of one another. Antagonism among the actors arose when land use planning decisions could not be agreed, especially in the enforcement of planning laws by statutory authorities. Relationships could be described as supportive in instances where the various actors need to collaborate to ensure that spatial change occurred. In the Abuakwa case for example, planning officers had to retrofit the proposed plan to ensure that development was regularised. The study showed that in times when antagonistic relationships arose, the actors resolved their differences and moved on with the planning processes. In the Abuakwa case study, the Lands Commission's interest was to process applications for concurrence after developers have acquired land from traditional authorities. To ensure that such transactions are genuine and consistent with approved plans, developers need to go to the Lands Commission and do concurrence – which is a process of checking the consistency of land ownership, plans, and land use before title registration can be processed. My enquiries showed that many developers did not do concurrence after acquiring land from traditional authorities. The Physical Planning Department's interest in land use planning was to ensure that actual development was consistent with local plans. This required the Physical Planning Department to enforce building laws and compliance to physical development. In the Abuakwa case study, members of the Physical Planning Department encountered many challenges as they navigated the corridors of traditional authority (Interview, Physical Planner, Nkawie, 04.05.2019).

In the Adomako case study, interviews revealed that the general relationships between traditional authorities and statutory officials could be described as cordial (Interview, Lands Commission official, Sunyani, 27.03.2019; Interview, Chief 1, Sunyani Palace, 03.04.2019). Traditional authorities recognised the Lands Commission and the Physical Planning Department in the land use planning process. The nature of relationships among traditional authorities and statutory officials was crucial for resolving conflicts that arose during the different phases of planning. However, traditional authorities expressed dissatisfaction about the sharing formula during land scheme preparation. The interviews revealed that the interactions between statutory officials and peri-urban residents during land use planning was one characterised by cooperation and antagonism (Interview, Adomako developer, Sunyani, April 10, 2019; Interview, Chief 1, Sunyani Palace, 03.04.2019; Interview, Lands Commission official, Sunyani, 27.03.2019). The interviews show that challenges faced by peri-urban developers in the acquisition of development permits or land titles have led to non-compliance with building regulations (Interview, Physical Planner, Sunyani, 04.04.2019). As a result, peri-

urban developers were likely to commence physical development before applying for development permits. Traditional authorities were also found to engage in land subdivisions to respond to complaints by peri-urban developers about the challenges in dealing with statutory authorities (Interview, Lands Commission official, Sunyani, 27.03.2019).

The Abuakwa and Adomako case studies revealed that all the different actors had managed to build short-term relationships in the land governance and spatial planning processes. The kinds of relationships or alliances between the various actors are used to resolve any conflicts that arose during local land use planning. These alliances appeared short-term in nature as they were not able to withstand the pressures of intensifying peri-urbanisation processes and the corresponding demand for land. The results show that even between the Lands Commission and the Physical Planning Department, the relationship seemed antagonistic and collaborative at times. The relationships have short-term focus and happen as and when an actor has a role to play in the planning process. Interviews showed that the Lands Commission's involvement in the planning process became minimal after the approval of the plan as the remaining processes were more related to the Physical Planning Department (Interview, Lands Commission official, Sunyani, 27.03.2019). Although I anticipated from the onset of the study stark differences between spatial change in Abuakwa and Adomako due to different land administration practices under customary and statutory tenure systems, the case studies show both divergences and commonalities in spatial change, this being underpinned by divergence and similarity in land administration practices in local plan preparation in peri-urban areas.

7.4 Conclusion

The Abuakwa and Adomako cases bring to the fore the continuous relevance of traditional authorities in land use planning even in areas where land is formally vested in the state. The visible signs of peri-urban transformation in Abuakwa and Adomako are mostly through the actions of traditional authorities while statutory officials operated from the peripheries of the planning process. Spatial change in the two case studies is interwoven in the prevailing land tenure system and the nature of land administration practices by traditional authorities and local statutory officials. Peri-urban areas in Kumasi and Sunyani are witnessing spatial change mainly induced by the preparation and implementation of local land use plans undertaken by traditional authorities and statutory officials. As urbanisation intensifies, chiefs in Abuakwa convert rural lands to urban plots to meet demand. In Adomako, the Inner Ring Road Project induced the preparation of the Scheme by the Lands Commission.

The chapter shows that the significant role played by traditional authorities as perceived 'owners' prevail despite the variations in the land administration and planning systems in both locations. In Abuakwa, the stool land tenure system puts chiefs and family heads in charge of most of the land. In the case of Adomako, peri-urban transformation is driven by change induced by local land use plans prepared and implemented by statutory officials from the Lands Commission. These local land use plans have induced land purchases for speculative purposes.

The two case studies reveal a seemingly short-term alliance in land governance between local statutory officials in charge of planning and traditional authorities. The alliance is considered short-term because it only happens at the plan preparation and implementation state. The chapter contends that spatial change in both case study areas is induced mainly by local land use plans and, to a smaller scale, state-initiated by projects such as the construction of roads and markets. Once plots of land are transferred to developers, the seeming alliances between traditional authorities and statutory officials end.

CHAPTER EIGHT

UNDERSTANDING PERI-URBAN LAND ADMINISTRATION AND SPATIAL CHANGE: SYNTHESIS, FINDINGS AND RECOMMENDATIONS

8.1 Introduction

Rapid urbanisation characterised by physical expansion and population growth is pushing the frontiers of major urban centres from old urban cores outwards into peri-urban areas across cities in sub-Saharan Africa. My research confirms that this phenomenon does not only apply in major urban centres but can be observed in small and medium-sized cities too. Yet spatial change happens in peri-urban areas where transformation is occurring at different scales and speeds and generates different spatial patterns. This thesis aims to contribute to research on the spatial outcomes of peri-urban transformation by examining key underpinning processes leading to how land parcelling and land use changes are administered and steered. One important aspect of peri-urban areas in sub-Saharan Africa is land administration which has a close connection with land use planning. Coming from a history of dual land tenure systems, land administration and, by extension, land use planning is a collaborative function involving local statutory officials and traditional authorities. There are complex relationships among the various stakeholders in land governance, land use planning, and peri-urban transformation. In Ghana, the complex relationships have produced mixed results regarding compliance with planning regulations. My research of the two cases points towards multiple pathways through which peri-urban transformation occurs.

The main aim of this chapter is to draw conclusions from the findings, showing how they contribute to the broader body of research on peri-urbanisation and make recommendations for future studies. The chapter summarises the main arguments and findings of the thesis with respect to the main research question: ‘What is the relationship between land administration systems and spatial change in the peri-urban areas of Kumasi and Sunyani?’ This question is unpacked through a review of land administration and formalising of land use rights in peri-urban areas. The second part discusses how statutory and customary authorities induce peri-urban transformation through multiple land administration practices. It provides a reflection of the research methods and synthesises the knowledge gained from the review of the literature (Chapters 2, 3 and 4). This is complemented by empirical data (Chapters 5, 6 and 7), which incorporate analysis.

8.2 Synthesis of major findings

Land administration systems in many regions of the African continent are dual in that customary systems are recognised and operate in certain demarcated areas and they may vary from one area to another. Statutory systems operate on very different premises but are dominant in urban areas and underpin land commodification arising from the formalisation of land use rights. They interface in peri-urban areas where land tenure changes are rife. The peri-urbanisation process involves a multi-faceted transformation that unlocks a land market, but not in a straightforward way. This is complicated by variations in the customary land administration system, as customary tenure forms differ, as in the case of sub-Saharan Africa (Cotula, 2007).

In Ghana, the spatial and land use planning system recognises customary authorities as official players, but to varying degrees depending on the land tenure system. Some studies (Owusu-Ansah and Braimah, 2013) show that in the centralised customary tenure system mostly dominant in Akan speaking areas such as Kumasi and its surrounding peri-urban areas, traditional authorities, particularly chiefs, play significant roles in the administration practices. The research for this thesis revealed that traditional authorities, through their land administration roles in both the customary Land Tenure System and Vested Land Tenure, immersed themselves in land administration and also in land use planning processes. My study placed particular focus on comparing two cases, namely the centralised land tenure system and the vested system, and comparing a large city with a medium-sized city. The study sheds light on the different peri-urbanisation dynamics and spatial change patterns within and between the two cases. What made the two cases compelling for analysis are the interplay between infrastructure development and the development of town planning schemes which staked out residential plots on customary land previously used for agriculture. The timelines of the planning schemes are comparable, but the spatial outcomes differ, which I will briefly expand on.

8.2.1 Similarities and differences in the pattern of spatial change in Abuakwa and Adomako

The purpose of the first research sub-question was to explore: *What* patterns of spatial change are observable in Abuakwa and Adomako over the period of 2003 to 2018? This question was answered by using maps and drawings to show the extent and pattern of physical development,

which was measured by the conversion of non-built-up areas to built-up areas in Abuakwa and Adomako from 2003 to 2018. Spatial change patterns in Abuakwa and Adomako show mixed transformations shaped by similar processes but with different outcomes. In Adomako, remaining farmers are leasing land from plot owners until such time the plots are developed. There is a stark socio-economic difference between them and those who have begun investing in residential plots in Adomako. In Abuakwa's Apemhase Scheme, the socio-economic difference is not as stark, or there appear to be larger numbers of relatively poor households living on the plots that were created through the Scheme. Spatial change across the two cases can be seen in the nature of scheme layouts. Both layouts follow 'western' iterations of town planning, although they were designed by land surveyors and not by planners. The Scheme layouts accommodate as many residential plots as possible, and both have since seen deviations to these plans. In Abuakwa, the layout was initiated by traditional authorities who allowed for development to occur before approval was granted by the DA. The process was dominated by private licenced surveyors working with chiefs to stake out plots. The *post facto* retrofitting of the proposed plan by planners from the DA, before its official approval, changed the initial Scheme. The layout in Adomako is virtually intact without much divergence from current development except for some minimal land use changes. This can be due to the slow uptake of development and is likely to change in the coming years when development intensifies. In both cases, natural areas designated as open space appear compromised or encroached upon although the level of encroachment is minimal in the Adomako case. In both cases, agriculture does not form part of the land use in the Scheme. However, remnants of agriculture remain visible on the ground in both cases, suggesting relevance of this land use to livelihoods.

In both cases studies, peri-urban transformation was dominated by the conversion of non-built-up areas into built-up areas and an incremental uptake of development rights through construction. The Abuakwa case depicted peri-urban transformation emanating from the 'village core area' with unique architecture found in the compound houses in a regular grid. The pattern of spatial change in Abuakwa depicted strong core-periphery linkages in the village core and peri-urban areas characterised by a cultural, social, and economic network of residents. The cultural dimension is prevalent in the core area as families initially settled here whereas new arrivals occupied the surrounding areas. The housing tenancy type also changed from multihabitation houses to single-family dwellings over time as statutory planning practices were introduced. The Adomako case shows development occurring out of the staking out of plots by the Lands Commission. There is no village core in the Adomako case but

remnants of buildings by farm settlers can be found. There are, however, visible village core areas in Sunyani which depict a similar regular grid as the case in Adomako.

One important transformational feature in both case studies is their strong connection with urban centres. The study found that peri-urban and urban areas are interlaced both in material and non-material dimensions as depicted by the close cultural, social, and economic networks as already revealed in Ghana by Cobbinah and Amoako (2012), Owusu-Ansah and Braimah (2013), Agyemang, Silva and Poku-Boansi (2019). Both cases show a typical peri-urban transformation in Ghanaian cities (Cobbinah and Anokye, 2017), characterised by linear growth, mostly along trunk roads of urban centres. The study reveals that the pattern of spatial change peculiar to the Abuakwa case study was the erasure of old residential buildings in the village core area particularly along the trunk road. Private investments have seen the leasing of old compound houses in the core area to private developers who demolish old structures and, in their place, build multipurpose commercial buildings. The extent of erasure was not explored in detail in this thesis but there were indications that this trend will continue in the years to come. There were no strategies from either the municipal authorities or traditional authorities to reverse this trend and protect the historic built form in the urban core area. The visible signs of spatial change identified in the two case studies in 2018 and 2019 formed only a snapshot of a spatial transformation that is expected to intensify in years to come. The recognisable trend of land use conversions, land speculation, and confusing roles and mandates make the question of the effectiveness of land administration and its relationship with the traditional authorities, which remain vested in the area and its transformation, a pressing question for the future. This confusion also triggers reluctance, and the failure of traditional authorities to adhere to stipulated roles and mandates in land administration and land use planning.

8.2.2 Complex drivers of spatial transformation in the Abuakwa and Adomako case studies

The second research sub-question was “What factors are driving spatial transformation in the two cases?” The study used both maps and interviews to assess driving forces of peri-urban spatial transformation in Abuakwa and Adomako. Both cases revealed that the drivers of spatial transformation were complex, as were the relationships among the various actors. What initially appeared as the most obvious drivers of spatial transformation were urbanisation and demographic shifts. However, peri-urban transformation can be attributed to multiple factors such as modernisation, urban restructuring, and individual home ownership aspirations. The

two case studies revealed that peri-urban transformation is driven by specific peri-urban change cycles mainly manifested in increasing demand for land, land speculation, commodification, and infrastructural projects. These factors are complex as they do not show a direct relationship in the peri-urban transformation process.

Increasing demand for land was prevalent in both the Abuakwa and Adomako case studies. This was attributed to individual aspirations to acquire land for residential and commercial development. The study reveals that land speculation triggers peri-urban spatial change and manifests in the statutory and customary land tenure systems. The increasing demand for land triggers the situation in which people acquired land not for immediate use but in anticipation of appreciating land values in the future. The differences in land speculation and commodification in the two case studies were about who was involved and why. The nature of land speculation in Abuakwa was subtle and not cited by interviewees as a main driver of transformation. This is because the rate of change was rapid and at the time of my fieldwork there were few vacant plots. How land speculation thrived after development occurs remains complex and was not explored in this study. In Abuakwa, traditional authorities were on hand to take back plots and transfer them to another land seeker if the plot was not developed within the stipulated time.

The Adomako case revealed land speculation was prevalent for many reasons. Unlike the Abuakwa case study, land administration in Adomako is co-managed among traditional authorities and the Lands Commission. Adherence to the land administration framework in Sunyani meant that the Land Commission prepared local planning schemes in anticipation of future development. The plots are shared among traditional authorities, families that previously had farming rights in the area and the Lands Commission. The confusing roles and mandates among the various actors in Adomako create conditions that easily can be exploited for land speculation. The preparation of the Adomako Scheme, coupled with the expectations that the Ring Road Project was going to improve easy access to the area, triggered an ‘artificial land market’ in which land acquisitions were done not for immediate development but in anticipation of land values appreciating in the future.

The stalling of the completion of the Ring Road Project further makes speculation in Adomako a complex issue as the study showed slow development uptake. This, partly triggered the Adomako Scheme which involved crafting out new land subdivision and allocation of plots to land seekers. This led to increased demand for peri-urban land for development but the delay

in the completion of the Ring Road Project because of funding challenges has stalled development uptake in Adomako. Residential development in Adomako is slow and only confined to the most accessible part of the Scheme. The stalled Ring Road Project in Adomako has prolonged speculative forces which triggered demand for plots in the Scheme. It remained unclear whether the slow development uptake was solely due to the stalling of infrastructural projects as this study did not explore other factors.

In Abuakwa the delayed road widening project did not delay residential development in the Scheme, but unlike in the Adomako case, in Abuakwa the pre-existing road was already tarred and fully functional, though congested. Property speculation in Abuakwa was not at the level of residential plots but rather at the level of commercial opportunities unlocked by the road widening, as Abuakwa was transitioning into a significant commercial hub. The market relocation was intricately tied to the road widening and associated economic transformation of Abuakwa. The demolition of the old market appeared to foreshadow the erasure of the historical village core with the traditional seats of the local chiefs and treed public areas faced onto the trunk road with its passing traffic. The road widening project had already affected some of the historical compound houses, which gave way to multi-storey commercial buildings along the trunk road in the village core area. It was not clear whether demolitions and redevelopment would continue to other parts of the village core area in the future.

8.2.3 Actor roles and influences on spatial change in Abuakwa and Adomako

The last research sub-question asked, “How do actors in the customary and statutory land tenure systems respond to these drivers and influence the observed peri-urban spatial transformations in the two contrasting cases?” The study showed that decision-making in land administration and local land use planning was mostly top-down, leaving out some of the actors depending on whether land was administered under the customary land tenure system or the statutory land tenure system. The study reveals that both statutory and traditional authorities played complementary and overlapping roles in the initiation, planning, and implementation of local plans. The Abuakwa and Adomako case studies show that the normative roles assigned by legislation, customs, and traditions were changing in relation to local-level planning. Both case studies revealed the role of chiefs had gone beyond land ‘ownership’ to now taking part in land use planning. The Abuakwa case showed that chiefs played roles in the initiation, conceptualisation, and implementation of planning schemes. Chiefs in Abuakwa were at the centre of preparing layouts and staking out plots for allocation to land seekers. Chiefs do not

possess surveying skills and so they contracted licenced surveyors to prepare the layouts. Also, chiefs in Abuakwa provided input into the Market Project. The Apemhase Scheme was not planner-led as chiefs spearheaded the planning process by remaining at the centre of affairs. The role of chiefs in the Abuakwa case challenges the normative assumption that planning is the preserve of statutory officials and that traditional authorities are not capable of leading local planning. The legal framework on land use planning in Ghana places significant emphasis on statutory officials, locating traditional authorities on the margins of decision making (for example. see Republic of Ghana, 2016a, 2016b). As far as Abuakwa was concerned, chiefs have positioned themselves as development agents by making significant decisions about their territory. The study showed that the customary land tenure system empowers traditional authorities in Abuakwa to perform their local planning functions in a somewhat ‘legitimate’ manner because of their control over land.

The Adomako case showed that there was confusion among traditional authorities and the Lands Commission because of unclear roles and mandates in the administration of land. The Adomako Scheme was planner-led but traditional authorities were consulted. Beyond the consultation, the staking out of plots and the layout plan were undertaken by the Lands Commission. The Adomako Scheme follows western planning assumptions about the absence or weaknesses of traditional authority-led planning practices and regulation of peri-urban transformation. The confusing roles and mandates among the various actors in Adomako made it easier for chiefs to effect change of land uses in parts of the approved Scheme. The Adomako case study provides insight into how traditional authorities ‘steer from behind’ the land use planning process and in the end trigger spatial transformation. This is a further manifestation of the complex relationship between land administration and peri-urban transformation in a dual land tenure system such as that of Ghana. Traditional authorities in the two cases regarded themselves as the ‘custodians’ of land, and so any attempt to transfer decision making power to statutory authorities was not welcome. Therefore, traditional authorities would still engage in land governance by the powers as community leaders.

Both the Abuakwa and Adomako cases show the many difficulties faced by statutory officials in development control. In both cases, compliance with development regulation by traditional authorities and peri-urban developers was weak. The difference in the planning process in Abuakwa and Adomako was that in Abuakwa case, the staking out of plots in the proposed plan was traditional authority-led and did not include planners. Thus, development occurred

based on the proposed plan before municipal authorities approved the plan *post facto*. In the Adomako case, the preparation of the Adomako Scheme was planner-led. However, the role of planners in the enforcement of development regulation in the post-implementation stage is weak as traditional authorities and peri-urban developers flout the development permit regime. The study revealed that traditional authorities had engaged in changes to sections of the Adomako Scheme. In both cases, non-compliance to development regulation involved ‘political interferences’ by people with political connections. Planners in Abuakwa and Adomako acknowledged the challenges with compliance to development control but were not giving up on their roles and influences on spatial change. Planners continued to work along the dictates of the land administration system by giving notices of impending demolition of buildings with unapproved plans or on unapproved sites, or without building permits.

One other key aspect of actor influence in both cases was the transformation of chieftainships. The traditional seat of the chiefs is an interesting factor in Adomako’s spatial change – the Sunyani Palace relocating from the traditional grid in the historical core of Sunyani into the Adomako area, on a large, secluded precinct designed for car access with a large parking area, on the main arterial road. Although my case study did not go into this in detail, it is worth mentioning that the new palace in Adomako represents the modernisation of the chieftainship of Sunyani as the traditional authority strategically positioned itself in relation to future land administration. Abuakwa’s chieftaincy seats remain in vulnerable positions in the old village core, likely to be subject to future erasure as the commercial hub, in which the chieftainships themselves have encouraged and appear to be vested, will most likely entail further high-rise commercial development along the dual carriageway.

8.2.4 Relationship between the land administration system and spatial change in peri-urban areas

The three sub-research questions above helped in answering the main research question: *What is the relationship between the land administration system and spatial transformation in peri-urban areas in Ghana?* The study built on the understanding, gained from the literature review, that complex relationships exist among the various actors in peri-urban transformation (Cotula, 2007; Bugri, 2012; Owusu-Ansah and Braimah, 2013). The case studies of Abuakwa in Kumasi and Adomako in Sunyani confirmed that the relationship between the land administration system and spatial transformation in peri-urban areas is a continuous process, both direct and indirect. They also contributed new nuances to indirect relationships, which can be witnessed

in the preparation of planning schemes by multiple actors to influence spatial change. The indirect relationships arise from the complex drivers of transformation that do not always manifest openly. The implementation of infrastructural projects indirectly can influence other dynamics of land administration systems and spatial transformation. This indirect influence was different across the two case studies and suggests that such influence is not easily generalisable or predictable across different peri-urban areas. The study further showed that the relationship between land administration systems and spatial change involves multiple actors characterised by confounding roles and mandates. The roles played by the multiple actors were similar in both cases in terms of land use planning. The two cases further showed differences in roles, mostly in terms of who manages land relating to the prescriptions of the dual land administration systems in the two cases. In both cases, the dual systems encourage reluctance or refusal on the part of traditional authorities to adhere to stipulated roles and mandates in land administration and land use planning. Thus, the process of peri-urban spatial transformation is complex, following the trajectory of many land use decisions and projects.

8.3 Contributions of the thesis to the understanding of land administration and peri-urban spatial change in Ghana

The thesis started on the premise that urbanisation and demographic changes underlie spatial transformation in peri-urban areas in many regions, including sub-Saharan Africa (Habitat III, 2016; UN, 2017; UN-DESA, 2019). These drivers trigger peri-urban spatial transformation but are also dependent on the prevailing land tenure system, as also found by Cotula (2007) in countries across sub-Saharan Africa. Beyond these primary drivers, this thesis shows from the two case studies that there is a complex mixture of local drivers such as land administration practices, infrastructural projects, staking out of plots through planning schemes, and associated land speculation as also found in Owusu-Ansah and Braimah (2013) and Akaateba *et al.* (2018). The case studies reveal that understanding these local dynamics of peri-urban spatial transformation is important if spatial change is to be steered into more sustainable forms.

The thesis uses two local cases studies in Ghana to explore the implementation of local plans in the dual land tenure system and their spatial manifestations. This allows for the use of ‘spatial research methods’, which include qualitative interviews and maps to explaining the spatial and social consequences of everyday planning practices. Spatial research methods allow for the complementary use of qualitative interviews with key actors in planning whereas maps are

used to further the understanding of qualitative opinions and experiences as used in this thesis. The use of interviews to contextualise Landsat images made it possible to understand spatial change dynamics that would not have been understood using only qualitative interviews or mapping. The dynamics of chieftainships in Abuakwa and Adomako could easily be understood through interviews but not spatial patterns whereas spatial patterns could not be understood through interviews as mapping would do. The thesis shows that the mixture of interviews and map work within case studies can enhance our appreciation of land administration practices and land use plans. This thesis, therefore, adds to studies using alternative or complementary methodologies to explore peri-urban transformation.

The two local case studies show complexities in the relationships among the various actors in land administration and land use planning, as also found in Owusu-Ansah and Braimah (2013) and Akaateba *et al.* (2018). The two case studies show that the complex dynamics that arise from land use planning are far more than a simple statutory-customary dichotomy. Traditional authorities exercise a greater degree of influence in land administration as they induce change in peri-urban areas through land use planning. The dynamic use of customs and traditions by traditional authorities in land administration shows a strong socio-cultural background to spatial transformation in peri-urban areas. Statutory officials continue to make pragmatic attempts to work with the customary system.

The findings of the thesis in the two case studies give new insights into a diverse context. The two spatial plans or schemes (Apemhase and Adomako), which at the surface may look similar, are underpinned by divergent processes and procedures even within the statutory system. The diversity emanates from the customary and formal systems, the roles, and the mandates of traditional authorities. The city dynamics are different as the planning process in Abuakwa is occurring in a metropolis with rapid peri-urban change, whereas the planning process in Adomako unfolds within a small to medium-sized city without the influence of metropolitan dynamics such as pressure from rapid demographic change. The case studies shed light on how complex peri-urban spatial change is in a plural society such as Ghana and that to steer such change requires in-depth understanding of the context and prevailing formal and customary rules and procedures as well as other city-specific dynamics.

The thesis underscores the role of multiple stakeholders in land use planning processes in peri-urban areas as also found in Akaateba *et al.* (2018). Traditional authorities, planning officials and peri-urban developers demonstrated their knowledge in the land use planning processes in

Abuakwa and Adomako. However, the ability of this critical set of stakeholders to address unregulated physical development, conflicts, and mitigate planning challenges in Kumasi and Sunyani. In both cases, local planning officers reported of their inability to halt unapproved development, which seemed to have the backing of traditional authorities. The customary land tenure system in Abuakwa exemplifies how traditional authorities become powerful to the extent that they influence land use planning in peri-urbanisation to a large degree. Secondly, the thesis shows that land use planning in Abuakwa and Adomako was spearheaded by traditional authorities and surveyors while planners were less likely to play key roles. The traditional authority-led planning in Abuakwa, for instance, remains problematic as planners come in later to intervene when development has already occurred. This has the tendency to produce unwanted developments as unregulated structures and activities emerge. Although different from existing literature on peri-urbanisation, this thesis finds complex everyday land use planning processes spanning among the multiple stakeholders. It contributes to our understanding of complex decision making and contestations in land use planning in peri-urbanisation, which Cobbinah and Amoako (2012), Owusu-Ansah and Braimah (2013), and Akaateba et al. (2018) find in other regions of Ghana.

The literature on peri-urbanisation (see Mabin et al., 2013) underscores the role of infrastructure provision as part of peri-urban transformation in African cities. This thesis finds in both cases that peri-urban transformation was occurring without the necessary infrastructure such as roads in both cases. Individual peri-urban developers were at the forefront of transformation as traditional authorities provided building plots through local plan preparation. The provision of important infrastructure such as roads remained badly affected as ‘growth’ occurred but without ‘development’. Both case studies show how the delay in the completion of road infrastructure had delayed development uptake, particularly in the Adomako case.

The thesis exemplifies the need for planners to take the lead in peri-urbanisation while acting as intermediaries between customary authorities to ensure that peri-urban areas develop according to approved plans. Once planners play their intermediary role well, peri-urban politics among the various stakeholders can be clarified and built upon to ensure that all the planning processes lead to sustainable transformation. The active role of planners and traditional authorities can help them lobby government in terms of soliciting infrastructure to further quicken the peri-urbanisation process.

8.4 Recommendations for land administration and land use planning

The complex nature of spatial transformation in peri-urban areas in a plural society is that the formal and customary systems operate not only side-by-side but are also connected in statutory planning processes. This thesis revealed that the dual land administration system, when combined with factors like delayed investment in infrastructure and slow update of development as in the Adomako case or massive infrastructure investment with anticipated economic growth (Abuakwa), allows land speculation to occur. How exactly this can be changed is a challenge that goes beyond this thesis. The implications of these complicated dynamics require some well-thought-out strategies.

The increasing rates of urbanisation and land subdivisions in both cases require the formulation of local policy guidelines on future projects that influence spatial transformation. Such guidelines must guide actor roles and mandates as well as the social and spatial consequences of projects. Local-level specific guidelines are important because they will be able to address context-specific issues about land ownership and formalisation of rights. The pressure on land will increase as it becomes scarce in the face of increasing demand, particularly as shown in the Abuakwa case. This has the tendency to increase land administration practices that will not comply with sustainable development. There is also the possibility of increasing land conflicts in peri-urban areas because of poor knowledge of land tenure and land use rights among land right holders.

Land use planning leads to the implementation of local plans in rural areas. This leads to the conversion of rural land into urban or peri-urban plots. In the case of Abuakwa, chiefs can initiate different planning schemes outside of municipal-wide plans in an uncoordinated manner. Thus, land use planning generally lacks long-term planning objectives as plots are staked out by surveyors for the purposes of allocation and not the future impacts. As a result, land use planning leads to marginalisation, conflicts, and non-compliance. To address this, traditional authorities and statutory officials must focus on steps that build consensus among the various stakeholders to forestall the recurring challenges. This can be a significant step towards ensuring compliance in peri-urban transformation process, particularly when the thesis showed that various urban planning legislation existed but were hardly applied during planning.

The land use planning process and actors appeared to concentrate on two extremes – managing drastic change from agricultural uses at one extreme to residential uses at the other extreme, with no consideration for what may occur in the interim. The process of spatial change assumes a linear and drastic permanent transition by following a set of planning processes, procedures, and legislation. In the end, the transition gives less credence to intermediate and temporary land uses. This raises the question of compliance, non-compliance, and informality regarding land uses that occur between agricultural uses and residential uses. The land use planning process must admit transition as a series of processes and see to the management of temporary land uses during peri-urban spatial change.

The preparation of planning schemes is less sensitive to ongoing agriculture, and so once the designation of agricultural land changes to peri-urban plots, farming activities are bound to disappear. This is because planning schemes treat agriculture as a temporary land use and must be supplanted at all costs. Planning schemes should not only assume ongoing agriculture as temporary but should incorporate agriculture as an ongoing land use into local plans to make sure that its place is secure in the face of inevitable peri-urban spatial transformation. The successful incorporation of ongoing agriculture in planning schemes would ensure a more sustainable peri-urbanisation process that does not unduly disrupt the livelihoods of peri-urban farmers. This could also minimise contestations that arise during the initiation, conceptualisation, and implementation of planning schemes in peri-urban areas.

Spatial transformation leads to the erasure of historical sites that are part of the heritage of settlements, such as the compound housing in the village core of Abuakwa. There is the need for the DA and the traditional councils to consider instituting planning measures that would lead to the protection of local heritage for generations to come. The village core areas have a significant role in the dynamics of peri-urban change as they serve as the seat of traditional authorities (Abuakwa). While these seats may relocate, village cores hold touristic and cultural value and opportunities given their historical dimensions. The Ghana Museums and Monuments Board, established in 1957, is mandated as the legal body to preserve Ghana's material cultural heritage. However, it has struggled in the discharge of its legal mandate.

8.5 Recommendation for future studies

The findings of this thesis are limited to two case studies in different cities with similarities and differences in the prevailing land tenure system. The thesis did not explore some of the following issues in full detail, which would be worthwhile for future studies:

- The role of urban agriculture comes up in both case studies. Whether on temporarily leased land that is waiting for development, the implications of this land use are gradually disappearing as physical development occurs on former farmlands. This can include the livelihood situation of peri-urban farmers and how they transition into alternative sources. It can also be tied to the environmental impact of disappearing agriculture in peri-urban areas.
- The study focuses on key actors such as traditional authorities and statutory officials in land administration and spatial change in peri-urban areas. This calls for empirical work that further engages ordinary citizens and ascertains their views on spatial change and on the efficacy of and fairness of the land administration system, particularly to indigenes and non-indigenes.
- The two cases reveal unbalanced actor roles and mandates in land administration practices and local planning. Traditional authorities played significant roles even in the statutory system, as in the case in Adomako, where chiefs ‘steer’ the planning process from behind with the help of ‘political’ power. Politics seemed to play out in land administration and land use planning with the tendency to outmanoeuvre the system. Those politics were not always linked to customary leadership and its interests but also partisan politics. This adds a ‘third layer’ to the existing land administration politics involving statutory officials and traditional authorities. This requires further study to understand the nature of politics embedded in land administration and land use planning. This allows for further studies to understand how urbanisation manifests in different contexts in peri-urban areas.
- The Abuakwa case raised questions about the history and future of compound housing – its village cores, as historical neighbourhoods, communities, and very particular components of the peri-urban fabric. How planning and land administration should respond to these different components of peri-urban areas requires further studies. This thesis did not go into any detail into the transformations that are underway in the village core area and how this is governed or being thought about by the various actors. Local

knowledge on this form of traditional housing would be useful to document and analyse its position in an emerging land market.

- Further, the position of chiefs' palaces or seats of traditional authorities and their position in the emerging 'urbanism' of these peri-urban areas. It would be interesting to ascertain local understandings and aspirations around spatial traditions as these areas transition into largely 'western' urban systems.

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APPENDIX I

DOSSIER OF SUPPORTING DOCUMENTS

SCHOOL OF ARCHITECTURE AND PLANNING UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG



CONSENT FORM FOR STATE INSTITUTIONS

Thesis Title: Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana: The Case of Kumasi and Sunyani

Name of Researcher: George Kwadwo Anane

The researcher has explained to me my role in this research project for which I have understood. I.....of

..... do hereby agree to participate in this research project.

Please circle which of the following apply:

I agree:

- | | | | |
|------|---|-----|-----|
| i | to remain anonymous throughout my involvement in this research project | YES | NO |
| ii | that I may not remain anonymous in this study | YES | NO |
| iii. | that the researcher may use anonymous quotes throughout his research report | YES | YES |
| | NO | | |
| iv. | that the interview may be audio recorded | YES | NO |
| vi. | to hand-written notes being taken during the interview | YES | NO |

.....

Signature of Participant

.....

Name of Participant

.....

Date and Place

**SCHOOL OF ARCHITECTURE AND PLANNING
UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG**



CONSENT FORM FOR TRADITIONAL AUTHORITIES

Thesis Title: Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana: The Case of Kumasi and Sunyani

Name of Researcher: George Kwadwo Anane

The researcher has explained to me my role in this research project for which I have understood. I.....of

..... do hereby agree to participate in this research project.

Please circle which of the following apply:

I agree:

- | | | | |
|------|---|-----|----|
| i | to remain anonymous throughout my involvement in this research project | YES | NO |
| ii | that I may not remain anonymous in this study | YES | NO |
| iii. | that the researcher may use anonymous quotes throughout his research report | YES | NO |
| iv. | that the interview may be audio recorded | YES | NO |
| vi. | to hand-written notes being taken during the interview | YES | NO |

.....	Signature of Participant
.....	Name of Participant
.....	Date and Place

**SCHOOL OF ARCHITECTURE AND PLANNING
UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG**



CONSENT FORM FOR PERI-URBAN RESIDENTS

Thesis Title: Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana: The Case of Kumasi and Sunyani

Name of Researcher: George Kwadwo Anane

The researcher has explained to me my role in this research project for which I have understood. I.....of

..... do hereby agree to participate in this research project.

Please circle which of the following apply:

I agree:

- | | | | |
|------|---|-----|----|
| i | to remain anonymous throughout my involvement in this research project | YES | NO |
| ii | that I may not remain anonymous in this study | YES | NO |
| iii. | that the researcher may use anonymous quotes throughout his research report | YES | NO |
| iv. | that the interview may be audio recorded | YES | NO |
| v. | to hand-written notes being taken during the interview | YES | NO |

.....
.....
.....

Signature of Participant
Name of Participant
Date and Place

**SCHOOL OF ARCHITECTURE AND PLANNING
UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG**



**The Relationship between Land Administration Systems and Spatial Change in the
Urban Peripheries of Ghana: The Case of Kumasi and Sunyani.**

Interview guide – semi-structured, in-depth expert interviews with **peri-urban residents**

Good Morning/Afternoon, Sir/Madam.

Thank you for making time to participate in this interview.

As stated in the participant information sheet, the objective of this thesis is to **understand the Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana's Kumasi and Sunyani** with particular interest in the spatial outcomes of the different land governance systems in Ghana.

1. As a peri-urban resident what is your opinion on the pattern of land use change for the last 10 years in this part of Kumasi/Sunyani?
2. What factors have driven the observed land use changes in this part of Kumasi/Sunyani?
3. In your observation, what has been the state of land use change and conflicts among the various land users in this part of Kumasi/Sunyani?
4. How do the various land users resolve these conflicts arising from land use change in this part of Kumasi/Sunyani?
5. What is your take on the land administration procedures in this part of Kumasi/Sunyani?
6. Which state and traditional institutions do you deal with in terms of accessing land and land use in this part of Kumasi/Sunyani?
7. What challenges do you face in dealing with state and traditional institutions in relation to land administration and land use in this part of Kumasi/Sunyani?
8. In your opinion, how do you think the land administration systems influence the drivers of land use change in this part of Kumasi/Sunyani?
9. In your experience, what challenges do you face in dealing with the various land governing institutions?
10. In your opinion, what measures can be put in place to effectively address the challenges you face with the land administration system and land use in this part of Kumasi/Sunyani?

Is there something else you will want to share with me on the issues discussed?

Thank you very much for your time!

**SCHOOL OF ARCHITECTURE AND PLANNING
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**The Relationship between Land Administration Systems and Spatial Change in the
Urban Peripheries of Ghana: The Case of Kumasi and Sunyani.**

Interview guide – semi-structured, in-depth expert interviews with **leaders of traditional authority (*nananom*)**

Good Morning/Afternoon, Nana.

Thank you for making time to participate in this interview.

As stated in the participant information sheet, the objective of this thesis is to **understand the Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana's Kumasi and Sunyani** with particular interest in the spatial outcomes of the different land governance systems in Ghana.

1. In your observation, how would you describe the pattern of land use change for the last 10 years in peri-urban Kumasi/Sunyani?
2. In your understanding, what factors have accounted for these land use changes in peri-urban Kumasi/Sunyani?
3. How does the role of *nananom* in the land administration system influence the drivers of land use change in peri-urban Kumasi/Sunyani?
4. What is your role as *nananom* in the land administration system in Kumasi/Sunyani?
5. How do *nananom* exercise this role (s) in administering land in Kumasi/Sunyani?
6. What is the relationship between *nananom* and the state land institutions (Lands Commission and the Physical Planning Department) in land administration in Kumasi/Sunyani?
7. In your opinion, what are the successes and challenges *nananom* face in your relationship with the other land governing institutions in administering land and managing land use change in peri-urban Kumasi/Sunyani?
8. In your understanding, what measures could help bring about sustainable land governance and land use change in peri-urban Kumasi/Sunyani?

Is there some other information you want to share with me relating to the issues already discussed?

Thank you very much for your time!

**SCHOOL OF ARCHITECTURE AND PLANNING
UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG**



**The Relationship between Land Administration Systems and Spatial Change in the
Urban Peripheries of Ghana: The Case of Kumasi and Sunyani.**

Interview guide – semi-structured, in-depth expert interviews with **officials of the Spatial Planning Department**

Good Morning/Afternoon, Sir/Madam.

Thank you for making time to participate in this interview.

As stated in the participant information sheet, the objective of this thesis is to **understand the Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana's Kumasi and Sunyani** with particular interest in the spatial outcomes of the different land governance systems in Ghana.

1. As the state institution for managing land use change, what are your observations of the most important changes that have occurred in the last 10 years in peri-urban Kumasi/Sunyani?
2. In comparing observed land use change and town planning schemes (base maps), what can you say about spatial development pattern in peri-urban Kumasi/Sunyani?
3. In your understanding, what factors have driven land use change for the last 10 years in peri-urban Kumasi/Sunyani?
4. In your understanding, what is the role of the Physical Planning Department in land use planning?
5. How does the Physical Planning Department manage conflicts between the various land users in peri-urban Kumasi/Sunyani?
6. How would you describe the position of the Physical Planning Department in managing land use change in peri-urban Kumasi/Sunyani?
7. In your opinion, what is the role of the Physical Planning Department in the land administration system in Kumasi/Sunyani?
8. How does the Physical Planning Department exercise this role (s) in land administration in Kumasi/Sunyani?
9. What is your understanding of the relationship between the role (s) of the Physical Planning Department and the other land governing institutions in Kumasi/Sunyani?
10. How does the role (s) of the Physical Planning Department in the land administration system influence the drivers of land use change in peri-urban Kumasi/Sunyani?
11. In your opinion, what are the successes and challenges faced by the Physical Planning Department in managing land use change in peri-urban Kumasi/Sunyani?
12. In your understanding, what measures can be put in place to enhance the role of the Physical Planning Department in land use change in peri-urban Kumasi/Sunyani?

Is there something else you will want to share with me on the issues discussed?

Thank you very much for your time!

**SCHOOL OF ARCHITECTURE AND PLANNING
UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG**



**The Relationship between Land Administration Systems and Spatial Change in the
Urban Peripheries of Ghana: The Case of Kumasi and Sunyani.**

Interview guide – semi-structured, in-depth expert interviews with **official of the Lands Commission**

Good Morning/Afternoon, Sir/Madam.

Thank you for making time to participate in this interview.

As stated in the participant information sheet, the objective of this thesis is to **understand the Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana’ Kumasi and Sunyani** with particular interest in the spatial outcomes of the different land governance systems in Ghana.

1. What would be your observation on land use change occurring in peri-urban Kumasi/Sunyani over the last 10 years?
2. In your opinion, what are the factors driving land use changes occurring in peri-urban Kumasi/Sunyani?
3. In your understanding, what is the role of the Lands Commission in land governance and land use changes in peri-urban Kumasi/Sunyani?
4. In which ways in your opinion do the roles of the Lands Commission in land governance influence land use change in peri-urban Kumasi/Sunyani?
5. How would you describe the current mandate of the Lands Commission in addressing the relationship between land governance and land use change in peri-urban Kumasi/Sunyani?
6. How does the Lands Commission relate with other stakeholders (Physical Planning Department, Traditional Leaders and peri-urban residents) in dealing with issues of land governance in peri-urban Kumasi/Sunyani?
7. In your opinion, what are the successes and challenges of the Lands Commission’s relationship with the Physical Planning Department, traditional leaders and peri-urban residents) in administering land and managing land use change in peri-urban Kumasi/Sunyani?
8. Are there some recommendations that could help improve land governance and land use change in peri-urban Kumasi/Sunyani?

Is there some other information you want to share with me relating to the issues already discussed?

Thank you very much for your time!

**SCHOOL OF ARCHITECTURE AND PLANNING
UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG**



PARTICIPANT INFORMATION SHEET FOR PERI-URBAN RESIDENTS

Thesis Title: Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana: The Case of Kumasi and Sunyani

Name of Researcher: George Kwadwo Anane

Good Morning/Afternoon Sir/Madam

My name is George Kwadwo Anane, a PhD candidate in Urban and Regional Planning at the University of the Witwatersrand, Johannesburg, South Africa. As part of my studies, I have to undertake research in partial fulfilment for the award of the degree for which I am exploring the **Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana: The Case of Kumasi and Sunyani**. The aim of the research is to explore how land administration systems encourage or inhibit the drivers of spatial change at the urban peripheries of Kumasi and Sunyani and make recommendations.

As part of this research, I would like to invite you to give your opinions and experiences related to your dealings with state and traditional authorities in land administration and land use planning in urban peripheries. This will require you to give your experiences or perceptions on land administration systems and spatial change. This activity would take between 40-50 minutes.

You are informed that you will not receive any direct benefits from participating in this interview and that there are no disadvantages or penalties for not participating. You may withdraw from participating at any given point in time or not respond to any question for which you are not comfortable.

The interview will be completely anonymous as I will not report your name or any other information that would reveal your identity. The information you provide will be stored securely and will not be available to any other person (s). I will use pseudonyms to represent you in analysing your responses in the final report. I will provide you a draft report of the study upon request.

In case you experience some discomfort in the process of the interview or responding to questions in the interview, alert me so that it will be off the record and therefore not be recorded and used in my analysis.

In case you have any questions afterwards about this research project, you are free to contact me on the details indicated below. The final report would be available on the internet through the University Library website. In the event you have any queries, concerns or complaints regarding the ethical procedure of this study, please contact the University Human Research Ethics Committee (non-medical) on telephone +27 (0) 11 717 1408 or email hrec-medical.researchoffice@wits.ac.za/ Shaun.Schoeman@wits.ac.za

Yours Sincerely,

George Kwadwo Anane

Email: 1896341@students.wits.ac.za

Telephone: +27603551600/0205297124

Professor Marie Huchzermeyer

Email: marie.huchzermeyer@wits.ac.za

Telephone: +27834242457

**SCHOOL OF ARCHITECTURE AND PLANNING
UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG**



PARTICIPANT INFORMATION SHEET FOR TRADITIONAL AUTHORITIES

Thesis Title: Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana: The Case of Kumasi and Sunyani

Name of Researcher: George Kwadwo Anane

Good Morning/Afternoon Nana

My name is George Kwadwo Anane, a PhD candidate in Urban and Regional Planning at the University of the Witwatersrand, Johannesburg, South Africa. As part of my studies, I have to undertake research in partial fulfilment for the award of the degree for which I am exploring the **Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana: The Case of Kumasi and Sunyani**. The aim of the research is to explore how land administration systems encourage or inhibit the drivers of spatial change at the urban peripheries of Kumasi and Sunyani and make recommendations.

As part of this research, I would like to invite you to give your opinion and experiences related to the role of traditional leaders in land administration and land use planning in urban peripheries. This would require you to give your experiences or perceptions on the issues I would raise. This activity would take a minimum of 45 minutes and a maximum of 60 minutes. You are informed that you would not receive any direct benefits from participating in this interview and that there are no disadvantages or penalties for not participating. You may withdraw from participating at any given point in time or not respond to any question for which you are not comfortable.

The interview will be completely anonymous as I would not report your name or any other information that will reveal your identity. The information you provide would be stored securely and would not be available to any other person (s). I will use pseudonyms to represent you in analysing your responses in the final report. I will provide you a draft report of the study upon request.

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In case you have any questions afterwards about this research project, you are free to contact me on the details indicated below. The final report will be available on the internet through the University Library website. In the event you have any queries, concerns or complaints regarding the ethical procedure of this study, please contact the University Human Research Ethics Committee (non-medical) on telephone +27 (0) 11 717 1408 or email hrec-medical.researchoffice@wits.ac.za/ Shaun.Schoeman@wits.ac.za

Yours Sincerely,

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**SCHOOL OF ARCHITECTURE AND PLANNING
UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG**



PARTICIPANT INFORMATION SHEET FOR STATE INSTITUTIONS

Thesis Title: Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana: The Case of Kumasi and Sunyani

Name of Researcher: George Kwadwo Anane

Good Morning/Afternoon Sir/Madam

My name is George Kwadwo Anane, a PhD candidate in Urban and Regional Planning at the University of the Witwatersrand, Johannesburg, South Africa. As part of my studies, I have to undertake research in partial fulfilment for the award of the degree for which I am exploring the **Relationship between Land Administration Systems and Spatial Change in the Urban Peripheries of Ghana: The Case of Kumasi and Sunyani**. The aim of the research is to explore how land administration systems encourage or inhibit the drivers of spatial change at the urban peripheries of Kumasi and Sunyani and make recommendations.

As part of this research, I will like to invite you to give your opinion and experiences related to the role of your institution in land administration and land use planning in urban peripheries. This will require you to give your experiences or perceptions on the issues I will raise. This activity would take between 50 -60 minutes. I would also like to audio record your responses and later transcribe into a report.

You are informed that you will not receive any direct benefits from participating in this interview and that there are no disadvantages or penalties for not participating. You may withdraw from participating at any given point in time or not respond to any question for which you are not comfortable.

The interview will be completely anonymous as I will not report your name or any other information that will reveal your identity. The information you provide will be stored securely and will not be available to any other person (s). I will use pseudonyms to represent you in analysing your responses in the final report. I will provide you a draft report of the study upon request.

In case you experience some discomfort in the process of the interview or responding to questions in the interview, alert me so that it will be off the record and therefore not be recorded and used in my analysis.

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Professor Marie Huchzermeyer

Email: marie.huchzermeyer@wits.ac.za

Telephone: +27834242457

APPENDIX II

ETHICS CLEARANCE CERTIFICATE



Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)

R14/49 Anane

CLEARANCE CERTIFICATE

PROTOCOL NUMBER: H18/06/04

PROJECT TITLE

Relationship between land administration systems and spatial change in the urban peripheries of Ghana: The case of Kumasi and Sunyani

INVESTIGATOR(S)

Mr G Anane

SCHOOL/DEPARTMENT

Architecture and Planning/

DATE CONSIDERED

22 June 2018

DECISION OF THE COMMITTEE

Approved

EXPIRY DATE

03 October 2021

DATE

04 October 2018

CHAIRPERSON


(Professor J Knight)

cc: Supervisor : Prof M Huchzermeyer and Prof P Misselwitz

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. I agree to completion of a yearly progress report.

Signature

Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES