Urban governance and spatial planning for sustainable urban development in Tamale, Ghana

By

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DECLARATION

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ABSTRACT

This study investigated urban governance and spatial planning practices for sustainable urban development in Tamale, Ghana, regarding provision and access to urban infrastructure and basic services. This broad aim of the study was divided into three objectives, namely to 1) review of the statutory provisions for the conduct of urban governance and spatial planning in Ghana and Tamale, 2) assess the spatio-temporal growth dynamics and provision of urban infrastructure and basic services in Tamale, and 3) to explore stakeholder engagement in spatial planning in the city. Research questions that guided the study were: a) what is the extent of the physical expansion of Tamale and how does urban governance respond to the growth dynamics regarding infrastructure and service provision?, b) to what extent does the spatial growth patterns of the city reflect local and national development aspirations, c) what national and local statutory frameworks guide the practice of urban governance and spatial planning, d) what are the modes of stakeholder engagement in urban governance and spatial planning and who are the stakeholders, and e) is the city's urban governance inclusive and amenable to decentralisation, entrepreneurialism and democratisation (DED) principles? The DED analytical framework and collaborative planning theoretical perspective were adopted to analyse urban governance practices and outcomes in Tamale. Four evaluative questions were addressed using the DED and collaborative planning frameworks, namely how urban governance is lived in Tamale, whether urban governance leads to job creation, and for whom, whether urban governance results in improved urban services and whether urban governance empowers people at the grass roots and promotes accountable governance.

A mixed methods research design was employed in the study. This comprised of quantitative analysis of the city's spatial growth using remote sensing and geographic information systems techniques, and qualitative investigation of urban governance processes and outcomes. The results show that the legislative provisions guiding urban governance in Ghana have not been effective in promoting sustainable urban development leading to the country transitioning towards spatial development frameworks (SDFs) as alternative approaches. Also, both the city's spatial and demographic growth has been phenomenal, but access to urban infrastructure and services has lagged behind. Moreover, there was limited stakeholder engagement in urban governance and that resulted in low accountability. In terms of the DED and collaborative planning frameworks, there were generally no straightforward answers to the evaluative questions, except with respect to the question of accountability, which was almost non-existent in the urban governance practices of Tamale. The study concludes by lauding efforts to reform urban governance laws and initiatives to engender participatory and partnership-based urban governance and service delivery in the city. It is recommended that these reforms should be encouraged and operationalised within real decentralisation, entrepreneurialism and democratisation. Comprehensive needs assessment, institutional and stakeholder capacity-building efforts, and empathic stakeholder engagements will be crucial in this regard, especially if social justice, economic viability, and environmental health and sustainability are considered in the management of the city's urban growth. Further research is recommended to provide detailed understanding of urban governance outcomes in Tamale, such as the magnitude of job creation, distribution and sustainability.

OPSOMMING

Hierdie studie ondersoek stedelike bestuur en ruimtelike beplannings praktyke vir volhoubare stedelike ontwikkeling in Tamale, Ghana, in verband met voorsiening en toegang tot stedelike infrastruktuur en basiese dienste. Hierdie breë doelwit van die studie is opgedeel in drie subdoelwitte, naamlik 1) om hersiening van die statutêre voorsienings vir die gedrag van stedelike bestuur en ruimtelike beplanning in Ghana en Tamale te doen, 2) die ruimtelike-tydelike groei dinamika en voorsienings van stedelike infrastruktuur en basiese dienste in Tamale te assesseer, en 3) om die betrokkenheid van belanghebbendes in ruimtelike beplanning van die stad te verken. Navorsingsvrae wat die studie gelei het is as volg: a) wat is die aard van fisiese uitbreiding van Tamale, b) tot watter mate reflekteer die ruimtelike groeipatrone van die stad die plaaslike en nasionale ontwikkelings-aspirasies, c) watter nasionale en plaaslike statutêre raamwerke begelei die stedelike bestuur en ruimtelike beplanningspraktyke, d) wat is die modus van belanghebbende betrokkenheid in stedelike bestuur en ruimtelike beplanning en wie is die belanghebbendes, en e) is die stad se stedelike bestuur insluitend en ontvanklik tot desentralisasie, entrepreneurskap en demokratiserings (DED) beginsels? Die DED analitiese raamwerk en gesamentlike beplanning teoretiese perspektief was aangeneem om stedelike bestuurspraktyke en uitkomste in Tamale te analiseer. Vier evaluerende vrae is geadresseer deur middel van die DED en gesamentlike beplanningsraamwerke, naamlik hoe stedelike bestuur uitgeleef word in Tamale, of stedelike bestuur lei tot werkskepping en vir wie, of stedelike bestuur lei tot verbeterde stedelike dienste, en of stedelike bestuur mense bemagtig op die voetsoolvlak en verantwoorbare bestuur bevorder.

‘n Gemengde-metode navorsingsontwerp is gebruik in die studie. Dit bestaan uit kwantitatiewe analiese van die stad se ruimtelike groei met gebruik van afstandwaarneming en geografiese inligtingstelsels tegnieke, en kwalitatiewe ondersoek van stedelike bestuursprosesse en uitkomste. Die resultate wys dat die wetgewende bepalings wat stedelike bestuur in Ghana lei nie effektief was in die bevordering van volhoubare stadsontwikkeling nie, en lei tot die land se oorgang na ruimtelike ontwikkelingsraamwerke (SDFs) as alternatiewe benaderings. Beide die stad se ruimtelike en demografiese groei was ook fenomenaal, maar toegang tot stedelike infrastruktuur en dienste is agterblewend. Verder was daar beperkte belanghebbende betrokkenheid in stedelike bestuur wat gelei het tot lae aanspreeklikheid. In terme van die DED en gesamentlike beplanningsraamwerke, was daar oor die algemeen geen eenvoudige antwoorde vir die evaluerende vrae nie, behalwe die vrae in verband met van aanspreeklikheid wat amper nie bestaan in die stedelike bestuurspraktyke van Tamale nie. Die studie sluit af deur erkenning te gee aan pogings wat aangewend is vir die hervorming van stedelike bestuurswette en inisiatiewe om deelnemende en vennootskap-gebasseerde stedelike bestuur en dienslewering in die stad te kweek. Dit word voorgestel dat hierdie hervormings aangemoedig en operasioneel word binne werklike desentralisasie, entrepreneurskap en demokratisering. Omvattende-behoeftes assessering, institusionele en belanghebbende kapasiteitsbou-pogings, asook empatiese belanghebbende betrokkenheid sal deurslaggewend wees in hierdie opsig, veral indien sosiale geregtigheid, ekonomiese vatbaarheid, en omgewingsgesondheid en volhoubaarheid in ag geneem word in die bestuur van die stad se stedelike groei. Verdere navosing word voorgestel om ‘n

gedetailleerde verstandhouding van stedelike bestuursuitkomste in Tamale van byvoorbeeld die grootte van werkskepping, verspreiding en volhoubaarheid, te voorsien.

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DEDICATION

To my late dad, Adam Ibrahim, my son, Mbo, who joined the family in the course of this study, and to my entire family for their love care

CONTENTS

TABLES

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ABBREVIATIONS AND ACRONYMS

ADA	African Doctoral Academy
AFD	Agence Francaise de Developpement
AM	Assembly Member
AMA	Accra Metropolitan Assembly
BCDS	Bamako City Development Strategy
BIU	Building Inspectorate Unit
BUSAC Fund	Business Sector Advocacy Challenge Fund
CAP 84	Town and Country Planning Ordinance of 1945
CBD	Central Business District
CBO	Community-based Organisation
CE	Completely Encroached
CEO	Chief Executive Officer
CLS	Customary Land Secretariat
DA	District Assembly
DACF	District Assemblies Common Fund
DANIDA	Danish International Development Agency
DCE	District Chief Executive
DED	Decentralisation, Entrepreneurialism and Democratisation
DMDPSS	Dhaka Metropolitan Development Planning Support System
DPCU	District Planning Coordinating Unit
DUR	Department of Urban Roads
DVLA	Driver and Vehicle Licensing Authority
EC	Electoral Commission
ECG	Electricity Company of Ghana
EPA	Environmental Protection Agency
ESA	European Space Agency
ESRI	Environmental Systems Research Institute
EU	European Union
GDP	Gross Domestic Product
GEOBIA	Geographic Object-based Image Analysis
GHC	Ghana Cedi

GIS	Geographic Information Systems
GIZ	German International Cooperation
GSS	Ghana Statistical Service
GUMPP	Ghana Urban Management Pilot Programme
GWCL	Ghana Water Company Ltd
IDP	Integrated Development Plan
IGF	Internally Generated Funds
IHS	Institute for Housing and Urban Development Studies
IMF	International Monetary Fund
IT	Information Technology
KCCA	Kampala Capital City Authority
KML	Keyhole Markup Language
LC	Lands Commission
LED	Local Economic Development
LP	Local Plan
LUFP	Land Use Futures Project
LUSP	Land Use and Spatial Planning
LUSPA	Land Use and Spatial Planning Authority
LUSPB	Land Use and Spatial Planning Bill
MADU	Metropolitan Agriculture Development Unit
MDGs	Millennium Development Goals
MEST	Ministry of Environment, Science and Technology
MIS	Management Information System
ML	Maximum Likelihood
MLGRD	Ministry of Local Government and Rural Development
MMDAs	Metropolitan, Municipal and District Assemblies
MMDCEs	Metropolitan, Municipal and District Chief Executives
MMDPCU	Metropolitan, Municipal and District Planning Coordinating Unit
MP	Member of Parliament
MRS	Multiresolution Segmentation
NCCE	National Commission for Civic Education
NDC	National Democratic Congress
NDPC	National Development Planning Commission

NDVI	Normalised Difference Vegetation Index
NE	Not Encroached
NGO	Non-governmental Organisation
NN	Nearest Neighbour
NPDP	National Physical Development Plan
NPP	New Patriotic Party
NRF	National Research Foundation
NUPF	National Urban Policy Framework
OASL	Office of the Administrator of Stool Land
PB	Participatory Budgeting
PE	Partially Encroached
PHC	Population and Housing Census
PTA	Progressive Traders Association
QDAS	Qualitative Data Analysis Software
RCC	Regional Coordinating Council
RS	Remote Sensing
SANSA	South African National Space Agency
SAPs	Structural Adjustment Programmes
SBA	Small Businesses Association
SD	Survey Department
SDA	Sagnarigu District Assembly
SDF	Spatial Development Framework
SP	Structure Plan
SPC	Statutory Planning Committee
SPGEs	Sub-committees on Production and Gainful Employment
SVM	Support Vector Machine
TaMA	Tamale Metropolitan Assembly
TAMA	Tamale Metropolitan Area
TCPD	Town and Country Planning Department
TPM	Third Party Mission
UC	Unit committee
UDS	University for Development Studies
UMPs	Urban Management Programmes

UN	United Nations
UNDP	United Nations Development Programme
UN-Habitat	United Nations Human Settlements Programme
UPA	Urban and Peri-urban Agriculture
UrbANet	Urban Agriculture Network
USAID	United States Agency for International Development
WB	World Bank

CHAPTER 1 BACKGROUND TO THE STUDY

1.1 INTRODUCTION

In the 21st Century urban governance and spatial planning will have to play crucial roles to promote sustainable urban development in the developing world, especially in sub-Saharan Africa where urbanisation is continuing rapidly. The world became more urban than rural in 2008 and by 2010 about 51% of its population lived in urban areas. This figure is projected to reach 70% by 2050 (Montgomery, 2008; UN-Habitat, 2009a; United Nations, 2011). See Chapter 2 for detailed discussion of global urban population dynamics.

The rapid growth of urban population has been associated with spatial expansion of urbanised areas (Angel et al., 2011). For instance, between 1980 and 2000, the total urbanised area of the developing world increased by 118% (Singh & Asgher, 2005). According to Angel et al. (2011), while the world's urban population is expected to double in 43 years, the corresponding urban land cover is expected to double in only 19 years. It is further expected that between 2000 and 2030 the developing world is likely to witness a doubling of its urban population but a tripling of its urban land cover. Again, by illustration, between 1985 and 2000, the population of Accra, Ghana, grew by 50% (from 1.8 million to 2.7 million) whereas its urban land cover grew by 153% (from 13 000 to 33 000 ha) (Angel et al., 2011). The accelerated demographic and spatial growth of cities have implications for the sustainable use of urban space regarding inclusive social and economic development as well as the delivery of environmental and ecosystem services.

It follows that particularly in developing countries the unfolding urbanisation processes engender land-use competition that presents challenges to the harmonious and equitable use of urban space. These challenges are largely born of lack of effective urban governance and spatial planning systems to manage the growth for sustainable development (UN-Habitat, 2009a; Angel et al., 2011). The absence of effective urban governance and spatial planning systems to mediate land-use competition in urban space leads to haphazard spatial development that has consequences as wide as sprawl, loss of arable land (about 2 million ha/yr of cropland in developing countries) and increased incidence of food insecurity, destruction of ecosystems, decline in the natural resource base, rising urban poverty and inequalities, infrastructure and service deficits, poor environmental management, and increasing exposure to natural disasters such as flooding (Van Veenhuizen, 2006; Turner, Lambin & Reenberg, 2008; Tibaijuka, 2009; UN-Habitat, 2009a; Watson, 2009; McGregor et al., 2011; Dewan, Yamaguchi & Rahman, 2012). Unless effective urban governance and spatial planning approaches are devised, increasing urbanisation will only intensify the severity of these challenges in the cities of developing countries, including those of sub-Saharan Africa.

Integrated spatial planning is one of the practical ways to promote sustainability in urban development. Arguably, the most valuable resource in an urban setting is land. The importance of land can be understood from four of its key characteristics, namely its finite nature (Duke & Wu, 2014); it sustains the livelihoods of large numbers of people (De Wit & Verheye, 2003; Foresight, 2011; Lambin & Meyfroidt, 2011); it supports

ecosystem services vital to the environment and humanity (Ahern, Cilliers, & Niemelä, 2014; Andersson et al., 2014a,b; Bierbaum et al., 2014); and it has socio-politico-religious functions that accord identity and sense of belonging to people (Kasanga, 2001; Foresight LUFP, 2010; Fuseini, 2014). In real-world settings these characteristics of land translate into complex webs of interests and power relations that intensify competition for space in urban areas. Yet, existing planning regimes – mostly neoliberal and top-down technocratic approaches – often fail to mediate land-use competition in urban space to achieve inclusivity and sustainable development (Lovering, 2009; Watson, 2009; Yeboah & Shaw, 2013; Baffour Awuah & Hammond, 2014). Indeed, in some instances planning practices have been accused of contributing to and/or intensifying inequalities, poverty, vulnerability and exclusivity, with the urban poor and those in informal settlements and businesses most affected (Lovering, 2009; Watson, 2009; Obeng-Odoom, 2013; Berrisford, 2014). Thus, dialogue about planning reform to promote inclusive and sustainable development is gaining ground (Roy, 2009, 2014; Watson, 2009, 2014; Berrisford, 2014). Some authors even contemplate reversal of planning intent to "protecting the needs of ordinary people rather than privileged minorities, the public rather than the private interest [and] the future rather than the present. Planners will have to take into account new (or rather, old) social forces [in developing inclusive plans]" (Lovering, 2009 p. 4). However, the danger exists that this proposition may be interpreted as antagonistic to a section of society for the benefit of another sector in a retributory manner which would equally be counterproductive. Rather, a notion of urban governance has been proposed as an alternate approach that seeks decision making and planning reform through multistakeholder participation by local government, governmental and non-governmental organisations (NGOs), community-based organisations (CBOs), private businesses and the local people to regulate the processes of spatial development and service delivery in urban contexts (Obeng-Odoom, 2013). This notion of urban governance is in line with a collaborative planning approach that proposes empathic multistakeholder engagements to promote inclusive planning or development (Healey, 2003). Although both the concept of urban governance and collaborative planning theory do not suggest equal power among the multitude of stakeholders, it is hoped that active participation by relevant stakeholders through empathic understanding, negotiation and consultation in decision making and policy implementation would produce better urban development outcomes, spatially, socially, economically and environmentally (Obeng-Odoom, 2013).

Integrated urban development, as envisioned by urban governance and collaborative planning, seeks to promote holistic urban development to enhance both local and national development because urban areas play critical roles in both local and national development. For instance, urban areas act as engines of economic production in most economies by their contributions to gross domestic product (GDP) and employment. On the African continent, for example, urbanisation has made a positive impact on national development (UN-Habitat 2010, 2014), contrary to earlier views regarding the relationship between the two (see Njoh, 2003; Obeng-Odoom, 2010a; Potts, 2012a). Emerging from its worst economic crisis of the 1980s and 1990s, Africa has recorded impressive GDP growth rates in the first decade of the 21st Century and a growing middle class population of 355 million in 2010, projected to reach 1.1 billion in 2060 (UN-Habitat, 2014). Urbanisation has been instrumental in this economic transition with the continent's urban population producing about 80% of

its GDP (UN-Habitat, 2010). Similarly, urban areas provide up to 80% of all non-farm jobs (Barwa 1995; UN-Habitat, 2009a; Dewan et al., 2012). Residents in urban areas also enjoy far superior social services like education, health, electricity and sanitation, compared to their rural counterparts (Ghana Statistical Service 2013a, 2014; Obeng-Odoom 2013). Also, deliberate and informed integration of urban and peri-urban agriculture (UPA) in spatial planning could contribute positively towards sustainable urban development through promotion of urban food security, supporting delivery of cultural ecosystem services as well as facilitating climate-change adaptation and mitigation in urban settings (De Zeeuw, Van Veenhuizen & Dubbeling, 2011; Andersson et al., 2014a,b; Gyasi et al, 2014a,b; Padgham, Jabbour & Dietrich, 2015). Effective environmental management and social-service provision, especially healthcare, through good urban governance, also promote healthy populations with multiple associated effects on increased productivity and economic development.

Consequently, the process of urbanisation must be managed in a balanced manner to achieve sustainability because "a well-run urban sector can ensure national prosperity; [while] a badly run sector can become a drag on the whole country" (AAAS, 2000 p. 94). Accordingly, it is essential to investigate spatio-temporal growth dynamics and processes in rapidly urbanising urban centres in sub-Saharan Africa, and to assess responses of urban governance to the growth dynamics through spatial planning, urban infrastructure and service delivery. Attention to a specific city is a worthwhile endeavour given that analysis of urbanisation, urban governance and planning challenges and inefficiencies are often done by taking a generalised view of countries in a category (e.g. developing countries, Africa) for the sake of simplicity and perhaps due to inadequate time, human and financial resources. Such generalised characterisations do not necessarily provide concrete evidence for micro-level solutions. In the foreword to the UN-Habitat's 2014 State of African Cities report, Joan Clos (Executive Director, UN-Habitat) concedes the limitation of the generalised analysis and the impracticability of a one-size-fits-all solution where he notes that "cities are simply too individual and specific in their needs and vulnerabilities for standardised solutions". Research that targets country- and city-specific peculiarities regarding growth dynamics, challenges and opportunities enhances our appreciation of the issues and the efforts needed to address them. For this reason, this study spotlights Tamale, a rapidly urbanising urban centre in Ghana.

1.2 STATEMENT OF THE PROBLEM

Effective urban governance is crucial for the sustainable management of urbanisation in the Tamale Metropolitan Area (TAMA) of Ghana. The Metropolis has emerged as Ghana's third largest urban centre since 1984, and its demographic and spatial growth dynamics have been characteristic of the growing urbanisation challenges in Ghanaian cities and towns. For example, there has been poor urban infrastructure and service provision in response to a rapidly growing demand by human and vehicular population. The human population of TAMA is also less literate than that of other metropolitan areas of Ghana so that people have low skills for employment in the formal sector (Ghana Statistical Service, 2013b,c,d). This in turn gives rise to a vibrant

informal sector where people who lose their rural or land-based livelihoods to the urbanisation processes seek alternative and adaptive livelihoods. These dynamics require responsive urban governance to promote socially and economically inclusive spatial planning as well as effective service provision to accommodate the population growth, the growing complex land-use demands and the local livelihood activities in a harmonious and integrated manner. Yet, the emergent land markets in the Metropolis, following the processes of globalisation, have undermined the ability of the local governance structures to undertake comprehensive spatial planning for the goal of achieving a socially, economically and environmentally liveable city. Therefore, amorphous spatial growth and chaotic land-use competition are common in Tamale, a situation previous studies have recommended addressing through effective and purposeful spatial planning (Braimoh & Vlek, 2004; Fuseini, 2014). A recent Ghana Urbanisation Review Report revealed growing challenges in the nation's cities and towns with Tamale being among the worst performers concerning urban infrastructure and provision of and access to services (The World Bank, 2015). These challenges are likely to increase given that small towns and cities – of which Tamale is one (the city currently has less than one million inhabitants and has the second highest population growth rates after Kumasi) – are expected to grow the fastest in the predominately urban world of the 21st century (Pieterse & Parnell, 2014). Besides the general challenges associated with rapid urban growth in the developing world, specific issues such as increasing urban poverty and inequalities (Lovering, 2009; Watson, 2009; UN-Habitat, 2010), growing land markets (Ubink & Quan, 2008; Wehrmann, 2008; Yaro, 2010, 2012; Yeboah & Shaw, 2013) and environmental concern regarding resource depletion, exposure to natural disasters like flooding, climate and environmental changes (Roy, 2009; Watson, 2009; UN-Habitat, 2011; Gyasi et al., 2014a) pose real threats to sustainable and inclusive urban development. Thus, concerted and integrated efforts are needed to tackle these challenges to reduce their intensity and scope in the increasingly urban world, especially in the cities of developing countries.

City growth in the era of rapid urbanisation is unavoidable and, in the context of a developing country city like Tamale, such growth often comes with challenges due to weak urban governance systems (UN-Habitat, 2009a, 2010). As a result, city authorities and other stakeholders in urban governance are advised to make adequate preparations and adjustments to manage the phenomenon sustainably (Angel et al., 2011). Urban governance with foresight could manage evolving urbanisation processes to achieve inclusive socio-economic development and environmental sustainability for its citizens (City of Cape Town, 2012; Fuseini & Kemp, 2015). This position is the driving force behind the increasingly popular spatial development frameworks (SDFs). However, before promulgating its own SDF to guide integrated national and urban development, Ghana formulated its first ever National Urban Policy Framework (NUPF) in 2012 to guide the initiation and implementation of appropriate policies for comprehensive urban development in a sound environment (Government of Ghana, 2012). In a related development, the recent Ghana Urbanisation Review Report (The World Bank, 2015) recommended four strategic areas of action for the successful implementation of the NUPF, among which are integrated land-use planning and infrastructure provision for effective urban development. Given that cities are hardly homogenous in their character, needs and challenges and the desired strategies for solutions (UN-Habitat, 2014), it is important to investigate the peculiar urban governance responses to the

unfolding urbanisation processes in TAMA. This is especially relevant in the context of the supposedly prevailing system of participatory decentralised governance regarding promotion of the ideals of socially and economically inclusive development in a sound environment. This would enhance an understanding of the city's peculiar successes and challenges which could be factored into the implementation of the NUPF and, subsequently, the National Land Use and Spatial Planning (LUSP) framework which envisions planning in the context of the SDFs (Fuseini & Kemp, 2015).

This study assesses urban growth dynamics in Tamale and urban governance responses for sustainable management of the growth regarding spatial planning, urban infrastructure and service provision. A collaborative planning theoretical framework and an analytical framework of urban governance as decentralisation, entrepreneurialism and democratisation (DED) (Obeng-Odoom, 2013) are employed to evaluate urban governance processes and outcomes in the metropolis. The contribution of the study lay in its broad and comprehensive approach to investigate urban growth dynamics and urban governance responses in infrastructure and service provision compared to previous studies that have had narrow focus on thematic issues such as food security, urban agriculture, land-use competition, climate change and housing (see, for example, Braimoh & Vlek, 2004; Naab, Dinye & Kasanga, 2013; Fuseini, 2014; Gyasi et al., 2014a,b; Yakubu, Akaateba & Akanbang, 2014). By its broad nature, the study provided a nuanced analysis of the contradictions and tensions emanating from urban growth experiences of Tamale as opposed to the narrow and limited analysis associated with the aforementioned previous thematic studies in the city.

1.3 RESEARCH QUESTIONS

The research problem led to the following questions:

1. What is the extent of the physical expansion of Tamale and how does urban governance respond to the growth dynamics regarding infrastructure and service provision?
2. What national and local statutory regulatory framework exists for the practice of urban governance and spatial planning?
3. To what extent does the observed spatial development pattern reflect local and national development goals?
4. Who are the main stakeholders in urban governance and spatial planning?
5. How do stakeholders engage in spatial planning and other urban governance activities and processes (e.g. infrastructure and service delivery)?
6. Does the city's spatial growth-urban governance responses mirror the elements in DED?

The research questions outlined above guided the study regarding eliciting answers to the research objectives that are provided in the next section. Question one relates to objective one whereas questions two and three relate to objective two. Similarly, questions four and five seek to find answers to objective three. These questions are treated in Chapter 7 along with four related DED evaluative questions. The discussion in Chapter

7 is a synthesis of the research results relative to collaborative planning theoretical and DED analytical frameworks.

1.4 RESEARCH OBJECTIVES

The study aimed to assess urban growth in Tamale and to evaluate urban governance responses to the growth for sustainable urban development regarding spatial planning, urban infrastructure provision and service delivery. Three specific objectives guided the study, namely to:

1. Review the statutory provisions for the conduct of spatial planning and urban governance in Ghana and Tamale.
2. Assess and characterise the spatio-temporal growth dynamics of Tamale from 2001 to 2014.
3. Identify major stakeholders in urban governance especially those related to spatial planning and examine critically their respective roles and modes of engagement in decision making.

These objectives are treated in Chapters 4, 5 and 6. Each of them was structured as a journal article and constitutes a complete chapter in the dissertation. Definition of key concepts used in the study is given in Section 1.5.

1.5 OPERATIONAL DEFINITION OF CONCEPTS

Key concepts which structure this study require definition. They include urban governance, spatial planning, urban infrastructure, service delivery, sustainable development and urbanisation, collaborative planning and the conception of urban governance as decentralisation, entrepreneurialism and democratisation (DED). Although these concepts and terminologies appear familiar, their meanings must be contextualised because many social science concepts are fluid constructs which are adaptable to serve particular interests (Schwartz, 1992; Brenner, Peck & Theodore, 2010; Hunt & Colander, 2011). For instance, the concept of sustainable development has been adopted and applied to several fields of study, including urban studies, since its emergence in the late 20th Century (Conroy & Berke, 2004; Fuseini & Kemp, 2015). The section is divided into six sub-sections based on the key concepts and terminologies used in the dissertation, namely urban governance (1.5.1); the DED framework (1.5.2); spatial planning or land use planning (1.5.3); urban infrastructure and services (1.5.4); collaborative planning (1.5.5); and sustainable urban development or urbanisation (1.5.6).

1.5.1 Urban governance

Governance relates to processes of decision making and implementation (Obeng-Odoom, 2013). It involves the interaction of multiple actors, including governmental, private and civic society groups (UNDP, 2005; Obeng-Odoom, 2012a). Stone (2004, 2005) in his writings referred to these partnerships and engagements in decision making as ‘urban regimes’ which connotes similar reasoning as urban governance regarding a move from government to governance. In other words, urban regimes connote urban actors constructed responses to

their problems and challenges which arise from social, cultural, economic and environmental changes and transformation (Stone, 2004). Thus, unlike government, governance connotes horizontal and vertical partnerships that transcend formal government structures to recognise and encompass the participatory roles by non-governmental actors. By this arrangement, actors build networks of partnerships as opposed to hierarchical relationships that exist in governmental approaches to decision making (Kennedy, 2009; Obeng-Odoom, 2013). The nature of urban governance is such that there are not fixed defined stakeholders, rather issues at hand are the determinants of who is involved in decision making (Stone, 2005). Therefore, urban governance presents an alternative for broad based participatory decision making process that underpins socially, economically and culturally differentiated and complex urban environment. So, the UN-Habitat defined urban governance as:

> the sum of the many ways individuals and institutions, public and private, plan and manage the common affairs of the city. It is a continuing process through which conflicting or diverse interests may be accommodated and cooperative action can be taken. It includes formal institutions as well as informal arrangements and the social capital of citizens (cited in Kennedy 2009 p. 254).

There are three inherent concepts in this definition namely: decentralisation, participation and partnerships. To achieve a functional urban-governance system, it is imperative to decentralise responsibility and resources to the local actors, encourage multistakeholder participation in decision making and employ partnerships to achieve commonly set development goals (UN-Habitat, 2009a). Multistakeholder engagements in decision making serves democratic politics far better than the so-called 'unitary interest' exemplified by few individuals making decisions, in a top-down fashion, for societies with socially, economically and culturally differentiated stakeholders (Stone, 2004). Here, partnerships are not conceived as equal power relations among stakeholders, rather as a participatory decision-making process involving governmental, private individuals and civic society groups in a decentralised governance system (Obeng-Odoom, 2013). It has been argued that in a practical sense urban governance is a nuanced form of decision making that transcends several strands of ideologies (Obeng-Odoom, 2013). In this case, it may be difficult to trace the direction of decision making – whether top-down or bottom-up – given the multitude of actors and interests, and the inherent principle of negotiated partnerships. It is in the spirit of this Stone (2005) holds that urban regime (urban governance, as relevant here) differs from classical pluralism in that the former involves coalition and partnership building and operates at different levels while the latter is often equated with electoral processes of choice making that happen at the same plane. Normatively, urban governance can be considered a spontaneous but structured need-based approach that draws governmental and non-governmental actors together to manage urban-related issues. Obeng-Odoom (2013) has argued that irrespective of the numbers of actors involved, urban governance should be operationalised within the framework of DED in decision making. This view emphasises problem identification and solutions at the local level and it expects urban governance systems to generate and use their resources in the most beneficial ways through the democratic tenets of accountability, transparency and consultation.

In this study, urban governance is conceived as all the processes and actors involved, practically or normatively, in making decisions and investments for the socio-economic development of Tamale. According to Ghana's local-government law (Act 462) (Republic of Ghana, 1993), the primary actors are local-government authorities, non-governmental organisations, civil society groups, chiefs and the ordinary people at grass-roots level through their elected representatives called Assembly Members (see discussion on this in Chapters 2 and 7). The normative governance structure provided in Act 462 mandates local government authorities to initiate and execute development processes in a consultative and participatory manner. These two processes make it possible for development initiatives to emerge from elected grass-roots representatives who serve as a bridge linking the local-government authorities and the people. The system therefore functions in line with the interactive and partnership principle of urban governance. Notwithstanding this principle, the local-government authorities are expected to lead the consultative and participatory processes to regulate formal and informal livelihood activities in the metropolis, generate resources and enter into partnerships for the provision and maintenance of urban infrastructure and services as well as the general wellbeing of the metropolis. The following subsection operationalises the DED analytical framework in light of the study.

1.5.2 The DED framework

The DED analytical framework is based on the premise that urban governance as a multistakeholder participatory and partnership building activity to solve urban-related problems should be operationalised as decentralisation, entrepreneurialism and democratisation (Obeng-Odoom, 2013). This proposition finds expression in decentralising decision-making responsibility to local-level structures to engender appropriate needs-based planning and implementation. On the other hand, decentralising decision-making responsibilities to the local structures imposes a related obligation on the local authorities or stakeholders to imbibe entrepreneurial principles in their urban governance pursuits to generate adequate resources to implement their programmes and plans. A third principle – democratisation of urban governance – is required to give effect to the first two principles by promoting certain tenets as transparency and accountability in the multistakeholder decision-making processes. Espousing the tenets of democracy in urban governance is crucial to engendering empathic understanding among stakeholders which is equally important to promote inclusive development in urban space.

From the above, the DED framework is used in this study to connote (1) local-level decision making (decentralisation), (2) local-level initiatives, programmes and projects that target generation and mobilisation of resources for local socio-economic development (entrepreneurialism) and, (3) transparent and accountable multistakeholder decision-making processes (democratisation) through empathic understanding for inclusive urban development. See Chapters 2 and 7, respectively, for detailed discussion of the DED analytical framework and how it is applied in this study. Attention now turns to defining spatial planning or urban land-use planning in the next subsection.

1.5.3 Spatial planning or urban land-use planning

Spatial planning and urban land use planning are used interchangeably in this study even though the two concepts may connote slightly different contextualised meanings. Allmendinger & Haughton (2010) contend that spatial planning differs from urban land-use planning in the sense that the former entails long-term strategic visions, effective sectoral integration and improved engagement with varied stakeholders and the public so as to achieve sustainable development. By this conceptualisation, spatial planning can be thought of as an activity that seeks to integrate the social (including political and cultural), economic and environmental dimensions of urban space through institutional collaboration and multistakeholder participation in decision making – both formally and informally. On the other hand, (urban) land-use planning is concerned with deliberate efforts to coordinate and guide the location, intensity, form, amount and harmony among the various space-using functions, including residential, industrial, commercial, administrative and recreational uses (Albrechts, 2004; Moroni, 2010). The processes of zoning different land uses not only ensure harmony but more importantly assign some legal rights to the landowners in respect of the zoning regimes (UN-Habitat, 2009a). In a sense, urban land-use planning also has long-term vision because secured titles could engender sustainable use of space. Moreover, Albrechts (2004) has pointed out that urban land-use planning as described here is done in an integrated and qualitative manner.

Thus, concerning the vision and aim, there appears to be little difference between spatial- and urban land-use planning. Perhaps, the difference between the two hinges on modes of engagement whereby spatial planning has a clear participatory intent whereas traditional (urban) land-use planning is a top-down, technocratic activity that subordinates ”the individual[’s will] to the common good” (Moroni, 2010 p. 139). By situating these concepts in the evolutionary trajectories of urban governance, it can be argued that urban land-use planning resonates with urban management programmes (UMPs) in the late 20th Century which, by their managerial nature and limited grassroots participation, imply technocratic decision making – even though some scholars have a contrary view of the UMPs being non-participatory (see Watson 2009). In contrast, spatial planning finds expression in present-day urban governance which is based on multistakeholder participation including civil society and the grassroots systems (Obeng-Odoom, 2012a, 2013). Moreover, planning education (and planning graduates) that fails to incorporate the tenets of sustainable development such as “social equity and participatory” approaches is falling out of favour in present urban-governance systems (UN-Habitat, 2009 p. xxvi). Thus, present urban-governance practices are fostering a convergence between spatial planning and urban land-use planning regarding approach and modes of engagement. Consequently, to the extent that planning for the use of space in urban settings is part of urban governance processes of mediating complex and conflicting interests for harmonious coexistence of different land-use forms, as well as promoting sustainable development, this study uses the terms ‘spatial planning’ and ‘urban land-use planning’ interchangeably. This intent holds the proviso that both concepts are understood in the context of the current dispensation of participatory and collaborative governance. The working definition of urban infrastructure and services is provided in the next subsection.

1.5.4 Urban infrastructure and service delivery

There is no 'right' definition for 'infrastructure' except to characterise it as structures and facilities of human creation that seek to serve a purpose (Wenban-Smith, 2006). Thus, infrastructure and services have an inherent utility of leading to an end, rather than being an end in themselves. Therefore, urban infrastructure and services, as used in this study, refer to all the facilities and structures that are developed and have productive (and service) quality for the economic, political and social development of a society. These facilities and services include roads, electricity, water, health and educational institutions, local markets and commercial centres, housing and sanitary facilities. They support local economic and livelihood activities as well as promote safe, healthy and productive populations, but the production and maintenance of which often require active involvement of governmental actors – local, regional and national. For example, efficient urban infrastructure and services were identified as being crucial to making cities economically competitive during the implementation of urban management projects in the 1980s and early 1990s (UN-Habitat, 2009a; Obeng-Odoom, 2013). The provision and maintenance of functional urban infrastructure and services remain vital to urbanisation experiences of the developing world and Africa in the 21st Century so as to tackle issues of inequality, poverty, informality (economic activities and slums), environmental challenges and the need to advance economic growth and development (UN-Habitat, 2009a, 2010, 2014). Detailed discussion of these issues are rendered in Chapter 2 as focus now shifts to operational definition of collaborative planning theoretical framework in the next subsection.

1.5.5 Collaborative planning

Collaborative planning, per Healey's (1997, 2003) conception, is similar to a component of urban governance where planning is done on an interactive and participatory basis among many stakeholders. Key propositions in collaborative planning include empathic understanding, partnership building and consultative interactions among multiple stakeholders with varying interests in, say, urban space. In other words, the daily routine of "interactions …, discourses and practices of governance between structuring forces and what people do in specific episodes" are ingredients of collaborative planning (Healey, 2003 p. 109). By this conception, collaborative planning in Tamale must involve all stakeholders, including those in informal economic activities whose access to urban space is often constrained and also considered a nuisance by top-down and modernist planning practices (Watson, 2009; Obeng-Odoom, 2013; Berrisford, 2014). Collaborative planning is hence used in this study in line with the provision of Ghana's local-government law that stipulates broad participation, partnerships and collaboration in governance. A detailed discussion of these concepts is provided in Chapter 2 while their empirical assessment in Tamale is presented in Chapter 7. At this juncture, the working definition of sustainable urban development or urbanisation is given in the following subsection.

1.5.6 Sustainable urban development or urbanisation

Since its emergence during the latter part of the 20th century, the concept of sustainable development has enjoyed wide acceptance in different dimensions of development, including the practice of (urban) land-use

planning and management. It has become quite common to encounter expressions such as 'planning sustainable cities', 'sustainable urbanisation', 'sustainable land use planning', 'sustainable urban development'" among others (Rapoport, in press; Drakakis-Smith, 1995, 1996, 1997; Berke & Conroy, 2000; UN-Habitat, 2009a, 2012, 2014; Kruger, 2014). The concept's popularity emanates from the high-level political platform it enjoyed, its core proposition for integrating economic and social development with environmental issues as well as its future-centredness regarding development discourse (De Wit & Verheye, 2003).

It follows that sustainable development in the context of urban development and urbanisation connotes a holistic planning approach that targets improvement in the economic and social lives of urban citizens on an equitable basis as well as judicious management and preservation of the environmental resources for their long-term productivity. It also involves multistakeholder participation in decision making to defining actions that are required to promote inclusivity, reduce exposure to disaster risk and vulnerability in urban context as well as securing environmental harmony. Sustainable urban development should aim at minimising spatial sprawl, judiciously using and conserving of non-renewable resources, preserving key renewable resources, livelihood support and ecosystem services, developing conditions for efficient operation of enterprises, strengthening regulatory frameworks for ethical production processes, supporting informal sector and local economic activities, as well as ensuring social equity and justice in urban settings (Berke & Conroy, 2000; UN-Habitat, 2009a). See Chapter 4 for a more detailed description of sustainable urban development as it pertains to Ghana's development history. The next subsection presents the structure of the dissertation.

1.6 ORGANISATION OF THE WORK

The thesis is structured as a collection of journal articles and/or manuscripts. Chapter 1 sets the scene for the dissertation. It has introduced the research by giving a background to the pressures of urbanisation generally and the need for effective urban governance and spatial planning to address such pressures sustainably. The research problem, research questions and the study aim and objectives were stated. Lastly, the operational definition of key concepts used in the study were presented. Theoretical and analytical frameworks are presented in Chapter 2, which is broadly divided into two parts. The first part contextualises the study in relevant theoretical and analytical frames and the second part of the chapter presents contemporary questions or issues that challenge effective urban governance and spatial planning. Content of Chapter 2 overlaps somewhat with that of Chapter 4 to serve as complementary literature reviews of the study's topic. Chapter 3 presents the background of the focal city, Tamale, and describes the study's methodology and methods. Tamale is contextualised concerning the evolving dynamics of urbanisation in the metropolis and the relevance of urban governance and spatial planning. The discussion of methods in Chapter 3 is complemented by the treatment of specific methods in Chapters 4, 5 and 6.

Chapters 4, 5, and 6 comprise journal articles prepared to address the three specific objectives of the study as presented in Section 1.4. Chapter 4 details the historical pursuit of, and provision for, the conduct of spatial

planning and deals with contemporary urban governance (Objective 1). The spatio-temporal growth dynamics of Tamale (Objective 2) along with urban-governance responses are presented in Chapter 5. The presentation is centred around the spatial and demographic dynamics of the city, and reporting urban governance responses to those dynamics regarding urban infrastructure and service provision, namely road networks, water, electricity and sanitary facilities. Objective 3 is addressed in Chapter 6 which concentrates on spatial planning processes and implementation, and how these impact on the public good as the basic assumption in planning theory. The analysis of the stakeholder engagements in plan development and implementation is partly used as proxy to assess urban governance processes in the city.

Chapter 7 presents a synthesis of the work by discussing and relating the key findings in Chapters 4, 5, and 6 (and to some extent those in Chapter 3) to the collaborative theoretical frameworks as well as the DED analytical framework presented in Chapter 2. Through the synthesis, the study's contribution to scholarship is established in terms of the understanding of the practice of spatial planning and urban governance in Tamale as well as theoretical and analytical frameworks of the DED and collaborative planning. Conclusions are drawn whether the evaluative analysis has shed light on the nature of urban governance in Tamale and if the observed system conforms to the principles of the DED and/or the conception of collaborative planning. The next chapter reviews the theoretical and analytical frameworks for the study.

CHAPTER 2 LITERATURE REVIEW: THEORETICAL AND ANALYTICAL FRAMES

2.1 INTRODUCTION

This chapter presents a discussion of theory relevant to the practice of spatial planning and urban governance. The purpose is to highlight issues pertaining to the contextualisation of urban land-use or spatial planning within existing theory. The chapter is divided into five sections. The first concerns the evolution of planning theory to contemporary debates about which theory is applicable to which practice in the context of a developing country. The discussion outlines some emergent (even persistent) issues facing cities in developing and/or African countries that call for renewed and innovative approaches to plan for and resolve them. Increasing poverty and informality in urban areas, and the concerns for sustainable development are singled out in this regard. The second section examines an analytical framework for assessing urban governance processes, including spatial planning. The decentralisation, entrepreneurialism and democratisation (DED) framework is employed in the study to analyse urban-governance processes to establish if, as the DED proponents argue, the practical decision-making and governance approaches in the Metropolis are amenable to inclusive and pro-poor urban development. The chapter is concluded with a summary in Section 2.5.

2.2 THEORISING SPATIAL PLANNING AND URBAN GOVERNANCE IN THE GLOBAL SOUTH

Analyses of the practice of spatial planning and urban governance in the Global South are often based on existing and wider theories, most of which originated from the Global North. It is true that most of the planning theories prevalent across the world had their origins in Europe and North America (Watson, 2002, 2014; Healey, 2003; Roy, 2014). Certainly, these theories are based on the specific contextual exigencies of those regions (Healey, 2003) and, as Watson (2014) points out, to solve urban problems in those jurisdictions. These theories found their way to the developing countries through several modes of transfer, first via colonialism and then by exchanges through international professional consultancy and academic activities (Watson, 2014). The colonial mode of spatial diffusion of the planning theories resulted in the theories of Euro-American origin being adopted and implemented indiscriminately in the dominated countries with no or little regards for the social, economic and institutionally differentiated contexts of the sending and adopting areas. Thus, some of the planning-related challenges of the developing world, including Africa, are the result of the wholesale adoption of the North-centric planning theories (Watson, 2009).

Besides the spatial incongruence of planning theory, the approach and basic assumptions underpinning particular theories have been continuously debated leading to an evolutionary process of theorising which is still unfolding. Criticisms of traditional planning theory have instigated vigorous debates and efforts to reform planning theory over the years (Klosterman, 1978; Naess, 2001; Watson, 2002; Christiansen, 2015) so that scholars writing on cities of the South and urban development are assessing the possibilities of developing

planning theories specifically for these cities (Roy, 2014; Watson, 2014). The grounds for developing so-called southern planning theory are promising in that some experimental approaches have proved useful, and have even been adopted in the North, which has traditionally been the crucible of experimentation and theory building, and the origin of transmission in space and time (Watson, 2009).

Traditional planning has been premised on rational scientific reasoning and is seen as an activity by professionals. This planning assumes a technocratic, positivist and top-down position in the belief that by virtue of their training the professional planners are able to determine the spatial configuration of human activities in ways that serve the social, economic and environmental needs of society (Klosterman, 1978). Such traditional, rational-scientific planning postulates that professional planners can remotely decipher the complex mix of individual needs and preferences regarding their land-use behaviour and then plan accordingly. Opponents of these assumptions insist that it is practically impossible to plan independently of the people or agents affected by such plans (Moroni, 2010). In his plea for normative planning as opposed to the supposedly positivist, apolitical and value-free claims of planning, Klosterman (1978) questions the practicability of value-free planning and advises professional planners to draw on the principles of John Rawl's (1971) '*A theory of justice'* which include 'the greatest equal liberty principle', 'the difference principle' and 'the fair equality of opportunity principle' to subjectively plan for distributive justice without ruining their claim to professionalism (Klosterman, 1978 p. 43). The normative planning approach (one that recognises societal diversity and the need for subjective appraisal thereof) Klosterman (1978) proposed has been developed into several strands over time (see Healey, 1992; Watson, 2002). The central arguments in almost all the strands of normative planning are democratic decision making and social justice as contained in Rawls' theory of justice. Some of the normative planning approaches are communicative planning, collaborative planning, community action planning, multicultural theory, theory of monocracy and the just city approach (Healey, 1992; Naess, 2001; Watson, 2002; Moroni, 2010; Christiansen, 2015).

Communicative planning is a prominent normative planning approach. It's proponents draw much of its underpinnings from Habermas' 'theory of communicative action' and Giddens' 'structuration theory' (Naess, 2001; Watson, 2002; Healey, 2003). Inter-subjective communication among citizens and civil society is key to the propositions of communicative planning while the power of the state or government is significantly downgraded. According to one of the ardent proponents, Patsy Healey, "inter-subjective communication … is required where living together but differently in shared space and time drives us to search for ways of finding agreement on how to act in the world to address our collective concerns" (Healey, 1992 p. 150). Decision making is largely taken in the realm of civil society through democratic, fair and empathic communication while efforts are made to neutralise existing power relations that might constrain consensus building. Eventually, 'better argument' will emerge from better speech which suggests an understanding and consensus among the participants (Watson, 2002). Healey (1997) has developed a strand of communicative theory into what is known as 'collaborative planning' which advocates taking inclusive decision making beyond inter-subjective group communication to interactive and broader governance processes (Healey, 2003). Unlike

mainstay communicative planning, the collaborative approach accepts government or state as partners in governance. Healey (2003 p. 117) maintains that "collaborative planning is a plea for the importance of understanding complexity and diversity" through empathic interaction and analysis of situated instances, decision-making processes and process outcomes.

Sandercock's (2000) multicultural theory is another strand of normative planning that is similar to Healey's collaborative planning. Like collaborative planning, multicultural theory calls for the recognition of differences in societal groups regarding needs and aspirations, and planning's role to protect or care for such heterogeneity (Watson, 2002). Such proposals for caring for heterogeneous needs of society appear more democratic and inclusive than the consensus building of communicative planning because, as critics of the latter hold, there is the possibility that consensus building may ultimately favour the powerful and the most eloquent in society (Huxley, 2000). Moroni's (2010) theory of monocracy is similar to Sandercock's multiculturalism except that the former calls for the production of a 'spontaneous order' through the behaviour of free-acting private persons which implies minimal state or governmental involvement in planning. In making a case for unbridled individual liberty, Moroni (2010) draws on the works of Hayek (1944, 1948), Polanyi (1951) and Von Mises (1927) to question the possibility of planning for complex systems as the teleocratic (i.e. rational scientific and instrumental planning) planning theory seeks to achieve, and also, the undesirability of doing so. He reasons that cities are complex systems that grow out of individual decisions rather than in conformity with any grand plan. Therefore, enough freedom must be granted to cities as complex systems to organise themselves through unintentional and mutual acts of individuals' pursuit of their interests and aspirations in accordance with abstract and general framework of relational rules as opposed to order achieved through authoritative coordination (Moroni, 2010). Fainstein's (2000) just city normative theory recognises individual and civil-society agency in producing planning outcomes as opposed to control by government and its parastatals which "may be neither neutral nor benevolent" to ensuring distributive equity (Watson 2002 p. 33). Generally, normative theories are concerned with participatory planning that is rooted in local or situated knowledge with the view to promoting inclusive development and reducing inequalities.

Nonetheless, criticism has been levelled against the various strands of normative planning theory. Regarding communicative planning, critics question the propriety of the assumption of 'good speech' or 'better argument' which suggests that all participants are able to unambiguously debate their arguments in sufficient clarity and to the understanding of other stakeholders (Huxley, 2000). It is doubtful that any mechanism exists or is able to neutralise power imbalances in such intersubjective communication processes. Huxley (2000) is sceptical that dominant interests inherently embedded in complex social systems would readily be assuaged by better argument to abandon their positions in communicative planning. Certain sociocultural and institutional factors may also influence – positively or negatively – the performance of civil society in the manner postulated by communicative theorists. These factors (e.g. weak civil society) have been appraised to pose a serious challenge to the conduct of normative planning theories in the context of sub-Saharan Africa (Watson, 2002). Even when consensus is reached through intersubjective communication, there is no guarantee of successful

implementation. Consensus might be reached as a result of bracketing out certain realities of inequality and power relations, but these may resurface to negate the implementation of the agreed plan of action (Huxley, 2000). Generally, except for collaborative planning, the call for minimal government involvement in planning by some strands of normative theory may not necessarily bring about inclusive development outcomes. It is true that government control over planning has had detrimental consequences for inclusive and pro-poor urban development (Tibaijuka, 2007; Watson, 2009; Obeng-Odoom, 2013; Berrisford, 2014), but it is also true that minimal government involvement has not led to efficient allocation of resources (Watson, 2002; Lovering, 2009). When interpreting normative planning theory in the context of sustainable development principles, Naess (2001) has questioned if private decisions with minimal government or state involvement would engender collective societal good. Naess (2001) cites private consumer decisions in Western Europe and the USA under the guise of neoliberalism and the consequences of these for sustainable development, specifically regarding climate change. Invariably, individuals and civil society groups depend on governmental resources and regulations to effect planning making it unrealistic to plan independent of the state apparatus (Huxley, 2000).

Healey's collaborative planning which provides a middle ground for conducting planning is a convenient theoretical point of entry for this study. Whereas it is unlikely and undesirable to plan for complex systems like cities in the sense of top-down control (Moroni, 2010), it can also be socially, culturally, economically and environmentally detrimental to not purposefully regulate complex systems (Huxley, 2000; Naess, 2001; Lovering, 2009; Roy, 2009; Watson, 2009). In a sense, collaborative planning resonates in the concept of governance that is presently perceived as a more practical arena for decision making in complex systems. Governance connotes collaboration and partnerships in developmental pursuits such that government is just one of the numerous stakeholders. In this regard, governance entails interaction of situated (local) and tacit (technical) knowledge and harnessing of all available resources in pursuit of particular development objectives. Thus, Healey (2003) argues that collaborative planning is not a recipe to be implemented wholesale in all contexts but that it provides a frame within which to situate particular needs, objectives and processes. On this, Healey (2003 p. 116) advises:

> [Collaborative planning] involves attention to both the qualities of place and of process, the 'good city' and its 'good governance', understood in a social constructivist and relational way. … The task of the planning enterprise is to critically interrogate the governance practices that currently exist and to help governance communities concerned with place qualities to develop different approaches where these are seen to be failing. This involves attention to both discourses and practices; to what already exists, what is emerging and what might possibly emerge in a specific context.

The treatment of collaborative planning as a governance approach to contextualised decision making has stimulated scholarly works on theorising planning in the developing world (more appropriately, the Global South) in a manner described earlier (see Watson, 2009, 2014; Roy, 2014). Somehow, such bottom-up theorising as a consequence of understanding planning as a situated, partnership and innovative governance activity contributes to finding practical solutions to some of the intractable planning challenges in sub-Saharan

Africa (Watson, 2002, 2009). This is important since any question of theory-practice gap is essentially ”which theory for what kind of practice” (Moroni, 2010 p. 137). In most cases, theories borrowed from the Global North fail in other jurisdictions because the context and assumptions that underlie their development differ significantly from those of the destination areas (Healey, 1992; Watson, 2002, 2014; Roy, 2014). Therefore, and as noted earlier, it is encouraging that increased scholarship on southern planning theory has gained currency to the point that some of the innovative ideas emerging from it are being adopted in the traditional fertile grounds for theory building (Watson, 2009). Watson (2009) cites some of these experimental approaches, namely integrated development planning (IDP), spatial development frameworks (SDFs), participatory budgeting (PB), strategic planning, urban management programmes (UMPs) and other regulation-based state intervention innovative programmes. Participatory budgeting has been appraised to have made positive impacts on participatory governance processes in Latin America and it has even been experimented on European contexts (Watson, 2009). Similarly, the IDPs and SDFs have been integral to South African urban governance to promote postapartheid urban restructuring and inclusive development (Watson, 2009; City of Cape Town, 2012; Republic of South Africa, 2013; Chobokoane & Horn, 2014), and the implementation of the IDPs and SDFs has won the admiration of other countries, such as Ghana, where the process is being adopted (Fuseini & Kemp, 2015).

Overall, planning reform in Africa has not been successful due to a number of factors. Primary among these are ineffective stakeholder engagement, retention of unrealistic colonial planning codes and unfair targeting of the poor while the rich and elites, such as developers and traditional leaders, get opportunities to exploit the system to their advantage (Berrisford, 2014). A pertinent example (explored in Chapter 6) is playing out in Tamale and other parts of Ghana where traditional authorities (chiefs) take centre stage in allocating land for personal gain (Yeboah & Shaw, 2013). This leads to ‘the elephant in the room’ situation where the “powerful – often including planning officials and related professionals – [manage] to escape the application of planning laws that would in any way diminish or restrict their capacity to obtain capital growth as well as rental income from their property” (Berrisford, 2014 p. 169). Although the aforementioned innovations (IDPs, SDFs, PB) have not provided comprehensive guidance to tackling urban and planning problems in the global South (Watson, 2009), they nonetheless provide useful experiences for stakeholders to act on Healey's (2003) advice to pay attention to the unfolding processes that may follow from them and would most likely emerge from particular contexts.

The preceding discussion has elucidated the transition of planning from a technical, top-down, state-led activity to one in which citizens are given a voice. Following the transition, there has been a convergence and integration of planning into governance processes with the view to streamlining and synchronising development processes. Such convergence is manifested in the decentralisation and promotion of participatory democracy. In Ghana, for example, the decentralised local-governance system is composed of representation of the grass roots of society (represented by locally elected persons), traditional authority (nominated), technocrats and public officials, and government representatives (Republic of Ghana, 1993). The

amalgamation of interests, local and tacit expertise is expected to engender popular participation in decision making, promote mutual and empathic understanding, and subsequently lead to finding solutions to local problems. To promote pro-poor urban development, these processes need to be strengthened.

The next section examines reasons why the developing world and sub-Saharan Africa need to redouble their efforts at finding workable innovative urban governance approaches sooner than later.

2.3 CONTEMPORARY ISSUES OF URBANISATION

This section reviews some of the persistent or emergent issues that require innovative governance approaches for dealing with the urbanisation challenges of the Global South, particularly Africa and Asia. The section begins with an overview of urbanisation trends (sub-section 2.3.1); then turns to rising urban poverty and informality (sub-section 2.3.2); reviews the issue of related emerging land markets (sub-section 2.3.3); and concludes with a short examination of environmental imperative of climate change in sub-section 2.3.4.

2.3.1 Urban growth in the developing world

Contemporary urban studies must contend with the indubitable shift in demographic dynamics whereby more people are now living in urban areas than rural areas. Globally, urban population has increased from 220 million people in 1900 to over 2.8 billion in 2000 and it is projected that the 2-billion increase in global urban population over the last century will be matched in four decades in the 21st Century (Pieterse & Parnell, 2014). Forecasts of regional distributions are that the developing world will account for about 93% of global urban population with Africa and Asia set to contribute 80% of the growth within the first four decades of the 21st century. Short-term forecasts up to 2030 put the developing world's contribution to global urban population at 80%; with Africa and Asia expected to contribute about 70% of that figure (Pieterse & Parnell, 2014). Although Africa is the least urbanised continent, its urban growth has been impressive if not phenomenal. With 24% of its population living in urban areas in the early 1990s this increased to 27% at the turn of the century but accelerated to 40% by 2014 (Njoh, 2003; Pieterse & Parnell, 2014). The continent presently (2014) has the highest rates of urbanisation in the world with its urban population projected to treble between 2011 and 2050, from 414 million to 1.3 billion (United Nations, 2012), although it is advisable to be cautious in discussing the magnitude of urban growth on the continent due to limited and unreliable data (Cohen, 2004; Potts, 2012a,b; UN-Habitat, 2014). Notwithstanding questions about the unreliability of data and projections, Africa's urban growth remains phenomenal as shown by specific countries. For example, Ghana has transitioned from predominantly rural (70%) at independence in 1957 to over 50% urban presently, given an annual urban population growth rate between 1984 and 2010 of 4.4% (Ghana Statistical Service, 2013a). The country's urban population more than tripled between 1984 and 2013, from 4 million to about 14 million (The World Bank, 2015). Ghana is now one of the most urbanised countries in Africa where it is ranked one of four countries in West Africa (and one of 21 in Africa) with larger urban than rural populations (Obeng-Odoom, 2013; Fuseini & Kemp, 2015). A striking feature of the rapid urbanisation of the developing world is the sheer

increase in the numbers of urban areas – new cities and towns – and that much of the population growth is occurring, and will persist, in small urban settlements (less than 0.5 million inhabitants) well into the future (Pieterse & Parnell, 2014).

While the urbanisation trends in developing countries, especially in sub-Saharan Africa, might appear to have positive implications for socio-economic development, the strength of such linkages has been questioned. The debate is not about whether or not urbanisation leads to economic development but, especially in the case of Africa, how the urbanisation processes contribute to addressing some of the intractable (and emerging) urban problems on the continent or how these are directly or indirectly reinforced by rapid urban growth. It is often said that the developing world lacks the requisite capabilities to effectively manage and turn the rapid urban growth into gain for its citizens in terms of job creation, livelihoods provision, infrastructure, service provision and poverty reduction (UN-Habitat, 2009a), (See discussion in the following sections about some of these issues). For example, while Ghana's rapid urban transition has made positive impacts on socio-economic development, including helping to reduce poverty, the process has also exposed millions to livelihood vulnerability and presents grave challenges for sustainable management of urban settlements (The World Bank, 2015). Indeed, increased collective scholarship to find workable theories and practices for the South is not a romantic exercise but a serious attempt to address real, persistent and emerging urban issues in these parts of the world (see, for example, Watson, 2002, 2009, 2014; Lovering, 2009; Roy, 2009, 2014; Obeng-Odoom, 2013; Berrisford, 2014; Home, 2014; Pieterse & Parnell, 2014).

2.3.2 Increasing poverty and informality

This concentration of the developing world's population in urban areas is intensifying two defining characteristics of urbanisation in the region – poverty and informality. The presence of these two features contributes to growing inequalities in cities regarding access to shelter, basic services, and basic needs. There has been mention of the 'urbanisation of poverty' which depicts growing incidence of poverty in urban settlements amid rapid urbanisation processes (Tibaijuka, 2007; Watson, 2009; UN-Habitat, 2010). Indeed, African cities suffer the widest intra-urban inequalities in the world (UN-Habitat, 2010). The growing urban poverty is strongly associated with widespread informality which characterises urban economies in the developing world, especially in sub-Saharan Africa. Regrettably, in most cases governmental efforts and support through planning processes to ameliorate the living standards of the urban poor are lacking (Simone, 2000; Watson, 2009; Obeng-Odoom, 2013). At the onset of the explosive informal growth in the 1990s, it was estimated that the sector accounted for about 72% of non-agriculture jobs in Africa, 65% in Asia and 51% in Latin America (Watson, 2009). In Ghana over 86% of employment is currently in the informal sector, and regarding gendered analysis over 90% of women are employed in the sector compared to about 81% of men (Haug, 2014). The momentum of growth in the informal sector in Tamale has reached a point where over 80% of the city's active labour force is engaged in informal economic activities. Unless some drastic structural changes occur in the economies of developing countries, such statistics point irrevocably to the informal sector

remaining the dominant employment-generating sector in these countries. However, if Joan Clos's (Executive Director, UN-Habitat) optimistic statement that 'urbanisation is jump-starting industrialisation' in Africa has any veracity, it can be expected that formal sector-jobs (principally manufacturing) may improve urban employment prospects in Africa (UN-Habitat, 2010). But it must be noted that industrialisation by itself will not necessarily change the fortunes of urban dwellers in Africa, it has to be matched with purposeful planning and governance to make any positive impacts. Otherwise, industrialisation will inevitably cause the same problems experienced elsewhere in the immediate post-independence Ghana (Fuseini & Kemp, 2015).

Aside from employment issues, urban informality and inequality in cities of the Global South, especially in sub-Saharan Africa, is manifested in slums (UN-Habitat, 2010; Pieterse & Parnell, 2014). Although the proportion of slum dwellers in African urban centres have reduced during the period 2000-2010, much still needs to be done to significantly tackle poor living conditions in informal settlements. Sub-Saharan Africa countries in particular still have a bigger tasks in this regard as few countries (Ghana, Senegal and Uganda are exceptions that have managed to reduce their slum populations by about 20%) have achieved significant reductions in their shares of urban slum dwellers during the first decade of the 21st Century (UN-Habitat, 2010).

Generally, informal activities in urban areas – be they economic, entrepreneurial, service provision or institutional – are survivalist strategies. The tilt of more urban than rural population is squeezing out formal-sector employment as well as overstretching governments' ability to provide basic urban infrastructure and services, so exposing many to precarious and uncertain livelihood circumstances that push them into informal activities as survival strategies (Simone, 2000). The forces of globalisation have also interacted with dwindling state provision of basic social services. The case of Ghana's informal sector illustrates this point. The adoption and implementation of the World Bank and International Monetary Fund's sponsored structural adjustment programmes (SAPs) led to drastic growth in the informal sector as people tried to cope with the adverse effects of those processes, particularly in urban settings (Barwa, 1995; Songsore, 2009).

Informality must not necessarily be associated with poverty; indeed, it can help alleviate poverty if adequately supported and nurtured. However, often these activities are sidelined by modernist planning ideology still prevalent in planning practices, that views such activities as unfitting in urban spatial organisation (Watson, 2009; Berrisford, 2014). Thus, the growing poverty and inequalities in cities of the global South are a consequence of planning practices that seem to suggest that in "the planned city … the poor should at best be hidden or, at worst, swept away" (Tibaijuka 2007, p. 4). Moreover, planning regulations, even where they are intended as reform, often overburden the vulnerable in society, the bulk of whom operate in the informal sector (Berrisford 2014). For instance, planning regulation requirements such as building materials and the technologies to be used in building and design impose unnecessary burdens on the poor whose preoccupation is not with living in 'modern' homes but to have simple structures for shelter and in which to pursue their survivalist livelihoods. On this, Berrisford (2014 p. 168) asks an empathetic question: "Why should poor people want to invest more in their homes and businesses than they are currently doing purely to satisfy a

planning vision?". The reality is that informal activities will escalate with increasing urbanisation in the context of few employment opportunities being generated by manufacturing. Already, many economies in Africa are predominantly informal which means that realistic planning efforts must recognise informality as structural and functional part of the urban systems which requires support in an integrated manner (Watson, 2009). Chapter 7 later repeats the case of where the contribution of the informal sector to local economic development has begun to be appreciated and supported. Mainstreaming the IDPs and SDFs in effective urban governance practices could promote the identification and appreciation of the various interests and aspirations embedded in complex urban space. These have to be genuinely integrated in planning with the view to reducing economic inequalities and social exclusion in local urban space. This will involve a narrowing of the governance gap between the elite and the poor by promoting participation at multistakeholder level (UN-Habitat, 2010). It is implicit that such genuine efforts to achieve equity and inclusion in spatial development are rooted in situated realities rather than application of modernist planning principles. The next sub-section discusses evolving land markets as one of the contemporary issues of urbanisation.

2.3.3 Emergent land markets

Land as a commodity was ushered into the African context by European colonisation. Prior to colonialism, customary tenure was the main arrangement through which ownership and access to land was operationalised. Colonisation, and later the introduction of market economies across the dominated territories, established land as a commodity (Wehrmann, 2008). Consequently, there emerged a Western-styled property ownership and access attributes such as titling, leasing and mortgaging to either exist side-by-side with traditional customary tenurial arrangements or overlap with them (Kasanga & Kotey, 2001; Ubink & Quan, 2008; Wehrmann, 2008). Land markets – whether formal or informal – are more active in urban areas so that increasing urbanisation adds impetus to their development and complexity. Peri-urban areas are particular centres of emergent land markets that have implications for city-wide development. In cities of the South, rapid urban growth and the corresponding increase in demand for land have overstretched the ability of urban governance systems to manage land sustainably and this underscores the burgeoning informality in these cities (Harris, 2014). This often results in opportunistic land transactions which invariably contribute to the growing inequalities in the cities and towns of sub-Saharan Africa. For instance, in peri-urban Ghana the customary land-tenure systems have lately been administered for the benefit of the elites (mostly traditional leaders) against the egalitarian principles upon which such tenurial arrangements are predicated (Ubink, 2007, 2008; Yaro, 2010, 2012; Yeboah & Shaw, 2013). Chapter 6 describes how these processes play out in Tamale.

There are many reasons why efforts should be made to administer land efficiently for the social, psychological and economic development of society as well as to maintain environmental sustainability. Apart from the obvious need for inclusive spatial development regarding housing and livelihood activities, there are psychological attachments to land and a human rights dimension to which urban governance must pay attention to avoid alienating people psychologically and spiritually. Yet, the reality in African cities is that the operation

of formal urban-land markets often makes it almost impossible for the majority of citizens to get access to land so stimulating informal land markets with their attendant problems (UN-Habitat, 2010). Clarification is required about how informal land markets are understood in this study. There are informal land markets, rooted in the socio-historico-religious institutions of different land-owning groups, and that are legal and recognised vis-à-vis the western-styled formal land markets. The other side of informal land markets relates to activities and intervening forces that, due to increasing demand and prospects of windfall gains, seek to nefariously distort the formal and customary tenurial arrangements (Wehrmann, 2008). Most of the land-related conflicts – due to multiple sales, boundary disputes, misrepresentations – in urban and peri-urban areas relate to the second conception of informal land markets (Chapter 6 discusses land-related conflicts in Tamale). The consequences of these conflicts range from a stifling of socio-economic development to loss of human lives as exemplified by the activities of so-called landguards in Ghana (Ghana Statistical Service, 2005; Amanor, 2009; Thurman, 2010; Adiaba, 2014). The peculiarity of these challenges have led Harris (2014 p. 111) to conclude that "urban land markets in the global [S]outh clearly depart from any sort of ideal."

It becomes clear that efforts to improve governance practices for effective management of urbanisation must pay serious attention to questions of socially and economically responsive land markets. This may require synergising the workings of the formal and the informal land markets in ways that promote flexible land transactions. Doing so may call for a smoothing of bureaucratic bottlenecks and reduction of prohibitive costs that so often discourage people from dealing with established land management institutions (Watson, 2009; UN-Habitat, 2010). The following sub-section turns to cities and climate change in contemporary urbanisation processes.

2.3.4 Cities and climate change

> In the decades to come, climate change may make hundreds of millions of urban residents – and in particular the poorest and most marginalized – increasingly vulnerable to floods, landslides, extreme weather events and other natural disasters. … Yet none of these scenarios needs to occur, provided we act now with determination. … How cities and towns are planned affects not just the health and well-being of their inhabitants, but the global environment and our prospects for sustainable development (UN-Habitat, 2011 p. vi).

These sentiments by UN Secretary-General, Ban Ki-moon, in his foreword to the UN-Habitat's global report on cities and climate change underscores the severity of the potential dangers that await cities and towns due to environmental degradation and climate change. Specific ways climate change may impact on urban areas and residents include destruction of physical infrastructure, transport systems, ecosystem goods and services as well as disruption of local economies, livelihoods and populations (UN-Habitat, 2011). Indeed, some of these prophesied environmental and climate-change-related disasters are already being experienced across the developing world with increasing intensity (Roy, 2009). For example, several African country cities experienced flooding during the first decade of the 21st Century (UN-Habitat, 2010). Tamale suffered severe flooding in 2007 with extensive loss of property and destruction of urban infrastructure (Gyasi et al., 2014a)

and floods and flood-induced fire disaster in 2015 in Accra claimed over 150 human lives and property losses totalling millions (Graphic Online, 2015; Smith, 2015). These are two recent instances of many such disasters in Ghana's urban settlements. An apparent characteristic of governments in poor countries is their inability to respond to disaster situations in a timely and satisfactory manner due to lack of resources and related challenges. Given that cities in these countries are most at risk from climate-change-related disasters and the poor being most likely to be affected in the process (Watson, 2009), socio-economic inequalities and vulnerabilities in urban areas will be exacerbated by such disasters. Thus, urban planning in the 21st Century has added responsibilities of steering decisions on socio-spatial matters in ways that reduce exposure to these disasters and developing and implementing measures to mitigate climate-change-induced hazards (Watson, 2009).

UN-Habitat's report on cities and climate change sought to improve interlinked knowledge about the contribution of cities to climate change, how the former are impacted by the latter and how cities mitigate and adapt to the manifestations of climate change (UN-Habitat, 2011). The report aimed to scale down the policy focus concerning climate and environmental changes from the levels of international agreements and national governments to local-governance systems at the city level for a somewhat bottom-up approach to dealing with these national and global policy agendas. The UN Secretary-General's statement insists that purposive integration of climate and environmental issues in urban planning could contribute to national and global action for reducing the anthropogenic drivers of these changes. Yet, the environmental imperative, particularly climate change, has not been given much attention in the practice of urban planning. Indeed, present urban-planning practices are even perceived as contributors to social and spatial exclusion as well as environmental unsustainability through resource and energy depletion, climate change and food insecurity (Watson, 2009). Focusing on cities and urban planning to improve environmental management stems from two factors, namely (1) cities consume about 75% of all the world's resources and also produce 75% of global waste despite occupying only 2% of the earth's surface; and (2) cities possess greater concentration of resources, including technology capable of mitigating the environmental and climate changes (Roy, 2009).

Given our increasing understanding of the relationship between cities and climate change, it is imperative that city managers, including urban planners, adopt integrated approaches to planning that promote sustainable urban development. To this end, the UN-Habitat (2011 p. vii) report identified principles for promoting integrated and multistakeholder planning. These include:

1. No single mitigation or adaptation policy is equally well-suited to all cities;
2. It would be beneficial to take an opportunity/risk management approach in a sustainable development perspective, considering not only emissions, but also risks that are present in a range of possible climate and socio-economic futures;
3. Policies should emphasize, encourage, and reward 'synergies' and 'co-benefits' (i.e. what policies can do to achieve both developmental and climate change response goals);
4. Climate change policies should address both near-term and longer-term issues and needs; and

5. Policies should include new approaches that support multiscale and multisector action, rooted in the different expectations of a wide range of partners.

To operationalise these principles in local urban governance, the report calls for a tripartite partnership and collaboration among the international, national and local governments. First, it proposes that the international community grant direct financial support towards local climate-change mitigation and adaptation initiatives; the easement of bureaucratic bottlenecks to local access to international support; and making information readily available on climate change and options for mitigation and adaptation. Second, national governments should design and implement national climate change mitigation strategies and adaptation planning which provide frameworks for local action. National governments should also encourage and support appropriate local-level mitigation and adaptation initiatives as well as enhance sectorial coordination and collaboration with non-governmental actors. On their part, local governments should tailor their local development aspirations to climate change and environmental sustainability, promote inclusive participatory planning with special attention paid to participation by the poor and vulnerable, and these processes are rooted in differentiated needs assessment (UN-Habitat, 2011). This notion of multilevel and multistakeholder partnerships and collaboration in planning is essentially what advocates of planning reform preach (see, for example, Healey, 1997, 2002, 2006; Roy, 2009; Watson, 2009, 2014; Berrisford, 2014). Modern technology – such as scenario modelling and application of geographic information systems (GIS) decision support tools – could be adopted and integrated into the multistakeholder participatory planning processes. This has been demonstrated in the case of Dhaka Metropolitan Development Planning Support System (DMDPSS) which sought to promote sustainable urbanisation in one of the fastest growing cities in the world (Roy, 2009).

The presentation in this section (Section 2.3) highlights the emerging and persistent issues of urbanisation that stake claim for effective urban governance to achieve sustainable urban development. The following section presents the analytical framework of the study.

2.4 ANALYTICAL FRAMEWORK

This section presents an outline of the analytical frame employed to analyse urban governance practices in Tamale. As defined in Section 1.5.1, urban governance connotes processes of decision making in the context of horizontal and vertical partnerships and active multistakeholder participation. To operationalise urban governance in a somewhat measurable frame, Obeng-Odoom (2012a, 2013) has proposed that the process be assessed and evaluated according to the DED framework. Consequently, this section elaborates on the components of the DED, namely decentralisation, entrepreneurialism and democratisation, and concludes with comments on the use of the DED as an analytical framework.

2.4.1 The DED framework

The DED framework seeks to situate urban governance in a decentralised (D), entrepreneurial (E) and democratic (D) lens of conducting decision making in a highly complex and negotiated urban space. Operationalising urban governance in this way holds the potential for spatial planning to contribute positively towards addressing some of the persistent and emerging issues in the urbanisation experiences of the developing world, including sub-Saharan Africa. How to conduct the affairs of urban governance in the frame of decentralisation, entrepreneurialism and democratisation is outlined in the ensuing sections.

2.4.1.1 Decentralisation

Decentralisation is conceived here as a transfer or delegation of power and responsibility of decision making and implementation usually from a higher authority to a lower-level entity. Decentralisation is relevant to urban governance when exercised in the domain of cities and towns (Obeng-Odoom, 2012a). It is noteworthy that not all forms of decentralisation (it is a many-stranded concept) are amenable to governance in the sense of broad-based vertical and horizontal participation. Variants such as deconcentration (transfer of administrative or managerial responsibilities to subnational governmental entities); delegation (power granted to public enterprises to manage certain sectors of the economy, often utilities); areal decentralisation (transfer of responsibilities for public functions to spatially-defined entities and organisations, e. g. regions, provinces and districts); and functional decentralisation (transfer of certain tasks to specialised organisations that operate within specified jurisdictions, e. g. national or provincial) are not relevant to the conception of urban governance as a collaborative and participatory process (Obeng-Odoom, 2013). Political decentralisation – one that grants extensive decision-making capabilities in policy formulation and implementation to local areas – seems the most appropriate form of decentralisation for urban governance (UN-Habitat, 2010). Political decentralisation is aptly expressed in devolution. Devolution refers to transfer of authority from the central government to local authorities to provide services and finances to pursue local-level development. It goes beyond delegation and deconcentration to allow citizens at the grass roots to elect their leaders and hold them accountable for their performance (UN-Habitat, 2010). Thus, political decentralisation lends itself better to partnerships and multistakeholder participation at grass roots than the other forms of decentralisation.

Ghana's decentralisation is a hybrid system that combines elements of devolution and deconcentration (UN-Habitat, 2010). The country's local-government law (Act 462 of 1993) stipulates a three-tier structure comprising the Metropolitan, Municipal and District Assemblies (MMDAs) at the top followed by the sub-metro, zonal and urban councils at the second level while the unit committees occupy the lowest level. In practice, however, it is a four-tier structure because the Regional Coordination Councils (RCCs) have oversight responsibilities over the MMDAs (Bandie, 2007; Frieddrich Ebert Stiftung-Ghana & Institute of Local Government Studies (Ghana), 2010). The MMDAs, as engines of the local-government system, are composed of 70% elected members while 30% is appointed. The elected membership is composed of community representatives (unit committees) and elected representatives at ward or electoral area (assembly members).

The appointed membership includes the Metropolitan, Municipal and District Chief Executives (MMDCEs), technocrats and members of civil society. These are appointed by the President of the Republic in consultation with traditional authorities and opinion leaders. The MMDCE is the leader and also the highest ranking representative of national government at the district but his/her appointment has to be approved by at least two-thirds majority of all assembly members present and voting (Republic of Ghana, 1993). The member(s) of parliament (MP) from the district is also a member of the local government of that district but has no voting rights (Republic of Ghana, 1993). However, Ghanaians now want the MMDCEs' and all positions made elective to deepen participatory democracy and accountable governance (Tetteh, 2015). A recent Constitutional Review exercise, aimed at governance reforms, recommended the reforms and political parties have woven its implementation into their recent electoral manifestoes (Obeng-Odoom, 2013).

In principle, the hybrid decentralisation does provide for ample grassroots participation. The law mandates the assembly to perform broad deliberative, legislative and executive functions (Republic of Ghana, 1993). Accordingly, grass roots of the community are expected to participate in all three functions of the assembly through their elected representatives. The assembly members are the main link between the grass roots and the assembly. Working in close consultation with communities or the unit committee members, the assembly members collate the views, opinions, proposals and aspirations of the populace and then forward it to the assembly. In turn, they communicate decisions reached at the assembly's deliberations to the local people as well as work in close partnership with the unit committee members to mobilise community efforts for policy implementation. Various subcommittees (largely comprising the elected assembly members) are also put in place and mandated to facilitate harmonisation of local-level needs and demands into the assembly's deliberative functions, to communicate the assembly's legislative decisions to the public and then to collaborate with the elected representatives (both community and electoral levels) to mobilise resources for implementation of executive functions of the assembly. The subcommittees of the assemblies include development planning, social services, works, justice and security, finance and administration as well as any other as may be constituted by the assembly (Republic of Ghana, 1993). The following section discusses the conception of urban governance as entrepreneurialism.

2.4.1.2 Entrepreneurialism

A feature of increasing decentralisation in the developing world, including sub-Saharan Africa, is heightened attention given to local economic development (LED) initiatives (Rogerson & Rogerson, 2010). Decentralisation often occurs following cutbacks in central government's funding of local-level programmes and projects leading to calls for local entrepreneurialism to generate adequate resources to pursue local-level development agenda (Obeng-Odoom, 2012a). In some cases decentralisation policies grant explicit mandates for local governance systems to generate their own income for their development pursuits. This is true of Ghana's local-government law where local authorities are tasked to employ innovative measures to generate their own income to supplement what is subvented from the state through the District Assemblies Common

Fund (DACF) (Republic of Ghana, 1993). Some of this locally-generated income is raised from the assemblies' investments such as tolls and levies from local traders who use public market spaces and infrastructure, fees from administrative services such as registration of births and deaths, marriage certification and licensing of various kinds. Maintenance of vibrant local economy potentially strengthens local-revenue generation capacities of urban governance systems thereby improving their ability to provide essential urban services.

The conception of urban governance as entrepreneurialism transcends local economic development to nuanced and interlocking issues of pro-growth considerations and partnership building among governmental entities, private businesses, community-based organisations, transnational corporations and non-governmental organisations to promote urban governance processes and outcomes (Obeng-Odoom, 2012a). This reasoning has affinity with neoliberalism whereby the market is emphasised, not in its unbridled form but in ways that permit the local state to partner with the private sector to promote economic development and service delivery atypical of a traditional welfarist modus operandi. While the survival of the actors in urban governance, including the poor, will depend on what they are able to do for themselves similar to what pertains in traditional neoliberalism (Obeng-Odoom, 2012a), the entrepreneurial approach to urban governance normatively holds that the multistakeholders' public-private partnerships and collaboration will empower the poor to function positively in urban governance. Therefore, issues of stakeholder capacity and resources are critical for successful urban governance as stakeholders have to measure their decisions and agendas against the resources required to implement these (Stone, 2004, 2005). Stoker (1995 p. 60) is of the view that:

> for actors to be effective regime partners [stakeholders in urban governance] two characteristics seem especially appropriate: first possession of strategic knowledge of social transactions and a capacity to act on that knowledge; and second, control of resources that make one an attractive coalition partner.

The nuanced nature of pursuing urban governance as entrepreneurialism tasks local government leaders to be chief executive officers (CEOs) in their areas of jurisdiction so as to identify, initiate and implement market-oriented policies and programmes to improve local economic performance as well as generate adequate resources for financing of their development agenda (Obeng-Odoom, 2012a).

It must be noted that entrepreneurialism in urban governance is not only for augmenting revenue-generation capabilities of the local authorities, but also to strengthen local economies through the identification of particular local-level economic potential and building partnerships to generate decent jobs and to provide and sustain livelihoods (Rogerson & Rogerson 2010). In this regard, LED activities are geared towards promoting civil-society engagement and community dialogue with the goal being improved governance. This entrepreneurialism approach to pursuing urban governance is appropriate for cities of the Global South, especially those in Africa where the urban economies are dominated by informal economic activities. By recognising the potential of informal economic activities in cities and towns, integrating them into urban planning and then providing the enabling environment and infrastructure will most likely have multiple effects on job creation, livelihoods sustenance and contribution to municipal income generation. City rebranding is a

novel way of pursuing entrepreneurialism in urban governance in the contemporary globalised world (see, for example, Healey, 2006). Specific projects and programmes for projecting a positive image of a city can stimulate economic activities and tourism potential (e. g. whale watching at Hermanus and Sardine run in KwaZulu-Natal both in South Africa and crocodile watching at Navrongo, Ghana) of the said city as global capital and investment flows, as well as visitor arrivals, respond to new and attractive opportunities. Furthermore, fostering partnerships in urban governance – within and without a city – including entering into and maintaining vibrant sister-city initiatives are very likely to be rewarding (see discussion on this in Chapter 7). Collectively, the aforementioned policies, programmes and projects could also attract foreign businesses thereby boosting the vibrancy of the local economy.

Some municipalities in Ghana are beginning to appreciate and integrate informal economic activities into their governance processes in a bid to stimulate local economic development. Van Empel (2007) has reported public-private partnership strategies implemented to strengthen the local economies of the Awutu-Efutu-Senya and Ajumako-Enya-Essiam districts of the Central Region of Ghana. By using the leverage to constitute any subcommittee as deemed fit, the assemblies, through a consultative process, constituted a special sub-committee known as Sub-committees on Production and Gainful Employment (SPGEs) to promote advocacy for public-private cooperation in LED and also vertical and horizontal networking within and outside the districts (among governmental, local-government structures, non-governmental and international organisations, civil society, local business groups). To be able to function effectively in the SPGEs, local businesses organised themselves into Small Businesses Associations (SBAs) and elected their representations on the SPGEs. Each SPGE had 15 members, namely six from the SBAs, four assembly members and five technical representatives from the assembly. The SPGEs collaborated with other assembly subcommittees (e.g. social services and works) to ensure holistic and harmonious planning and implementation. Through the vertical and horizontal networking and partnerships, the SPGEs attracted financial and technical assistance from international organisations like the Danish International Development Agency (DANIDA) and the German International Cooperation (GIZ) to organise capacity building training programmes for the local businesses. The participatory decision-making processes of the SPGEs engendered mutual understanding among the stakeholders such that the small businesses that hitherto were not consulted in decision making got the opportunity to even contribute to fixing fees and tolls they paid to the assembly. Consequently, the SPGEs made a positive impact on the local economy and also contributed to a substantial increase in the assemblies' internally generated funds (IGFs) that enabled the assemblies to finance productive and social investments in their jurisdictions. Local-government authorities in Tamale are also pursuing projects to strengthen the local economy in order to promote the overall development of the metropolis even though no formalised arrangements exist as yet in the shape of the SPGEs described above. The last component of the DED, democratisation, is elaborated upon in the ensuing section.

2.4.1.3 Democratisation

There are different views about urban governance seen through the lens of democratisation (Obeng-Odoom, 2012a). In substance, however, these dissenting views about democratisation of urban governance converge at the essential ingredients of dialoguing, participation, transparency, accountability and legitimacy. This study considers democratising of urban governance to entail "economic governance and the design and implementation of public policies with active citizens' participation for a more equal urban society" (Obeng-Odoom, 2012a p. 208). Democratic urban governance therefore connotes a system of governance that accords a sense of belonging as opposed to exclusion, recognition of differences in social structure and economic aspirations, as well as guaranteeing them in a transparent and accountable manner. This in line with Stone's (2004 p. 5) view that a "community cannot know in concrete terms what the public interest is, independent of political activity. [Therefore,] "it matters greatly who is represented in decision making."

Ghana's decentralisation normatively provides the structure within which to democratise urban governance. Van Empel's (2007) account on the SPGEs in Section 2.4.1.2 demonstrates how democratisation of urban governance could be expressed in Ghana's local-government structures. According to Van Empel, dialogue contributes significantly to the success of the SPGEs as dialogue enables inter-stakeholder understanding, which unlocks innovative approaches to governance. On the other hand, successful dialogue is made possible by inter- and intra-stakeholder democratic practices of transparency, legitimacy, partnerships, collaboration and deliberate institutionalisation of novel practices. For instance, the SBAs adopted transparent processes to select their representatives to the SPGEs, thereby legitimising their role in the multistakeholder, institutionalised dialoguing and partnership formation for better development outcomes. Another example of democratisation of urban governance is Bamako City Development Strategy (BCDS). The local authorities involved all relevant stakeholders in the preparation of the plan with particular attention accorded participation by those in the informal economy who formed the core of the city's economy. Through this pro-poor approach, a shared development vision was defined and the implementation strategy was mutually agreed upon (UN-Habitat, 2010).

It is safe to conclude that effective urban governance is most likely possible and beneficial if decision making is decentralised and governance processes are conducted in accordance with democratic principles (effective participation be civil society, transparency and accountability) with entrepreneurial intent to generate adequate resources for the execution of society's development programmes. In short, democratic inclusion in decision making is vital to the success of decentralisation, so it is imperative that the two happen together (UN-Habitat, 2010; Obeng-Odoom, 2012a). Evaluation of urban governance through the DED framework is discussed in the next section.

2.4.2 Evaluating urban governance through the DED framework

According to Obeng-Odoom (2012a), the DED should be considered an interlinked concept rather than separate concepts. This is especially so regarding decentralisation and democratisation. Consequently, the first step in evaluating urban governance using the DED framework is to consider the ingredients of the framework's three components, namely participation by civil society (directly or by representation) in decision making, equity, accountability, transparency and effectiveness (Obeng-Odoom, 2013). This allows one to adapt the DED in analyses of particular contexts. More concretely, it is advisable to seriously consider the *ends* of urban governance in any evaluation of the DED (Obeng-Odoom, 2012a). But this is not an easy task given the complexity of interests, aspirations and expectations embedded in systems of urban governance. Without doubt, there are inherent difficulties in developing matrices with which to evaluate the ends of urban governance. A promising option is contextualised, logical-subjective assessment. On this topic Obeng-Odoom (2012a p. 209) asserts that:

> the important question is whether urban citizens benefit from a good society and economy, typified by sustainable jobs, effective transport, affordable housing, egalitarian land administration, and the provision of high-quality municipal services. … whether growth is pro-poor and green enough, and whether society is becoming either segregated or socially cohesive.

Accordingly, an analysis of the DED must involve contextualised gauging of the nature of urban governance, assessment of the ends and how the ends are appraised by the citizenry (Obeng-Odoom, 2012a). In his prescriptive work on the evaluation of urban governance using the DED, Obeng-Odoom (2012a) posed five questions that empirical research must answer to ascertain the effective conduct of urban governance. These are:

1. How is urban governance lived?
2. Does urban governance lead to job creation? If so, for whom?
3. Does urban governance lead to improved urban services, such as effective water provision and sanitation services, effective urban transport services, affordable housing for all, and effective land use management?
4. Do the elements of urban governance that are said to create 'empowerment' serve as a vehicle to hold urban governments to account?
5. Is there a trade-off between urban economic growth, redistribution, and environmental sustainability? (Obeng-Odoom, 2012a p. 210)

The assessment of urban governance's response to rapid urbanisation in Tamale focuses on questions 1 to 4. Answering these questions requires that the processes of urban governance be interrogated; urban infrastructure and service delivery assessed; and spatial-planning processes and outcomes investigated. As with the DED, these are not treated disparately but as interlinked and/or overlapping themes to guide the interrogation of urbanisation and urban governance in Tamale.

2.5 SUMMARY

This chapter has reviewed the development of planning theory and presented the analytical framework to assess the responses of urban governance in Tamale to rapid urbanisation. Planning theory has undergone reforms from traditional scientific, rational and technocratic, top-down approaches to the present collaborative and participatory approaches grounded in democratic practices. The main drivers of planning reform are inclusivity, legitimacy, the need to reduce inequalities and the quest for sustainable development. Communicative theory was among the first sets of normative planning theories that sought to reform theorising on planning as a technocratic and state-controlled activity to one in which citizens and civil society have a voice. The underpinning assumption of communicative theory is interpersonal communication such that consensus is reached on the basis of 'better argument'. Communicative planning theory was critiqued on several grounds, including power imbalances, unrealistic telepathic understanding among stakeholders and the possible mismatch between possession of brilliant ideas on the one hand, and the ability to argue them out eloquently on the other. The other variants of normative theory – collaborative planning, multicultural and just city approaches – aim to conceptualise improved citizenry participation beyond 'better argument' to the recognition of diversity, fostering of partnerships and empathic understanding among stakeholders. Subsequently, a convergence occurred between these participatory planning theories and urban governance which calls for effective multistakeholder participation, collaboration and partnerships in governing complex urban systems. Franklin Obeng-Odoom (2012a, 2013) argues that urban governance be characterised by decentralisation (giving decision-making powers to the local persons and institutions), democratisation (allowing transparent, accountable, legitimate and participatory governance) and entrepreneurialism (adoption of innovative and benign business-like approaches to generate adequate resources to execute urban governance programmes), that is, so-called DED. Burgeoning urbanisation in developing countries, especially in sub-Saharan Africa, and the associated issues of growing urban poverty, widening inequalities, pervasive informality, emerging land markets, and environmental and climate changes require effective planning and urban governance regimes to sustainably manage cities.

The DED analytical framework is adopted to analyse the processes and outcomes of urban governance in Tamale. This DED analytical frame requires empirical evidence to answer questions about the nature of urban-governance processes; livelihoods support and job creation and their distributive effect; urban infrastructure and service provision and access; spatial planning processes and outcomes; and the democratic tenets of accountability, transparency and environmental sustainability. This study focuses on examining urban governance processes, urban infrastructure and service delivery, and spatial planning processes and implementation. They are not to be treated as mutually exclusive themes, rather they are considered to have interlinkages and/or to overlap. The next chapter documents the nature of the study area, Tamale, and sets out the methodology, methods and materials used.

CHAPTER 3 STUDY AREA AND METHODOLOGICAL OVERVIEW

3.1 INTRODUCTION

This chapter describes the geographic, social, demographic and physical characteristics of the study area, Tamale, and also presents the methodological design of the study. The chapter is divided into two parts. The documentation of the nature of Tamale is rendered in the first part whereas the methodological design is discussed in the second part. The description of the study area is structured on the city's location, its physical conditions and its socio-economic characteristics. Similarly, discussion of the study design spans the methodology, methods, data sources, and ethical issues.

3.2 TAMALE IN CONTEXT AND SCOPE OF THE STUDY

This section gives background information about Tamale, Ghana (Figure 3.1). A descriptive overview of the origin, location and historical development of the city is given as well as description of the physical conditions of the area (relief, drainage, climate and vegetation). Accounts of the economic characteristics (demographics, the local economy and land tenure) conclude the section.

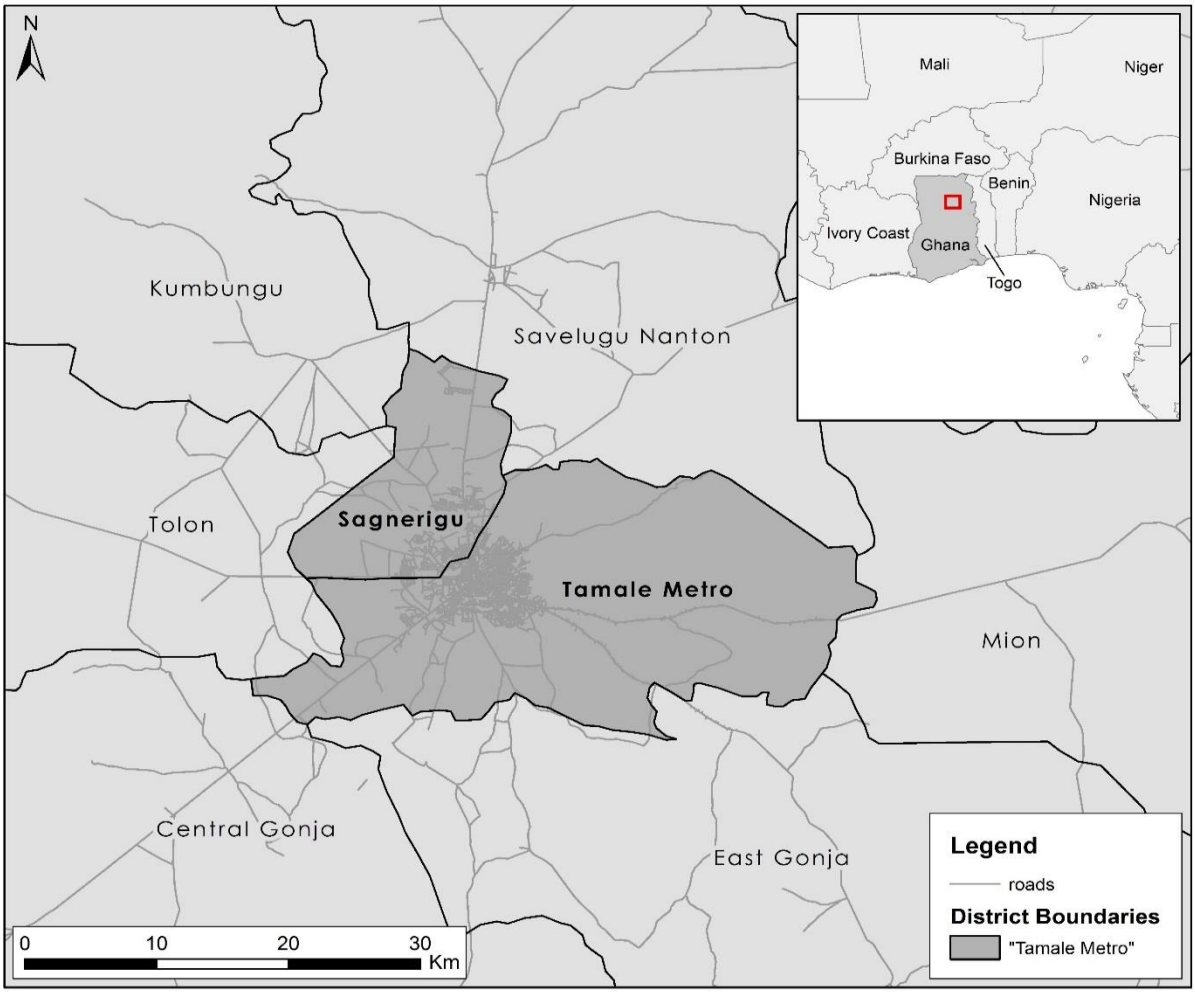

Figure 3.1: Location of the study area in Northern Region of Ghana

3.2.1 Tamale – location and origin

The study was situated within the Tamale Metropolitan Area (TAMA) which, for the purpose of this research, includes two local-government administrative units – Tamale Metropolitan Assembly (TaMA) and Sagnarigu District Assembly (SDA). The TaMA and the SDA are two of 26 local-government administrative units within the Northern Region of Ghana. The SDA was carved out of the TaMA in 2012 in accordance with Ghana's local-government law (Act 462 of 1993) (Republic of Ghana 1993). Despite the administrative separation, the SDA is still connected to the TaMA in many ways and their demographic, cultural, economic and administrative structures are virtually identical. For this reason they are considered a unit in this study. Regarding settlement structure, the TAMA is composed of the city of Tamale, 17 peri-urban communities and 115 villages (Fuseini 2014). The study area is located within latitudes 9º16'N and 9º34'N and longitudes 0º34'W and 0º57'W. It covers a total area of 922 km^2 (Tamale Metropolitan Assembly, 2010). Regarding its relative location, the TAMA is bordered to the north by Savelugu-Nanton Municipality; to the northwest by Kumbungu District; to the east by Mion District; to the south by East and Central Gonja Districts; and to the west by Tolon District.

Tamale was a colonial creation around 1907 (Staniland, 1975). This followed the relocation of the administrative capital of the then British Northern Territories from Gambaga to Tamale to take advantage of the latter's central location and its better environmental conditions and water supply (MacGaffey, 2006; Fuseini, 2014). Indeed, the remote incident that facilitated the designation of Tamale as the administrative capital of the Northern Territories was the emergence of the British as victors over the Germans for control of this part of present day Ghana (Dickson, 1968), and the eventual quelling of the resistance by a Dagbamba King who had vowed that the white man would not settle in his land[1]. It is reported that at the time of its designation as the capital for the Northern Territories in 1907, Tamale was a collection of a few villages that had about 1 435 inhabitants (Staniland, 1975; MacGaffey, 2006). The settlement started to experience rapid growth from about 1909 when efforts were made to establish a cotton industry (the only viable resource of interest to the colonialist's regime in that part of the colony) in northern Ghana and Tamale was made the centre for the distribution of inputs and purchase of the output from small out-grower farmers. By 1911, more permanent buildings had emerged in the town including the installation of a cotton gin and a press, and these collectively stimulated economic activities and further growth of the settlement (Dickson, 1968). Nonetheless, colonial investment policies, directly and/or indirectly, thwarted the growth of the settlement as the colonial power preferred to keep northern Ghana as a labour reserve for the more lucrative mines in the south (Plange, 1979). Part of this manifested in a manoeuvre that led to the collapse around 1916 of the very cotton industry (the spark of Tamale's original growth) due to low investment in transportation and the government's enticing

[1] An account given by an elder statesman in an interview as part of this study. This narrative has it that it was the said resistance by the King that made the British originally locate the administrative capital at Gambaga (about 200 north of Tamale).

of the youth to migrate south and work in the mines (Dickson, 1968). Thus, Tamale was largely rural at independence in 1957.

Tamale's real growth followed the immediate post-independence general urban growth across Ghanaian towns and cities (Adarkwa, 2012; Fuseini & Kemp, 2015). The town's total population was 40 443 according to the first post-independence census in 1960, and between 1960 and 1970 recorded the highest annual growth rate compared to Accra and Kumasi (7.2% against about 5% and 4.4% for Accra and Kumasi, respectively) (Ghana Statistical Service, 2005). This was significant growth from the 1 435 inhabitants in 1907 and less than 10 000 people in the 1930s (MacGaffey, 2006). Tamale experienced rapid population growth during the 1970s and 1980s when urban growth in Ghana was generally slow and when the country endured severe economic downturns. Interestingly, Tamale's atypical growth was spurred by a vibrant rice industry that was promoted as part of efforts to make Ghana self-sufficient in food production (Songsore, 2009; Gyasi et al., 2014a), something the colonial cotton industry could not sustain. The TAMA's current population exceeds 444 000 people (Gyasi et al., 2014a). (See Section 3.2.3.1 and Chapter 5 for a detailed discussion of the city's demographic and spatial growth dynamics).

3.2.2 Physical conditions

The description of the physical conditions of Tamale covers relief, drainage, climate and vegetation. These physical features have relevance to urban governance regarding the provision and access to services and infrastructure, local economic issues, public health and climate change.

3.2.2.1 Relief and drainage

The TAMA is located about 180 m above sea level. It has a generally rolling topography with a few isolated hills. The area is poorly endowed with natural water bodies except for some ephemeral streams that drain the area (Fuseini, 2014). There are also few 'dug-outs' and dams that provide alternate sources of water for household use as there is no universal access to treated, piped water (see Section 5.3.3.2 for a discussion of access to water in the TAMA). The 'dug-outs' and dams have traditionally provided water for free-range livestock and they are integral to the local economy of the area. For instance, one of the popular dams in Tamale, the Bielpela Dam, was constructed in the 1960s to provide water for domestic use as well as for watering livestock (Gyasi et al., 2014a). However, the increasing complexities of urban growth have led to significant reductions in livestock-rearing activities (especially cattle) in TAMA so potentially increasing the volume of 'dug-out' and dam water available for household and other uses. The 'dug-outs' and dams have recently assumed the important function of supporting urban and peri-urban agricultural practices, mostly vegetable production (Gyasi et al., 2014b). In spite of their relevance, the sustainability of these alternate sources of water in the TAMA is being challenged by human activities, chief among which is encroachment (see Section 5.3.3.2, Chapter 5).

Generally, the rolling topography and the drainage system do not inhibit physical development in and around the TAMA. In other words, there is neither rugged terrain nor large inland water/wetland areas that pose significant challenges to physical development. However, the few seasonal streams that drain the area can pose threats of flooding to some parts of the Metropolis, especially in the eastern part which is relatively low-lying. The flat topography plays an important role in the spatial growth of the city.

3.2.2.2 Climate and vegetation

The TAMA lies within the Dry Equatorial Climatic and the Guinea Savannah Ecological zones of West Africa. Therefore, it is characterised by two seasons; a rainy season from about April to October and a dry season from about November to March. The rainy season is influenced by the moist South Westerly winds which result in a unimodal rainfall regime compared to a bimodal pattern in the south of the country. The Metropolis experiences a mean annual rainfall of 1 100 mm within 95 days of intense rainfall. The average length of growing season is 220 days a year (Fuseini, 2014). However, the well-established pattern of rainy-dry seasons is beginning to change as the onset of the rains is gradually shifting towards July (Gyasi et al., 2014a). The dry season is influenced by the very dry north-easterly (Harmattan) winds that blow across the West African sub-region from the Sahara Desert between about October and February each year. This period of Harmattan is characterised by dry, hazy and dusty conditions as well as cool temperatures.

The vegetation of the area is characterised by tall grasses interspersed with drought-resistant tree species such as the neem (*Azadirachta indica)*, shea (*Vitellaria paradoxa*)) and dawadawa (African Locust Bean tree [*Parkia biglobosa*]). Recognisable tree colonies occur as pockets of forest reserves, fetish grooves and community woodlots (Fuseini, 2014). The shea and dawadawa are the most important tree species in the area. The shea tree forms the anchor of women's livelihoods either through gathering and sale of the nuts or agro-processing by which shea-butter is extracted for cooking and for use in the cosmetic industry. Urbanisation pressures and associated environmental degradation have caused women in the TAMA a partial loss of their livelihoods as much bush from which they gather the nuts has disappeared. The option for them is to engage in nut processing and other agro-processing activities (e.g. rice, groundnuts). The dawadawa tree has two basic important uses, namely as a local condiment and as symbol of authority in the chieftaincy institution of the Dagbong Kingdom. The following section describes the socio-economic characteristics of Tamale, namely demographic, basic economic features and land tenure system.

3.2.3 Socio-economic characteristics

The demography of Tamale, its economy and land tenure are treated in this section. The nature of the latter feature is indispensable in understanding spatial planning and urban governance in the TAMA.

3.2.3.1 Demographic characteristics

The total population of the TAMA in the most recent (2010) national census was 371 351 which represents a 26.4% increase over the total population of 293 881 in 2000 (Ghana Statistical Service 2005, 2013c). This proportional increase in the Metropolitan population is the lowest recorded in all post-independence intercensal periods. By comparison, the Metropolis witnessed an increase in its total population of 106.8% and 116% for the periods 1960-1970 and 1984-2000 respectively (Ghana Statistical Service, 2005). TAMA's share of the regional (Northern Region) population also dropped from 16% in 2000 to 15%. However, the TAMA's urban population increased from about 67% in 2000 to about 74% in 2010 (Ghana Statistical Service, 2013b; Fuseini, 2014). By comparison, the urban population for Ghana and Northern Region in 2010 were 51% and 30% respective, up from 44% and 26% in 2000. This means that, while the TAMA grew slowly in total population, it witnessed an increase in its urban population by about 17 percentage points. The TAMA's status as the administrative and commercial hub of the entire northern Ghana, the greater job opportunities and better social services make it attractive to would-be migrants from other parts of the region (Ghana Statistical Service, 2013b).

The TAMA has quite a youthful age structure although slightly less youthful than the average for Northern Region. In the 2010 census, the Metropolis' young population consisted of 44.2% of persons below 15 years, and 37.1% aged 15 to 39 years whereas Northern Region's figures were 44.9% and 37.9%, respectively. This implies that natural population increase is likely to play an important role in the city's future population growth. The age structure will also make higher demands on urban governance for urban infrastructure, education and healthcare services. Appropriate responses to strengthening the local economy through job creation and livelihood support will be required. Yet, in the developing countries, small towns like Tamale have little capacity to manage such unprecedented growth in terms of planning, infrastructure and service provision, job creation and environmental management (Watson, 2009).

With 60% of its population aged 11 and older being literate, the TAMA was the most literate district in the Northern Region with an average literacy rate of 37% in 2010. However, the metropolis' literacy rate was lower than the national rate of 74% as well as those of Accra and Kumasi at 90% and 83% respectively (Ghana Statistical Service, 2013a,b,c,d). The 2010 literacy level in the TAMA reflects the Northern Region's position as the least literate among the ten regions of Ghana. The low literacy rate in the TAMA has implications for the metropolis' socio-economic development given the relationship between education, human-resource development and socio-economic development (Ghana Statistical Service, 2013a). Education is imperative for the moulding of the human mind, acquisition of skills – both technical and cognitive – and the application of these to solve societal problems (Ghana Statistical Service, 2013b). Thus, low literacy in the TAMA may impact negatively on the availability of critical minds and skills to contribute to local development. It may also affect the populace's chances of getting employment in the formal sector where appreciable levels of skills are required, and this will affect people's ability to diversify their livelihoods to adapt to the urbanisation

processes. This helps to explain why a greater proportion of the TAMA's economically active population is engaged in informal sector activities (see Section 3.2.3.2).

Regarding cosmopolitanism or ethnic diversity, the TAMA is more homogenous than other major cities like Accra and Kumasi. This diversity is manifested in the percentage of the indigenous ethnic group in the city's population relative to other groups. Tamale is home to the Dagomba (Dagbamba[2]) ethnic group which belongs to the larger Mole-Dagbani group while the Akan group is indigenous to the Kumasi metropolitan area. Accra is home to the Ga-Adangme group. The proportion of the indigenous Mole-Dagbani ethnicity in the population of Tamale was 88% in 2010 compared to 75% Akan and 27% Ga-Adangme in the populations of Kumasi and Accra respectively. Comparatively, therefore, urban governance processes in Tamale should be less cumbersome than in Kumasi and Accra because the more cosmopolitan a society, the more likely it is that competing interests and demands come into play in its governance and decision-making processes. The next section elaborates on the local economic characteristics of Tamale.

3.2.3.2 Basic economic characteristics

The local economy of Tamale has transitioned from agrarian to service based. The proportion of the metropolis' population engaged in agriculture (crop farming and livestock rearing) was around 70% until the early 1980s. This was made possible by several factors including the post-independence governments' support for agriculture through input subsidies, low level of industrialisation to generate non-farm jobs and the population's limited access to public-sector jobs due to low levels of educational attainment among the populace (Songsore, 2009; Fuseini, 2014). It was noted above how a vibrant rice industry impacted positively on the growth of Tamale. Songsore (2009) suggests that the collapse of the rice industry following political instability in Ghana in the late 1970s and early 1980s, coupled with the poor economic performance and the subsequent introduction of the World Bank and International Monetary Fund (IMF) sponsored SAPs affected the agricultural sector and its capacity to generate employment.

Similar to the experiences of other Ghanaian urban centres, the introduction of the SAPs impacted on the local economy of Tamale in two ways. First, the removal of subsidies on social services and agricultural inputs caused an appreciable level of economic hardship among urban households, forcing them to adapt by engaging in informal-sector activities, including retail trading (Barwa, 1995; Songsore, 2009). Second, the SAPs deregulated the market and this ushered in globalisation processes which went a long way to promote formal and informal private participation in the economy (Briggs & Yeboah, 2001; Yeboah, 2003). The implementation of the SAPs was also characterised by key infrastructure development. For instance, northern Ghana as a whole was connected to the national electricity grid following the implementation; important road

[2] Dagbamba (singular, Dagbana) is used by the people of the ethnic group while Dagombas (singular, Dagomba) is used nationally to refer to the group. 'Dagomba' is considered a distortion by early or colonial writers but its use remain popular and 'official' even in contemporary times

networks were built including the redevelopment of Kumasi-Tamale-Bolgatanga trunk road into a first class road (Bawumia, 1998). Thus, the SAPs opened the local economy of Tamale to the rest of Ghana and the outside world. Consequently, the implementation of the SAPs along with the globalising processes have worked variously to change the structure of the Ghanaian economy and that of Tamale.

The structure of the local economy in Tamale has changed so much that the proportion of the population engaged in all agriculture-related activities dropped to about 42% around 2008 while employment in the service sector – retail trade, transport, banking and non-banking financial institutions, non-governmental organisations – rose to about 58% of the metropolitan population (Republic of Ghana, 2013b). By 2010, only about 20% of the Metropolis' economically active population was employed in agriculture while 13.2% engaged in manufacturing and mining-related activities. The rest was engaged in the service delivery sector (Ghana Statistical Service, 2013b). The economy of Tamale is however dominated by informal activities. The 2010 census revealed that about 81% of people employed in the metropolis were engaged in private informal activities compared to 13% and 5% in public formal sector and private formal activities, respectively.

An understanding of the changing structure of the Tamale's local economy is vital to appropriate intervention through urban governance to integrate and support local livelihoods in the increasingly globalised economy. For example, women in the Metropolis have traditionally been at the centre of the informal sector as traders in agricultural and agro-processing products – cereals, legumes, vegetables, spices and tubers (mostly yams). The active involvement of women in the private informal sector of Ghana has earned them various nicknames such as 'market women' and 'market queens', the latter suggesting their dominance in the sector. Increasing urbanisation pressures in the peri-urban areas of Tamale has caused many women to lose their traditional livelihoods of gathering sheanuts, forcing them to adapt to the changes by joining the pool of private-informal sector operatives so adding to congestion in the existing trading spaces. Consequently, it is a common sight of traders displaying their wares on walkways and sections of roads (Figure 3.2) (Nurudeen, 2013). This situation is discussed further in Chapter 5.

These characterisations of the TAMA's local economy create an urgency for the urban governance systems to integrate the informal livelihood activities into the spatial-planning processes and also to supply adequate urban infrastructure to support these local-economic activities in the Metropolis. Reassuringly, the central and local-government authorities, along with their development partners have recognised the importance of the informal sector in the city's economic mix and have initiated collaborative programmes to provide requisite infrastructure for its growth. Part of these efforts are the renovation and extension of the two biggest existing marketplaces – the Old Market and the Aboabo Market – in the metropolis. The ongoing projects are expected to augment the existing market space and add 242 stores for cereal traders and a supermarket with about 120 shops (Figure 3.3) (BUSAC Fund, 2014; Mohammed, 2014b). Similarly, the newly created SDA is embarking on strategic partnerships with the private sector to develop new local marketplaces to provide space for these informal-economic activities and widen the SDA's internal revenue-generation portfolio. Faced with

Figure 3.2: Informal business activities take over walkways, pedestrian and cyclist lanes in Tamale, Ghana

Figure 3.3: Development of market infrastructure for informal businesses in Tamale, Ghana

resource constraints due to its young age, the SDA provides demarcated spaces and invites interested individuals and groups to come in and erect low-cost structures to do their businesses while the Assembly mobilises funds to build permanent market structures for them. See discussion in Chapter 7 on how these initiatives could enhance urban governance in the TAMA. Discussion on land tenure in the next section concludes the description of the socio-economic characteristics of Tamale.

3.2.3.3 Land tenure

Land tenure can be defined simply as the rules and arrangements that provide socio-legal frameworks within which the rights of ownership, control and use of land are exercised (Fuseini, 2014). In many jurisdictions in Africa, including Ghana, two forms of land tenure systems are discernible – formal or statutory and customary tenurial arrangements (Kasanga & Kotey, 2001; Ubink & Amanor, 2008a; Ubink & Quan, 2008). Formal or statutory tenurial arrangements relate to land under the control of the state. In the case of Ghana, statutory land tenure relates to public lands that have either been compulsorily acquired to serve larger societal interests or land vested in the state to be administered on behalf of and for the benefit of a particular group, clan or family (Kasanga, 2001; Kasanga & Kotey, 2001). Customary land tenure relates to land not under state control but which is controlled by a group, clan or family and administered for the benefits of its members as well as those who acquire right of use through laid-down procedures and rules (Kasanga, 2001; Fuseini, 2014). Mostly customary land exists without or with very little documentation (Fuseini, 2014). Control over customary land is often exercised by chiefs or clan and family heads and, depending on particular geo-sociological instances, such communally-owned land could be termed a stool, skin and family land (stool land largely refers to communal land in the south of Ghana while skin land is used mostly in northern Ghana as chieftaincy authorities are vested in stools and skins respectively). About 80% of the land in Ghana is customarily owned (Ubink & Quan, 2008) and, as noted earlier, public land is acquired from the customary sector.

In its purest form, chiefly control over customary land does not imply an express authority or right to alienate land on his own accord. In other words, customary land tenure bars the managers from unilaterally allocating land for their personal benefits because the land perpetually belongs to the whole group including its dead members and those yet to be born. This perpetual ownership of communal land is illustrated in the Holy Bible, in 1 Kings 21, where Naboth thought it a prohibition to sell his vineyard to Ahab because it was the former's father's inheritance (Fuseini, 2014). The Ghanaian Constitution also recognises that control of land carries a social obligation and that managers are mere fiduciaries who ought to ensure that they manage the affairs of land for the benefit of the appropriate groups and citizens (Kasanga, 2001).

Tamale lies in the Kingdom of Dagbon where land is communally owned and vested under the care of chiefs or skins. The concept of family land does not exist in the Dagbon Kingdom. Land tenure in the area has a normative underpinning of the classical customary tenure as described above. Control of land is tied to the chieftaincy office whereby chiefs with varying authorities exercise control over sections of the Kingdom's

land relative to their authorities. Interest in land is hierarchically structured with the Yaa-Naa (the King) sitting at the apex of the structure and exercising control through his divisional and village chiefs down to the ordinary citizens at the bottom of the hierarchy. In this regard, two basic interests in land are recognised; allodial interest which is the highest and is held by the Yaa-Naa, and usufructuary right held by subjects of the Kingdom. The King controls the land by designating his divisional chiefs to take care of large sections of the Kingdom's land. These divisional chiefs in turn designate their sub-chiefs to perform the day-to-day supervision and control on sub-divided sections of the land. Landmarks, including important trees, are used to mark these sub-divisions as no clearly delineated physical boundaries exist for the purpose. The dawadawa trees (see section 3.2.2.2) are particularly used for this purpose. Customarily, the system rewards the chiefs for their supervisory roles by granting them sole legitimate right to, and ownership of, fruits harvested from the dawadawa trees.

In a traditional setting or an agrarian economy, this arrangement allows natives of the Kingdom to settle anywhere and use the land to pursue their livelihoods without having to seek prior approval of the Yaa-Naa or any of his chain of sub-chiefs (Fuseini, 2014). However, no subject is allowed to sell the land and if a subject leaves a piece of land unused for a period beyond the normal fallow period, another person can occupy it without the former having any legal claim to the said land at any time in the future. For farming purposes, strangers could also access land with ease by approaching a village chief and making a request by presenting a token, traditionally termed *cola*[3]. However, any large-scale agricultural activity would have to be approved by at least the divisional chief (approval ends here if the individual is a native), and eventually by the Yaa-Naa, if it is undertaken by a stranger. Similarly, non-agricultural land uses, like land for rural housing purposes by natives require only informing (with cola) the village chief about one's intentions and where he/she wants to site. Strangers could also present cola and gain access to land for housing development. These measures have been put in place to guarantee access to land by all in an agrarian economy.

This egalitarian arrangement for ensuring access and social justice with respect to land was recognised and appraised as progressive by the colonialists, who thus thought against tampering with its basic roots. A colonial official is reported to have recommended that:

> It is of the utmost importance not to destroy the existing system of land tenure, more especially as we do not know its incidence. Bearing in mind that the traditional authorities (i.e. chiefs) have no power to dispose of, or hold land, it is essential to devise some system whereby existing land tenure is allowed to persist and develop side by side with administrative progress and some means whereby essential disposition of land can be readily made and recorded (Kasanga, 1995 p. 23).

The colonialists' view is echoed by the modern Ghanaian Constitutional provision noted earlier about the need for responsible management of communal land for the equitable benefit of larger society. However, societal

[3] A caffeine-containing nut from the cola tree found in the tropical rainforest of Africa. Cola has had important customary uses in Dagbon tradition especially in marriage, enskinment, funerals, invitation to functions/ceremonies, token for making certain requests and thanksgiving. However, it is gradually being replaced by money and other valuables even though these are still contextualised as cola.

dynamics, especially in the present era of monetised globalisation, have altered customary land tenure a great deal. Indeed, the colonial official who made the above recommendation for the preservation of customary land tenure 'prophesied' about the indigenous system's inevitable collapse, a prophecy Kasanga thought had come true as far back in 1995 (Kasanga, 1995). There is ample evidence to suggest that customary land tenure in Ghana has undergone rapid changes from one grounded in egalitarianism to one expropriated by the custodians at the expense of the ordinary people (Ubink, 2007, 2008; Ubink & Amanor, 2008a; Ubink & Quan, 2008).

The chiefly expropriation of communally-owned land is even more pronounced in northern Ghana, including Tamale, where the restitution of land back to the people, with the chiefs acting as custodians, precipitated the evolution of morbid land market by which chiefs commoditise and allocate land for personal gain (Kasanga, 1995; Yaro, 2010). Here, land-related conflicts are emerging. This makes a fallacy of customary tenure or communal ownership as a system that guarantees equity and social justice. It thus justifies the colonialists' decision to vest northern Ghana lands (in an apparent attempt to forestall the tendency of individualisation and expropriation) in the state for administration for the benefit of the people (Amanor, 2009; Awedoba, 2010). The practice also reveals the challenges in land governance in Ghana despite a combination of constitutional provisions and the establishment of many parastatal agencies to manage land for sustainable socio-economic development ((Kasanga, 2001; Kasanga & Kotey, 2001; Amanor, 2009). The evolved customary land-tenure dynamics have had negative implications for urban governance, especially regarding spatial planning in Ghanaian urban centres (Boamah, Gyimah & Nelson, 2012; Yeboah & Shaw, 2013; Fuseini & Kemp, 2015). The effect of changing land tenure on spatial planning and urban governance in Tamale is discussed in Chapter 6.

The discussion in this section has elaborated on the physical and socio-economic features of Tamale relevant to urban governance. Demographic dynamics, local economic features and evolving land tenure present particular urgency for appropriate urban governance responses. The roadmap of the study is reported in the following section.

3.3 ROADMAP OF THE STUDY

This section reports the roadmap of the study. The section is divided into two parts, namely methodology and methods the latter concerning data capture and analysis.

3.3.1 Methodology

This section describes the procedure and logic of the organisation and execution of the study. The discussion is centred on research design, approach, philosophical considerations, research validity, researcher positionality and reflexivity, and ethical issues of research. The description of methodology in this section is complemented by specific methodologies in Chapters 4, 5 and 6.

3.3.1.1 Research design

The nature of the study objectives and research questions made it inappropriate to adopt a single research design like cross-sectional or case study. According to Bryman (2012), cross-sectional design is one where data collection is done on more than one case or entity at a point in time whereas case study design entails collection of data and analysis on a single case. Given the objective to analyse the urban governance and

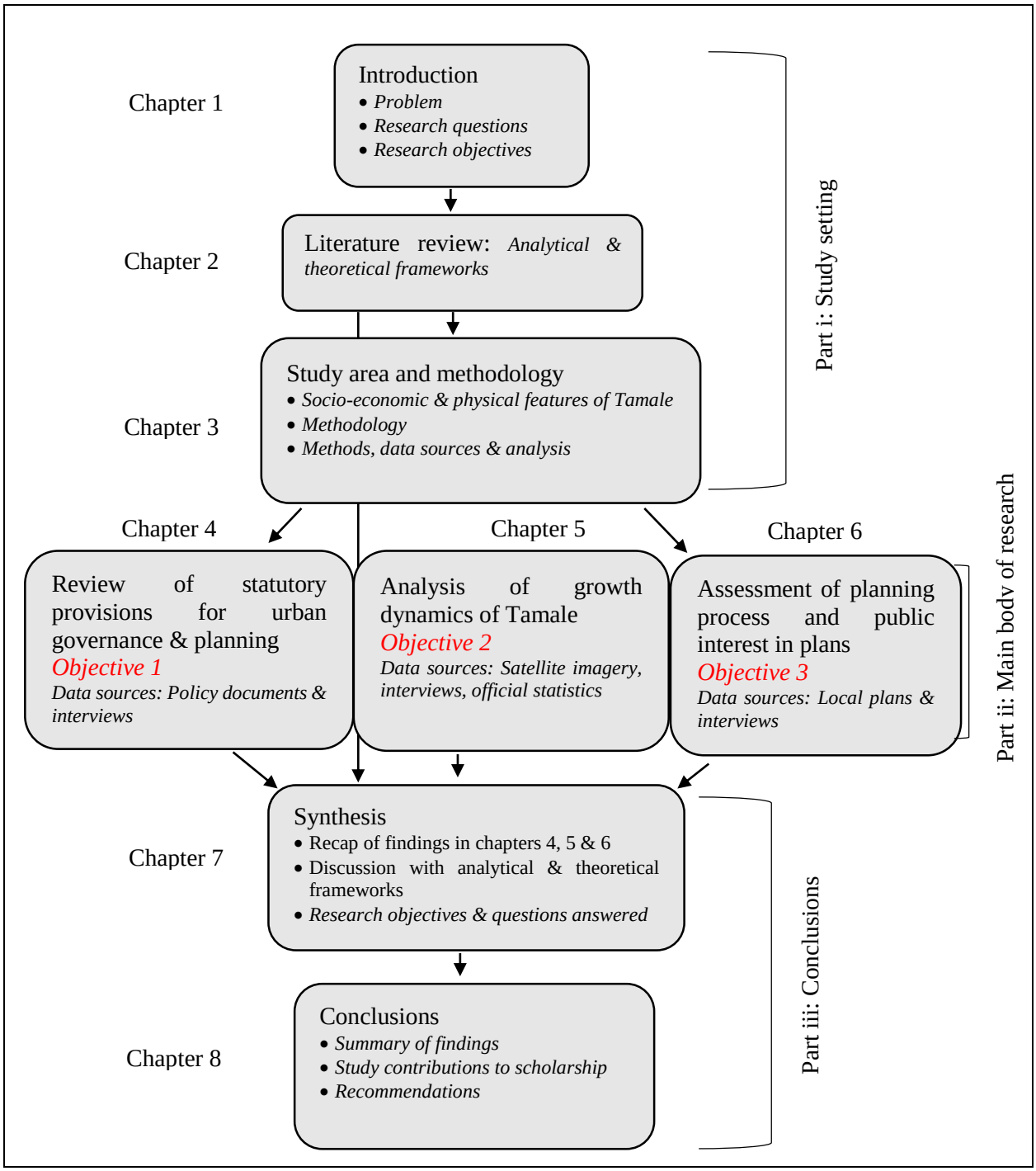

Figure 3.4: The study design and structure of dissertation

spatial planning practices among multistakeholders (characteristic of cross-sectional design) in Tamale (a case), it was deemed appropriate to adopt a research design that combines elements of cross-sectional and case study designs (Bryman, 2012). The hybrid research design makes it practical to do quantitative analysis

through Remote Sensing (RS) and Geographic Information Systems (GIS) techniques, gather interview data from multistakeholders involved in urban governance and spatial planning in Tamale, do content analysis of local plans of Tamale and make use of official statistics and published literature regarding Tamale. The research design is a description of all the research processes from conception of a topic of investigation through observation to presentation of study results (Babbie, 2005).

In this regard, Figure 3.4 illustrates the organisation of the study from conception to conclusion. The study was structured in three parts. Part i concerns the settings of the study including the main introduction, review and discussion of the analytical and theoretical frameworks, profiling of the study area, description of the methodology, methods, data sources and analysis. The study was executed in Part ii where it was structured around three stand-alone journal articles and/or manuscripts, each answering a study objective. The execution of the study was concluded in Part iii where a synthesis was done through amalgamation of the three journal articles and/or manuscripts and the information set out in the preliminary chapters particularly the analytical and theoretical frameworks in Chapter 3. The subsequent sub-sections describe the various components of the research methodology starting with the philosophical perspective and choice of research approach in Section 3.3.1.2.

3.3.1.2 Philosophical perspective and choice of research approach

Interpretivist and *constructionist* stances of epistemology and ontology respectively formed the philosophical basis of the study. These philosophical positions reject positivist view of an objective reality and consider knowledge as constructed and situated (Golafshani, 2003; Bryman, 2012). In other words, the interpretivist and constructionist stances are amenable to contextual understanding and appreciation of social actors as differentiated and active agents (Bryman, 2012). Thus, the interpretivist and constructionist philosophical positions allow for better appreciation and understanding of the behaviour of stakeholders involved in spatial planning and urban governance is particularly relevant given the increasing shift from "planning for the public" to "planning with the public" (Klosterman, 1999 p. 2). This appreciation of social agency by the interpretivist and constructionist philosophies finds expression in contemporary collaborative planning and urban governance which are employed as theoretical and analytical frameworks in this study (see Chapter 2).

Based on the research objectives (analysing the spatial growth of Tamale, assessing the legal basis for the conduct of urban governance and spatial planning, and investigating urban governance and spatial planning processes in the city), the interpretivist and constructionist philosophical positions taken and the collaborative planning theoretical and the DED analytical frameworks considered, a mixed research approach was employed. This allowed for quantitative analysis of spatial growth and qualitative investigation of the social actors involved in urban governance and spatial planning processes (Babbie, 2005). In other words, combining both methods of investigation was a strategic move intended to answer different research questions and objectives (Bryman, 2012). The quantitative analysis involved the application of RS and GIS techniques which have become useful and proven tools for spatial analysis (Campbell & Wynne, 2011; Myburgh & van Niekerk,

2014). The mixed methods research strategy also allowed for qualitative investigation of urban governance and spatial planning processes and outcomes through unstructured personal interviews, review of policy documents and content analysis of sample local plans. A description of research validity and reliability is given in the next section.

3.3.1.3 Research validity and reliability

The concepts of research validity and reliability have traditionally been associated with quantitative research under positivist epistemology that seeks to test the generalisability and trustworthiness of research findings (Golafshani, 2003). In this context, reliability connotes replicability of research processes and results, whereas validity concerns with the truthfulness of research findings (Whittemore, Chase & Mandle, 2001). Or as Roberts, Priest & Traynor (2006 p. 41) put it, "reliability and validity are ways of demonstrating and communicating the rigour of research processes and the trustworthiness of research findings." Given the aforementioned orientation, the application of the concepts of validity and reliability in qualitative research is challenging in that unlike quantitative research, qualitative research technique seeks understanding rather than measurement and explanation (Whittemore et al., 2001; Golafshani, 2003; Roberts et al., 2006; Thanasegaran, 2009). However, it is argued that consideration of rigour in research, exemplified by issues of validity and reliability, is needed to differentiate scientific knowledge from fiction (Morse et al. 2002). It is, therefore, suggested that each research paradigm – quantitative versus qualitative – should devise its own criteria for ascertaining the rigour and trustworthiness of research such that while quantitative researchers use the terms validity and reliability, their counterparts in qualitative research would dwell on the terms credibility, neutrality, confirmability, consistency and transferability to check the rigour and trustworthiness of their research (Morse et al., 2002; Golafshani, 2003).

Following from the above, two basic strategies were employed to ensure rigour and trustworthiness of this research. The first concerns detailed description of the processes of capture, processing and analysis of the spatial data (satellite imagery and sample of local plans). The descriptive exercise was complemented by display of confusion matrices to illustrate various degrees of classification accuracy including overall accuracy, producer accuracy, user accuracy as well as class specific accuracies (see Appendices 1 & 2). This was to demonstrate how the data were processed and analysed (for possible replication) and to afford the reader the opportunity to assess the validity or trustworthiness of the results in a quantitative sense.

Efforts to ensure credibility and trustworthiness of the qualitative aspect of the research involved researcher neutrality and application of certain techniques (like reversal questioning in interviews) to ensure consistency and confirmability in the capture and analysis of the data. Reversal questioning technique was employed to check the consistency of answers given by respondents. Also, the open-ended nature of the interviews meant that the researcher could confirm certain answers or statements given in previous interviews with other respondents. The aforementioned process formed the basis for the emergence of shared opinions and

experiences, and these subsequently formed the themes for the analysis of the data. Through these processes, it was possible to employ raw data examination and data reduction (elimination of apparent contradictions) techniques to check the consistency and confirmability of answers and statements given by respondents (Golafshani, 2003). Also relevant in this regard was personal observation of the mood, tone and physical gestures and expressions of respondents when they answered questions.

The strategies discussed above were employed to ensure the validity and reliability of the quantitative part of the research and the credibility, consistency, confirmability, neutrality and trustworthiness of the qualitative component. The discussion now turns to researcher positionality and reflexivity in the next section.

3.3.1.4 Researcher positionality and reflexivity

In qualitative or social research generally, the researcher's position relative to the research participants or community can have significant influence on the data collection processes and the final report of the research. As Bourke (2014 p. 2) notes, "the nature of qualitative research sets the researcher as the data collection instrument … [and that] reflects the likelihood that the researcher's own subjectivity will come to bear on the research project and any subsequent reporting of findings." In other words, the product of qualitative research largely depends on the ability of the researcher (Golafshani, 2003). It is also contended that a researcher's positionality (whether insider or outsider) can have implications for access to research participants and/or information (Visser, 2001). Therefore, in qualitative research, the researcher's sociocultural background relative to the research participants or community as well as the political and temporal institutional environments ought to be considered in the preparation and execution of a fieldwork research project (Visser, 2001; Bourke, 2014).

In respect of the binary insider-outsider consideration (Visser, 2001), the researcher involved in this research was an insider in Tamale because he is a native of the area, and in recent times has involved in research conducted in the metropolis. In this research, the target research participants were of the elite category in that these were people who occupied certain positions within the local-government structures and hierarchy. Therefore, in terms of social standing they were in a position to interact on equal terms with the researcher thereby reducing the risk of researcher's subjectivity influencing the process. Furthermore, the governance structures of the TAMA were very stable compared to what Visser (2001) encountered when he conducted fieldwork in Tygerburg in the first decade of South Africa's democratic transition. This meant that there might not be any other consideration of the researcher by the respondents other than that of an indigene of the area. The study environment was also politically very stable compared to that encountered by Thuo (2013) when he conducted fieldwork in Nairobi around the time of Kenya's post-election violence in 2007. More so, the study area was culturally homogeneous and did not present any difficulties as was apparent in Visser's (2001) study in Tygerberg (a white person conducting research in the immediate post-apartheid era on the topic of social

justice), or in Bourke's (2014) study where a white researcher tried to explore the experiences of non-white students in a predominantly white University in the USA.

The networks the researcher built in previous research in the city proved useful in renewing trust between the researcher and the researched. This was particularly so as many of the respondents were drawn from institutions that previously participated in research in which the researcher was involved. Consequently, the previous networks benefited the researcher similar to how Thuo's (2013) previous institutional networks benefited his research in Nairobi. The introductory letter of the researcher was used to establish rapport with respondents who were unfamiliar with the researcher. In one incident, however, a respondent (a director of an institution) went as far as confirming the researcher's claim to have come from a certain community within the TAMA by instantly placing a call through to the DCE for the SDA (who comes from the same community) that 'Honourable, Issahaka is here to interview me regarding his PhD studies'. Upon confirming the researcher's status with the DCE, there was a lovely interaction between the researcher and the respondent. However, as Visser (2001) observed in Tygerberg, there is a limit to how much pre-existing networks can help in actual fieldwork situation, and that was where the researcher's positionality as coming from the city privileged the research process. In certain respects, much more detailed information was given in the local Dagbanli (Dagbani) language as opposed to the English language with which most of the interviews were conducted (based on their individual preferences). The use of local jargons and references to certain events gave the researcher the sense of better understanding the issues than an outsider researcher would possibly grasp.

Notwithstanding the above narratives, the researcher's experience agrees with Visser (2001) that the timing of fieldwork can blur the insider-outsider distinction. This emerged when the researcher visited a government agency for data. During the first visit a deputy director the researcher met indicated availability of the data but stated that it would be granted upon his boss's return from a trip. Upon his return, however, the boss said the data being requested could only be obtained in Accra. Clearly disappointed, the deputy director referred the researcher to someone in the head office in Accra and suspected that his boss denied access to the data because of the recent activities by Anas[4]. It means that the activities of Anas have created a certain epoch in Ghanaian society within which access to research participants and/or information is constrained to a certain degree irrespective of the positionality of the researcher. This leads to another experience that reinforces the need for qualitative research methodology to be flexible and amenable to some of these contingencies, especially in terms of time and budget. Aside from the inevitable trip the researcher had to make to Accra for unknown number of days, there were several instances that interviews had to be rescheduled and these had implications for the duration of the fieldwork and the budget of the research.

[4] Anas Aremeyaw Anas is an international award winning Ghanaian investigative journalist who has done several undercover investigations and has exposed corrupt practices in Ghanaian public sector and internationally.

From the above, it would be concluded that the researcher's positionality as a citizen of Tamale did impact positively on the research even though the process was punctuated by few intervening hitches that slowed the speed of the fieldwork. Thus, two lessons were learned from the fieldwork. First, given a more stable local institutional base, more homogeneous research population and good pre-existing networks, a researcher's insider positionality could be engendering to fieldwork research. Second, the experiences presented in the study affirm Visser's (2001) argument that there may be more to the binary distinction of insider-outsider classification regarding researcher positionality depending on certain intervening contingencies, demonstrated in this case by the fear of being surreptitiously studied by an undercover journalist.

3.3.1.5 Ethical considerations

Ethical issues are essential components for ensuring integrity of research. They are particularly important in social research where the researcher(s) often interact (s) directly with human subjects either as research participants or administrative personnel. There are ethical principles social researchers generally agree should be adhered to in order to enhance the integrity of research, and which research and academic institutions consider before granting permission for the execution of research projects. These principles include informed consent, voluntary participation, no harm to research participants, anonymity, confidentiality, respect for respondent's privacy and no deception[5] regarding the real intent of the research (Babbie, 2005; Bryman, 2012). According to Babbie (2005), it is imperative to clearly inform prospective research participants about the voluntary nature of the research and also assure them of no physical or psychological harm as a result of their participation in the research. Anonymity and confidentiality are guarantees that the researcher will, as far as is practicable treat the information given by the respondents in ways that will not expose the research participants to harm, risk or victimisation of any sort. The concept of informed consent is operationalised to clarify ethical issues with prospective research participants at the beginning of the research process (Miller & Boulton, 2007). Once prospective participants agree to participate in the research, the researcher is ethically bound by these terms throughout the research process (Miller & Bell, 2002). Clearing up ethical issues with research participants builds trust and openness between the researcher and the researched thereby promoting quality interaction for quality information (Boeije, 2010). Avoiding deceptive tendencies in social research aims to ensure research integrity and maintain the mutual trust that is desirable between researchers and research participants (Bryman, 2012).

The researcher complied with the above ethical considerations by obtaining ethical clearance from Stellenbosch University's Research Ethics Committee (REC) (Appendix 2) for the conduct of the research. The research was deemed 'low risk' (i.e. research does not involve sensitive issues and children) and thus Departmental ethics screening (DESC) approval was granted and certified by the Humanities Research Ethics

[5] This principle is difficult to abide by as deception is employed in certain respects (e.g. in social psychology research) to allow the researched act in their natural manner or in other social research where deception is used to elucidate certain social behaviour and practices (Bryman, 2012).

Committee (REC). The researcher also obtained an introductory letter (Appendix 3) from the chair of the Department of Geography and Environmental Studies, copies of which were given to the respondents in addition to the informed consent form (Appendix 4). The informed consent form explained all the ethical issues to the prospective research participants including their rights to participate voluntarily and withdraw from the research, no harm to their person, no material benefits, confidentiality and anonymised treatment of their responses. The introductory letter (and in a few instances the researcher's ID card) helped to establish trust and cordiality between the researcher and the research participants. Interactions were always done at the convenience of the participants. Generally, these arrangements facilitated the interview processes and also allowed the participants to ask questions to clear their mind of any doubt regarding the research and the information they gave.

It conclusion, it is restated that the methodological organisation of the study comprised the research design, philosophical perspective and choice of research approach, research validity and reliability, researcher positionality and reflexivity and ethical issues. Research methods and sources of data for the study are described in the next section.

3.3.2 Methods and data sources

Based on the research strategy described above, three sets of data were collected from satellite imagery, interviews and secondary sources (including policy documents and local planning schemes). The use of these sources and the nature of the datasets are given in the following subsections. Analysis of the data is given in Section 3.3.3. Greater detail about the sources, data and analysis is given in the methodology discussions in Chapters 4, 5 and 6.

3.3.2.1 Satellite imagery

The satellite imagery data comprised two datasets from two different satellite missions. The one was IKONOS image of 28 September 2001 procured from DigitalGlobe through the South African National Space Agency (SANSA) and the other set was RapidEye image of 11 January 2014 acquired from the European Space Agency (ESA) under its Third Party Mission (TPM) data-access programme. The two datasets were acquired to facilitate time series analysis of the city's spatial-growth dynamics. Consequently, the analysis of the satellite imagery was employed to answer research objective two and research question one. The 13-year period of analysis was constrained by a paucity of data as very-high-resolution satellite imagery (envisioned for the study) did not exist prior to 2000. Previous studies (e.g. Braimoh & Vlek, 2004; Fuseini, 2014) laid the foundation on which the present study was built. Besides data limitations, there is no standardised period for time-series analysis except that an observation period should be long enough to illustrate changes over time (Watts & Halliwell, 1996). Consequently, the 13-year period was deemed sufficient to depict the urban-growth dynamics of Tamale in light of the purpose to relate the growth dynamics to urban governance processes.

3.3.2.2 Interviews

Interviews were conducted with identified stakeholders in spatial planning and urban governance in Tamale. This dataset was used to answer the research objectives one and three as well as research questions 2 to 6. Because the sample frame of stakeholders in spatial planning was very limited (not ubiquitously distributed) as defined by Ghana's local-government law, a purposive sampling technique was employed to select respondents. The advantage of this nonprobability sampling technique is that it allows research participants to be selected who are most appropriate for the study based on their peculiar characteristics and the purpose of the research (Babbie, 2005). Sixteen interviews were conducted among respondents from the Tamale Metropolitan Assembly (TaMA), the Sagnarigu District Assembly (SDA), the Town and Country Planning Department (TCPD), the Lands Commission (LC), the Ghana Water Company Limited (GWCL) and Gulkpegu Customary Land Secretariat (CLS). The distribution of respondents and the rationales for their selection are given in Table 6.1, Chapter 6.

Semi-structured (open-ended) in-depth interviews were conducted. Among the three main qualitative data-gathering approaches – structured, semi-structured and unstructured – semi-structured interviews are popular in social enquiries as they define key questions but allow respondents to give more detailed information (Gill, Stewart, Treasure & Chadwick, 2008). The approach has the advantage of generating a wealth of information beyond that which a researcher initially conceives, leading to important discoveries in the research process (Babbie, 2005). Essentially, the approach involves the researcher developing a "general plan of inquiry but not a specific set of questions that must be asked with particular words in a particular order" (Babbie, 2005 p. 314). Nevertheless, it is important for the researcher to be familiar with the types of questions to be asked to enhance the flow of the interaction and to keep respondents engaged by asking relevant probing questions. By asking relevant follow-up questions "control" is gained over the interview process (Babbie, 2005) and it enables optimal answers to be elicited (Turner, 2010). An interview guide (see Appendix 5) was developed on themes relative to the research questions and objectives so providing a frame for interviewer-respondent interactions. The questions thus focused on urban governance and spatial-planning frameworks, stakeholder engagements, successes and challenges. The interviews also aimed to assess, albeit indirectly, the practical effects of the various legislative frameworks guiding urban governance and spatial planning. The interviews were conducted between October 2013 and March 2014 with duration of each interaction with a respondent ranged from 35 minutes to 1h 20 minutes.

3.3.2.3 Secondary data

Secondary data were obtained from policy documents, government statistics and a sample of local plans. The policy documents were the Local Government Act (Act 462 of 1993), the National Development Planning Commission Acts (Acts 479 & 480), the Town and Country Ordinance of 1945 (CAP 84), the Lands Commission Act (Acts 483 & 767), the Environmental Protection Agency Act (Act 490)**,** the National Urban Policy Framework of 2012 and the Draft Land Use and Spatial Planning Bill of 2011. These were scrutinised

to understand the legislative frameworks guiding spatial planning and urban governance in Ghana and Tamale. Statistical and/or census data from the Ghana Statistical Service (GSS), the Department of Urban Roads (DUR), the Driver and Vehicle Licencing Authority (DVLA) and from published literature (e.g. Ghana Urbanisation Review Report by The World Bank) were also used. These datasets provided information on population figures, the population's access to basic services, vehicle and motorcycle registration figures and inventory of road networks in the TAMA. A sample of nine local plans were obtained from the TCPD to assess spatial-planning processes, namely plan development, implementation and stakeholder engagement in these processes. The use of the plans is described in Chapter 6. The next section describes how these datasets were analysed.

3.3.3 Analysis

The methods used to prepare and analyse the data are described in this section. The description of the analytical techniques rendered in this section overlaps with the analysis sections in Chapters 4, 5 and 6. The preparation and analysis of the satellite imagery is treated first in five subsections, followed by the processing and analysis of the information collected during the interviews and the section ends with an account of the processing and analysis of the sampled local plans.

3.3.3.1 Image analysis

The extraction, preparation and analysis of the image data involved four steps, namely pre-processing of the images, the selection and collection of training data, segmentation and classification of the imagery and assessment of the accuracy of the map classification. A related classification activity, the extraction of road networks in the images to assess the provision of road infrastructure in the city, completes the section.

3.3.3.2 Image pre-processing

The IKONOS imagery was delivered as a standard geometrically corrected product. Atmospheric correction was done using the ATCOR2 algorithm. The dataset consisted of a four-band (red, blue, green and near infrared) multispectral image with a resolution of 3.2 m and a panchromatic band at a resolution of 0.8 m. The multispectral image was pansharpened with the panchromatic band to obtain an overall resolution of 0.8 m. PCI Geomatica software was used for both the atmospheric and pansharpening exercises. The project had an extent of 14 788 by 12 952 pixels (11.8 km x 10.4 km).

Similarly, the RapidEye dataset was delivered as Level 3A orthorectified product that represents the highest processing standard among the mission's products (RapidEye, 2012). The Level 3A product is both geometrically and radiometrically corrected. The RapidEye imagery was clipped to the extent of the IKONOS imagery using ESRI's ArcMap software. Atmospheric correction to ground reflectance values was performed on the clipped image. The image had five bands (blue, green, red, red edge and near infrared) at 5-m resolution. The resolution of 5 m was judged to be adequate to perform a geographic object-based image (GEOBIA)

classification since the aim was to classify the extent of the built-up area rather than picking out individual features smaller than 5 m. The next section describes the processes of selection and collection of training data.

3.3.3.3 Collection of Training data

A five-class classification scheme (Built up, Bare ground, Water, Vegetation_Trees and Vegetation_Grass) was developed for the classification, for which training and reference sites were collected. The distribution of training sites is set out in Table 3.1.

Table 3.1: Distribution of samples for training and accuracy assessment for image classification

Class	No. of training sites per class		per class for accuracy assessment	
	IKONOS	RapidEye	IKONOS	RapidEye
Built up	200	200	67	150
Bare ground	100	300	69	150
Water	15	15	58	24
Vegetation_Trees	100	90	79	50
Vegetation_Grass	300	70	118	40

All of the samples for training and accuracy assessment of the 2001 image were generated through desktop selection from the pansharpened image with resolution of 0.8 m since there was no other option for doing this. Samples for the 2014 image were a combination of fieldwork-generated GPS point data and desktop selection from the image. The training sites and the points for accuracy assessment per class were proportionately selected by visual inspection according to class representation. Sample selection was based on simple stratified sampling technique which has the advantage of ensuring that all classes or geographic distributions of interest are captured in the sample (Campbell & Wynne, 2011). The water class, for example, could easily have been bypassed if a simple random sampling was employed.

3.3.3.4 Image segmentation and classification

Geographic object image analysis (GEOBIA) was used for the classification because it yields better results than traditional pixel-based image analysis (Zhou & Troy, 2008; Blaschke, 2010; Myint et al., 2011; Addink, Van Coillie & De Jong, 2012; Myburgh & Van Niekerk, 2013; Blaschke et al., 2014). The multiresolution segmentation (MRS) algorithm offered in eCognition software was applied to the images. MRS scale parameter of 3 and 60 were established as appropriate for the IKONOS and RapidEye images respectively. Mean layer values (spectral features) of all the input bands and NDVI (customised feature) were provided as input for the classification (Table 3.2). Geometric and class-related features such as area and border length

were used to improve the results when the first classification did not yield satisfactory results. The final ruleset used for the classification is shown in Appendix 6.

Table 3.2: Object features used in the GEOBIA classification procedure

• **Layer values** - mean of red, red edge, green, blue, and near infrared	• **Customised** - NDVI	• **Geometry** - Area - Border index - Border length - Rectangular fit - Shape - Length/width ratio	• **Class-related** - Rel. border to - Distance to

3.3.3.5 Accuracy assessment

Accuracy assessment is a measure of agreement between a classified map of unknown quality and reference data with known quality (Campbell & Wynne, 2011). The higher the level of agreement between the two, the more reliable the classified map and vice versa. Two common parameters used to assess accuracy of maps are overall accuracy percentage and the kappa coefficient derived from a cross-tabulation matrix called a confusion matrix. This matrix shows the class-specific accuracies for producer and user accuracies as well as overall accuracy. The classification produced good results with overall accuracies of 87% and 90.3%, and kappa values of 0.87 and 0.86 respectively for the 2001 and 2014 images. The confusion matrices and derived statistics are shown in Appendices 1 & 2.

3.3.3.6 Extraction of road networks

An exercise was performed to determine the state of road infrastructure within the TAMA relative to the spatial growth dynamics, namely expanding built-up area and increasing numbers of vehicles and motorcycles (see Chapter 5). This exercise contributed to the analysis of the spatial growth dynamics of the city (objective one) as discussed in Chapter 5. A binary classification scheme was devised to classify the discernible roads into tarred and untarred roads. To relate the development of road infrastructure to the city's built-up extent in 2001 and 2014, road networks were extracted from the respective images through on-screen digitising in a GIS environment. The results are presented as classified maps for a physical depiction of the state of road networks in the Metropolis in Chapter 5.

3.3.3.7 Analysis of interview data

The interview information was processed using ATLAS.ti qualitative data analysis software (QDAS). The ATLAS.ti QDAS facilitates the organisation of unstructured qualitative information along desired themes and

categories (e.g. research objectives and questions) through coding. The software also allows for manipulation of qualitative data by creating networks of nodes, links and relations as well as performing some basic query activities through the use of Boolean, semantic and proximity operators (Friese, 2013). The main activity in the use of the ATLAS.ti QDAS is the coding procedure which can be done either deductively (strongly structured along predetermined themes) or inductively (requires rigorous intellectual activity to build meaning from the unstructured data as in the Grounded Theory approach that Glaser & Strauss (1967) proposed. The interview data were analysed using a quasi[6] inductive coding approach whereby coding was done such that meaning emerged from the data rather than strict ordering consistent with the research objectives and questions. This was done to take advantage of the element of serendipity as a principle in extracting meaning out of unstructured data (Friese, 2013), especially as qualitative data can be richer than the initially predetermined research objectives and questions.

3.3.3.8 Analysis of sampled local plans

The local plans were primarily secured to aid the assessment of public land-use zonings in local plans of Tamale. This exercise was meant to gauge how public interest is treated in planning and plan implementation. The plans were processed through georeferencing and digitising using ESRI's ArcMap Software (Version 10). Public land-use zonings, the focus of this exercise, were digitised individually while the other land use types were digitised at parcel level. Maps were prepared for the digitised plans and the identified public land-use zonings were classified into seven classes, namely open space, reserve/buffer, sanitary area, school/clinic, market, social centre and worship. See Chapter 6 for the distribution of these classes.

The next step in the plan analysis involved determining the status of these public land-use zonings on the ground. Status was assigned as not encroached (either developed for the intended public use or the zoning remained for future development), encroached completely (i.e. developed for other uses) and partially encroached (i.e. partly developed/encroached or partly encroached/preserved for future development). Determination of the status of the public land-use zonings was done in two complementary ways. First, ground truthing was carried out in January 2015 to physically verify the status of some (due to time constraint) of the classes on the ground. Second, the digitised plans were converted to Keyhole Markup Language (KML) files (.kml, .kmz) to render them viewable in Google Earth. This allowed the on-screen visual interpretation of the plans against the backdrop of high-resolution satellite imagery acquired on 4 December 2014. Thus, the status of the identified public land-use zonings was determined complementarily through ground truthing and desktop review in Google Earth. The interpretation in Google Earth was aided by expert knowledge of the area, size, orientation and context of objects of interest.

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[6] Not as rigorous as the Grounded Theory approach by Glaser and Strauss (Glaser & Strauss, 1967) as coding was still influenced to a large extent by the research objectives and questions in the mind of the researcher. Not as rigorous as Grounded Theory approach by Glaser and Strauss (Friese, 2013) as the process was still influenced to a large extent by the research objectives and questions in the minds of the researchers.

3.4 SUMMARY

The chapter presented the demographic, social, economic and physical background information of the study area. To a large extent, the presentation was contextualised in urban governance and spatial planning practices in the areas regarding their implications. Demographic dynamics, structure of the local economy, land tenure dynamics and physical conditions were appraised for their implications for the conduct of urban governance and spatial planning.

The second part of the presentation centred on the roadmap of the study. The roadmap was structured and discussed along the methodology, methods and sources of data, and analysis of data. The description of the methodology spanned the study design, philosophical perspective, research validity and reliability, researcher's positionality and reflexivity, and ethical issues in scientific research. Three sources of data were presented under the methods and data sources, namely satellite imagery, interview information and secondary data. Similarly, the analysis of data followed the three datasets with specific techniques employed in the processing and analysis of each dataset. The discussion of the methodology, methods and sources of data, and analysis in this chapter was done taking cognisance of specific methodological and analytical presentations in Chapters 4, 5 and 6. This was purposively done to provide a generalised description of the methodology, methods and analysis to overlap with the specific methodological presentations in Chapters 4, 5 and 6. The aim was to ensure a comprehensive discussion of the methodological and data analysis techniques employed in the study.

The next three chapters contain the bulk of the analytical work organised on the research objectives and structured as journal articles. Chapter 4 presents a review of spatial planning trajectories in Ghana vis-à-vis the temporal legislative environment. A characterisation of urban growth dynamics of Tamale is presented in Chapter 5 with discussion on urban governance responses to urban growth regarding the provision of urban infrastructure and services, namely road networks, electricity, water and sanitary facilities. The processes of urban governance and spatial planning in Tamale are discussed in Chapter 6.

CHAPTER 4 A REVIEW OF SPATIAL PLANNING IN GHANA'S SOCIO-ECONOMIC DEVELOPMENT TRAJECTORY: A SUSTAINABLE DEVELOPMENT PERSPECTIVE[7]

ABSTRACT

This study provides a review of spatial planning in the context of Ghana's socio-economic development trajectory. Spatial planning has been integral to the economic policies of the country since colonial rule. Yet, its role has been overshadowed by the domain of socio-economic planning. Drawing from published literature, policy documents, legislative frameworks and interviews, this study reveals the different context and scope within which spatial planning has been implemented in Ghana, and the successes and failures thereof. While the colonial governments employed spatial planning on limited scale and for exploitative purposes, post-colonial governments have implemented broad-based planning grounded in the 'genuine' aspiration to promote a spatially balanced development. This study argues that post-independence planning has not been successfully implemented compared to pre-independence planning due to a myriad of factors including rapid urban growth, inadequate staffing, low capacity, lack of institutional coordination, political interference in planning, complex land tenure and evolving land markets among others. Consequently, urban centres in Ghana are beset with problems such as poor environmental conditions, poor infrastructure and service delivery, and uncontrolled growth; and these are inimical to sustainable urban development. The study lauds renewed efforts to transform planning in the spirit of sustainable development through the national urban policy framework of 2012 and a proposed land use and spatial planning bill; the latter proposes planning based on the spatial development framework, and a repeal of an obsolete 1945 planning ordinance that has underlain planning since. It is argued that if supported and harmonised the two initiatives present the best planning framework in the 21st century Ghana.

4.1 INTRODUCTION

Spatial planning is often employed to manage one of the most valuable naturally endowed resources, land. Land is of central importance to the socio-economic development of people and nations as almost all human activities occur in space. The importance of land can be grasped from its key characteristics, among which include its finite nature (Duke & Wu, 2014), it provides direct livelihood sustenance to a large number of people but with declining per capita (De Wit & Verheye, 2003; Foresight, 2011; Lambin & Meyfroidt, 2011), it supports ecosystem services that are vital to the environment and humanity (Ahern, Cilliers, & Niemelä, 2014; Andersson et al., 2014a,b; Bierbaum et al., 2014), and also its socio-politico-religious functions that accord identity and sense of belonging to the people (Kasanga, 2001; Foresight LUFP, 2010; Fuseini, 2014).

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The emergence of the concept of sustainable development has added another dimension to the need for judicious planning as the former seeks to integrate economic development with environmental and social equity.

Increasing competition for space among human activities has been the motivating factor for the practice of land use planning (Pacione, 2009). Rapid urbanisation is set to increase this competition and stake more claim for prudent management of land resources in the 21st Century. This will especially be the case in the developing world which is forecast to be the epicentre of future urban growth (Cohen, 2004, 2006; Montgomery, 2008; Angel et al., 2011; Kundu, 2012; Roy, 2014). It is projected that as much as 70% of the world's population will live in urban areas by 2050, and most of the growth is expected in the developing world (Montgomery, 2008; UN-Habitat, 2009a). The rapid urban population growth has been associated with demographic dimension of declining densities and spatial expansion of urbanised areas (Angel et al., 2011). For instance, between 1980 and 2000 urbanised areas of the developing world increased by about 118% (Singh & Asgher, 2005). According to Angel et al. (2011), whilst the world's urban population is expected to double in 43 years, the corresponding urban land cover is expected to double in only 19 years. The authors further intimate that between 2000 and 2030 the developing world is likely to witness a doubling of its urban population but a tripling of its urban land cover.

These projected trends of urbanisation and related processes in the developing countries present yet another urgent need for land management, in terms of urban land-use planning in a broader sense of urban governance, so as to achieve sustainable development and the Millennium Development Goals (MDGs) in particular. Proper land-use planning can contribute to effective management of urbanisation as the 1947 United Kingdom planning system is reported to have achieved its twin goals of curbing spatial sprawl and protecting good quality agricultural land (Pacione, 2009). Yet, many a developing country city managers are often faced with limited capability to cope with and manage such huge urbanisation engendered land-use competition in a sustainable manner (Montgomery, 2008; Pacione, 2009; UN-Habitat, 2009a).

It is in this context that this study sets out to review spatial planning in the socio-economic trajectories of Ghana, a rapidly urbanising West African nation. Assessing the role of spatial planning in urban governance in the Ghanaian context is relevant in that Ghana is only one of four countries in West Africa (and one of 21 in Africa) with more urban than rural population, similar to global trends of a more urban world (Obeng-Odoom, 2013). Ghana's demographic dynamics have shifted from predominantly rural at independence (70%) in 1957 to over 50% urban presently (Ghana Statistical Service, 2012; Government of Ghana, 2012; Obeng-Odoom, 2013; Andoh & Dodoo, 2014).

Geographically, colonial investment and planning created imbalanced spatial development where resource rich areas received most of the infrastructural development with very little or none in the resource poor areas, notably northern Ghana (Dickson, 1968; Songsore, 2003, 2009; Adarkwa, 2012). Therefore, retrospective analysis of pre-independence planning suggests that an important ingredient of sustainable development,

equity, was missing because there was no social and spatial equity in planning. Post-independence governments have attempted to promote spatially balanced development through planning. Yet, questions remain as to how successful these have been in terms of approach and results. Particularly, how does spatial planning in Ghana respond to the rapid urbanisation, increased land-use competition and international and national demand for sustainable development? Adarkwa (2012) notes urban land-use planning and governance weaknesses in contemporary Ghanaian cities. Similarly, Boamah (2013) and Boamah et al. (2012) have also noted development control challenges in the Offinso South and Wa Municipalities, which may apply to many Ghanaian Metrpolitan, Municipal and District authorities. Obeng-Odoom (2013 p. ix) goes further to assert that "urban governance in Ghana has … produced predominantly ineffective and inegalitarian" outcomes, the result being growing inequality in Ghanaian cities. The Ghanaian experience adds an interesting twist to the argument as to whether or not urbanisation in Africa impacts positively on the continent's development (see for example The World Bank, 1999; Njoh, 2003; Obeng-Odoom, 2010a), especially the scope of such benefits or otherwise across the economic and social strata of society.

What are the implications then: Is there the need for different planning approaches to promote the country's socio-economic development in a sustainable way? And what form should such approaches take? These are some of the concerns this chapter seeks to analyse. Consequently, this chapter contributes to our understanding of managing the rapid urbanisation processes, through planning, in Ghana in ways that promote effective integration of the social, economic and environmental facets of development. Even though a great deal of research has been done on urbanisation and related management issues in Ghana (e.g. Yeboah, 2000; Otiso & Owusu, 2008; Songsore, 2009; Obeng-Odoom, 2010b, 2012b, 2013; Owusu, 2010; Yeboah & Obeng-Odoom, 2010; Adarkwa, 2012; Boamah et al., 2012; Boamah, 2013; Yeboah et al. 2013), the present chapter seeks an historical review of spatial planning in the socio-economic development trajectories of Ghana; with special highlight of new developments that are geared towards improving spatial planning for the attainment of better urban governance and sustainable development.

Structurally, an overview of the concept of sustainable development in urban governance follows this introductory section (detailed presentation compared with the definition in Chapter 1). In section 4.3 the methodology for the organisation of the chapter is presented, which leads to the substantive matter of spatial planning and development in Ghana. The first part of the main presentation (section 4.4) concerns an historical discussion at three distinct planning periods – pre-independence, post-independence, and contemporary eras – in terms of the scope, successes and failures relative to the concept of sustainable development (which essentially seeks an integration of the social, economic and environmental components of development). The second part of the presentation (section 4.5) will then focus on new developments in Ghanaian spatial planning, highlighting the key features as well as whether or not such development presents better planning approaches to those witnessed in the planning history of Ghana. This is done by drawing on the historical presentation and relating it to the recent developments with a view to highlighting lessons learnt in the concluding section of the chapter.

4.2 CONCEPTUALISING SUSTAINABLE DEVELOPMENT IN URBAN GOVERNANCE

Since its emergence during the later part of the 20th Century, the concept of sustainable development has enjoyed a wide acceptance in different dimensions of development including in the practice of [urban] land-use planning and management. Thus, it has become quite common to encounter expressions such as "planning sustainable cities", "sustainable urbanisation", "sustainable land use planning", "sustainable urban development" among others (Rapoport, in press; Drakakis-Smith, 1995, 1996, 1997; Berke & Conroy, 2000; UN-Habitat, 2009a, 2012, 2014; Kruger, 2014). It may be argued that the popularity of the concept emanates from the high level political platform it enjoyed, its core proposition for integrating economic and social development with environmental issues as well as its future-centredness regarding development discourse (De Wit & Verheye, 2003).

Urban land-use planning is increasingly being perceived as a major role-player in achieving sustainable development as more of the world's population now live in urban areas amid challenges such as environmental degradation, food insecurity and spatial sprawl (Berke & Conroy, 2000; Satterthwaite, 2007; UN-Habitat, 2009a). This recognition has been associated with efforts at designing planning schemes that promote sustainable development agenda (Rapoport, in press; Berke & Conroy, 2000; UN-Habitat, 2009a; Angel et al., 2011; Chobokoane & Horn, 2014). However, integrating the three core elements of sustainable development – economic development, environmental/ecological preservation and social development and/or equity – into land-use planning is not without conflicts (Rapoport, in press; Godschalk, 2004; UN-Habitat, 2009a; Angel et al., 2011). These conflicts relate to the procedures and means of attaining sustainable development, which in turn concerns how to balance the trade-offs that emerge from the integration process. Some scholars are also of the view that there are inherent contradictions in the concept of sustainable development that foster these conflicts in attempts to apply sustainable development principles in land-use planning (Godschalk, 2004). Owens & Cowell (2002) state that:

> In practice, land-use planning proved to be one of the most important arenas in which conceptions of sustainable development are contested. Here, more than anywhere else, it has become clear that trying to turn the broad consensual principles into policies, procedures, and decisions tends not to resolve conflicts, but to expose tensions inherent in the idea of sustainable development itself, (p 28).

Notwithstanding the challenge of translating sustainable development principles into land-use planning, it is widely agreed, that land-use planning, under the general rubric of urban governance, is necessary to achieve sustainable urbanisation in the current predominantly urban world (Angel et al., 2005; Angel et al., 2011; Satterthwaite, 2007; UN-Habitat, 2009a). Among other things, sustainable urban development should target minimising spatial sprawl, judicious use and conservation of non-renewable resources, preservation of key renewable resources, livelihoods support and ecosystem services, developing conditions for efficient operation of enterprises and strengthening regulatory framework for ethical production process, support to informal sector and local economic activities as well as ensuring social equity and justice in urban setting (Berke & Conroy, 2000; UN-Habitat, 2009a). This broad conceptualisation of sustainable urban development finds expression in

what Obeng-Odoom (2013) calls the DED (decentralisation, entrepreneurship and democratisation) which are important for successful practice of urban governance.

Consequently, achieving sustainable development through poverty reduction, inclusive urban development, economic growth and ecological preservation has seen the emergence of what are termed "Local Agenda 21" projects in Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs) with requisite legislative backing for implementation (Chobokoane & Horn, 2014; Kruger, 2014). These initiatives are undertaken by the local-government entities but which reflect the broader regional and national development aspirations. For example, some municipalities and city authorities in South Africa have been implementing these IDPs and SDFs for some time now and the promulgation of the National Spatial Planning and Land Use Management Act (16 of 2013) is expected to provide the framework for and streamline spatial planning processes (City of Cape Town, 2012; Republic of South Africa, 2013; Chobokoane & Horn, 2014; Kruger, 2014). A paragraph in the introductory notes to Cape Town SDF highlights its sustainability intent as follows:

> City change and growth are inevitable … Nevertheless, a city with foresight and insight can guide and manage public and private development to ensure the best possible outcome for its inhabitants… include[ing] the protection and enhancement of the city's key economic, social and environmental resources and assets, and the extension of these economic, social and environmental opportunities to everyone in the city (City of Cape Town, 2012 p 8).

As will be seen in section 4.5, Ghana is similarly in the process of passing legislation to provide a legal basis for streamlining spatial planning and adoption of the IDPs and SDFs in the Country. The emergence of these IDPs and/or SDFs in developing countries is promising given that most future urban growth will occur there, yet it is said to lack the capacity to manage such growth effectively (Montgomery, 2008; UN-Habitat, 2009a).

Sustainable development in the context of spatial planning and urban management connotes a holistic planning approach that targets improvement in the economic and social lives of the people on an equitable basis as well as judicious management and preservation of the environmental resources for their long-term productivity. In light of the above conceptualisation of sustainable urban development as an embodiment of a broad, participatory and concerted planning process, urban governance and urban management would be used interchangeably throughout this essay. Such usage is without prejudice to the historical evolution of the two related but different concepts (Obeng-Odoom, 2013).

4.3 METHODOLOGY

Data for this study was obtained from three main sources: existing literature, policy documents and interviews with relevant stakeholders in spatial planning. Existing literature (e.g. Wood, 1970; Owusu, 2004; Otiso & Owusu, 2008; Songsore, 2009; Yeboah & Obeng-Odoom, 2010; Adarkwa, 2012) provide a useful historical context of spatial planning in Ghana and the results thereof. Legislative and policy documents yielded information on the legal framework of planning in the Country. Documents consulted in this regard included Ghana's Local Government Act (Act 462), National Development Planning Commission's Acts (Acts 479 &

480), Town and Country Planning Ordinance of 1945 (CAP 84), Draft Land Use and Spatial Planning Bill of 2011, Lands Commission Acts (Acts 483 & 767), Environmental Protection Agency Act (Act 490) and National Urban Policy Framework of 2012.

The above sources were complemented with data from qualitative interviews between November 2013 and April 2014. This method was employed to obtain a nuanced understanding of stakeholder participation in planning. The choice of this method of primary data gathering was informed by the fact that the published literature and the policy documents had provided the background on the "state" of planning in Ghana in terms of issues, stakeholders and normative procedure for stakeholder participation. Given that these stakeholders are not ubiquitously distributed, purposive and strategic sampling and interviews presented the most suitable way to obtain the necessary data. As a result, 18 key stakeholders were identified and interviewed as follows:

- Assembly members (4): These represent local communities at the Metropolitan, Municipal and District Assemblies (MMDAs). As per the provisions of the Act 462, planning starts with the local people and the assembly members play an important role in goal setting and needs assessment. Thus, their participation was invaluable to this study.
- Customary Land Secretariat (1): This body coordinates traditional land management issues and was therefore appraised relevant to the study.
- Town and Country Planning Department (2): Principal statutory body responsible for coordination of land use planning.
- Survey Department (1): Provides primary data (base maps) for preparation of plans.
- Lands Commission (1): Responsible for registering land titles and transactions.
- Environmental Protection Agency (1): Contributes to sustainable management of environmental and natural resources.
- Metropolitan and District Development Planning Units (2): Statutory bodies for planning at the local-government level
- Metropolitan works engineer (1): In charge of physical development inspection
- Department of Urban Roads (1): Represented service providers in spatial planning
- Metropolitan Agriculture Development Unit (2): Appraised to provide relevant information on agricultural land use.
- Urban Agricultural Network (UrbANet) (1): Represented NGOs, research and policy advocacy institutions.
- An elderly statesman (1): Gave an account of his lived experiences regarding planning and the growth of Tamale.

The respondents were drawn from the Tamale Metropolitan Assembly and the Sagnarigu District (a newly created district from the Tamale Metro). The distribution of the participants between the districts was not considered important for this study, however, as the districts only recently became separate entities in 2012.

Thus, their socio-economic characteristics remained virtually the same, and they still shared certain human resources and institutions including planners, surveyors and administrators at the Lands Commission.

4.4 SPATIAL PLANNING AND DEVELOPMENT IN GHANA

Spatial planning in Ghana has been predicated upon investment in the extractive sectors of the economy since colonialism. Investment in mining and cocoa producing areas necessitated the need for colonial spatial planning. Post-independence governments, especially Nkrumah's (the first president of independent Ghana), have since followed a similar trend. These investment-driven spatial planning efforts reveal the close relationship that exists between economic development, or at least economic plans, and the need to plan human activities in space. The following sections provide an historical account of planning in Ghana in terms of the context, scope, legal framework, outcomes, challenges and the way forward.

4.4.1 Planning in pre-independence Ghana (the Gold Coast)

The genesis of planning in Ghana is traceable to the British Colonial Governor, Gordon Guggisberg, who launched a 10-year Development Plan for the development of the then Gold Coast spanning the period 1920-1930 (Leith, 1974). His plan was geared towards infrastructural development including roads, schools, hospitals, housing and even institutional development. Guggisberg appraised spatial planning as integral to economic development. It is said that the plan was the "first of its kind in the world" (Adarkwa, 2012 p 3). The plan is generally considered successful on account of its achievements even though Guggisberg did not see it through as a Governor. He was replaced as Governor in 1927, and speculation[8] remains in sections of the Ghanaian society regarding the reason of his replacement. It is alleged that his efforts were probably seen to be empowering the locals to political consciousness that could make them rise against colonial rule. This would eventually come to pass as Ghana became the first colony in Africa, south of the Sahara, to gain political independence in 1957. The Guggisberg plan led to important infrastructural development in the then Gold Coast including railways, roads, the prominent Achimota School, the country's premier teaching hospital (Korle-Bu), the Takoradi Harbour and the Cocoa Research Centre at Tafo (Adarkwa, 2012; Osei-Bonsu, 2012). Interestingly, these colonial installations still remain some of the key infrastructure in the Ghanaian economy. From a spatial planning perspective, Guggisberg's 10-year development plan is important on two accounts. First, the plan represented the first attempt in the Gold Coast to plan and regulate human activities in space to ensure orderliness, safety and health of settlements. The earliest enactment in this respect was the Mining Areas Ordinance of 1925. This was meant to provide guidelines for the management of mining areas as the interest and increased investment in the sector by the colonialists attracted job seekers to these areas. Thus, the population growth and increased human activities in the mining areas soon caught the attention of the colonial authorities, hence the need for regulating land uses. Nonetheless, the Ordinance was hardly enforced (Wood, 1970). Second, the Town and Country Planning Ordinance of 1945 (known as CAP 84), which was to emerge

[8] Based on an account given by a planning officer at the Tamale Metropolitan Assembly

as the colony's first comprehensive spatial planning framework, featured some of the essential propositions contained in the Guggisberg plan.

The replacement of Guggisberg as the colonial governor created a planning vacuum in terms of full implementation of his 10-year development plan and progress in spatial planning across the colony. Another plausible factor for this planning inertia was the intervening Second World War to which Britain diverted both human and financial resources including those of its colonies. Therefore, the CAP 84 emerged out of the post-war restructuring planning efforts in metropolitan Britain that was extended to the colonies to, among other things, provide decent accommodation for the war veterans, the local literate labour force and to plan for the increasing population growth in urban centres (Wood, 1970; Korboe & Tipple, 1995; Otiso & Owusu, 2008). As a consequence, there appears to be no difference between planning frameworks in some of the developed countries and those of developing countries (Yeboah & Obeng-Odoom, 2010). The CAP 84 sought to ensure orderly and progressive development of human settlements as well as maintain their amenity value in the colony. The Town and Country Planning Department was established to facilitate the implementation of the provisions of the ordinance. Powers to develop and execute planning schemes were vested in a Town and Country Planning Board. Even though the CAP 84 was intended to guide planning across the colony, its actual implementation did not engender spatial equity in development due to factors enumerated in the following paragraphs.

Pre-independence spatial planning was limited in geographic spread. As the Mining Areas Ordinance may suggest, colonial planning was concentrated on areas with exploitable resources such as gold, bauxite, and cocoa (Dickson, 1968, 1969; Songsore, 2009; Adarkwa, 2012). Most investment and planning were done within the famous "Golden Triangle" that had its vertices at Accra, Kumasi and Takoradi to serve colonial interest (Korboe & Tipple, 1995; Adarkwa, 2012). For instance, any infrastructural development that did not directly serve colonial interest would not be given attention or would simply be brushed aside as undesirable (Dickson, 1969). With little or none of such exploitable resources of interest to the colonialists, northern Ghana essentially became a labour reserve for the colony, and that ushered in the North-South development divide (Plange, 1979). However, some commentators argue that the limited scope of pre-independence spatial planning in the Gold Coast was due to very low levels of urbanisation and limited resources for large scale planning (Wood, 1970). The colonial planning regime was also top-down and Eurocentric in nature with strict implementation and enforcement regulations (Grant & Yankson, 2003; Adarkwa, 2012). However, community participation through mass education and mobilisation, via the local chiefs, was integral to the implementation of plans. This was in keeping with the Indirect Rule ideology employed by the British in managing the affairs of the colony.

Owing to its strictness and enforcement regime, low population at the time and the general 'must-comply' nature of colonial law, colonial planning was executed 'successfully'. There were hardly issues of environmental sanitation or waste (of all kind) disposal, and good landscaping was done with trees planted along the roads (Adarkwa, 2012). The success was also partly due to the fact that pre-independence planning

was incremental in nature owing to the requirement that an area had to be declared a planning area before a scheme was developed in that respect. As per the 1945 Town and Country Planning Ordinance, the power to declare areas for planning resided with the aforementioned Town and Country Planning Board. The Board had to decide whether or not there were issues such as population growth and increased human activities that warranted planning of a settlement. It must also be noted that colonial planning was characterised by segregationist policies which meant that different standards were applied at different locations depending on who were inhabitants of an area; whether expatriates or indigenous people (Grant & Yankson, 2003; Adarkwa, 2012). Thus, pre-independence planning lacked social and spatial equity, an important ingredient of sustainable development.

Essentially post-independence, and to a large extent, contemporary land use planning and spatial development in Ghana principally still rests on the CAP 84. This is notwithstanding the fact that the CAP 84 has variously been amended in post-independence Ghana.

4.4.2 Spatial planning in post-independence Ghana up to 1990

By the time Ghana gained independence in 1957, development remained spatially skewed in favour of the resource-rich south that had enjoyed nearly all colonial investment. The new government led by president Kwame Nkrumah sought to bridge the gap through national development centred on industrialisation. To this end the government launched a 7-Year Development Plan (1964-1970), based on socialist ideology, to embark upon rapid transformation of the Ghanaian economy through industrialisation and modernisation of agriculture (Nkrumah, 1964; The Ghanaian Times, 2009). Import substitution was the mantra of the plan. The plan aimed at changing the structure of the Ghanaian economy from that which evolved from the colonial administration to one founded on the needs and aspirations of the citizenry. The plan formed part of the general enthusiasm with which the new government pursued development to give effect to Nkrumah's popular saying that 'the black man was capable of managing his own affairs'.

Like the Guggisberg plan, infrastructural development formed the core of Nkrumah's plan with about 27% of the total GBP88 million budget earmarked for infrastructural development. However, Nkrumah's plan differed in some sense in that (1) it was driven by a "genuine" national development agenda rather than one grounded in exploitative behaviour, and (2) it was national in character and sought to implement strategic investment across the nation based on spatial resource potential and comparative advantages. Pursuant to this, the government tried to spatially restructure the productive sectors of the economy by establishing industries across the country including agro-processing factories in the interior as well as meat and shoe factories in the northern part of the country (Sawyerr, 2007; Joseph, 2009). The plan envisaged a more integrated development through enhancing rural-urban linkages whereby the agro-processing industries would not only process agricultural products but would enhance the living standards of farmers through increased incomes. This counterpoised the

essence of colonial development when cities and planning functioned to exploit the rural areas and people (Songsore, 2009).

Again, spatial planning was to play an important role in the implementation of the plan. Meanwhile, prior to the official launching of the plan, sections of the CAP 84 had already been amended in 1958 (Act 30 of 1958) and 1960 (Act 33 of 1960) to make it more responsive to the development needs of the day. A notable amendment in this regard relates to the transfer of functions of planning from the Town and Country Planning Board as captured in the CAP 84 to a Minister responsible for Town and Country Planning, even though the basic guiding principles of the CAP 84 remained (Town and Country Planning Department, 1945). Perhaps, the transfer was based on pragmatism and could prove useful to the prevailing socialist ideals at the time. This power was to be exercised by the Minister through the Town and Country Planning Department. Planning in Ghana around the inception of Nkrumah's plan had also been given an impetus by the promotion of planning education in the newly created Kwame Nkrumah University of Science and Technology in 1963 (Inkoom, 2009). The planning and construction of 52 new towns including the Tema Township demonstrated the nation's strides in planning (Adarkwa, 2012).

To strengthen institutional capacity for successful implementation of the plan, planning departments were established across the country. For the first time planning had been extended out of the pre-independence traditional planning areas of Accra, Kumasi and Sekondi-Takoradi (Wood, 1970). For instance, Tamale was declared a planning area in 1959 and the first few plans for the city were available in 1964. The increased activity of planning in the decade also saw the Director of Town and Country Planning in 1969 direct all regional and district planning departments to prepare a 15-year physical plans for their respective jurisdictions. Efforts were also made for the preparation of a National Physical Development Plan (NPDP) from 1963 to 1970 which was to guide the spatial organisation of economic and social infrastructure with the objective of achieving spatial equity in development. In this regard, a United Nations Regional Planning Commission was invited to help the country develop a planning approach that could effectively integrate economic development with physical planning. However, the Commission's efforts ended in futility due to the 1966 coup that toppled Nkrumah's regime. Thus, for the first time in planning history of Ghana, broad-based planning approached with characteristics akin to the principles of sustainable development was contemplated.

Planning to transform the new nation through rapid industrialisation had implications and consequences. Planners were soon overwhelmed by the sheer growth in urban population and demand for basic services and infrastructure. This arose from the general urban population growth that started in the late 1950s and into the 1960s. The population of Accra, for example, grew by about 240% between 1950 and 1960 (Wood, 1970), and net-migration contributed about 97.7% and 66.1% respectively to the metropolitan area's urban population for 1948-1960 and 1960-1970 (Songsore, 2009). In the words of Songsore (2009), the result of this growth was that during the 1984 census, established urban centres like Accra, Kumasi and Sekondi-Takoradi were "under-bounded" which means that their official boundaries had been outstripped by actual spatial development. This

development was due to low capacity of urban managers to plan and execute plans with all essential complementary services and infrastructure in tandem with the unfolding urban growth (Wood, 1970; Laryea-Adjei, 2000). It must be pointed out that investment was still skewed in favour of the better served growth centres during colonialism. In this sense, Nkrumah's plan failed in its own terms since a disproportionate number of the industrial establishments were sited within the Accra-Kumasi-Sekondi-Takoradi region, making them magnets of attraction for would-be job seekers. It is estimated that these areas combined had up to 80% of all industrial establishments in the country (Songsore, 2009). This thus explains the rapid in-migration into the golden triangle enclave which fed into the urban growth dynamics at the time. The situation was aggravated by the fact that some of the industries established in the interior and northern part of the country could not function properly due to lack of adequate raw materials (Joseph, 2009). Thus, the imbalanced spatial development that characterised pre-independence planning was never rectified.

The present day urban challenges in Ghanaian towns and cities – poor sanitation, inadequate housing, slum development, uncontrolled urban growth (loosely defined as sprawl) and inadequate services like water – thus had their roots in the poor performance of the immediate post-independence economic and spatial planning (Wood, 1970; Songsore, 2009; Yeboah & Obeng-Odoom, 2010; Owusu, 2011; Adarkwa, 2012; Boamah et al., 2012; Cobbinah & Amoako, 2012; Boamah, 2013). Wood (1970) in particular argues that the inability of planning to keep pace with rapid urban growth resulted from a combination of lack of foresight or capacity by planners. This view is shared by Yeboah and Obeng-Odoom (2010) who maintain that planning in Ghana has been done piecemeal and "reactive rather than proactive" (p 81). Perhaps, this situation could have been averted if long term spatial planning efforts as attempted during the first Republic were given effect.

The chequered political history Ghana experienced together with the deteriorated economic performance following the overthrow of Kwame Nkrumah in 1966 affected planning in the country. This is not surprising given that planning in Ghana has fared better in stable and vibrant politico-economic environment. Thus, no substantive planning initiatives are discernible during the intervening military regimes up until the onset of the decentralisation programmes in the late 1980s.

4.4.3 Planning in contemporary times, from 1991

Planning from about 1991 deserves more detailed treatment than those discussed above. This consideration stems from two main developments. First, there was liberalisation of the economy that unleashed the neoliberal and globalisation forces that impacted urban growth greatly. The second development was the emergence of the concept of "urban management" that sought to manage issues arising from the rapid urban growth (Obeng-Odoom, 2013). In this section, discussion on planning in contemporary times will proceed in two sections: Section 4.4.3.1 presents the general processes of urban growth and planning during the period, whilst Section 4.4.3.2 discusses the challenges of contemporary planning in Ghana.

4.4.3.1 Processes of urban growth and planning in contemporary times

In the mid-1980s, Ghana adopted the International Monetary Fund (IMF) and World Bank sponsored programmes called Structural Adjustment Programmes (SAPs) to repair its deteriorated economy. Popularly known as neoliberalism, the SAPs together with the decentralisation governance system that followed immediately were to change Ghanaian towns and cities significantly. Even though the initial stages of the SAPs saw de-urbanisation in some urban areas due to their adverse effects on the urban formal sector workers (Songsore, 2009; Obeng-Odoom, 2013), the programmes generally impacted positively on urban growth especially in small towns due to increased investment in those towns (Owusu, 2004, 2005; Adarkwa, 2012). This happened in various ways including increased participation of private individuals in the provision of housing following the de-regulation of the economy, an improved transport sector and provision of infrastructure including roads and electricity as well as the general exposure to the new forces of globalisation (Bawumia, 1998; Yeboah, 2000; Briggs & Yeboah, 2001; Otiso & Owusu, 2008; Grant, 2009). For instance, northern Ghana was connected to the national electricity grid in 1991 (Bawumia, 1998) for the first time despite the fact that the Akosombo Dam has been producing power for the country since the mid-1960s. The increased infrastructure provision at the time had a special focus on the Metropolitan, Municipal and District capitals so as to prepare these adequately to discharge their administrative and development functions in the decentralised governance system (Owusu, 2004). Obeng-Odoom (2013) argues that one of the reasons for the increased investment in the district capitals and small towns was to correct the perceived urban 'bias' development at the time. Thus, a successful decentralisation would 'decongest' existing towns and cities, whilst at the same time ensuring a better spatial distribution of urban settlements. The liberalised economy also created a good climate for private retail businesses and this in turn was seized by a large section of the citizenry including some workers retrenched from formal employment. This led to the growth of a large informal sector in the Ghanaian economy which fed into the urban growth dynamics of the country (Barwa, 1995; Yeboah, 2000; Songsore, 2009).

Somehow, the above-mentioned factors restored the hope of the citizenry in the urban sector as holding great potential for prosperity similar to what was witnessed immediately after independence. A new wave of urban growth thus ensued, especially in small and medium towns that benefited from the investment in agriculture leading to increased farmer income (Owusu, 2005; Otiso & Owusu, 2008). Also, established towns and cities like Accra were simultaneous affected by the neoliberal and globalisation forces such that Accra has recorded urban growth of more than 300% over the past two decades (Grant, 2009). This was also evident in the growth of Tamale which lies in the previously depressed and least urbanised part of Ghana. The city grew in population by about 116% between 1984 and 2000, and in spatial extent by about 137% between 1989 and 2005 (Fuseini, 2014). In the case of Tamale, as observed in other Ghanaian and African cities (Otiso & Owusu, 2008), not only did the informal sector grow but more importantly there emerged a strong appetite for private investment in housing and this greatly influenced the spatial expansion of the city (Fuseini, 2014).

In the context of planning, Ghana had to design a new model of planning to respond to the emergent opportunities and challenges from the liberalisation and decentralisation processes. While the promulgation of the 1992 Constitution laid the foundation for this model, it was concretised by specific legislations including the Local Government Act (Act 462 of 1993), the National Development Planning Commission (NDPC) Act (Act 479 of 1994), the National Development Planning System (NDPS) Act (Act 480 of 1994), and Environmental Protection Agency (EPA) Act (Act 490 of 1994). This plethora of legislations set out a decentralised and collaborative legal framework within which planning should be pursued. The establishment of the EPA to collaborate in planning reflects the prevailing global and national orientation, at the time, for pursuing sustainable development. The local-government units (Metropolitan, Municipal and District Assemblies [MMDAs]) were empowered to take charge of planning of all kinds within their areas of jurisdiction but the NDPC was mandated to exercise a supervisory role to ensure that local-level development plans reflect broader national development goals (Owusu, 2004). Pursuant to this, section 10, subsection 3 of the Local Government Act states the functions of the MMDAs which include among others that the M/M/D/A:

a. is responsible for the overall development of the district and shall ensure the preparation and submission, through the regional co-ordinating council, of development plans of the district to the National Development Planning Commission for approval
b. shall formulate and execute plans, programmes and strategies for the effective mobilisation of the resources necessary for the overall development of the district
c. shall promote and support productive activity and social development in the district and remove any obstacles to initiative and development
d. shall initiate programmes for the development of basic infrastructure and provide municipal works and services in the district
e. is responsible for the development, improvement and management of human settlements and the environment in the district (Republic of Ghana, 1993)

Section 12, subsection 1 of the same Act further intimates that the MMDAs as planning authorities in their areas of jurisdiction are mandated to perform any other planning function as may be assigned by a legislation.

Planning under the decentralised system was intended to be participatory. Local communities working in concert with their representatives at the Assemblies (the Assembly Members) identify their needs and priorities which are harmonised at the assembly for onward submission to the NDPC for approval (Owusu, 2004). Act 462 established the Development Planning Co-ordinating Unit (DPCU) with the primary purpose of co-ordinating development in the MMDAs.

Per the provisions of Act 462, the spatial planning function of the assemblies is devolved to a Statutory Planning Committee (SPC) the secretariat of which is based at the Town and Country Planning Department (TCPD). As has been the case previously, TCPD is responsible for co-ordinating matters relating to spatial planning. The membership of the SPC spans several institutions and agencies whose involvement is considered

relevant for ensuring successful spatial planning. Some of the members on the SPC include representatives from the DPCU, EPA, Lands Commission, Survey Department, Customary Land Secretariat (representing traditional land owners), Department of Urban Roads, utility service providers including Ghana Water Company Limited (GWCL) and Electricity Company of Ghana (ECG). The members contribute complementarily to achieve sustainable and successful physical planning from community and district needs assessment to design, approval and implementation of plans.

This framework, at least structurally, provides for a better and sustainable spatial planning in Ghana. In particular, the DED framework that Obeng-Odoom (2013) appraises as important for successful urban governance seems present in the planning framework prescribed by Act 462. In other words, the structure of the framework suggests it is amenable to sustainable development principles. However, the implementation of the legal framework has been hampered by a plethora of issues as discussed in section 4.4.3.2 below.

4.4.3.2 Challenges facing contemporary planning in Ghana

As comprehensive as the structure of the decentralised planning system appears, planning has not fared any better under the current practice (Laryea-Adjei, 2000; Yeboah & Obeng-Odoom, 2010; Adarkwa, 2012; Boamah et al., 2012; Cobbinah & Amoako, 2012; Boamah, 2013; Obeng-Odoom, 2013; Mohammed, 2014a). Issues of uncoordinated and haphazard development, slums, poor service delivery, and livelihood stress in peri-urban areas resulting from rapid urban growth are all too common in Ghanaian towns and cities. These challenges stem from a myriad of factors including inadequate financial and human resources (inadequate staffing and/or low qualification among staff), outdated legislative frameworks, undue political interference, complex land tenure systems, and lack of effective collaboration among the line agencies mandated to design and execute plans (Laryea-Adjei, 2000; Kasanga, 2001; Kasanga & Kotey, 2001; Yeboah & Obeng-Odoom, 2010). For instance, in terms of staffing, northern region has only nine qualified physical planners to serve 26 MMDAs – a ratio of about 1 to 3. Coupled with the paucity of qualified human resource is inadequate logistical provision. Many an MMDA lacks logistics to carry out its functions including transportation and modern equipment such as computer hardware and software.

The decentralised system is also beset with other socio-political dynamics that affect planning. The multiparty democracy that has been firmly established in Ghana since the promulgation of the 1992 constitution has, unfortunately, bred political patronage in the country. At the MMDAs level, this patronage and influence works variously to create negligence, impunity and general counterproductive behaviours (Yeboah & Obeng-Odoom, 2010). There are also issues of red tape and high cost of compliance to development regulations (Boamah, 2013). Accordingly, the situation creates "a total mess and a crisis that gets worse by the day" (MyJoy Online, 2014, para. 2). A planner succinctly captured this situation as follows:

> The politician is only motivated by the desire to win or retain power which is a matter of vote. A nicely planned neighbourhood does not vote but people who live in unapproved developments do. There is no chance for any [planning] proposal succeeding if our political

> leaders think it has the potential to affect their electoral fortunes (Yeboah & Obeng-Odoom, 2010 p. 87).

Related to the above challenge is complex land tenure system that impacts negatively on successful planning (Yeboah & Obeng-Odoom, 2010). It is reported that over 80% of land in Ghana is customarily owned (Kasanga & Kotey, 2001). As a result, traditional land owners or managers constitute an important stakeholder in spatial planning, however, they do not often participate responsibly in planning as the law would require of them. Instead, they often try to bend the rules in order to profit more from land allocation and sales. This attitude stems from the general commodification of land following the liberalisation of the economy (Yaro, 2010). To this end, it is very common for traditional authorities to employ quack surveyors to plan their areas instead of channelling it through the legally mandated planning bodies. The situation even appears worse in northern Ghana. Here, the restitution of land to the people following the promulgation of the 1992 Constitution has seen unparalleled individualisation and disposal of skin[9] land, contrary to the stipulation of customary land tenure system, in response to the evolving land markets (Yaro, 2010). By this, the traditional authorities have literally seized land-use planning to the extent that they even encroach and rezone areas that formal planning had zoned for open space and public uses. Some assembly members within Tamale Metro and Sagnarigu District bemoaned the situation as follows:

> With regard to land-use planning we face a lot of challenges. For instance, land that is zoned for public use – for schools, hospitals, markets, cemeteries, etc. – is often rezoned for residential purposes. And when it happens you the assembly member always have to endure a difficult relationship with the traditional authorities because you always want to stop them from doing that but they will insist the land belongs to them (interview with an Assembly member in the SDA, 12 February 2014).

> They [chiefs] may be selling [allocating[10]] land in many of the communities but I do not think it is legal because none of the statutory bodies responsible for planning has a hand in what is happening around here. It is unbelievable the way people are eager to sell or allocate land these days. We earmarked an area for a cemetery but people are clamouring for its allocation to other uses just to make money. I am talking about a cemetery where everybody knows they will go one day! Have you ever heard a person died and was thrown into the skies? (interview with an Assembly member in the SDA, 22 February 2014).

There is also an issue of inadequate institutional collaboration among the frontline members of the SPCs – the TCPD, the Survey Department and the Lands Commission. This situation had previously been noticed and the revised Lands Commission Act (Act 767 of 2008) sought to bring these agencies under one umbrella to foster effective collaboration amongst them. However, there still exists a 'mutual distrust' and a sense of self-importance among these line agencies. There is particularly a big divide along professional lines. Economic and social planners seem removed from spatial planners, and the former are invariably favoured by the MMDAs in terms of resource allocation. This hinders successful planning in the sense of sustainable development which

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[9] Connotes communal land as traditional authority is embedded in a title, 'Skin'.

[10] The traditional authorities in this part of the country maintain that they do not sell land as it belongs to everybody but they allocate based on 99-year lease.

envisions an integrated planning involving the economic, social and spatial planners as well as civil society organisations. In an interview, a planning officer observed:

> We have allowed socio-economic planning to lead spatial planning, which should not be the case. Economic planners are clearly favoured and sometimes when you hold yourself as a planner people look at you scornfully. Thus, it is difficult for some people to understand that we are supposed to be working together (interview with an official of TCPD, Tamale, 25 March 2014).

Finally, there is an incongruent institutional affiliation that affects the main body charged with the responsibility of leading spatial planning, the TCPD. At the national level, the TCPD draws its mandate and authority from Ministry of Environment, Science and Technology (MEST). Yet, it works under the Ministry of Local Government and Rural Development (MLGRD). This divided affiliation does not help the course of TCPD when it comes to resource allocation. Whilst the MEST expects the MLGRD to resource the TCPD, the MLGRD thinks it is the responsibility of the 'mother' ministry to do so. This situation contributes to the resource deficiency the TCPD suffers. The next discusses new development to restructure planning and urban governance in Ghana.

4.5 NEW DEVELOPMENT TO RESTRUCTURE PLANNING AND URBAN GOVERNANCE IN GHANA

Since about 2010, some efforts have been made to improve the efficiency of planning to manage the rapid urban growth in Ghana. These include the Ghana National Urban Policy Framework (NUPF) which came into being in 2012 and the Land Use and Spatial Planning Bill (LUSPB) that has been pending at the national parliament since 2011.

4.5.1 National Urban Policy Framework (NUPF)

After years of uncoordinated and piece-meal urban governance strategies, the 'chicken seems to have come home to roost' with the formulation of the National Urban Policy Framework (NUPF). A plethora of issues motivated the preparation of the NUPF. These include uncontrolled and haphazard development, deteriorating environmental quality, insufficient infrastructure and services, weak urban economic performance and increasing urban insecurity especially exposure to disasters like flooding, increasing urban poverty and slums development. Weak urban governance and institutional co-ordination were integral to the aforementioned challenges (Government of Ghana, 2012). Like the concept of sustainable development, international demand for improved urban governance might also have influenced the formulation of the NUPF (Obeng-Odoom, 2013).

The goal of the framework is to:

> promote a sustainable, spatially integrated and orderly development of urban settlements with adequate housing, infrastructure and services, efficient institutions, and a sound living and working environment for all people to support the rapid socio-economic development of Ghana (Obeng-Odoom, 2013 p. 21).

Some of the specific policy objectives and the initiatives to attaining them are shown in Table 4.1. The policy objectives and initiatives for attaining them seem plausible for addressing some of the challenges facing urban development and planning in Ghanaian towns and cities. Nonetheless, it remains doubtful whether the initiatives outlined above could be backed by practical efforts for successful implementation of the NUPF. There seem to be many '*how'* questions running through the initiatives which do not look convincing enough given the state of urban challenges as highlighted, even in the NUPF itself. For instance, there is no evidence that creating new growth points and promoting growth of small and medium towns to ensure balanced redistribution of urban population would solve some of the intractable urban problems such as poor sanitation, poor service and weak planning. Evidence suggests there could be simultaneous growth at the new growth points and the established urban centres (Obeng-Odoom, 2013). Similarly, promoting spatially integrated urban hierarchy through improvements in transportation and communication may make matters worse as evidence shows that improvement in these sectors has facilitated urban growth in the developing world including Ghana (Briggs & Yeboah, 2001; Cohen, 2004; Angel et al., 2011; Cobbinah & Amoako, 2012). This may have direct influence on sprawl.

Issues of capacity building, investment and resourcing cut across the initiatives but there are no clear indications as to how financial and capital resources would be raised to implement these. Of course, there is an initiative to diversify local governments' income sources (not captured in Table 1). But again, this begs the question, *how*? Act 462, for example, clearly states that 5% of total national revenue be allocated to the District Assemblies Common Fund (DACF) for use by the MMDAs, and that would be supplemented by their internally generated funds (IGFs) from fees, royalties, licenses, rates and trading activities (Owusu, 2004). Perhaps, as part of the diversification process, the MMDAs could be encouraged to seriously consider the emerging sister[11] cities initiatives that promote exchange of ideas and capacity building (Agyei-Mensah, 2006).

Despite the uncertainties outlined above, there are some elements in the NUPF which, if given more attention, could promote better urban governance and planning. One relates to the Land Use and Spatial Planning Bill (LUSPB). The NUPF outlines the Spatial Development Framework (SDF), which is the flagship policy issue in the LUSPB, as an umbrella strategy for execution of many of its initiatives. However, given that the LUSPB has been pending for consideration by the national parliament since 2011, the NUPF's implementation would be hindered or at best executed piece-meal, similar to previous policies and programmes. Perhaps, a collaborative institutional advocacy by the MLGRD and the TCPD (the latter being a decentralised department of the former) could be employed to press for the passage of the LUSPB into law. The initiative to promote remote sensing and geographic information systems in planning is also a positive drive in that these technologies have become very important tools for the management of spatial phenomena. Thus, these tools

[11] A mutually beneficial relationship in which two or more cities come together to share and exchange ideas and best practices to enhance their performance. Tamale, Ghana, is in a number of these relationships.

Table 4.1: Selected policy objectives and initiatives of Ghana's National Urban Policy Framework, 2012

Policy objective		Initiative for implementation
i.	**To facilitate balanced re-distribution of urban population**	• Create new growth points as counter-magnets to fast growing cities such as Accra and Kumasi • Promote accelerated growth of small and medium-sized towns, including district and regional capitals
ii.	**To promote a spatially integrated hierarchy of urban centres**	• Spatially integrate regional and district capitals by transportation and communications facilities… • Establish rural service centres and strengthen rural-urban linkages to promote agriculture and development of agro-based industries
iii.	**To promote urban economic development**	• Target infrastructural investments in growth centres as the choice destination for investments and other economic activities • Enhance the competitiveness of Ghanaian cities in regional and international context • Ensure that urban planning provides for the activities of the informal economy
iv.	**To ensure effective planning and management of urban growth and sprawl, especially of the primate cities and other large urban centres**	• Ensure that investments and development will consistently and increasingly be directed towards targeted counter-magnet growth areas • Ensure adoption of spatial planning framework • Strengthen the use of remote sensing and Geographic Information System
v.	**To ensure efficient urban infrastructure and service delivery**	• Assess infrastructure needs of urban areas and mobilize resources to support infrastructural development • Improve delivery and management of urban services and infrastructure • Provide adequate technical capacity, equipment and operational funds to support waste management activities
vi.	**Strengthening urban governance**	• Review, strengthen and resource the decentralized structures and substructures to make them effective in local governance • Institute practical measures to continually enrich the capacities and outlook of key actors in urban development and management • Probe and strengthen the institutional framework at the local level for effective coordination of urban development • Establish special courts to handle issues pertaining to urban development

Adapted from the National Urban Policy Framework, 2012

would enhance the implementation and monitoring of plans, and thereby ease the logistical and technological constraints that face contemporary planning.

It appears a way out for the NUPF to avoid the pitfalls suffered by Act 462 is to take Obeng-Odoom's (2013) DED framework seriously. To this end, the proposal to "deepen the decentralisation programme" by promoting active and participatory decision making involving diverse stakeholders across the local community, religious groups, development partners and non-state actors (Government of Ghana, 2012 p. 4) should be taken seriously. The intent to promote local urban economic development and the informal sector, to widen sources of funding for urban development, and to improve efficiency in urban financial management (Government of Ghana, 2012) may go a long way to promote entrepreneurial urban governance as postulated by the DED. While laudable, the above propositions need to be complemented by democratic tenets such as accountability and transparency if the NUPF is to make a real impact.

4.5.2 Land Use and Spatial Planning Bill (LUSPB)

This Bill emerged from recommendations of the Land Use Planning and Management Project (LUPMP) implemented in Ghana as part of the broader Land Administration Project (LAP). It is a shared-vision proposal by the MLGRD and the TCPD (the latter being a decentralised department in the former but seeking autonomy in the form of an 'Authority' in the LUSPB). The Bill seeks to restructure and reorient land-use planning to a more integrated system built upon sustainable development principles. This reflects the growing efforts to entrench sustainability principles into land-use planning. On the African continent, South Africa has taken the lead in this regard by promoting urban governance and planning based on its Spatial Development Framework (SDF) (City of Cape Town, 2012; Republic of South Africa, 2013; Chobokoane & Horn, 2014; Kruger, 2014).

The goal of the LUSPB is:

> to harmonize and regulate the laws on land use and planning, provide for sustainable development of land and human settlements through a decentralized planning system, ensure judicious use of land in order to improve quality of life, promote health, safety and regulate national, regional, district and local spatial planning, and generally deal with spatial aspects of socio-economic development as well as provide for related matters (Town and Country Planning Department, 2011, p 10).

To achieve this goal, the Bill first and foremost seeks an establishment of a corporate body to be known as Land Use and Spatial Planning Authority (LUSPA) to implement the provisions therein. The institutional incongruence observed earlier is to be addressed by ensuring that the Minister of Environment, Science and Technology exercises an oversight responsibility over the activities of the authority. It also proposes that the CAP 84 be repealed in its entirety while sections of Act 462 dealing with planning functions of the MMDAs be amended to give more planning power to the LUSPA. Likewise, Acts 479 and 480 of the NDPC are proposed to be amended to include spatial planning in development planning. To overcome the problems of inadequate finances, the bill proposes a fund for the LUSPA. Proposed sources of funding include subsidy from the state

as approved by parliament, fees and levies from its own activities, gifts and grants. Secured sources of funding for its activities is one of the surest ways for the LUSPA to make an impact as financial challenges have been the bane of effective planning in Ghana.

The thrust of the Bill is to pursue planning based on an SDF at the national, regional and district levels. The SDF is prepared based on strategic identification and zoning of land uses considered relevant for the spatial, economic, social and environmental wellbeing of the nation, region, or district. The new planning system, when passed, would be implemented along a three-tier planning system starting from the SDF, Structure Plan (SP) to Local Plan (LP). By this structure, the NUPF in its integrated form is expected to be subsumed into the SDFs/IDPs for harmonisation in line with the latter's vision, goals and aims. This, however, is not to suggest an inferior-superior relationship between the NUPF and the SDFs/IDPs but to emphasise the scale at which each operates.

The SDFs at the national, regional and district levels will be long-term plans spanning 20 years and could be revised afterwards or at an earlier date if the Minister in charge makes recommendation to that effect. The SP and LP are also long-term propositions but with a validity period of 15 years and can be revised similarly. Among its functions, the LUSPA envisages collaboration with other relevant agencies and institutions such as the MMDAs, EPA and other line agencies in land sector management. In particular, co-opting the provisions of the NUPF would enhance this collaboration for improved spatial planning and urban governance. The goal of this collaboration is to execute spatial planning and sustainable management of settlements in line with the provisions of Acts 479 and 480 that established the NDPC.

The goal and roadmap of the LUSPB presents the best possible framework yet for land use and spatial planning in Ghana. Its comprehensive yet broad scope – encompassing the economic and social as well as environmental issues – together with the proposal to establish an authority and make it financially viable will in no small way enhance the practice of planning in the country. Inadequate resourcing, specifically, has been identified by planners as contributing to traditional land owners manipulating the planning process to their personal advantage. This is because the TCPD barely has enough finances to do independent planning as required of it by law. Thus, it invariably relies on financing by the land owners to plan, and unless they uphold high professional ethics, planners would find it difficult to ward off any advances by land owners to manipulate the process to their advantage. A further improvement is in the area of holistic planning for sustainable development. To date, planning in Ghana has been done at the local level with a focus on urban land-use forms and infrastructural development. Little attention has been given to broader issues of livelihoods, and this creates livelihood stress and uncertainty particularly in peri-urban areas where competition for space is greatest (Satterthwaite, 2007; Gyasi et al., 2014b).

Before talk of implementation can begin, a rather immeasurable divide lies between proponents of the bill and those who will make it become law, the legislators. Information gathered in this study reveals that the bill was

submitted to cabinet and/or parliament, in revised form in 2011. Yet, there is no sign of it receiving parliamentary consideration and approval any time soon[12]. However, planners who participated in this study in the last quarter of 2013 were hopeful that the bill would be passed into law in that quarter or in the first half of 2014. As it stands, 2015 would be the most likely year for the bill to get parliamentary attention. In the meantime, proponents would have to continue lobbying and advocating for the bill to get parliamentary consideration, and finally presidential assent.

4.6 DISCUSSION AND LESSONS LEARNT

The above presentation on the temporal dynamics of spatial planning in the socio-economic trajectories of Ghana reveals very low planning successes. On the one hand, the execution of planning in pre-independence Ghana was deemed 'successful' due to its limited scope and strict enforcement regime. On the other hand, planning after independence has been characterised by poor results on account of its broad scope, high population and urbanisation rates, weak governance and control regime, inadequate resource allocation (both human and financial), and the intervening globalisation forces that distort local socio-economic systems (e.g. traditional land tenure is impacted by the developing land markets). The above contrasting outcomes make it somewhat difficult to analyse the Ghanaian spatial planning practices within the sustainable development framework. For example, while colonial planning was not predisposed to sustainable development due to its limited scope, and lack of economic, social and spatial equity, post-independence planning has failed in its own terms to try and achieve the said equity principle in sustainable development by adopting a broad-based planning regime that sought for economic, social and spatial equity. Post-independence planning even went further to adopt a decentralised, market-oriented, collaborative and participatory planning regime to confront the ever evolving planning challenges. Conceptually, the 'new' planning regime resonated with the DED framework proposed by Obeng-Odoom for successful planning and urban governance.

Yet, the 'new' planning regime could not magically improve planning outcomes in keeping with sustainable development principles: the development of slums, mounting waste management challenges, land-use disorder and uncontrolled urban sprawl, inadequate infrastructure, poor service delivery, and livelihoods insecurity among others attest to this conclusion. Perhaps, the 'right ingredients' needed for the successful working of the DED were not present in their right proportions. Unfortunately, the answer to the question of 'how spatial planning responds to the rapid urbanisation, increased land-use competition, and national and international demand for sustainable development' is, 'not very good'. And yet again, an improvement in the contemporary planning framework is being done in the form of the first ever NUPF and the draft LUSPB. The proposed vision, goals and initiatives look plausible for improving contemporary planning successes in Ghana. This 'new' development, therefore, answers the question of 'whether or not different planning approaches are

[12] At the time of writing, the website of Ghanaian parliament showed no trace of the LUSPB among the pending bills for parliamentary consideration.

needed to promote Ghana's socio-economic development in a sustainable way'. In particular, the proposal to make SDFs/IDPs integral to planning may do the trick.

A few lessons can be learnt from the above review. First, limited spatial planning (as seen during pre-independence times) compromises on economic, social and spatial equity in development; whereas broad-based planning intent (as seen in the post-independence era) without the necessary human and financial resources as well as effective regulatory framework is as bad. Thus, a good and successfully executed plan would be one that is broad enough to integrate the economic, social and environmental issues of a society, and is supported by adequate regulatory, and human and financial resources. Such a plan should also be underpinned by a long-term vision grounded in proper needs assessment and forecasting. Second, stable political environment and continuity in national policy are good ingredients for successful planning and execution. For instance, there was a planning vacuum during the World War 2 and the intervening military regimes in Ghana's political history. In other words, an unstable political and policy environment could be blamed for the piece-meal nature of planning in Ghana. Three, it seems power imbalances (not to be interpreted as equal) could partly explain the limited success of the decentralised planning system in contemporary times. For the DED framework to work, not only should there be diverse representation of stakeholders in decision making but more importantly power relations among stakeholders should not limit broad participation. In other words, stakeholder participation should be proportional to representation. Four, weak institutional collaboration also hampers successful planning. Mutual trust rather than 'mutual distrust' among decentralised planning agencies and institutions could impact positively on planning than we witness presently.

4.7 CONCLUSION

Spatial planning has been integral to the socio-economic and political history of Ghana. However, its impact on achieving sustainable development is very limited. Colonial planning had a limited scope but was executed 'successfully' due to comparatively lower urban growth and strict enforcement regimes. Its outcome, however, was imbalanced spatial development which still persists in the Country. In contrast, post-independence governments have attempted pursuing broad-based planning to not only bridge the unbalanced spatial development but also to propel broad-based development in Ghana. However, unlike colonial planning, high urban growth, weak development enforcement regime, complex land tenure systems, and a host of other factors have interacted to impede the successful implementation of post-independence planning. Thus, Ghanaian towns and cities are plagued with a plethora of planning challenges including the development of slums, mounting waste management challenges, land-use disorder and uncontrolled urban sprawl, inadequate infrastructure, poor service delivery, and livelihoods insecurity among others. This implies that planning in Ghana has not been responsive enough to managing urbanisation and related matters in the spirit of sustainable development.

There is some positive outlook, though, as renewed efforts are made to reposition planning for comprehensive socio-economic development as well as environmental sustainability. These – the NUPF and the LUSPB – envision integrated planning based on sound sustainable development principles. The 'catchy' strategy in these renewed efforts is planning based on the SDFs and the IDPs. While the SDFs seek holistic planning within certain geography scales – national, regional and district levels - the IDPs seek to effectively integrate economic, social, cultural and environmental issues for accelerated development at some of the geographic scales (most commonly at the district level). The LUSPB promises to be the most relevant planning framework yet for the Country, especially in this era of global and national concerns for sustainable development, improving urban governance, fighting increasing urban poverty, vulnerability, deprivation and environmental degradation. It should therefore be supported. To this end, harmonising the NUPF with the provisions of the LUSPB is highly encouraged to promote efficiency and capacity building of institutions and staff. Present and future needs assessment should form the backbone of planning in order to promote judicious use of the environmental and natural resources such as land. There is also the need to rethink the essence of decentralised local government by building stakeholder capacity for effective participation in decision making as well as delinking overly parochial political interests of individuals and groups from those of societal interests to allow development programmes to progress uninhibited. The next chapter presents a characterisation of urban growth dynamics in Tamale with focus on urban governance response in infrastructure and service provision.

CHAPTER 5 CHARACTERISING URBAN GROWTH IN TAMALE: ANALYSIS OF URBAN GOVERNANCE RESPONSE IN INFRASTRUCTURE AND SERVICE PROVISION[13]

ABSTRACT

Urban governance challenges are pervasive in African urbanisation processes, and these challenges require an understanding of peculiar cases for action. This study sought to characterise urban growth dynamics of Tamale, Ghana, and to analyse urban governance response to the growth dynamics in terms of urban infrastructure and service delivery. Remote sensing approach was employed alongside qualitative interviews and secondary data sources to achieve the objectives. The spatial analysis showed that the city's built-up area grew by 76.5% between 2001 and 2014 with an annual growth rate of 4.4% which translated to an aerial increases of 99 hectares per year. Increasing human and vehicular populations added complexities to the growth experiences of the city, and collectively exact a high demand for basic infrastructure and services. We found that the metropolis' population had better access to water and electricity but access to waste disposal – both liquid and solid – and toilet facilities leaves much to be desired. It is argued that urban governance has been underwhelming in responding adequately to basic urban services, and that the state of affairs is a recipe for poor development outcomes such as low economic performance, negative public health and environmental outcomes, urban insecurity and a drawback on the successful implementation of Ghana's Urban Policy Framework. It is recommended that local-government authorities in the metropolis devise and implement innovative measures through inclusive and participatory approaches in order to promote sustainable management of the city's growth.

5.1 INTRODUCTION

In the 21st Century, urban growth and associated demographic dynamics are forecast to present serious challenges to sustainable urban development among cities in developing country, especially those in Africa (UN-Habitat, 2014). The perceived challenges stem from multiple factors including generally weak institutional capacity in those countries to manage the unfolding growth, and ineffective urban planning systems that have failed to deliver sustainable urban development over the years (UN-Habitat, 2009a, 2010). These forecasts and analyses are often done by taking a generalised view of countries in a category (e.g. developing countries, Africa) for the sake of simplicity and perhaps due to inadequate resources, including time, human and finances. Thus, the generalised characterisations do not necessarily provide concrete evidence

[13] Submitted to Habitat International (ID: HABITATINT_2015_283) as Fuseini, I and Kemp, J. Characterising urban growth in Tamale, Ghana: An analysis of urban governance response in infrastructure and service provision. Decision regarding the peer review process has been taken (positive) and the author is at an advanced stage doing revision in line with the reviewers' comments. The conceptualisation and writing were the responsibility of the author of this dissertation. The co-author, my supervisor, contributed through editing and the provision of general guidelines towards improving the manuscript.

for micro-level solutions. In a foreword to the UN-Habitat's 'State of African Cities Report (2014)' Joan Clos (Executive Director, UN-Habitat) concedes the limitation of the generalised analysis and the impracticability of a one-size-fits-all solution when he notes that "cities are simply too individual and specific in their needs and vulnerabilities for standardised solutions" (UN-Habitat, 2014 p 3). Thus, research that targets country- and city-specific peculiarities in terms of growth dynamics, challenges and opportunities enhances our appreciation of the issues and the efforts needed for addressing them.

Two facts are clear about discussion of urbanisation in African cities: one, that the continent's population is growing, and urbanisation is accelerating (Cohen, 2004, 2006; Angel et al., 2005, 2011; UN-Habitat, 2009a) even though we are advised to be cautious in discussing the magnitude of growth (Cohen, 2004; Potts, 2012a,b; UN-Habitat, 2014); second, urban governance in the continent's towns and cities leaves much to be desired (UN-Habitat, 2009a, 2010; Angel et al., 2011). Regarding the second, Achim Steiner, in a foreword to the UN-Habitat's 'State of African cities report (2010)' was categorical that "poor planning has remained the Achilles heel of many towns, impeding both sustainable growth and healthy living environments for an increasing population of urban dwellers across Africa" (UH-Habitat, 2010 p. iii). Steiner's statement finds expression in the prevalence of urban poverty and inequalities, infrastructure and service deficits, poor environmental management, urban food insecurity, sprawl and the generally weak institutional frameworks for achieving sustainable urban development (Cohen, 2006; Cohen & Garrett, 2009; UN-Habitat, 2009a, 2012, 2014; Angel et al., 2011; Ghanaweb, 2015).

Despite the aforementioned challenges, urbanisation has made a positive impact on the continent's development contrary to earlier views regarding the relationship between the two (see Njoh 2003; Obeng-Odoom 2010; Potts 2012a). Emerging from its worst economic crisis in the 1980s and 1990s, Africa has recorded impressive Gross Domestic Product (GDP) growth rates in the first decade of the 21st Century with a growing middle class population that stood at 355 million in 2010 and is projected to reach 1.1 billion people in 2060 (UN-Habitat, 2014). Urbanisation has been instrumental in this economic transition with the continent's urban population producing about 80% of its GDP (UN-Habitat, 2010). Even the World Bank (2015) (with previously sceptical view about the development impact of urbanisation in Africa), in a recent report of urbanisation in Ghana, remarked that:

> Rapid urbanization in Ghana over the past three decades has coincided with rapid GDP growth, helping create jobs, increase human capital, decrease poverty, and expand opportunities and improve living conditions for millions of Ghanaians. … From 1984 to 2013 [the country's GDP] averaged 5.7 percent annually, and from 2005 to 2013 GDP growth averaged 7.8 percent. … The recovery of the national economy from 1984 onwards and perceived improvements in urban economic opportunities have made cities attractive to migrants. Mass urban migration took place without generating excessive unemployment, implying that migrants moved for jobs rather than "benefits shopping." Even with rapid influx of urban migrants, the urban unemployment rate fell 1.5 percentage points over 2000–10 (The World Bank, 2015 pp. 1-3).

The issues with urbanisation processes in Africa are also true for Ghana, and the above quote from The World Bank report summarises the associated economic transformations. Ghana has transitioned from a

predominantly rural population at independence in 1957 to predominantly urban presently (Ghana Statistical Service, 2013a). The country's urban population more than tripled between 1984 and 2013 from about 4 million to 14 million people with annual growth rate of 4.4% (The World Bank, 2015). The country is ranked as one of 4 and one of 21 countries with more urban than rural population in West Africa and in Africa, respectively (Obeng-Odoom, 2013). Between 1985 and 2000, its capital, Accra, grew in population by 50 percent while its built-up area grew by 153 percent (Angel et al., 2011). Similar growth patterns have been recorded in other towns and cities such as Kumasi and Tamale. Since its emergence as the third largest urban centre in Ghana after Accra and Kumasi in the 1984 census (Songsore, 2009), Tamale has witnessed rapid and sustained growth. The city's metropolitan area recorded a 116 percent population growth between 1984 and 2000 (Ghana Statistical Service, 2005) and presently has 73.8% urban population against the regional average of 30.3% (Ghana Statistical Service, 2005, 2013b). Yet, Ghana's urbanisation has been associated with challenges including poor service delivery, a gaping housing deficit, inadequate infrastructure, unsanitary conditions, unregulated/sprawl spatial development that stems from ineffective planning regime, threats of food insecurity and poverty (Yeboah & Obeng-Odoom, 2010; Adarkwa, 2012; Boamah et al., 2012; Government of Ghana, 2012; Obeng-Odoom, 2013; Yeboah et al., 2013; Baffour Awuah & Hammond, 2014; Gyasi et al., 2014a,b; Ghanaweb, 2015). These challenges, if not well managed, could cause "grave danger" for national development (The World Bank, 2015 p. 1).

It is from the above that this paper seeks a nuanced analysis of urban growth dynamics in Tamale with the view to assessing urban governance response to tackling some of these challenges. As the challenges span a wide spectrum, our analysis will focus on road infrastructure provision and service delivery including water, electricity as well as sanitary and waste disposal facilities and infrastructure. These are critical for the sustainable transformation of the economic, social and environmental aspects of the city's growth in line with Ghana's urban policy framework.

5.2 METHODOLOGY

Under section 5.2.1, an overview of the study area is given followed by the description of data sources and analysis.

5.2.1 Study area

The study was done within Tamale Metropolitan Area (TAMA) (Figure 3.1) which, for the purpose of this research, includes two local-government administrative units – the Tamale Metropolitan Assembly (TaMA) and the Sagnarigu District Assembly (SDA). The TaMA and the SDA are two of 26 local-government administrative units within Northern Region of Ghana. The SDA was carved out of the TaMA in 2012 in accordance with Ghana's local-government law (Republic of Ghana, 1993). Due to its young "age", the SDA is still connected to the TaMA in many ways and their demographic, cultural, economic and administrative structures are virtually identical. They were therefore considered as a unit for this study.

The study area is located within latitudes 9º16'N and 9º34'N and longitudes 0º34'W and 0º57'W. It covers a total area of approximately 922 km^2 with an average elevation of 180m above sea level (Tamale Metropolitan Assembly, 2010). It has a generally rolling topography with few isolated hills but these do not inhibit physical development. In other words, there is neither rugged terrain nor large inland water/wetland areas that pose significant challenges to physical development. However, the few seasonal streams that drain the area can pose threats of flooding to some parts of the metropolis especially in the eastern part which is relatively low-lying. The flat topography plays an important role in the spatial growth of the city.

5.2.2 Data and methods

This section presents data sources and analysis. It is divided into two sub-sections; description of the data and the analysis of the data.

5.2.2.1 Data

Data for the study was obtained from satellite imagery, interviews and secondary sources. The satellite imagery data comprised two datasets from two different satellite missions. The first was a 28 September 2001 IKONOS image procured from DigitalGlobe whilst the other set was an 11 January 2014 RapidEye imagery that the European Space Agency (ESA) supplied under its Third Party Mission (TPM) data access programme. The 13-year analysis period was informed by a paucity of data as very high resolution satellite imagery (a requirement for the study) did not exist prior to the Year 2000. Our analysis of spatial trends is also built on previous studies (Braimoh & Vlek, 2004; Fuseini, 2014). The satellite image data were used to map and analyse the spatial growth of the city as well as the provision of road infrastructure.

Interviews were conducted among identified stakeholders in spatial planning. Given that the sample frame of the stakeholders in spatial planning was very limited (not ubiquitously distributed), a purposive sampling technique was employed to select respondents. Subsequently, a total of 15 respondents were selected and interviewed. Respondents were selected from the Town and Country Planning Department (TCPD) (2), Lands Commission (1), Survey Department (1), Customary Land Secretariat (CLA) (1), TaMA/SDA (3), Environmental Protection Agency (EPA) (1), Department of Urban Roads (DUR) (1), Ghana Water Company Limited (GWCL) (1) and Assembly Members (4). Information sought in the interviews included respondents' roles in spatial planning, their views about the effectiveness of planning in the metropolis and emerging issues.

Secondary data from national statistics and published literature were also used. These included population figures and access to basic services from Ghana Statistical Service's (GSS) various census reports and other published literature, car and motorcycle registration data from the Driver and Vehicle Licensing Authority (DVLA) and road condition information from the DUR.

5.2.2.2 Image analysis

This section presents the procedure for image data treatment through pre-processing, training data selection, image classification, accuracy assessment and road networks extraction techniques.

5.2.2.2.1 Data pre-processing

The IKONOS imagery was delivered as standard geometrically corrected product, which was atmospherically corrected to surface reflectance values using the ATCOR2 algorithm. The dataset consists of a 4-band (red, blue, green and near infrared) multispectral image with 3.2 m resolution, and a panchromatic band at 0.8 m resolution. The multispectral image was pansharpened with the panchromatic band to obtain an overall resolution of 0.8 m. The PCI Geomatica (Version 2014.0.) software was used for both the atmospheric correction and pansharpening exercises. The image had an extent of 14788 x 12952 pixels (11.8 km x 10.4 km [a 122.7 km^2 subset of the total Metropolis' total area of 922 km^2]), which constituted the full extent of the study. This was sufficient to cover the greater extent of the Metropolis' built up area within which the analysis of the trends of spatial growth dynamics was done.

Similarly, the RapidEye dataset was delivered as a Level 3A orthorectified product that represents the highest processing standard among the mission's products (RapidEye, 2012). The Level 3A product is both geometrically and radiometrically corrected. The RapidEye imagery was clipped to the same extent of the IKONOS imagery using ESRI's ArcMap software (Version 10.0). Atmospheric correction to ground reflectance values was performed on the clipped image. The image had 5 bands (blue, green, red, red edge and near infrared) at 5 m spatial resolution.

The qualitative data from the interviews wereas processed using the ATLAS.ti qualitative data analysis software. A quasi inductive coding approach was employed whereby coding was done such that meaning emerged from the data rather than ordering along predetermined themes.

5.2.2.2.2 Image Classification

Satellite image classification is the process of assigning each pixel or zone in an image to a predetermined land cover or land use class (Campbell & Wynne, 2011). While this was traditionally done on a per-pixel basis, the availability of very high resolution imagery prompted a shift towards a technique called Geographic Object Based Image Analysis (GEOBIA). This technique first performs image segmentation, which groups pixels into homogenous zones or features (known as objects), before performing classification of the objects (Blaschke, 2010). GEOBIA has been found to yield better classification results for high-resolution imagery than the traditional pixel-based image analysis, hence its increasing popularity (Zhou & Troy, 2008; Blaschke, 2010; Myint et al., 2011; Addink et al., 2012; Myburgh & Van Niekerk, 2013; Blaschke et al., 2014).

A multiresolution segmentation (MRS) algorithm implemented in the eCognition Developer (Version 9) software was applied to both the images. An MRS scale parameter of 3 and 60 were considered appropriate for the IKONOS and RapidEye images, respectively. This parameter determines the size of the image objects by setting the maximum intra-object variability of brightness values. The chosen scale parameters yielded objects that were slightly over-segmented, ensuring no inclusion of different real-world features into the same object.

Support Vector Machine (SVM) supervised classifier was applied to both the 2001 and 2014 images. The choice of the SVM was based on its superior performance compared with other supervised classifiers (Tzotsos & Argialas, 2008; Myburgh & van Niekerk, 2014). A 5-class classification scheme (Built up, Bare ground, Water, Vegetation_Trees and Vegetation_Grass) was developed based on which training sites were selected for the classification. A total of 400 and 398 training samples were used for the supervised classification for 2001 and 2014. The collection of sample data was stratified to allow more samples in classes with larger areal coverage and vice versa. Therefore, the number of training samples per class ranged from 200 (Built up) to 15 (Water) depending on intra-class feature spectral variations and areal coverage on the image. Based on the stratification strategy, 391 and 414 samples of reference points for accuracy assessment were selected for 2001 and 2014. All of the samples for training and accuracy assessment for the 2001 image were based on desktop selection from the 0.8m resolution pansharpened multi-spectral image since no other source existed for the purpose. Samples for the 2014 image, however, were collected through a combination of fieldwork generated GPS point data and desktop selection from the image.

To determine the state of road infrastructure in the metropolis, a binary classification scheme was employed to classify roads into tarred and untarred. Consequently, all roads in the images were digitised to determine the extent of paved and untarred road networks in 2001 and 2014. The output of the exercise was two road network maps showing the distribution of the state of roads within the study area.

The classification produced overall accuracies of 87% and 90.3%, and kappa values of 0.87 and 0.86 respectively for the 2001 and 2014 images.

5.3 RESULTS AND DISCUSSION

The results of the chapter are presented in this section. First, an analysis of the city's spatial growth dynamics is presented in subsection 5.3.1, and that is followed, in subsection 5.3.2, by presentation of demographic trends, vehicular and motorcycle numbers as further growth indicators that add pressure to sustainable management of the city's growth. Urban governance response to the growth dynamics and associated pressures is presented in sub-section 5.3.3, and that is further sub-divided into three sections with specific treatments on road infrastructure provision, access to water and electricity, and waste disposal.

5.3.1 Analysis of spatial growth dynamics

The results of the spatial growth dynamics of the city are presented in **Error! Reference source not found.**. Of interest to this study was the analysis of the built-up area. Therefore, we showed the built-up area by juxtaposing its areal coverage for 2001 and 2014 (**Error! Reference source not found.**) to the exclusion of the other land cover classes that guided the classification. The results clearly show significant growth of the city's urban land cover in terms of expansion in the peri-urban areas and in-fill development within the urbanised areas of 2001. This shows that competition for space in the study area is essentially between urban uses and non-urban uses. General patterns of growth show that the city experienced a radial expansion over the 13-year period. This is a departure from the historical growth pattern that had aligned the major roads traversing the city (Fuseini, 2014). The radial growth pattern reflects the absence of physical features like rugged terrain and wetlands that affect spatial development. It also shows strong growth dynamics that somehow defy historical evidence whereby developers considered accessibility to major road a major factor in physical development in the Metropolis.

To do a comprehensive analysis of patterns of growth, the classified map was divided into eight sections – North, North-East, North-West, East, South, South-East, South-West, and Central (Figure *5.2*). These sub-divisions were conveniently done along the major arterial roads that have served as catalysts of growth in the city's growth experiences (Fuseini, 2014) while the central business district (CBD) – where more of the arterial roads converge – constituted the Central segment. Statistics on the built-up area were then computed for each segment with the aim to comparing growth over the 13-year period under consideration. The results in the figure show that the north-west segment recorded highest growth of over 450 ha in 2014 compared to less than 200 ha in 2001. This growth translates to 158% increase over the 13-year period (Figure *5.2*). The north-east segment recorded the second highest areal coverage in built-up in 2014, however, the southern segment recorded the second highest rate of increase after the north-western segment. Interestingly, the areal coverage of the built-up in the city central segment declined by 5% in 2014 in spite of discernible in-fill development in that segment. Even though low growth was expected within the central segment, least was expected of a decline. The reason for the decline is not readily available. Nonetheless, it is speculated that the levelling of a veteran village located within the southern end of the city centre in the latter part of 2013 contributed to the decline. The patterns of growth in the northern, north-eastern and north-western segments are largely explained by political economy decisions of government that precipitated growth there from the early 1990s (Fuseini, 2014). By this growth the northern, northwestern and western parts of the metropolis have encroached on the Savelugu-Nanton, Kumbungu and Tolon districts respectively (Farvacque-Vitkovic et al., 2008) whilst the southern and southwestern parts are fast approaching the East and Central Gonja districts. Growth in the south-western segment owes much to the relocation of the Tamale campus of the University for Development Studies (UDS) about 15 km south of the city. The relocation attracted interest in real estate developers who want to take advantage of the high demand on student accommodation.

Figure 5.3 illustrates the areal coverage of urban land cover for 2001 and 2014. Overall the built-up area of Tamale expanded by 78% from 1677 ha in 2001 to 2982 ha in 2014. It means that about 100 ha of other land cover types were converted to urban land cover in each year within the period under consideration. The recorded growth rate in the built-up area shows a significant increase over what has been reported in earlier studies (Braimoh & Vlek, 2004; Fuseini, 2014). For instance, in Braimoh and Vlek's (2004) study, the city's urban land cover expanded on average by 30 ha per year for 15 years (1984-1999) while Fuseini (2014) found an average annual increase of about 55 ha between 1989 and 2005. Annual average growth rate in the built-up area between 2001 and 2014 was 4.4%, which means that the urban land cover can double its size in only 16 years (in 2030). On the contrary, the city's population is expected to double in 30 years based on its 2010 annual growth rate of 2.3% (Ghana Statistical Service, 2013a). The projected trends in the expansion of the urban land cover is similar to forecasts for the developing world whereby a doubling of the "region's" population between 2000 and 2030 would be accompanied by a tripling of its urban land cover (Angel et al., 2011).

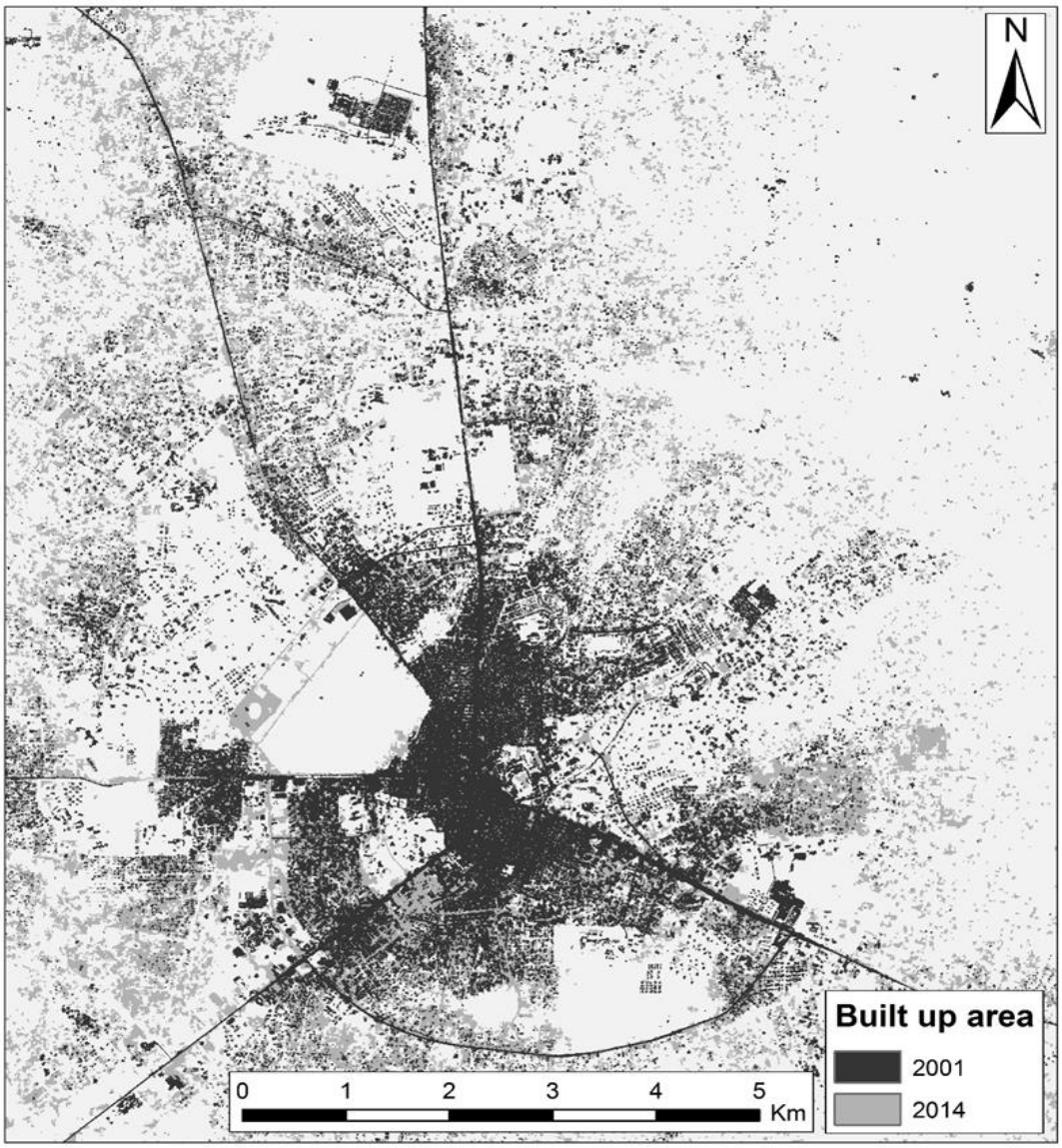

Figure 5.1: Built-up area of Tamale, Ghana, for 2001 and 2014

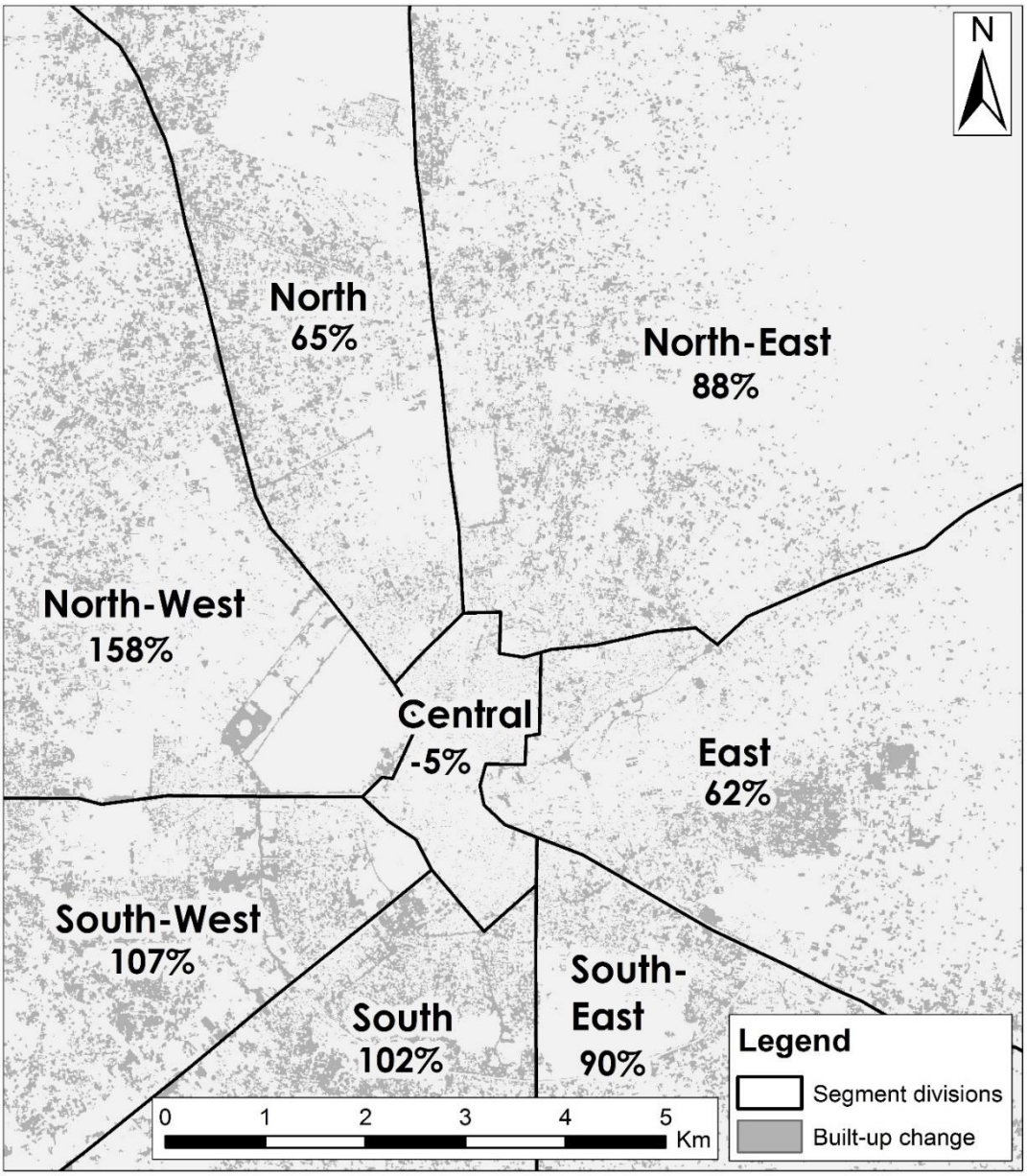

Figure 5.2 Built up change in Tamale, Ghana, from 2001 to 2014

The expansion and condition of road network (Figure 5.4) adds another dimension to the spatial growth dynamics of the Metropolis. Juxtaposing road network with the built-up extent of the Metropolis shows a concomitant increase in road infrastructure. Visual interpretation of Figure 5.4 shows that the expanding road network is largely untarred. For instance, in 2001, there was a total of about 88.7 km of tarred roads within the built-up extent of the metropolis against 181.2km of untarred roads. Computed figures from Figure 5.4 for tarred and untarred roads stood at about 124 km and 293.6 km in 2014. These figures are discussed in detailed under urban governance response (in infrastructure and service provision) to the city's spatial growth dynamics in Section 5.3.3.1.

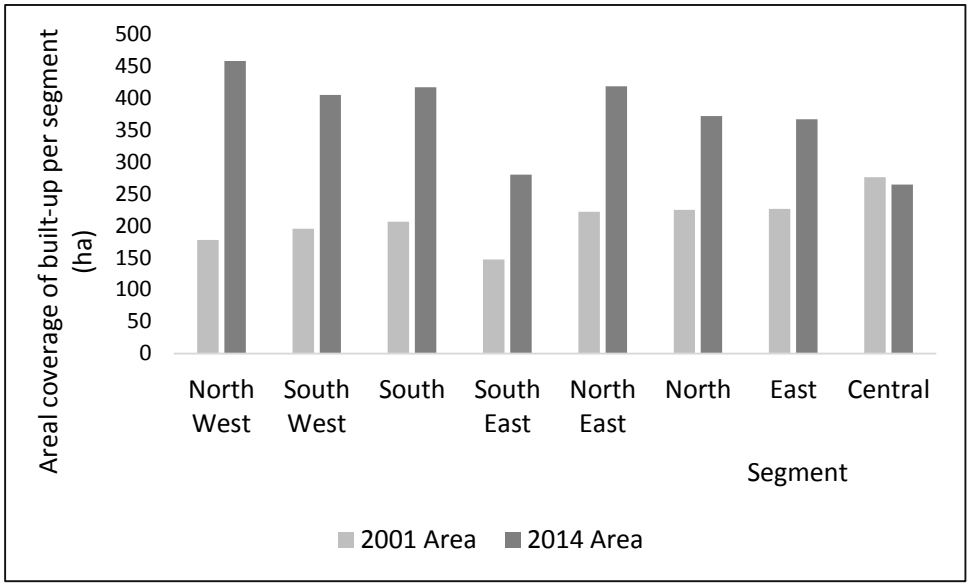

Figure 5.3: Areal coverage of built-up area of Tamale, Ghana, in the various segments 2001 and 2014

Figure 5.4: Road condition in Tamale metropolis (2001 and 2014)

Attention is now turned to discussion regarding demographic trends and growth in vehicular and motorcycle numbers in the next section.

5.3.2 Demographic trends and growth in vehicular and motorcycle numbers

The Tamale metropolitan area has also witnessed rapid population growth since independence in 1957 (Figure **5.5**). The city recorded a total population of 40,443 during the first post-independence census in 1960. The 1960 figure was more than tripled in 1984 when the metropolis recorded a total population of 135,952, and became the third largest urban centre in Ghana after Accra and Kumasi (Gyasi et al. 2014a). The metropolis total population was 371,351 during the latest census in 2010 after it had more than doubled again between 1984 and 2000. Incrementally, about 10,000 people were added to the metropolis' population annually between 1984 and 2010. The Metropolis has consistently recorded higher annual population growth rates compared to national growth rates and those of other cities in Ghana (Figure 5.6).

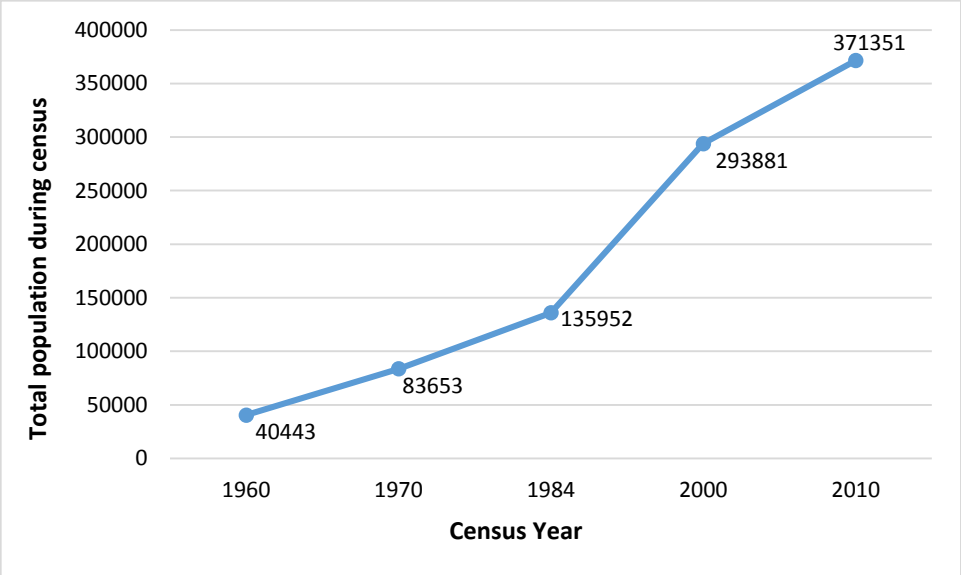

Figure 5.5: Total population of Tamale metropolis at different census periods (1960-2010)

For example, it recorded annual population growth rates compared with the national growth rates in the order of 7.3% vs 2.4% (1960-1970); 3.5% vs 2.6% (1970-1984); and 4.8% vs 2.7% (1984-2000) respectively (Ghana Statistical Service, 2005). The Tamale metropolis has also witnessed strong annual growth rates relative to Accra and Kumasi. The population growth rate of 7.3% between 1960 and 1970 was not only higher than the national and regional rates but also higher than those for Accra and Kumasi. The growth rate of the Tamale metropolis, however, slowed for the 2000-2010 period to 2.3% compared to the national growth rate of 2.5% (Ghana Statistical Service, 2013b). The slowed growth was a national phenomenon even though the sharp fall in the growth rate of Tamale from almost 5% for 1984-2000 to 2.3% (2000-2010) was remarkable. Similarly, the growth rate for Accra fell from over 3% during 1984-2000 to below 1% for the 2000-2010 intercensal period. These sharp declines in annual growth rates may require further probing to ascertain and understand the underlying cause(s). Despite its slowing growth, the TAMA remains the second fastest growing urban centre in terms of population, after Kumasi, among the largest metropolitan areas in Ghana.

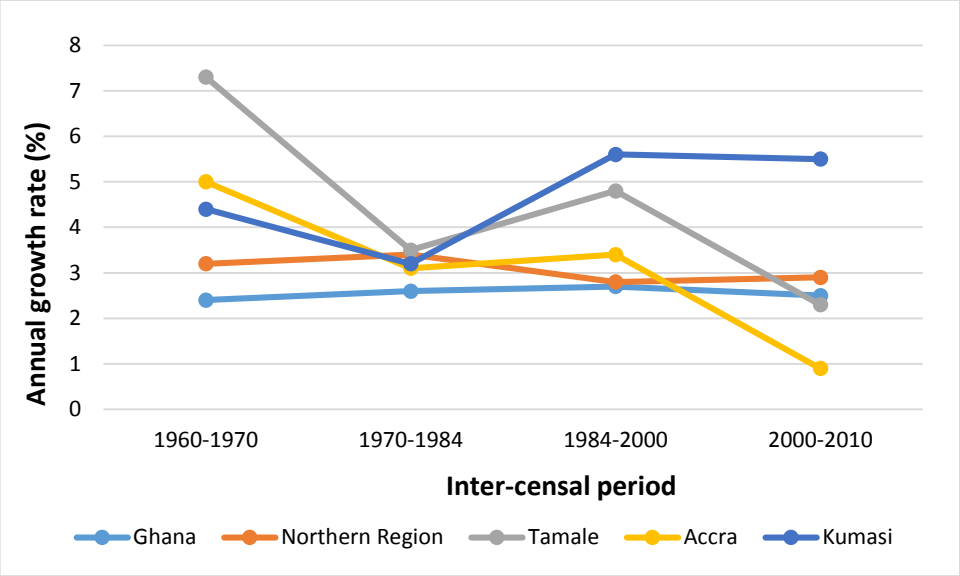

Figure 5.6: Annual population growth rates of Tamale relative to Ghana, Northern Region, Accra and Kumasi

Source: Ghana Statistical Service, 2005 and 2013

Increasing numbers of vehicles and motorcycles (Figure 5.7) also illustrate the character and complexity of the metropolis growth processes. The information presented in Figure 5.7 relates to total annual uniquely registered numbers of vehicles and motorcycles. It can be seen in the figure that annual registration of vehicles in the metropolis has witnessed a steady increase from 24 vehicles in 1995 to over 550 per year in 2013. The growth trends are even more profound with motorcycles. Though it has fluctuated over time, the number of motorcycles uniquely registered per year in the metropolis has risen from about 400 in 1995 to over 9000 per year in 2013. It must be noted that a good number of motorcycles on the streets of the metropolis are not registered, and, therefore, official statistics as rendered here are most likely underestimations. In fact, an estimated four out of 10 motorcycles seen on the streets of the Tamale are not registered[14] with the DVLA. This notwithstanding, cumulative totals of 4,272 cars and 73,400 motorcycles were added to the metropolis between 1995 and 2013 (even though some vehicles and motorcycles might have been taken off the road).

The increasing human population and the rising numbers of vehicles and motorcycles add to the pressures of managing urban growth in the metropolis. They make different but complementary demands on city managers for infrastructure and services while their sheer numbers present different challenges and opportunities. For instance, the increasing numbers of vehicles in the metropolis improves intra- and inter-city public transport systems (though this is a potent enabler of more spatial expansion) and also creates several direct and auxiliary jobs in the private informal sector. Producing and maintaining adequate infrastructure and instituting appropriate regulatory frameworks for the sustainable management thereof remain a daunting task for city

[14] According to unofficial statistics generated from interviews and the researchers' own reconnaissance checks.

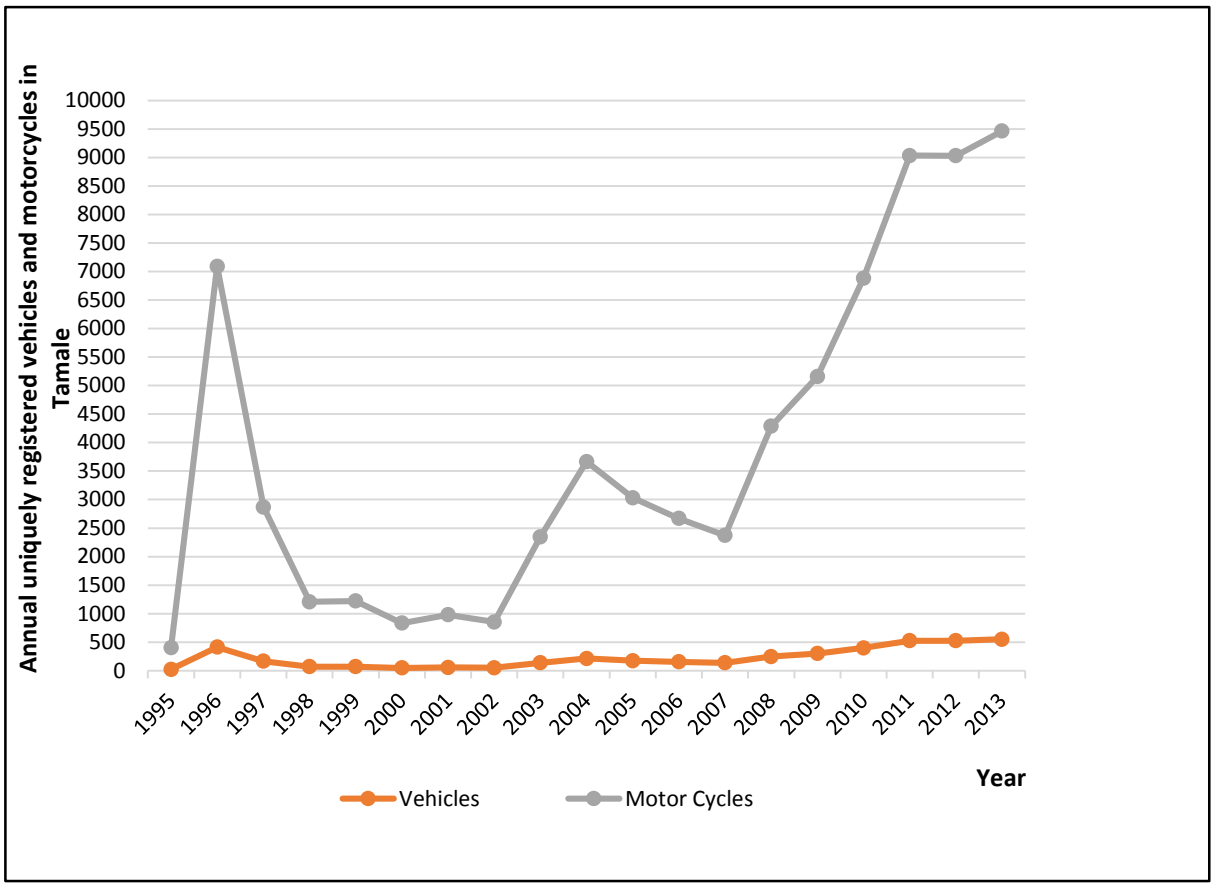

Figure 5.7: Unique vehicle and motorcycle registration in Tamale, Ghana (1995-2013)

Source: GSS, 2005 & 2013; DVLA archives, Accra

managers across Ghanaians urban centres (Yeboah & Obeng-Odoom, 2010; Adarkwa, 2012; Boamah et al., 2012; Government of Ghana, 2012; Boamah, 2013; Obeng-Odoom, 2013; Yeboah et al., 2013; Gyasi et al., 2014a; Fuseini & Kemp, 2015; The World Bank, 2015).

5.3.3 Urban governance responses to increasing urban pressures – infrastructure and service provision

This section presents urban governance responses to the increasing urbanisation of the TAMA and consequent management pressures. The presentation will focus mainly on road infrastructure and service provision including water, electricity and sanitation.

5.3.3.1 Provision of road infrastructure

Road infrastructure is a public good, the provision and maintenance of which in Ghana are almost exclusively the responsibility of the government or local authorities (Harding, 2015). The provision of water and electricity lend themselves more to private co-production than that of roads, once the baseline infrastructure has been laid. In Ghana, the DUR was established in 1995 to supervise the provision and maintenance of roads, drains and the regulation of traffic flows within urban areas. This parastatal entity was established to strengthen the local governance system that was taking root and that placed planning and development responsibilities on the

local-government authorities (Republic of Ghana, 1993). Like the rest of Ghana, road networks play a crucial role for the socio-economic development of Tamale as it accounts for about 97% of passenger traffic and 94% of freight traffic (Adi, 2008). In this respect, good urban road networks will facilitate distribution of people, goods and services, tourism development and emergency response services such as healthcare, security and fire tendering. Thus, good urban road infrastructure has the potential to contribute to poverty reduction (Harding, 2015). The preceding underlining needs for urban road infrastructure reflect the neoliberal perspective of road development as a means to facilitating production and capital accumulation as well as enhancing individual freedom through availability of alternatives for choice making (Obeng-Odoom, 2015a). On the other hand, lack of good road infrastructure limits the benefits of economic expansion, capital accumulation and individual economic choices as exemplified by Harding's (2015) description of yam rotting in the farms of Northern Region of Ghana due to bad road network and the concomitant lack of transportation to cart the produce to southern markets of Ghana. Road construction and maintenance also provide direct and indirect employment opportunities leading to improvement in the income status of the citizenry who are engaged one way or the other in the construction processes (Obeng-Odoom, 2015a,b). A strong case can be made for road development in Tamale in that in 2010, wholesale/retail and hospitality-related activities that are transportation dependent generated about 38% of all jobs in the TAMA, followed by other services at about 25% (The World Bank, 2015). This means that efficient road infrastructure may have a chain of positive impact on local economic development.

Yet, a poor road network is a characteristic feature of weak urban governance in Tamale. Figure 5.4 in Section 5.3.1 illustrates road conditions (tarred versus untarred) within the Tamale metropolis for 2001 and 2014. The total of 88.7 km and 181.2 km of tarred and untarred roads in 2001, and 124 km and 293.6 km tarred and untarred roads in 2014 (derived from section 5.3.1) were improvement over the stock of respective categories in 1995. Records of the DUR indicate that there were 54.7 km and 185.7 km of tarred and untarred roads respectively in 1995. However, the estimated stock of tarred and untarred roads derived from Figure 5.4 for 2014, seem to contrast sharply with data available at the DUR. For instance, the DUR's records suggest significant improvement in road conditions in the metropolis in 2011 with a total of 239.6 km of tarred and 224.4 km of untarred roads (an increases of 338% in tarred and 21% in untarred roads over the 1995 figures). This points to an active provision of road infrastructure in the metropolis with more tarred roads added than the untarred category. Nonetheless, comparing the results of this study and the figures obtainable from the DUR show a less impressive state of road networks especially given the vast difference between the two datasets. Perhaps, one possible explanation for these irreconcilable results could be poor maintenance culture whereby some tarred roads degenerate over time to reacquire untarred status while in the records of the DUR remain tarred. There are few such cases in Tamale. There is also the possibility of narrow definition of the metropolis's extent by the DUR compare to that used in this study which encompasses the discernible extent of the built up area. This argument could partly suggest that the city expanded rapidly between 2011 and 2014 so much that the road networks within the peri-urban enclaves might not have been captured in the DUR's data for 2011. However, one thing is certain: that the spatial extent of this study comprehensively covered

almost all of the built-up area within which the metropolis's tarred roads feature which means that differences in definitional considerations should not result in high discrepancy in the quantum of tarred roads between the DUR's records and the estimates derived from Figure 5.4. In other words, definitional discrepancies would only affect the estimation of road network in the city outliers but not within the city centre which has the disproportionate representation of tarred roads.

The road network within the city's peri-urban areas is largely untarred. According to the respondent at the DUR, most areas in the peri-urban fringes still require 'opening'. Opening refers to the first step in road building in the metropolis whereby the DUR leads a process to clearly delineate road networks on the ground as captured in local plans. The opening does not include major development such as construction of drains; at best the "opened" road is gravelled. In most cases this process happens at least 10 years into an area's development. A minimum of another 10 years may be needed for the said 'opened' roads to be built to acceptable standards including construction of drains and paving. This slow process of road development explains the underwhelming provision of tarred road infrastructure within the metropolis as illustrated in Figure 5.4, even though the DUR's data suggest otherwise. Despite the slow road development in the peri-urban areas, as argued by Yeboah (2000), the dream of owning a house by a typical Ghanaian drives people to continue building in the peri-urban areas in anticipation of later provision of services and infrastructure. For residents of the newly urbanising areas of Tamale, the roughly 20-year waiting period for road development comes at the cost of having to endure severely dusty conditions especially during the Hamattan[15] season when the North-East trade winds blow vigorously across West Africa from the Sahara Desert between October and February each year.

Road development and maintenance in the TaMA are challenged in several ways. The obvious is inadequate financial resources, which explains why it can take the DUR a minimum of 20 years to develop road networks in newly urbanised communities. Inadequate financial resources is a characteristic feature of most decentralised departments of the local-government units within the TAMA. Another challenge is encroachment on both unopened roads as well as fully constructed and paved roads. The first type of encroachment emanates from the slow process of road development that allows unscrupulous chiefs take advantage of the situation to rezone and reallocate these lands to developers who in turn develop on road networks.

> We have very good road networks in the plans … Unfortunately, some people are sitting on these roads due to the subtle rezoning and reallocation by the chiefs. Get any local plan of Tamale and you will see how beautiful it looks but when you go to the ground you will see a completely different thing (interview with a respondent at the CLS, 12 February 2014).

The second type of encroachment results from weak plan enforcement and regulatory frameworks that lead to almost all sidewalks, pedestrian and cycling lanes to be taken over by informal businesses for display of their

[15] A season in West Africa characterised by cold and dry dusty winds that originate from the Sahara Desert

wares. The respondent at the DUR expressed his frustration on the spate of encroachment on road infrastructure in the following:

> … When you drive through town you will be surprised to see that structures are sitting anywhere even on our drains! They will slab the drain and put the structure on it. Just right in front of my office, there are stores springing along the road and there are some stores sitting on the drains such that they have to display their wares on the roads. You can imagine how safety is being compromised on that stretch of the road! We have had several meetings and discussions with the assembly members regarding the matter but nothing seems to change. People are just being recalcitrant, it is not the best. It behoves the Assembly to make sure that these things are stopped. The standards are there. We need to have utility reservation where we can later do walkways and all those things to manage all classes of road users – pedestrians who are the vulnerable group, cyclists and motorbikes (interview with a respondent at the DUR, 11 March 2014).

> Tishigu, Block B, was one of the most carefully planned localities in Tamale. But go there and see containers on the streets. These are scattered everywhere on the streets to the extent that all access roads are blocked and this does not only impede daily movement but more importantly causes problems when emergency situations arise. Yet, if you come out to talk you will be tagged a bad person. But must we continue like this? [We need] very courageous leaders to curb this menace; those who perform their responsibilities even if it hurts their political fortunes. They should be able to say yes, 'even though you voted me into power you are not doing the right thing'! You can take your Metropolitan Chief Executive title, I do not care! If leaders can take such bold steps, then I think impunity will be reduced and we certainly will begin getting things right (interview with a respondent at the Gulkpegu CLS, 12 February 2014).

The above summaries by the respondents point to weak development control as contributing to the spate of encroachment on both yet-to-be-developed and developed road networks in the metropolis. It also points to even more important issues of local economy and livelihoods of the people. The structure of the local economy has changed from largely agrarian at independence (over 70%) to one dominated by informal economic activities which employ about 81% of the economically active inhabitants of the metropolis (Ghana Statistical Service, 2013b). The local authorities have come to accept, and even are taking serious steps to support these informal businesses for mutual benefits (providing stable livelihoods for the traders and generating income for the local authorities through payment of taxes, basic rates and rents). The ongoing efforts to cater for the burgeoning informal businesses include collaborative projects to renovate the existing market space and also add some 362 stores, stalls and a supermarket to cater for more traders (BUSAC Fund, 2014; Mohammed, 2014b). Planning theorists who now advocate planning approaches that are rooted in local livelihoods (Watson 2009, 2014) would welcome the collaborative governance in Tamale. However, the sheer numbers of the informal businesses make it extremely difficult for all to be catered for in the designated spaces which inevitably leads to traders' encroachment on any available spaces including roads. Thus, the inability to secure the roads hinges on economic rationality and political patronage and convenience (elected officials do not want to gamble with their electoral fortunes). Nevertheless, there have been few instances that force was applied to decongest some roads of informal activities though not on the scale normally witnessed in Accra and Kumasi (for incidents in the two cities, see Obeng-Odoom 2013).

The cumulative effects of the increasing human population and motorised means of transport, the unprecedented encroachment on road infrastructure and poorly developed road network are causing rising levels of congestion and traffic jams in the metropolis. The situation is growing so worrisome that the World Bank's 'Rising through cities in Ghana' report (2015) ranked Tamale second (after Accra) in public perception about traffic jams being the most important factor hindering worker daily commuting life. Poorly developed road network and congestion on roads are recipe for road accident, morbidity and mortality. Obeng-Odoom, (2015b) reports high accident rates in the Sekondi-Takoradi Metropolis, and similar statistics can be reported about other urban centres across Ghana including Tamale. Road congestion becomes a bigger problem in Tamale from the perspective of the increasing motorbike usage in the metropolis (Figure 5.7) which Obeng-Odoom, (2015b) describes as need driven as opposed to profit driven commercial motorbike usage (OKADA) in southern Ghanaian urban centres. Therefore, urban planners and stakeholders in governance have the responsibility to plan the urban transport of Tamale to cater for all modes of internal transportation so as to ensure inclusive urban transport development. In this regard, local development programmes in the shape of integrated development programmes (IDPs) could be pursued to achieve holistic planning to support livelihoods and urban transport development. Access to water and electricity in Tamale is discussed in the next section.

5.3.3.2 Access to water and electricity

The population of the Tamale metropolis has better access to water and electricity relative to access levels in other cities in Ghana. For instance, among the five metropolitan areas in Ghana (Accra, Kumasi, Sekondi/Takoradi, Tamale and Tema), Tamale was the only city with an increase (about 9%) in its population's access to pipe-borne water between 2000 and 2010. Accra was the worst performer with a decline in access by over 22% during the period (The World Bank, 2015). The 2010 Population and Housing Census (PHC) results showed that about 88% of households within the TAMA had access to pipe-borne water in a three-tier hierarchy including in-house, out-house and public standpipe sources. This is compared with the national and regional averages of 46.5% and 27.8% respectively. The remainder is distributed among other less popular sources such as dugouts/dams (5.7%), and boreholes and protected wells/springs (2.7%) (Ghana Statistical Service, 2013b). Similarly, about 78.8% of households in the metropolis had access to electricity through the main grid whilst the rest is distributed among different sources including kerosene lamps, solar and gas,. Again, national and regional access stood at 64.2% and 36.1% respectively (Ghana Statistical Service, 2013b). However, since 2010 the national access rate has risen to 76% and this is likely to have a positive impact on access rates for Tamale and the Northern Region especially as 22 satellite communities of the Tamale metropolis were connected to the national grid in 2014 as part of electrifying 400 communities in the Northern Region (Ghana Broadcasting Corporation, 2014). If the government's plans for universal access by 2020 materialise, access to electricity will soon no longer be an issue in Ghana (Ghana News Agency, 2015).

In terms of provision of water in the three-tier pipe-borne water system, government provides the public standpipes whilst communities and households sharing them pay a monthly fee. This is the most popular source of water for the urban and peri-urban poor. However, the suppliers, Ghana Water Company Limited (GWCL), do not like this arrangement due to low revenue recovery rate. This often results in occasional disconnections and associated artificial water crises in localities sharing such facilities. Members of newly urbanising peri-urban areas try to improve their access to water by organising and pooling their resources together to get in-house access to water. An illustration of this is the case of the Gurugu Yapala community initiative which is summarised below.

> Here, the first settlers came together and levied themselves to buy PVC pipes of different dimensions to connect from the mains to their area. Residents had to contribute and get access or buy water from the contributor households. They did this in close collaboration with the GWCL as the latter advises them on the required numbers and sizes of PVCs as well as all necessary investment needed for the project. Each landlord was then advised on the required investment needed to get the connection into their homes. They got connected in the final analysis and the GWCL supplied each household with its own meter, and individual landlords pay their separate bills. Any person or landlord joining the project later is required to buy at least a PVC pipe of certain size, to be kept by the community development chairperson, in addition to what he/she needs to connect to their homes. Thus, they do not only get themselves water but also create a community pool of PVCs that is used for future maintenance and upgrades when necessary (interview with community development chairperson, 10 February 2014).

However, the high access to piped water in the metropolis and the local cooperative efforts to improve access do not suggest an efficient service delivery. Water supply from the piped sources is characterised by erratic delivery due to high demand on the only treatment plant at Nawuni in the Kumbungu District. Coupled with the high demand is low investment and maintenance of the plant which is typical of the water supply systems of Ghana (The World Bank, 2015). The case of water delivery in the TAMA is worsened by the run-down of the alternate sources such as the few dugouts and dams to which the citizens turn in times of erratic supply from the piped sources. A typical example is the Builpela Dam which has served the City well since its construction in 1960 (Drechsel & Keraita, 2014). The dam used to be one of the few reservoirs that had water all year round and served many communities in the south, south-east and south-western parts of the metropolis. However, due to unregulated human activities including encroachment and poor maintenance by the local authorities, the dam has started drying up like any ephemeral stream in the metropolis (see Figure 5.8). The state of the Builpela Dam is similar to what pertains to other water bodies in the metropolis, and this shows weaknesses in the local governance systems to preserve the metropolis vital resources. The human activities within the mouth of the dam are illegal development. “If you go to Bielpela, the land [dam area] is taken over. Yet, people are not supposed to build in the water way, but that is what is happening. You go to Sagnani, it is the same thing” (interview with a respondent at MADU, 5 March 2014). The preceding discussion suggests that the systems have failed to prevent these encroachment activities even when it is clear that those activities contribute to the siltation and drying up of the dams.

Recent development, however, suggests the authorities in the Tamale metropolis are taking steps to manage and preserve the few dams and dugouts. In early 2014, plans had reached an advanced stage (an agreement had been signed and the Italians were due in Tamale for the start of work) for the metropolis to partner with Italian private investors to rehabilitate some of the well-known dams in Tamale (Gumbihini, Builpela, Gbalahi and Foshegu). The planned rehabilitation had a multipurpose ambition with key objectives being to secure the dams from encroachment, provision of quality water for domestic use as well as to support livelihoods in urban and peri-urban agriculture in vegetable production and fish farming (interview with a respondent at MADU, 5 March 2014). Such collaborative initiatives should be encouraged both locally and externally to enhance the systems response to some of the urban governance challenges in the metropolis.

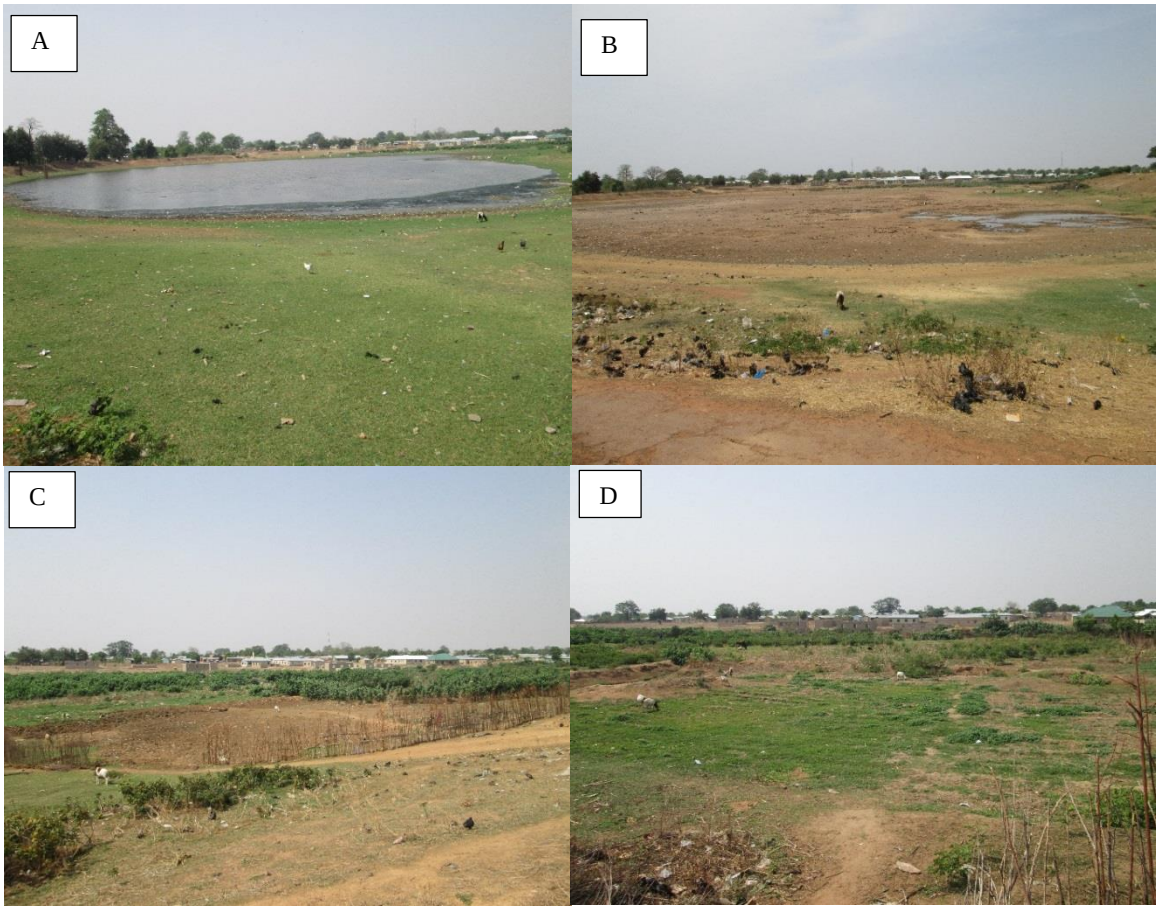

Figure 5.8: Contemporary faces of the Builpela Dam, Tamale, Ghana

A= The dam with receding water, November 2013; B= The dam in dry and silty conditions, February 2014; C & D= Farming and housing development at the mouth of the dam, February 2014

Households get connected to the electricity grid in a manner similar to that of water described above except that connecting to electricity is slightly more expensive and so is handled almost individually or by a group with very few people. As a result, 'illegal' connection of electricity is quite common in the peri-urban areas of the metropolis. Nonetheless, this 'illegality' is condoned by some landlords with meters who permit others to tap from their meters and then contribute towards the settling of the monthly bill. This is often done on grounds of good neighbourliness. This collaborative way of service provision makes it possible for people to get better

access to crucial services in the area. Unfortunately, such collaboration is not possible with regard to the provision of road infrastructure.

5.3.3.3 Waste disposal

Waste disposal and management constitute another aspect to which the growth of Tamale poses a serious challenge. The sewage system for liquid waste disposal remains undeveloped across many urban centres in Ghana but the situation appears serious for the TAMA. The TAMA scores the lowest proportion of liquid waste disposal through the sewage system among the five metropolitan areas of the country (Figure 5.9). The 2010 PHC reports the disposal of liquid waste in the Tamale metropolis as follows: 3.3% is disposed through the sewage system; 28.4% through the gutters (drainage system); 47.2% is thrown anywhere outside; 4.7% thrown into a pit; 16% are thrown onto compound[16]; and 0.4% disposed of by "other" methods. Figure 5.9 also shows that whilst the TAMA fares better than the national and regional averages in access to water and electricity, it falls slightly to the national average (3.4 vs 3.3) in liquid waste disposal through the sewage system but still outperforms the region by 1.2 percentage points (3.3 vs 2.1). The most popular mode of liquid waste disposal in Ghana is by throwing it 'onto the compound'. On the other hand, disposal through the gutters is the most common way to dispose of liquid waste among the five metropolitan areas. Throwing of liquid waste 'anywhere outside' the home is the most popular mode of disposal in Northern Region and Tamale.

These statistics show a huge infrastructure deficit for liquid waste disposal in Tamale and Ghana as a whole, and this begs the question of the effectiveness of the country's urban governance systems in providing urban infrastructure and services. Per the status quo, Tamale and other urban centres in Ghana are treading on a slippery slope of public health crisis not least emanating from the persistent incidence of malaria but also potential outbreak of cholera.

The Tamale metropolis performs better in solid waste disposal, even slightly more so than both nationally and regionally (**Error! Reference source not found.**). It scored about 66.7% in disposal methods that may be considered "safe" (collected, burnt by household, dumped in a public container for collection and buried by household) compared to national and regional averages of 52.2% and 34.1% respectively in that category. However, the 66.7% score by the TAMA was the worst among the country's five metropolitan areas (Accra=93.6%; Kumasi=81.3%; Sekondi/Takoradi=79.7%; and Tema=84.2%). Taking the "collected" category (the safest among the "safe" disposal methods) for example, the TAMA performs abysmally among its peers. While Accra recorded close to 60% in that category, Tamale garnered less than 7%. The metropolis only led its peers in the "unsafe" disposal method categories; public open and indiscriminate dumping. Twelve percent of solid waste was disposed of indiscriminately within the metropolis whilst no other metropolitan area

[16] Thrown onto unpaved compound (formed by the compound-house styled buildings) to percolate the ground and/or dried up by the natural elements of weather

recorded even 5% in that category. The high incidents of open and indiscriminate dumping in the metropolis would be disappointing to

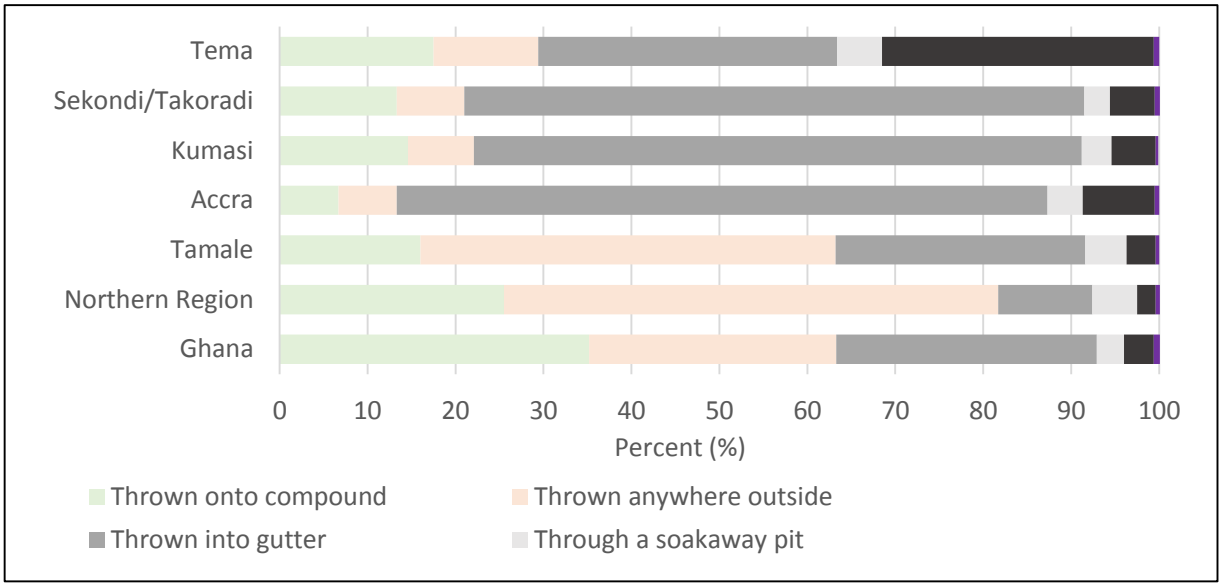

Figure 5.9: Relative importance of popular modes of liquid waste disposal in selected cities in Ghana (2010)

Source: Computed from Ghana Statistical Service, 2013

the local authorities who over the years, in conjunction with Zoomlion Ghana (a private waste management company), have tried to encourage in-house solid waste collection by offering free bins to households. However, the monthly fee that comes with the offer seems to discourage landlords from buying into the initiative.

Figure 5.11 illustrates the modes of disposal of human excreta in Ghana and its five metropolitan areas. The figure shows that public places of convenience offer the greatest access to the majority of Ghanaians including those residing in the metropolitan areas, except in Kumasi and Tema. It is reported that Ghana ranks highest globally in respect of its population reliance on shared sanitary facilities (Peprah et al., 2015). Over 30% of the TAMA's population does not have access to any toilet facility, and therefore resort to various ways of easing themselves including open defecation in drains, yet-to-be developed spaces in peri-urban areas and in forest reserves (Tamale Metropolitan Assembly, 2010). The combined proportion of over 70% of "no facility" and "public toilet" categories suggest a very low in-house toilet facilities in the Tamale metropolis. Overall, access to safe toilet facilities within the Tamale metropolis declined by 8% between 2000 and 2010, which was the worst decline among the five metropolitan assemblies in Ghana (The World Bank, 2015). Therefore, local-government authorities seem to confront the limited access by developing and maintaining more public toilets within their jurisdictions, a situation that contravenes the basic purpose of public toilet as one meant to serve pedestrians and travellers (Modern Ghana, 2013). Nevertheless, the situation is not peculiar to Tamale (see Ayee & Crook, 2003; Peprah et al., 2015). Even the Accra Metropolitan Assembly (AMA) that tried to compel landlords to comply with its bye-laws to provide in-house toilet facilities or face prosecution could not

chalk much success at the expiration of the ultimatum in 2011 (Bokpe, 2012). A survey in four neighbourhoods in Accra showed very high dependence on public toilet facilities such that some neighbourhoods reported 98%

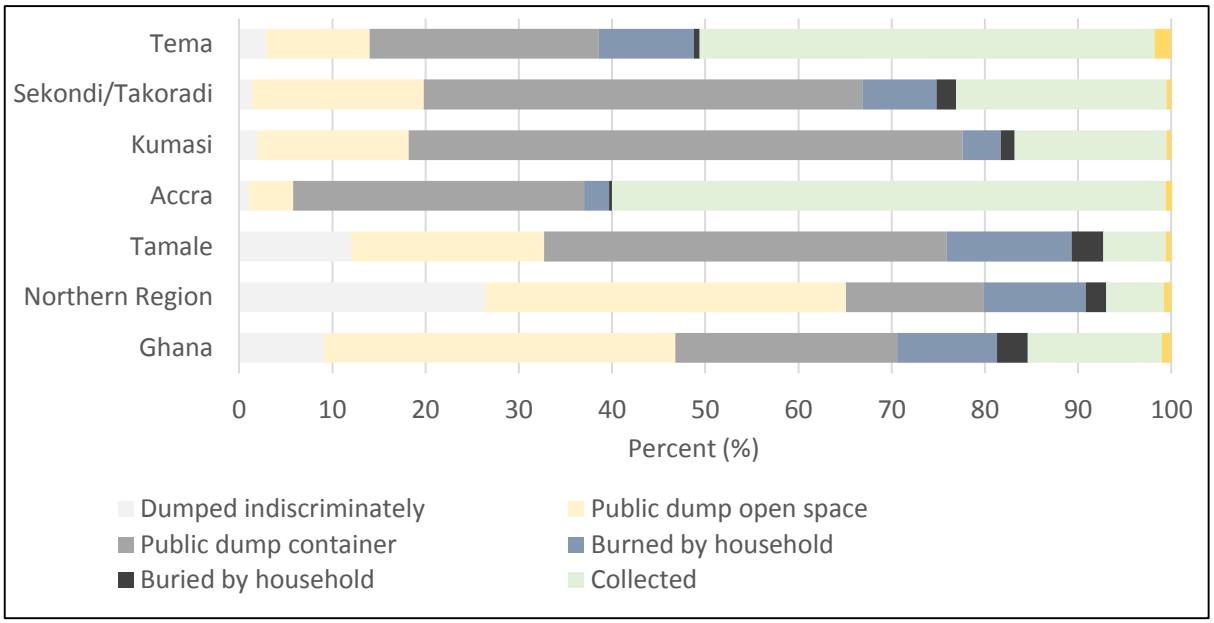

Figure 5.10: Relative importance of popular modes of solid waste disposal in selected cities in Ghana (2010)

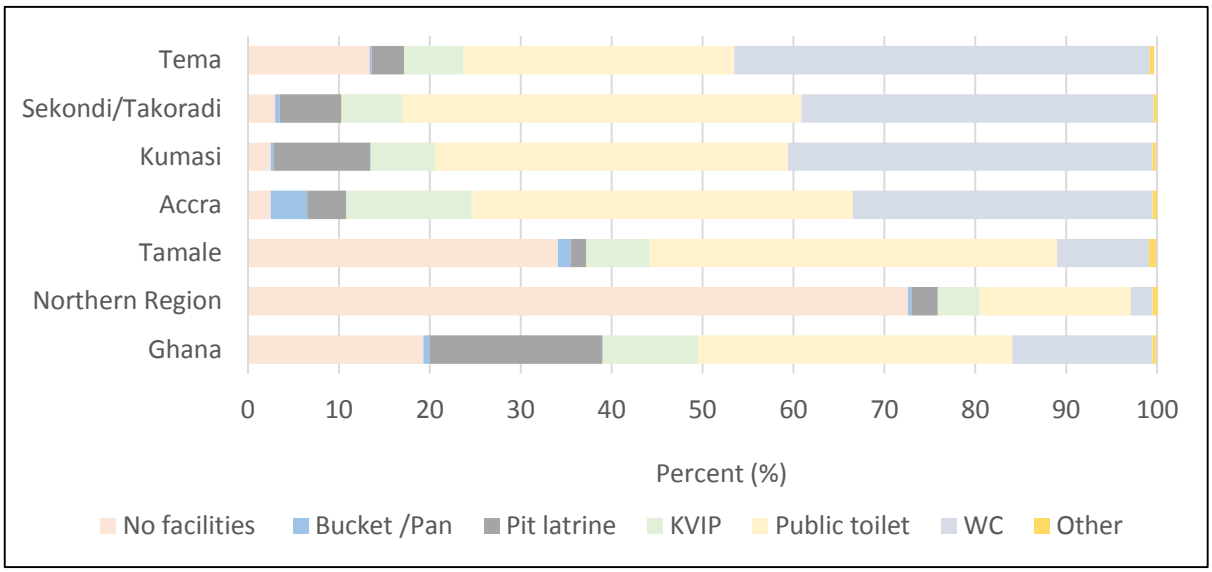

Figure 5.11: Access to toilet facilities in selected cities in Ghana (2010)

Source: Computed from Ghana Statistical Service, 2013

reliance on public places of convenience (Peprah et al., 2015). Public toilets have assumed such importance in Ghana that these have become centres of local political conflicts as a result of public-private partnership in facility management which often turns avenues for job appropriation by sympathisers of the governing party and/or cronies of local politicians (Ayee & Crook, 2003). It remains to be seen what innovative policy initiatives the local authorities in the TAMA would devise and implement to tackle the limited access to toilet facilities and the potential health risks it poses to the metropolis' teaming population. For instance, while public

toilets guarantee shared access to a chunk of the City's population a cursory inspection of the City's landscape suggests that per neighbourhood public toilet is in decline due to rapid population and/or spatial growth and the unfolding land markets that function to maximise profit to the chiefs at the expense of public interest (see discussion in Chapter 6). Thus, programmes and initiatives that target improvement in the provision of in-house toilet facilities, through public-private partnerships, should be the concern of local government authorities and other stakeholders in urban governance of Tamale.

From the foregoing, it is fair to suggest urban governance systems are overwhelmed by the sheer demand for basic urban infrastructure and services in the Tamale metropolis. The cumulative effects of the inadequate urban infrastructure and services could be dire for the socio-economic development of the metropolis in terms of the health and productivity of human workforce, environmental sanitation and effects on tourism development. Long term effects on local-government budgets are also perceptible in cases of massive public health crisis. The challenge is huge and multifaceted but related so that conscious efforts to tackle a few of them may impact positively on others. For instance, road construction could be linked to improvement in the sewage and drainage systems to facilitate the disposal of some of the liquid waste. The development of public toilets could also be linked to provision of more public dump containers for improved collection of solid waste while efforts are made to encourage in-house collection. The self-help partnerships among landlords regarding water and electricity provision should be encouraged albeit innovative ways and possibly extended to waste management and provision of in-house toilet facilities. The local-government authorities should invoke the true spirit of the local-government structures which are based on participation by varied stakeholders (the local people, chiefs, politicians, NGOs and civil society). This participatory approach could be invaluable to mobilising all human and financial resources available to non-governmental organisations, community-based organisations, civil society groups and private individuals for a collective approach to tackling the challenges.

5.4 CONCLUDING PERSPECTIVE

The results and analysis presented above show a rapidly growing metropolis in northern Ghana. The 77% spatial growth between 2001 and 2014 at about 100 ha per year with annual growth rate of 4.4% signify the preceding characterisation. This growth rate means that the metropolis's urban land cover will double in 16 years against a 30-year doubling period of its population which grows at 2.3% per annum (Ghana Statistical Service, 2013b). Added to these spatio-demographic growth dynamics are increasing numbers of motorised means of transport, which in itself is a potent enabler of spatial growth (Briggs & Yeboah, 2001; UN-Habitat, 2010). If the Ghana Statistical Service's (2005) assertion that increasing urban growth in the country is associated with a proportionate increase in the complexities of urban problems, then the managers of the metropolis need to start devising appropriate measures to manage the growth sustainably.

In relation to the foregoing, the results also show deficit in urban infrastructure and basic services which suggest that the authorities are already overwhelmed by the sheer demand for these. While the population of

the metropolis has better access to water (albeit erratic supply) and electricity, access to road infrastructure, waste disposal and other sanitary facilities leaves much to be desired. The dearth of these critical urban infrastructure and services raises questions about the effectiveness of urban governance in the metropolis. For instance, the weak governance has resulted in slow road development with high rates of encroachment by small businesses on the few developed roads in the city. This situation creates congestion and traffic jams on the roads to the extent that Tamale comes second to Accra in traffic assessment among the country's metropolitan areas (The World Bank, 2015). Waste disposal – solid and liquid – is a huge challenge with the metropolis scoring poorly among its peers. Thus, weak urban governance is greatly responsible for the deterioration in environmental sanitation, infrastructure and service deficit and increasing urban insecurity in Ghanaian metropolitan areas including Tamale (Government of Ghana, 2012; The World Bank, 2015).

The results present a number of implications for the metropolis's development. First, the infrastructural deficit has the tendency to stifle the metropolis economic performance. Also, the poor waste management including open defecation arising from limited access to toilet facilities poses a public health threat in case of an epidemic such as cholera. Third, the state of affairs has the tendency to create economic and social marginalisation which is antithetical to Ghana's development agenda (Government of Ghana, 2012; The World Bank, 2015). Fourth, the metropolis' growth path poses a challenge to the attainment of the overarching goal of Ghana's urban policy framework which seeks "to promote a sustainable, spatially integrated and orderly development of urban settlements with adequate housing, infrastructure and services, efficient institutions, and a sound living and working environment for all people to support the rapid socio-economic development of Ghana" (Fuseini & Kemp, 2015 p. 316).

It is concluded that the authorities of the Tamale metropolis need to devise innovative measures to achieve sustainable management of the city. In particular, if social justice, economic viability and environmental health are to be considered in the management of the city's growth then it behoves on the local-government authorities to participate actively in planning and implementation. Leadership could take advantage of the self-help behaviour of some inhabitants with regard to water and electricity supply to package these innovations. The country's decentralised governance system which stands tall among other systems on the continent (UN-Habitat, 2010) could be used effectively and/or re-engineered to engender partnerships among city managers, the local people, civil society, NGOs and international development agencies so as to tackle these local-level challenges. This could partly take the form of educating private developers to understand that proper development with basic facilities like in-house toilet and water could add value to their properties as tarred roads and concrete drains have been found to increase property values significantly in Accra and Kwabenya (Baffour Awuah et al. 2014).

CHAPTER 6 PUBLIC INTEREST IN SPATIAL PLANNING: AN ASSESSMENT OF LOCAL PLAN PREPARATION AND IMPLEMENTATION IN TAMALE, GHANA[17]

ABSTRACT

The study investigates the extent to which zonings for public land uses in local plans in Tamale, Ghana, are appreciated on the ground to serve the various recreational, social, economic and environmental purposes for which they were envisioned. Using Geographic Information Systems (GIS) and interview approaches, quantitative and qualitative content analysis of nine samples of local plans was performed to determine the prevalence of these land-use zonings in local plans and their statuses on the ground as plans are implemented. The results showed, first, a fairly high representation of zonings for public uses and, second, a high level of general encroachment on these zonings. Among the seven identified public land-use classes, zonings for sanitary purposes recorded the highest presentation, while zonings for schools/clinics recorded the least encroachment. In contrast, areas zoned as open spaces and reserves/buffers witnessed the highest encroachment of 86% and 96% respectively. The level of encroachment was explained by land tenure dynamics and weak local governance including low public participation in planning and plan implementation. Given their potential utility in providing cultural and environmental ecosystem services, mitigating urban disaster and climate change as well as livelihood support in urban and peri-urban agriculture, it is argued that the systematic encroachment on the open space and reserve/buffer classes presents an unsustainable scenario. The study recommends structural reforms, real decentralisation and strengthening of key democratic tenets such as participation, accountability and transparency in planning so as to ensure distributive justice as stipulated in the Constitution of Ghana.

6.1 INTRODUCTION

Larger societal good is essentially what spatial planning seeks to guarantee, and this makes planning an active part of the processes of creating a sense of place (Duke & Wu, 2014). In other words, planning connotes an activity that has a 'desired state of affairs' with a set of coordinated strategies to achieve them (Moroni, 2010). Society is comprised of a complex web of structures, interests and power relations which are rooted in the social and economic needs of its members. These multitude of interests and aspirations continually compete for space, especially in urban settings where there is a complex and increasing demand for economic, social and environmental infrastructure and services. Therefore, decisions regarding how to use land and/or change the use thereof affect society socially, economically and environmentally, whether positively or negatively (Klosterman, 1978; Duke & Wu, 2014). Considerations for achieving sustainable development have added

[17] Submitted to Land Use Policy (ID: LUP_2015_177) as Fuseini, I and Kemp, J. Public interest in spatial planning: An assessment of local plan preparation and implementation in Tamale, Ghana. The conceptualisation and writing of the manuscript were the responsibility of the author of this dissertation. The co-author, my supervisor, contributed through the provision of general guidelines and editing.

another dimension to the need for efficient conduct of spatial planning (Naess, 2001; UN-Habitat, 2009a; Watson, 2014) in order to promote larger societal interest (Klosterman, 1978). Accordingly, spatial planning attempts to mediate land-use forms and decisions to attain harmonious societal development. In the 21st Century, the argument for effective spatial planning stems from a multitude of factors including increasing urban poverty and vulnerability, service delivery, resource depletion, the need for sound environmental and sanitation management, climate change mitigation and improved economic performance among others (UN-Habitat, 2009a, 2011; Watson, 2009; Pieterse & Parnell, 2014).

While planning for spatial structuring of human activities is largely accepted (though there is debate regarding the legality of planning or the public interest justification thereof – see Klosterman, 1985; Campbell & Marshall, 2002; Lai, 2005; Moroni, 2010), the approach for doing so successfully is subject to contestation. Traditional planning has followed the rational scientific approach that is technocratic, positivist and top-down in terms of determining the contents of plans (Klosterman, 1978). The assumption of this rational scientific planning approach is that professional planners by their training and expertise are able to determine what land-use mixes are appropriate to serve the social, economic and environmental needs of society, independent of the social agents (Klosterman, 1978). Such a top-down planning approach often faces implementation challenges and has also been criticised as being undemocratic, counterproductive and lacking legitimacy; criticism that has precipitated planning reform based on active community engagement through consultation and dialogue (Klosterman 1978; Watson 2002, 2009). This gave rise to the normative planning approach with its varied strands – Communicative Planning, Collaborative Planning, Just City and Multicultural Theory. – all of which have a point of convergence at civil society engagement in a multistakeholder democratic process (Healey, 1992; Naess, 2001; Watson, 2002). It is assumed that the multistakeholder process would promote needs-based planning which would in turn engender effective plan implementation (Watson, 2009). While the normative planning approaches present a better alternative to the positivist, top-down rational scientific approach by having inherent relevance in planning for reduction of poverty and spatial inequalities, it is uncertain whether they present practical appeal in certain contexts, including much of Africa, due to factors such as weak civil society and grassroots networks (Watson, 2002). This is especially true given the advocacy of the normative theories for minimal state or government involvement in planning.

Beside the African context stated above, other general arguments exist to suggest that downplaying the role of the state in planning would be equally counterproductive as weak segments of society would likely be marginalised (Klosterman, 1985; Huxley, 2000; Watson, 2002). In a similar vein, market forces do not seem efficient mechanisms for allocation of land resources for larger societal benefits (Klosterman, 1985; Mather, 1986; Yeboah & Shaw, 2013; Baffour Awuah et al., 2014). The argument thus far suggests a planning approach that blends traditional welfare economic theory with democratic practices of popular participation and consultation. This is especially relevant in Africa where planning is largely founded in welfarist ideals (Baffour Awuah et al., 2014) despite the arguments against it (Campbell & Marshall, 2002; Lai, 2005). The financial crisis in the first decade of the 21st Century has revived advocacy for the protection of public interest in

planning (especially for the poor and vulnerable groups) by revealing the inefficiencies of market forces in allocating resources and left planners wondering if it was time to shift the focus of planning to more people-centred approaches (Lovering, 2009; Watson, 2009). Lovering (2009), for example, suggested that the failure of the neoliberal model of planning indirectly made the case for a reversal of planning intent to "protecting the needs of ordinary people rather than privileged minorities, the public rather than the private interest [and] the future rather than the present. Planners will have to take into account new (or rather, old) social forces" (p. 4). It should be clarified here, however, that the renewed call for public interest-based planning is not the same as the old-fashioned rational scientific planning but one that is rooted in the recognition of the economic and social diversity of society and making efforts to preserve it by paying particular attention to minority or vulnerable interests.

Consideration of public benefit has been central to zoning processes of Ghana's land-use planning history. Such zonings are clearly marked in local plans such as sites for public utilities, road networks, parks, play grounds and open spaces, buffers around wetlands, dams and rivers, sanitary purposes, schools, clinics, police stations, places of worship and local markets. These are intended to serve the social, economic, religious and environmental needs of the larger society. The reasoning is that spatial development that respects these zonations would most likely promote equitable, inclusive, healthy and, therefore, sustainable socio-economic development. As planning authorities in their respective jurisdictions (Republic of Ghana, 1993), the local-government authorities in Ghana are expected to work collaboratively with the grass roots and civil society to properly acquire, protect and eventually develop these zonings to serve their intended purposes. This is one of the ways of ensuring that planning reflects the everyday lives of the ordinary members of society (Watson, 2009) as these land uses serve the interest of the urban poor in particular. However, if urban growth management is defined broadly as "to guide the location, quality, and timing of development" (Bengston, Fletcher & Nelson, 2004 p. 273), then the efforts of urban governance systems in managing urban growth and protecting public interests in Ghana leave much to be desired as there exists widespread unregulated growth across Ghanaian urban centres (Yeboah & Obeng-Odoom, 2010; Boamah et al., 2012; Yeboah & Shaw, 2013; Yeboah et al., 2013; Baffour Awuah & Hammond, 2014; Fuseini & Kemp, 2015; The World Bank, 2015). In particular, the more personalised land uses including residential and commercial often take precedence over and encroach upon the other uses envisioned for larger societal benefits. The situation may likely be explained by the approach used in developing plans (whether participatory or top-down) and an apparent lack of direct and/or indirect legislative and policy frameworks for effective plan implementation beyond the basic laws that guide planning. For instance, concerns for social cost and environmental repercussions of urban sprawl had motivated local, state and national governments in the United States of America to formulate direct and indirect policies to manage and protect open space for public good (Bengston, Fletcher & Nelson, 2004. Thus, participatory planning with clearly formulated and supported legislations and bylaws with set targets could improve plan implementation over what is presently witnessed in Ghana.

For a number of reasons, the argument for securing public interest in urban growth management is as valid for the Tamale Metropolitan Area (TAMA) as it may be for any urban centre in Ghana. First, the metropolis has consistently ranked among the top three fastest growing metropolis in Ghana (Ghana Statistical Service, 2005, 2013a). Second, among five metropolitan areas in Ghana, Tamale recorded the highest proportion of its population using shared sanitary facilities like public toilets and public solid waste disposal sites (Ghana Statistical Service, 2013b,c,d,e). Third, the TAMA recently ranked second only to Accra in traffic related difficulties to intra-city movement (The World Bank, 2015). Fourth, the metropolis' population is facing an increasing threat and vulnerability to climate related disasters (e.g. serious floods in 2007) due to weak regulation of settlement growth that leads to encroachment on wetland areas and river valleys (Gyasi et al., 2014a). A cursory tour of the city also showed scenes of social gatherings being organised on the streets which suggests inadequate open spaces for social interaction; not to mention the environmental and ecosystem services open spaces may render. These are some of the pressures that emanate from the urban growth experiences of Tamale as far as public interest and safety are concerned, and it is these pressures that motivate this study. How urban governance systems respond to the above pressures in order not to allow urbanisation processes to 'sweep the poor away' (Watson, 2009) should be a topmost priority for managers of cities in the developing countries in the 21st Century (UN-Habitat, 2009a; Angel et al., 2011; Obeng-Odoom, 2013).

The study seeks to investigate planning response to protecting public interest-based land-use zonings through plan implementation. Land use for public interest/benefits as used here refers to all land-use zonings in local plans other than for residential, commercial and industrial uses. They include open spaces, green belts/reserves/buffers zones along and around wetlands, rivers, dams and roads; parks and play grounds; sanitary areas; local markets for small businesses and informal retail activities; places of worship, schools and clinics. Excluding residential, commercial and industrial zonings is premised on (1) they being individually owned and (2) they face no or very little threat from encroachment compared to zonings for public uses. Except for few studies that have highlighted general weaknesses in plan implementation (see Baffour Awuah & Hammond 2014b; Boamah et al. 2012; Yeboah & Shaw 2013), no study has ever been done in the Ghanaian context on the specific issue of ascertaining the real 'state' of these supposedly public interest based zonings. Therefore, pursuing such endeavour in Tamale will further our understanding of the planning processes and the extent of plan implementation successes and challenges, and thus inform policy and decision-making choices by city managers.

The objective of the study is to investigate the extent to which these land-use zonings are represented in local plans, the processes of defining them (co-production or unilaterally determined) and how they are respected on the ground to serve the various recreational, social, economic and environmental purposes envisioned for them. The results are relevant for urban geographers, professional planners and development practitioners interested in sustainability discourse. The main activity in the study involved quantitative and qualitative analysis of a representative sample of local plans in order to ascertain their state on the ground. Organisation wise, a presentation of methods of investigation follows this introduction. The results of the study are presented

in section 6.3 while the discussion of the results is rendered in section 6.4. Concluding remarks are offered in section 6.5.

6.2 STUDY METHODS

Two datasets were used for the study: a sample of nine local plans and qualitative data generated through interviews. The local plans were supplied by the Tamale Metropolitan office of the Town and Country Planning Department (TCPD) which is the main body in charge of development of local plans, and also is the repository of all local plans within the TAMA. The local plans were selected based on availability and (1) to reflect geographic distribution across the city (2) with attention to urban core-peri-urban continuum. The attention to urban core-peri-urban continuum was useful in an assessment of plan implementation in that the intensity of physical development (land-use competition that influences encroachment or otherwise of public interest land-use zonings) along that gradient may vary. Therefore, the distribution was as follows: two plans for the northern and northwestern parts of the metropolis; one plan in the eastern part; two plans in the western part; two plans in the southern part; and two plans in the centre of the metropolis. The interviews, on the other hand, were conducted with identified stakeholders in spatial planning the distribution of whom is illustrated in Table 6.1.

The plans were processed through georeferencing and digitising using ESRI's ArcMap software (Version 10). The subject of interest in the plans was with the public spaces and so these were individually digitised as opposed to parcel level digitising of other land uses, which were dominated by residential land use forms. Maps were prepared for respective plans, and Keyhole Markup Language (KML) files (.kml, .kmz) were created for each to render them viewable in Google Earth Figure 6.1). Desktop observation of the KML files in Google Earth (imagery acquired on 4 December 2014) was used complementarily with ground truthing to ascertain the statuses of the identified public land use types. The ground truthing exercise involved physical checks on the statuses of all public land use zonings in two selected plans while the desktop review in Google Earth was employed to assess the rest. Seven broad classes[18] of public space were defined to facilitate the analysis, that is 'open space', 'reserve/buffer', 'sanitary area', 'school/clinic', 'market', 'social centre' and 'worship'. Following Mascarenhas et al. (2015) and Conroy & Berke (2004), a combination of quantitative and qualitative content analysis was performed on the plans to determine the extent of zonings for public use and their statuses on the ground. The quantitative analysis involved determining the extent of representation of these zonings in the plans while the qualitative analysis related to assessing their 'state' on the ground. The assessment of the status of the open space and reserve/buffer classes was largely a binary exercise concerning their presence or absence. The assessment and interpretation of the remaining classes in Google Earth were

[18] 'Open space'= open greenery, playgrounds and parks; 'reserved/buffer'= demarcated wetlands, river and dam catchments, and road buffers; 'sanitary area'= sites for public toilets and waste disposal; 'school/clinic'= for development of schools, clinics, hospitals and related infrastructure; 'market'= sites for local retail trading activities; 'social centre'= places for public gathering e.g. community centre; 'worship'= for places of worship (churches or mosques)

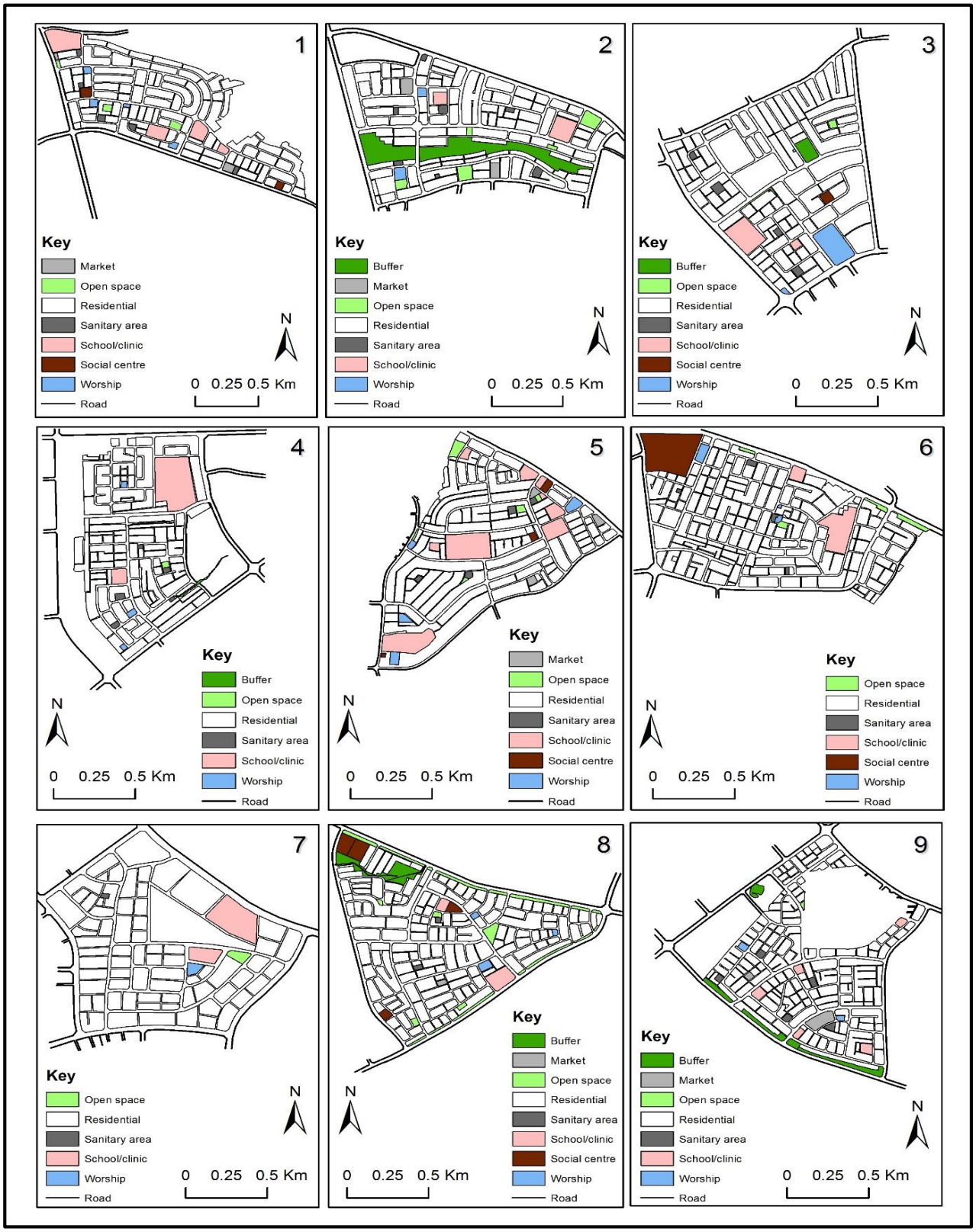

Figure 6.1: Sampled local plans showing zonings for public land use in Tamale, Ghana

Source: Town and Country Planning Department, Tamale

Table 6.1: Distribution of stakeholders in urban governance in Tamale who participated in the study (2013/2014)

Respondent/Designation	No.	Role in spatial planning/rational for selection
Officers at the Town and Country Planning Department (TCPD)	2	• Principal planning bodies in the local-government setup • Host of secretariat for TaMA/SDA's SPC[19] that oversees planning in the area
Representative of the Lands Commission	1	• A member of the SPC • Registers and keeps records of land transactions
Representative of the Survey Department	1	• A member of the SPC • Supplies base maps to the TCPD for development of plans
Representative of the Gulkpegu Customary Land Secretariat (CLS)	1	• A member of the SPC • Represents the interest of traditional land owners • Plays a mediatory role between traditional land owners and the planning agencies • Certifies and keeps records of land transactions
Representative of the Metro Agric Office	1	• A member of the SPC
TaMA/SDA Planning Officers	2	• Administrative heads of the Metropolitan/Municipal and District Planning Coordinating Units (MMDPCUs) • Members of SPC • Overall supervisors of all forms of planning at the TaMA/SDA
TaMA Building Engineer	1	• A member of the SPC • Supervises execution of approved development plans
Representative of the Environmental Protection Agency (EPA)	1	• A member of the SPC • Scrutinises plans to ensure that they conform to best environmental practices to reduce risk associated with land use
Assembly Members	4	• Community representatives at the local-government system. They play a mediatory role between the people and the local-government authorities
Elder Statesman	1	• His lived experiences were appraised relevant to throw more light on evolution of planning in the city
Ghana Water Company Limited (GWCL)	1	• Represents utility providers
Representative of the Department of Urban Roads (DUR)	1	• Member of the SPC • Responsible urban road development
Total	17	

aided by expert knowledge of the area, size, orientation and context of objects of interest. Beyond the identification of land use forms, three-grade descriptive terms were devised to show their status. These were 'not encroached' (NE), 'partially encroached' (PE) and 'completely encroached' (CE). NE connotes a situation whereby the land use is either developed for the intended public use or the zoning remained for future use for

[19] The SPC scrutinises and approves development plans

the intended zoning. PE is defined as partly developed and partly encroached or partly developed for a different use and partly preserved for future use for the intended zoning.

The interviews were conducted with representatives from the key stakeholders in land use planning as shown in Table 6.1 above. The respondents were selected from the Tamale Metropolitan Assembly (TaMA) and the Sagnarigu District Assembly (SDA) that constitute the TAMA on which the study was based. Theoretically, the Town and Country Planning Department (TCPD) and the Metropolitan and District Planning Coordinating Units (MDPCUs) play central roles in land use planning in that the former is the lead body in spatial planning in the local-government system and also hosts the Statutory Planning Committee (SPC). The MDPCUs for their part are engines and supervisors of all types of planning within the local-government setup. The Customary Land Secretariat (CLS) was selected for the study because it represents the interests of traditional authorities (chiefs) in the planning processes by supporting their applications to the TCPD for preparation of local schemes, certifies and keeps records of land allocation transactions and also participates on the SPC on behalf of the chiefs. The role and relevance in the study of the other stakeholders are described in
. A total of 17 interviews was conducted on a wide range of issues such as stakeholder roles and levels of participation in the planning processes, institutional collaboration, challenges in planning and implementation. Analysis of the data involved the use of ATLAS.ti software to organise the raw information into useful themes whilst simple pros was used to ensure logical flows and relationships.

6.3 RESULTS

The results of the study are presented here in two subsections. The results of the plan content analysis are presented in subsection 6.3.1 while stakeholder engagement in planning is presented in subsection 6.3.2.

6.3.1 Content analysis of plans

A total of 154 zonings were identified for public uses in the nine local plans. Zonings for sanitary purposes recorded the highest representation with a total of 37 across all plans. Open space and school/clinic classes together ranked second with 28 zonings apiece. The social centre class was least represented with over half of the plans not recording a single zoning for that category. The place of worship class not only came third in representation but appears to be one of the indispensable public land uses across all plans. Perhaps, the low representation of social centres is compensated for by the high presence of religious uses which themselves serve as important meeting places for people. In general, **Error! Reference source not found.** shows that zonings for sanitary areas, construction of schools/clinics, worship centres and open space are integral in the content of local plans. In terms of plan specific consideration, plan #8 would be considered the most inclusive in having all seven classes represented. It would also be considered the greenest with the highest units (17) of reserve/buffer class, and if combined with the open space category would raise the units for greenery zonings to 22. It must be noted, however, that the presence of the reserve/buffer class in only three plans illustrates

limited zoning for that class along major roads and/or disproportionate distribution of wetlands, rivers and dams around which they are mostly zoned.

Table 6.2: Status of selected public land uses in nine local plans within Tamale metropolis, Ghana

Plan	Open space	Reserve/Buffer	Sanitary area	School/Clinic	Market	Social Centre	Worship	Total
1	3	-	5	4	1	2	4	**19**
2	5	-	7	2	2	-	2	**18**
3	3	2	4	2	-	1	2	**14**
4	1	-	5	2	-	-	3	**11**
5	5	-	4	7	3	1	4	**24**
6	4	-	4	2	-	-	3	**13**
7	1	-	1	2	-	-	1	**5**
8	5	17	2	2	1	1	3	**31**
9	1	4	5	5	2	-	2	**19**
Total	**28**	**23**	**37**	**28**	**9**	**5**	**24**	**154**

Table 6.3: Distribution of selected public land uses in nine local plans within Tamale metropolis, Ghana

Plan	Open space			Reserve/Buffer			Sanitary area			School/Clinic			Market			Social Centre			Worship			Total		
	NE	PE	CE	NE	PE	CE	NE	PE	CE	NE	PE	CE	NE	PE	CE	NE	PE	CE	NE	PE	CE	NE	PE	CE
1	0	0	3	-	-	-	3	0	2	3	0	1	**0**	**1**	**0**	1	0	1	1	0	3	**8**	**1**	**10**
2	0	1	4	-	-	-	2	0	5	1	0	1	**0**	**0**	**2**	-	-	-	0	1	1	**3**	**2**	**13**
3	0	0	3	0	1	1	4	0	0	2	0	0	-	-	-	0	0	1	0	0	2	**6**	**1**	**7**
4	0	0	1	-	-	-	5	0	0	2	0	0	-	-	-	-	-	-	0	3	0	**7**	**3**	**1**
5	1	2	2	-	-	-	4	0	0	6	0	1	**2**	**1**	**0**	1	0	0	4	0	0	**18**	**3**	**3**
6	0	0	4	-	-	-	4	0	0	2	0	0	-	-	-	-	-	-	3	0	0	**9**	**0**	**4**
7	0	0	1	-	-	-	1	0	0	1	0	1	-	-	-	-	-	-	0	0	1	**2**	**0**	**3**
8	2	0	3	1	2	14	2	0	0	2	0	0	**1**	**0**	**0**	0	0	1	3	0	0	**11**	**2**	**18**
9	1	0	0	0	4	0	3	0	2	2	0	3	**0**	**0**	**2**	-	-	-	1	0	1	**7**	**4**	**8**
Total	**4**	**3**	**21**	**1**	**7**	**15**	**28**	**0**	**9**	**21**	**0**	**7**	**3**	**2**	**4**	**2**	**0**	**3**	**12**	**4**	**8**	**71**	**16**	**67**

NE= not encroached; PE= partially encroached; CE= completely encroached

Error! Reference source not found. illustrates the results of the assessment of the status of the identified public land uses on the ground. The results show about 44% (67 units) of the total 154 identified zonings for public uses was completely encroached which means their spaces were occupied by land-use forms other than what had been envisioned in the plans. A further 10% (16 units) was partially encroached which means that these existed only on fractions of their original allotments. Together, zonings that were partially or completely encroached accounted for about 54% (83 units) of all zones. Assessment of class-specific status reveals significantly varied results. For instance, sanitary areas and school/clinic classes experienced the lowest encroachment at 24% (9 units) and 25% (7 units) respectively compared to about 86% (24 units) for open space and 96% (22 units) of reserve/buffer. Not only did sanitary areas and school/clinic classes record low overall encroachment levels but also recorded no partial encroachment. Local market areas and social centres

were encroached by the order of 78% (6 units) and 60% (3 units) respectively. The statuses of the land-use classes make for a puzzling and interesting interpretation. For instance, the preponderance of open space in the nine plans suggests its utility was generally appreciated in the area. Yet, the high level of encroachment on them suggests otherwise.

Information gathered in the interviews points to land tenure and the local authorities' failure to acquire and protect such public lands as among the main factors explaining the level of encroachment. The argument is that the local-government authorities often fail to properly acquire such lands and protect them in the interest of larger society (as mandated by the law), which gives traditional authorities (chiefs) the opportunity to reallocate such lands to other uses. The behaviour and attitude of the chiefs hinge on land tenure changes in the area. The customary land tenure system which is practised in the area has undergone metamorphism since the restitution of northern Ghana lands by the State to the indigenous people in the late 1970s and which was affirmed in the 1992 Constitution of Ghana (Kasanga, 1995; Yaro, 2010). Under the customary tenure system land belongs to no single person but to everyone who belongs to the 'group' by birth. Accordingly, chiefs are supposed to be custodians of land and act like the Hobbesian *Leviathan* to protect and guarantee access by all in an egalitarian manner. Two distinct interests (titles) in land are recognised; allodial and usufruct interests. The allodial title is the highest interest which is held in the name of the 'skin' and exercised by the paramount chief (as opposed to the Tindamba in other parts of northern Ghana – Kasanga & Kotey, 2001) on behalf of the people while the usufruct title gives the subjects the right to use the land for whatever purpose other than selling. There is no sale of land under customary tenure; not even the chief is allowed to sell land (Kasanga & Kotey, 2001).

In the context of customary land tenurial arrangements, land administration in Tamale and Dagbon lies in the authority of Tindamba (Tindana, singular) and chiefs. The Tindamba, literally land owners, have historically been the administrators of customary land in Dagbon similar to what pertains in other parts of northern Ghana (Kasanga & Kotey, 2001; Ubink, 2008; MacGaffey, 2013). Their traditional roles in land management ranged from religious (making of sacrifices and pacification of the land) to administrative regarding land allocation and settlement of disputes emanating from land ownership and use. The Tindamba are recognised for these roles because they (or their descendants) were the first settlers in particular communities (Kasanga & Kotey, 2001). Unlike in other parts of northern Ghana, however, the role and authority of the Tindamba in land administration in Dagbon have significantly been reduced by the chieftaincy institution which accords vast executive, judiciary and legislative powers to chiefs. As Amanor (2008 p. 57) notes, the chiefs, "as founders of the polity and the political order", acquired the right to administer land as trustees, and this effectively took shape in the 1930s following the establishment of the Native Authorities as part of the British Indirect Rule policy. In this regard, the concept of allodial title as vested in chiefs in Dagbon is the direct result of chiefly takeover of land administration from the Tindamba following colonial and post-independence state political processes (Crook, 2008). Therefore, customary land administration in Dagbon and Tamale has been a shared responsibility between the Tindamba (as first settlers with religious role in land management) and the chiefs

who retain executive and administrative roles in land management (this is opposed to customary tenurial practices in southern Ghana which are administered exclusively by chiefs in cases of stool land or by family heads in situations of family land (Amanor, 2008; Ubink, 2008)). In other words, in matters of land transaction both the Tindana and the chief had to sanction any land allocation before it became legal. With the unfolding land tenure changes, however, the chiefs have effectively arrogated to themselves the responsibilities of land administration at the expense of the Tindamba. Only a few Tindamba retain control over some land within their jurisdiction and administer such lands by themselves without any interference from chiefs. These isolated cases relate to categories of Tindamba who are regarded as "senior" priests who, mythologically, (1) are not supposed to be seen by the Ya-Naa[20] and/or other paramount chiefs, and (2) the said chiefs do not benefit from land allocation in the jurisdictions of those senior Tindamba.

Contrary to the above well laid structure to ensure egalitarian access to land, modern neoliberal capitalism has led to chiefly commodification and sale of land without recourse to customary tenure arrangements (Yaro, 2012), and this has been the root cause of the wanton reallocation of lands zoned for public uses. Some scholars also blame modern governmental structures – from the colonial Native Authorities to present democratic governance structures – for empowering chiefs to manage customary land opportunistically for personal gain, especially in respect of the definition and application of concepts of usufructuary and allodial interests in land (see, for example, Amanor, 2008; Ubink, 2008; MacGaffey, 2013). Acting with the support of 'quack' surveyors (as self-styled surveyors are termed locally) – even though some respondents felt unscrupulous staff of the TCPD are equally culpable – the chiefs subtly go back and distort the original plans to get more residential plots for sale. Almost all respondents in the interviews bemoaned the practice. A planner lamented on the issue as follows:

> You reserve them [open space and buffers around roads, rivers and dams] but unfortunately, when you go back to the ground you see that these have been sold out by the chiefs and are developed accordingly. And the issue is that people do not come for permit before they build. They build before you get to know. One key thing is that the assembly's development control unit or building control division is very weak (interview with an official of TCPD, 7 February 2014).

As much as this situation is attributable to contemporary neoliberal economic forces, some scholars argue that customary land tenure has had historically inherent ambiguity that exposes it to fluid interpretation and perspectives (Ubink & Amanor, 2008b). This brings to question conceptions of negotiability and equity which underpin customary land tenure because the balance of power to negotiate often tilts in favour of the local elites including chiefs – the supposedly de jure trustees of land under customary tenure (Lund, 2000; Ubink, 2008; Ubink & Amanor, 2008b). For example, the contemporary land tenure changes in Tamale can be interpreted as the result of the interplay of unequal powers embedded in the usufruct and allodial interest in land.

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[20] The King of the Dagbon kingdom

An assembly member added: "In the near future we would not have enough roads, no recreational grounds or open spaces; there would only be [mass] residential development."

Another assembly member recounted an issue his community was engaged with the planning authorities at the time of our fieldwork. He said:

> Let me say I have never been consulted in matters of planning. But as an assembly member my attention was drawn to an issue involving some chiefs in my electoral area and TCPD. I understand … [an] old scheme was revised [illegally] by the chiefs on the grounds that there were many areas designated as open spaces. However, the revised scheme is not recognised by the TCPD and the DUR. … But we [the community] cannot use the new plan without their support because it creates a lot of problems. [Yet] if you look at the other side of the community, people now develop based on the revised plan. So we are saying that they [TCPD and DUR] should understand us and abandon the old plan and let us work with the revised plan because it was the same chiefs who planned the old one (interview with an assembly member in the Tamale Metro Assembly, 5 March 2014).

The above narrative relates to one of the challenges of unilateral rezoning or revision of plans by the chiefs. On this occasion the TCPD and the DUR wanted to standby the old (statutory) plan while the chiefs remained firm on the revised plan. Considering the potential negative implications of the standoff on the community's development, the assembly member (perhaps judging from the power of the chiefs) was pleading that the statutory planning bodies regularise the revised (illegal) plan because the chiefs have legal right over control of the land.. In large measure, these issues never arose when land administration was controlled by the Tindamba.

The respondents also expressed a bigger concern regarding the quacks' involvement in illegal scheme development. Deploying the quacks was calculated to tailor the contents of plans to suit and yield maximum benefits to the chiefs at the expense of the larger society. Such plans create chaos and, therefore, are not recognised by the local-government authorities or the CLS. Respondents were concerned that such plans do not meet basic standards especially zonings for public uses. Also, land transactions regarding such plans are not covered with formal documentation due to their illegal status. Yet, formal documentation guarantees secure access to land and is also required for application for, and granting of, development permits by which physical development is regulated. This situation, therefore, contributes to people's lackadaisical attitudes towards seeking development permits.

The attitude of the chiefs was facilitated by the local government authorities' renege on their statutory obligation to safeguard public interest in planning by formally acquiring, developing and/or protecting public-interest land-use zonings. The local government authorities' complicity in the ineffective plan implementation has been acknowledged elsewhere by the local government authorities themselves (Yeboah and Obeng-Odoom 2010). Elaborating on the ineffectiveness of the local government authorities regarding plan implementation, respondents in the interviews singled out three issues as contributing to the problem, namely low commitment,

misplaced priorities and malfunctioning decentralised structures. The MDPCUs were established to serve as engines for governance, planning and general development in the metropolitan, municipal and district assemblies (MMDAs). Accordingly, they are supposed to meet quarterly to review past performance and plan for the next quarter. The review process encompasses all activities by the decentralised bodies/units including that of the SPC which is mandated to oversee spatial development issues in the MMDAs and headed by the TCPD. However, due to low commitment and misplaced priorities the engines (MDPCUs) and other decentralised governance structures do not seem to be working properly and this hinders development of all kinds including spatial planning and implementation. A planning officer summarised the point in the following quote:

> … most MDPCUs exist only on paper. Others have the composition alright but they hardly meet. Meetings may be organised only once in a year instead of the mandatory four times [quarterly]. So how do we live up to our responsibility of reviewing past performance and planning ahead? I am secretary to the DPCU and every quarter I write a memo for funds to be made available for meetings but nothing happens. You will even have to remind administration several times and they will still not act. So it is like there is no commitment because the DPCU is the engine of the Assembly which should be taken seriously. … if we are committed and get our priorities right, even if there is no money, there is always a way of persuading people to perform their tasks in times of financial difficulties. It is about how the leader approaches issues or builds relationship with the staff and sets priorities for the organisation (interview with planning officer at the SDA, 22 February 2014).

A respondent at the DUR corroborated the need for more commitment to ensure better plan implementation when he stated:

> … I know that we are all constrained or challenged in terms of the resources to do our work but once we decide to go the extra mile we can do something relatively better with the limited resources at our disposal (interview with a respondent at the DUR, 11 March 2014).

According to Ubink (2008 p. 50) the ineffectiveness of local government authorities and systems in spatial planning and land administration was due to the state government's 'policy of non-interference in chieftaincy affairs'. This position is expressed variously and has contributed to poor planning and plan implementation in Ghana. Janine Ubink has analysed the situation as follows:

> … while the UC [Unit Committee and DA [District Assembly] members are a local force to be reckoned with, they are not always backed by the district authorities [local-level politicians]. The District Chief Executive (DCE) of Ejisu, for instance, while acknowledging the negative effects of chiefly land conversions in his district, went no further than the occasional public statement that chiefs should spend part of the land revenues on community development. … More generally, during UC and DA inauguration ceremonies members are often instructed to refrain from interfering in chieftaincy and land matters. This is directly in line with the national government's informal 'policy of non-interference' in chieftaincy affairs (Ubink, 2008 p. 50).

The seemingly 'non-interference' posture of political leadership and government on matters of customary land management was also manifested in the design and establishment of the customary land secretariats (CLSs) as no explicit efforts were made to put in checks and balances to guarantee the constitutional imperative of egalitarian access to land by subjects of skins, stools and family members (Ubink, 2008). This is a true reflection of what Berrisford (2014) argued that the lack of subsidiary legislations to enforce and implement targeted reformist legislations were among the

reasons why planning reform often fail in Africa. Thus, the lack of political support in matters of land administration "provides chiefs with ample room to manoeuvre, and gives them little reason to fear state intervention in land matters" (Ubink, 2008 pp. 52-53).

The low encroachment on the zonings for sanitary and school/clinic classes may be explained by their obvious utility to everyone in the community, including the chiefs. As stated in Section 6.1, during the 2010 census Tamale recorded the highest proportions of its population using public toilets and disposing solid waste at public damp sites more than any other metropolitan area in Ghana. It was also revealed in the interviews that many of the sites for the land uses in these classes predated the development of the local schemes and were thus integrated into these schemes. Therefore, there were lower chances of encroaching on them compared to zonings for open spaces and buffer areas which are the creation of the local schemes and are only known on paper (to the planners and the chiefs). Not even the elected community representatives (assembly members) have ready access to plans and their contents:

> I can only know the zonings for public use if I have access to the local plans. But if I go to the TCPD as an individual or even as an assembly member, I will have to pay between GHC70 ($18) and GHC80 ($20[21]) per plan. Yet, I am not paid as an assembly member. So it becomes difficult to take an inventory of lands zoned for public use. But the assembly has the authority to request those from the TCPD and protect them accordingly. Sadly, this is not done, and on one occasion they asked us [assembly members] to take inventory of these public lands and acquire them on behalf of the assembly. Where will I get money to do that?" (interview with an assembly member in the SDA, 12 February 2014).

This shows that there is little consultation in the development of local schemes which contradicts the concept of communal land ownership. It also shows that the planning professionals unilaterally decide what should feature in a local plan. While this is not necessarily bad (as it somehow guarantees minimal benefits for all), the limited public knowledge about the extent of allotments zoned for public uses contributes to their re-possession and re-allocation by the chiefs.

The 50-50 status of the worship class in Table 6.2 requires elaboration as evidence on the ground suggests the results may be misleading. The results as presented seem to be in agreement with a study done in some communities in Accra by Baffour Awuah et al. (2014) which found that places of worship did not add value to real estate properties which implies that proximity to a place of worship may not be of top priority to home owners and tenants. Therefore, excluding places of worship in local plans may be justifiable in this context. The ground truthing exercise performed in this study, however, revealed a contrary reality. For instance, while four allotments were zoned for worship purposes in plan #1 and three of them were encroached completely, there were in fact 10 places of worship on the ground. Eight of those were residential plots bought and developed into worship centres by individuals while the other two had been built on lands zoned for other public uses (one was developed on a section of the only local market zoning in the plan and the other was built

[21] According to exchange rates on 18 February 2014

on the site for one of the two zonings for community centres). Similar trends were observed across the city. This suggests that residents in the city may wish to have places of worship in close proximity to their areas contrary to the findings of Baffour Awuah et al. (2014). The findings reflect the growing influence of religion and religiosity in Africa and Ghana such that the development and geographic distribution of places of worship do not follow urban planning guidelines (Cobbinah & Korah, 2015). In their research to identify factors that influence the location of places of worship in Kumasi, Ghana, Cobbinah and Korah (2015) found proximity and access to the place of worship by members as well as affordability of land as the main considerations for locating a place of worship in the Kumasi Metropolis. Little consideration was made of planning regulations for the siting of places of worship. Similarly, proximity and access by members of faith groups are very important in the spatial distribution of places of worship in Tamale where a disproportionate number of places of worship is mosques, catering for members who are required to observe five mandatory daily congregational prayers at fixed times. Thus, proximity and access will be key if members are to discharge this daily obligation.

6.3.2 Stakeholder engagement in plan preparation

Table ***6.4*** summarises the involvement of key stakeholders in planning within the Tamale metropolis. The table is derived from reported stakeholder involvement in planning and plan implementation processes as gathered from the interviews. It can be observed from the table that participation in the initial process of plan preparation is limited to TCPD, Survey Department (SD) and the chiefs. The CLS involvement in the initial planning process is limited to writing a covering letter to the TCPD bound application from the chiefs requesting that planning schemes be prepared for their areas. "They [chiefs] will come to the secretariat and inform us that they want to develop schemes for their areas. Then we will write a covering letter, attach it to their application and forward both to TCPD" (interview with respondent at Gulkpegu CLS, 12 February 2014). An officer at the TCPD added "normally they approach our office with an application that 'I want you to plan my community for me.' We examine the application, ask the surveyors to go in and pick the area's base map and then we start the process from there." Asked whether chiefs are the right authority to initiate planning under the law, the planning officer replied:

> Ideally, the assemblies [e.g. TaMA] are the planning authorities and so should have spearheaded the process and bear the expenses thereof. Unfortunately, that does not happen. So the chiefs approach us, make the request and go further to finance the process. That is why sometimes it is difficult for them to understand why we should tell them not to tamper with some of the areas like public open space, sanitary grounds, markets, etc. because they feel it is their land and they invest so much in the plan preparation and so should recoup their investment. Planning in a technical sense does not deal with traditional boundaries, and so individual chiefs requesting to have their areas planned is not the right thing (interview with a respondent at the TCPD, 7 February 2014).

This indicates that the law regarding where, how and who should initiate planning processes is subverted from the very first step of scheme development. Also, the planning officer's explanation points to a unilateral determination (by the TCPD) of the content of plans. This brings to fore, at least two critical issues. First, the

contravention of the planning law emanates from (1) the fact that local-government authorities, through the decentralised structures, renege on their duty to lead the planning process and, (2) the chiefs take advantage of the situation to perpetuate their self-seeking behaviour. Second, there is very limited horizontal and vertical participation in the initial process which has the potential to undermine plan implementation success. This situation together with the non-involvement of community members through their elected representatives (assembly members) raises a question of whether or not planning and plan content are done on the basis of sound needs assessment. The TaMA is only involved indirectly in the initial stages by virtue of the involvement of its decentralised department, the TCPD. Overall, only three out of the eleven stakeholders in Table 6.4 had active involvement in plan preparation.

Stakeholder participation in scheme development improves at the second stage where draft plans are laid before the SPC for deliberation and approval. It is at this stage that committee members are afforded the opportunity to vet the draft plan, make inputs and approve or defer it if all or some of the members feel the whole plan or certain aspects of it do not promote sustainable spatial development. However, as shown in Table 6.4 some stakeholders are still not represented while others are rarely invited for deliberations. Of particular note is the

Table 6.4: Stakeholder engagement in plan preparation and implementation in Tamale, Ghana

Stakeholder	Involved in initial plan preparation	Involved in SPC deliberations	Involved in implementation
TCPD	Yes	Yes	Partly
Survey Department	Yes	Yes	No
Lands Commission	No	Yes	Partly
CLS	Partly	Yes	Partly
Individual chief	Yes	No	Yes
DUR	No	Yes*	Yes#
GWCL	No	Yes*	Yes#
EPA	No	Yes	Yes#
Building Inspectorate Unit	No	Yes	Partly
TaMA	Partly	Yes	Partly
Assembly members	No	No	Yes!

Key:

Yes*= Member but rarely invited; Yes# = Only when utilities and roads are being done;

Yes! = Only when issues arise. TCPD = Town and Country Planning Department; CLS = Customary Land Secretariat; GWCL = Ghana Water Company Limited; DUR = Department of Urban Roads; EPA = Environmental Protection Agency; TaMA = Tamale Metropolitan Assembly

absence of the chiefs on the SPC. Given the active role they play in plan implementation, the chiefs should be represented on the SPC. The CLS is expected to serve as the mouthpiece of the chiefs, however, given the former's role as merely coordinating rather than controlling the activities and behaviour of the chiefs, it would make more sense for the chiefs and at least the elected assembly members to participate in the plan approval process and implementation. Inclusion of assembly members would ensure that the contents of the plans are made known to the public. This could help minimise the wanton sale of public lands since the chiefs easily perpetuate the illegality by virtue of the content of plans being shrouded in secrecy. Active participation of all would also further the intent of the SPC by making plans amenable to the needs and interests of a larger society.

Plan implementation is supposed to be the sole responsibility of the local-government authorities (the TaMA and SDA) through the decentralised agencies. However, just as in the initiation of planning, the chiefs have emerged as active implementers of plans.

> It is the responsibility of the assembly to implement plans. We participate [TCPD] in some aspect of development control, though, with regard to the issuance of development permit. But we do not have the power to enforce implementation of the plans. Practically, the control of land is mostly done by chiefs except in few instances that you have state lands. So even though you plan for them, they decide what to do regarding the implementation: you are in your office doing the nice scheme but on the ground people are distorting it (interview with TCPD officer, 7 February 2014).

Development permits are the main instruments the local-government authorities employ to regulate spatial development within the Tamale metropolis. But, as hinted by a TCPD official (see Section 6.3.1) this instrument proves quite ineffective. Records at the Tamale office of the TCPD show that the TaMA's SPC approved a total of 49, 39 and 10 plans for 2011, 2012 and 2013 (first quarter) respectively. However, a respondent at the TaMA's Building Inspectorate Unit (BIU) felt that these figures were far from the reality on the ground. "The number of applications we receive in a month is far less than the actual buildings that are springing up in the metropolis. In other words, the rate of development far exceeds the permit we grant." (interview with respondent at TaMA BIU, 25 March 2014). According to the respondent, the poor state of affairs is due to levels of general indiscipline and impunity which have social and political antecedents.

> [Do] you remember we had a chieftaincy crisis in 2002? It has sharply divided our people, and the worst is that people have dragged politics into it. People misbehave and quickly align themselves with one chieftaincy gate or political party. And once that association is made, people come out to defend their "allies" at all cost with no regard for the merits or demerits of their [latter's] behaviour. The result is a great deal of lawlessness and impunity [in the metropolis] (interview with respondent at TaMA BIU, 25 March 2014).

The infective use of developing permit to control physical development is not limited to Tamale. Generally, people in Ghana do not comply with the demand for development permit before they put up physical structures due to the cumbersome nature of the process and the cost involved (Ubink, 2008; Boamah, Gyimah & Nelson., 2012). Boamah, Gyimah & Nelson (2012) also not unrealistic regulatory requirements, economic status and cultural factors as militating against the use of development permit to control physical development in Ghana. The argument goes that physical development in Ghana is often done incrementally because low income

persons can use up to 10 years to build a house, and this renders unrealistic the statutory requirement that a building permit is valid for five years. In the case of Wa municipality in Ghana, the authors also observed cultural factors against obtaining a development permit prior to embarking on physical development. For instance, it was a common perception among the natives of the Wa municipality that only settlers or strangers were obliged to seek building permit (Boamah, Gyimah & Nelson., 2012). Therefore, the effectiveness of building permitting in development control in Ghana will depend on how these factors are addressed.

Utility companies like GWCL and Electricity Company of Ghana (ECG) as well as state agencies like DUR and the EPA only participate in plan implementation when laying infrastructure for extension of services, construction of roads or when a certain development concerns environmental and public safety like siting of gas stations. For the GWCL and DUR the belated nature of their participation in plan implementation imposes another challenge whereby projects are sited on road networks and road buffers through which utility infrastructure (e.g. sewage and water lines) is normally laid.

In all stages of the planning process the people and their elected representatives in the local-government system are sidelined. All the assembly members interviewed said they are never consulted in any way in the planning process. They are, however, at the centre of events whenever crisis arises out of plan implementation. An assembly member stated:

> We have had issues in my electoral area. The chiefs had allocated land to people and the military later said their land had been encroached upon as a result. So they demolished people's homes. Even though I was not involved in the allocation process we all had to fight it because I am their representative at the local-government level (interview with an assembly member in the SDA, 22 February 2014).

6.4 DISCUSSION

The over 150 zonings for public land uses in the nine plans analysed in this study point to planners' intent to safeguarding societal interest in local planning schemes. Even though the zonings are based on an *a priori* reasoning of the professional planners as opposed to practical and participatory needs assessment, they have a positive value for societal development. For instance, the broad classes identified in this study – open space, reserve/buffers, sanitary areas, schools/clinics, places of worship, local markets, and social centres – have potential and expressed utilities for the socio-economic and environmental needs of society. For example, the presence of the sanitary and school/clinic classes across all the plans and the little encroachment on them clearly show the value attached to them. Also, the high prevalence of places of worship on the ground (including those developed on zonings not for religious uses) against the 50% encroachment on the class shows public preference for these places to satisfy their socio-religious needs. This is not surprising given the high religiosity of residents in the metropolis – about 99% of residents in the metropolis reported to belong to one religion or another in the 2010 census (Ghana Statistical Service, 2013b). It, however, contradicts Baffour Awuah et al.'s (2014b) study which found that places of worship did not add value to properties. Nonetheless, it is fair to state that their study and this one are not contextually and directly comparable. Issues like

composition of religious affiliations and denominations as well as homogeneity or heterogeneity of societal population could influence the findings of either study. The low representation of zonings for social centres seems compensated for by places of worship which not only serve religious functions but also social interaction.

The generally high encroachment on the zonings for public use contradicts the apparent utility planners and members of society ascribe to them. In other words, the high incidence of encroachment seems to indicate a rejection by society of imposed order in a sense similar to the view held by some that urban public spaces are undesirable and unsafe (Kirby, 2008; Pacione, 2009). However, the preceding view is not the case in Tamale where public life is not only cherished but is the order of the day. The emergence of 'ataya[22] bases' in the metropolis in the last decade has added impetus to public life in Tamale. The ataya bases bring people together to socialise and exercise their civic rights by engaging in public discourse and political activism. In reality, therefore, the encroachment is perpetuated by a few against societal interest. The observed encroachment on public space is a reflection of an interplay of global and local capitalist forces in altering social structures and creating new power relations. The products of this alteration process are emergent land markets, denigration of age-old land tenure systems leading to the loss of usufructuary rights of the ordinary people and the *de facto* appropriation of ownership of land by chiefs. These changes have seen chiefs transition from custodians to absolute owners and disposers of land, even though the principle of land-not-for-sale remains in the form of a 99-year lease on residential development instead of an outright sale. Thus, land allocation "is solely guided by the need to maximise financial benefits for the trustees [chiefs] and not in the context of sustainable development, equity and social justice" (Yeboah & Shaw, 2013 p. 37). The development in the TAMA somehow confirms the reservation expressed by some scholars about the normative theory's faith in civil society leading the planning process (see, for example, Naess, 2001; Watson, 2002). It is argued that the Global South often lacks stable, effective and accountable local government and civil society for successful conduct of planning and this allows for persons and agents with political and economic power to employ planning in opportunistic way (Watson, 2009). The claim, by some variants of the normative theory, of some 'invisible forces' neutralising inherently unequal power relations, which would then allow for societally beneficial decisions, is not supported in this study. Indeed, for Tamale, the decentralised local governance system has rather created a new form of oligopolists in the chiefs with respect to land ownership, allocation and spatial planning. This reflects Simone's (2000) view that increased economic competition (especially in institutionally weak jurisdictions) often turn public institutions into a "domain of specific interest groups, and … [avenue] for private accumulation and advantage" (p 6).

The new status of chiefs in land tenure has implications for urban governance and public good. First, the arrogation of land ownership deprives ordinary citizens in the area of their inalienable birthright as conceived in customary land tenure and thus breeds social vulnerability, especially as there is no accountability regarding the proceeds of such allocations. The lack of accountability in chiefly land allocation is partly the result of

[22] Signifies organic tea that is commonly served at such gatherings

political leadership's informal 'non-interference policy' in chieftaincy and customary land administration. This position has emboldened chiefs to pursue opportunistic land allocation with impunity relative to the statutory planning and land administration agencies (Ubink, 2008). Thus, the careers and/or jobs of bureaucrats responsible for land administration have now been 'mortgaged to the whims and caprices' of powerful chiefs. Ubink (2008) has observed the situation in the following:

> … if a case were brought to court [against a chief] by an officer of the OASL [Office of the Administrator of Stool Lands, an agency responsible for the management of customary lands in Ghana], this would not be considered an action on behalf of the government, the ruling political party, or even of the OASL in general, but as a personal action of that particular officer. Such an action would surely provoke the wrath of all chiefs. … 'The one who does it will become an enemy of the chiefs,' and this can pose serious dangers to the career of the official concerned. In a number of cases officials have been 'transferred' after standing up to a powerful paramount chief … (Ubink, 2008 pp. 45-46).

The ordinary people in Tamale keep to their part of the age-old reverence for traditional authority, even when apparently dismayed by the attitude of the latter. A respondent observed as follows:

> They [chiefs] abuse the plans forgetting that the planners foresaw the future needs of society, and that is creating a whole lot of problems these days. … It is not good for you to take a chief to court. So when it happens that way we just grumble and let go the matter (interview with a respondent at Gulkpegu CLS, 12 February 2014).

The chief-subjects relationship in Tamale contrasts with what exists elsewhere in the Country where citizens can take bold decisions to protest against their chiefs' conduct as reported by Yeboah & Shaw (2013) in the following:

> Scores of people at Nobewam in the Ejisu-Juaben Municipality … protested against the alleged indiscriminate sale of their lands by their chief and his failure to account for the proceeds. They accused Nana Adu Gyamfi of having sold a number of building plots to developers, including an area earmarked for a market and the community teak plantation (Ghana News Agency, 2010, quoted in Yeboah & Shaw, 2013 p. 30).

However, the "grumbling" within the TAMA by subjects regarding some of the infamous attitudes of the chiefs may evolve to more bold actions. Land related conflicts are emerging within the Tamale metropolis and these may likely lay the foundation for popular revolt against chiefly land appropriation. Students' demonstrations (as was witnessed in Tamale during our fieldwork) may be all it takes to awaken the people to stand up for their rights. On Saturday, 15 February 2014, students of Tamale Polytechnic (T-Poly) protested against the take-over of the institution's land for construction of a chief's palace. The students marched to present a petition to the Paramount Chief of the area, the Gulkpe-Naa, as well as the District Chief Executive (DCE) for the area to publicly express their displeasure about the matter. They held placards some of which read "our land, our future", "chief, why T-poly land?", "… dis one be 2 much [this particular case is too extreme]".

Another implication of the state of affairs is a potential impaired sustainable urban development. The open spaces, reserve/buffer areas and local market spaces have very important socio-economic and environmental functions to play for sustainable societal futures. Open spaces, for instance, could have social and environmental functions of providing scenic utilities as well as cultural and environmental ecosystem services.

Andersson et al. (2014b) argue that promoting cultural ecosystem services has a potential impact on multifunctional ecosystem services and these would collectively contribute to addressing urban sustainability issues. A respondent felt that the present urban growth pathways in Tamale would have far-reaching negative implications on social lives in the metropolis. He said:

> Looking at the implications of urban growth on our social lives in the next 20-30 years, I should think that we are going to be crying instead of laughing because there will be more people but not enough space for recreation to release stress. I have never been to Europe but we see on TV soccer being played across that continent every weekend and sometimes midweek. There are about five London-based teams playing in the Barclays Premier League alone and I believe there are others also in the second and third divisions. All of these teams have their own stadiums which means that people have places to go and relieve themselves of stress. That is the result of good planning. But if you look around here [Tamale], you will not see any land that is reserved and can be used for a stadium besides the only Tamale Stadium (interview with assembly member in the SDA, 12 February 2014).

Open spaces and reserve/buffer areas have further ecological functions such as ameliorating climate change impact of cities through carbon sequestration (Maes et al., 2014) and on cities by moderating storm water to reduce the effects of floods. Floods in Ghanaian cities have become recurrent in recent times, and Tamale experienced its own serious flooding in 2007 (Gyasi et al., 2014a). The 3 June 2015 floods and flood-triggered fire disaster that claimed over 150 human lives in Accra (Graphic Online, 2015; Smith, 2015) is an example of how floods in urban context post threats to lives, property and development. These recurrent and increased incidences of flooding in Ghanaian cities are largely blamed on poor urban governance including planning and encroachment on waterways. Contrary to the experiences in Tamale, evidence in Berlin and New York (far more populated and urbanised than Tamale) shows that proper urban governance can deliver green infrastructure in tandem with urbanisation (Schewenius, McPhearson & Elmqvist, 2014). For example, public acquisition of land and effective regulatory and incentive-based approaches have been effectively used to protect open spaces in US cities (Bengston, Fletcher & Nelson, 2004), while informal management of open spaces in Berlin has equally proven successful (Schewenius, McPhearson & Elmqvist, 2014). Open spaces and reserve/buffer areas can also support livelihoods in urban and peri-urban agriculture at the same time delivering the cultural and environmental ecosystem services, and supporting climate change adaptation and mitigation (Gyasi et al. 2014a; Padgham et al. 2015). Unfortunately, the present rates of systematic encroachment on open spaces and buffer areas in the Tamale metropolis puts the city's growth on the path of unsustainability.

The activities of the chiefs also result from ineffective stakeholder participation in planning and implementation. This asymmetric stakeholder engagement in spatial planning is what gives the traditional authorities the opportunity to hijack the process. It can be gleaned from this situation that Ghana's decentralisation governance system has not been successful in engendering local development as the intent of the system was to promote local-level development through grassroots participation. It is in the light of this that Watson (2002) doubts the capacity of civil society and the grass roots to lead planning as proposed by the various strands of the normative participatory theories. Obeng-Odoom (2013) notes the low interest in the Ghanaian local-level representation such that, in 2002, elections could not be organised in as much as 64% of

all the unit committees (the lowest level of the local-government structure that mobilises grassroots representation in the local-government system) because people did not put themselves up for election. The situation is no different in Tamale where an assembly member lamented on the apathy towards local-level activism in the following paragraph:

> Information dissemination is one of the biggest challenges I face. Normally we are supposed to work with unit committee members, about five members from each community, but these unit committees do not function because many of the members do not seem to be development oriented. They feel reluctant to attend meetings and even when I relay information from the assembly to them, they often fail to pass it on to the people as required of them. As a result, it is difficult to get the people to understand what the real issues are or how they can contribute to their own development (interview with assembly member in the SDA, 22 February 2014).

In this context, it would be easy for a few individuals or groups, like the chiefs, to hijack the process and cause maladministration against the interest of the larger society.

The discussion thus far suggests the need to improve democratic decision making in Tamale to promote larger societal interest in spatial planning. This will require effective collaboration among the decentralised bodies of the local-government system with particular engagement between the chiefs and the local-government authorities. In particular, addressing issues of ownership of land, the right and how to plan its use, and who and how to implement the plans should be mutually understood. This should be done with public interest in mind to give effect to Article 36, Paragraph 8 of Ghana's Constitution which states that:

> the State shall recognise that ownership and possession of land carry a social obligation to serve the larger community and, in particular, the State shall recognise that the managers of public, stool, skin and family lands[23] are fiduciaries charged with the obligation to discharge their functions for the benefit respectively of the people of Ghana, of the stool, skin, or family concerned and are accountable as fiduciaries in this regard (Republic of Ghana, 1992).

Many respondents in the interviews recommended active state involvement in land management and planning as a way of achieving the above Constitutional imperative of ensuring distributive justice. However, some of the chiefs feel the involvement of state bureaucracy could deprive the people of their inalienable rights that customary tenure affords them. Kumbun-Naa Yiri II (2006) made a statement to the effect that:

> … traditional authorities do not need stifling laws and regulations that make them and their subjects tenants on their own lands or at best gaping spectators while stifling laws whittle away their lands and source of income, birthrights, and authorities (p. 7).

Also, a former Minister of Lands and Forestry, in apparent justification of the political leadership's 'non-interference policy' in land administration, supported the above position of the chief when he once remarked that ''the state should not attempt to enforce local checks and balances. This should be done by the citizens themselves'' (Ubink, 2008 p. 52). While the preceding assertion has an unconditional merit, it behoves the chiefs to grant and preserve those "birthrights" customary tenure accords the people. Similarly, state and local-

[23] Customary land ownership is vested in stools (chieftaincy authority held in a stool), skin (chieftaincy title held in a skin) and family (ownership based on family than chieftaincy).

level political leaderships have a moral obligation to safeguard the Constitutional imperatives of ensuring egalitarian access to land, and for the chiefs to administer communal land as fiduciaries rather than outright owners. The expropriation of customary lands should not deprive the people of their wellbeing and social belonging. Therefore, it is imperative to protect public interest in planning by making the local-government structures work such that all identifiable stakeholders actively participate in planning from the very start through implementation. Making use of the elected assembly members as the bridge that links the people and the local-government system would be worthwhile. Active participation in planning processes may engender transparency regarding the content of plans thereby doing away with the obscurity that has aided the unilateral distortions of plans by the chiefs. It may also make it possible for professional bodies such as surveyors and planners to crackdown on the quacks.

6.5 CONCLUSION

The study established that overall there was fair representation (in terms of numbers) of all the public land-use zonings in the sample of nine local plans. Sanitary areas, school/clinics, open space and reserve/buffer classes were particularly high on representation which means that their relative utility was deemed higher by the planning professionals. Furthermore, the low encroachment on the sanitary areas and school/clinics classes seems to show convergence between the planning professionals' vision and societal expectation. However, there was very high encroachment on the open space and reserve/buffer classes which on the surface would suggest less appreciation of their utility by society. But this situation resulted mainly from the activities of chiefs who unilaterally distort and reallocate these areas for personal gain, and their behaviour partly stemmed from the content of plans being shrouded in secrecy. This, in turn, is the result of contemporary land tenure changes and weak local-government functioning, including low participation in planning by the relevant stakeholders.

It is argued that the public land-use zonings most encroached upon – open space and reserve/buffer – have potential benefits and functions including providing cultural (scenic) and environmental ecosystem services, ameliorating flood disasters, serving as sink for urban climate moderation and supporting livelihood activities in urban and peri-urban agriculture. Collectively, therefore, the public land-use zonings identified in this study possess the three elements of sustainable development including integration of the social, economic and environmental facets of development. Unfortunately, the rates of systematic encroachment on these, especially the open spaces and reserve/buffer areas in the Tamale metropolis puts the city's growth on the path of unsustainability.

It is concluded that structural reforms are needed in the decentralised governance system to improve participation by all stakeholders in planning with particular attention to engagement between the chiefs and local-government authorities in order to reverse the situation. These structural reforms would ensure real decentralisation and strengthening of key democratic tenets such as participation, accountability and

transparency in planning with the view to upholding Ghana's Constitutional provision that tasks managers of public, stool, skin and family lands to ensure distributive justice for all. These reforms would then be mainstreamed into the broader urban governance system to promote needs-based spatial planning and bottom-up local development.

CHAPTER 7 SYNTHESIS

7.1 INTRODUCTION

This chapter presents a synthesis of the findings of the study in relation to the study objectives, the research questions and the analytical and theoretical approaches. This introductory section outlines the content of the chapter including a re-statement of the study objectives and research questions to guide the synthesis. Sections 7.2.1, 7.2.2 and 7.2.3 , respectively, summarise the main findings regarding institutional conditioning of spatial planning and urban governance in Ghana and Tamale (objective 1), analysis of spatial growth dynamics of Tamale including urban governance response in terms of urban infrastructure and service provision (objective 2) and processes of planning and plan implementation (objective 3). The synthesis is done in Section 7.3 where the findings are related to the analytical framework and theoretical approaches. A summary of the chapter concludes the discussion in Section 7.4.

7.2 REVISITING THE STUDY OBJECTIVES AND RESEARCH QUESTION

A recap of the findings of the study is rendered in this section around the three research objectives (restated from Section 1.4), namely (1) to review statutory provisions for the conduct of spatial planning and urban governance in Ghana and Tamale, (2) to assess and characterise spatio-temporal growth dynamics of Tamale from 2001 to 2014, and (3) examine urban governance processes through identification and assessment of stakeholder engagements in spatial planning. In pursuit of the research objectives, the study posed the following research questions, as originally defined in Section 1.3:

1. What is the extent of the physical expansion of Tamale and how does urban governance respond to the growth dynamics regarding infrastructure and service provision?
2. What national and local statutory regulatory frameworks exists for the practice of urban governance and spatial planning?
3. To what extent does the observed spatial development pattern reflect local and national development goals?
4. Who are the main stakeholders in land-use planning and what are their roles?
5. How do stakeholders engagement in spatial planning and other urban governance activities and processes (e.g. infrastructure and service delivery)?
6. Does the city's spatial growth-urban governance responses mirror the elements in DED??

Research Question 1 is answered in Section 7.2.2 while Questions 2 and 3 are answered in Section 7.2.1. Question 3 overlaps with Objective 2 and is thus answered in Section 7.2.2 as well. Research Questions 4 and 5 are answered in Section 7.2.3. Lastly, research Question 6 is treated in Section 7.3.2. The synthetical analysis presented in Section 7.3 is expected to answer Research Question 6. The research questions were structured to elicit information to answer the respective research objectives to which they are tied.

7.2.1 Revisiting Objective 1: Institutional domain of spatial planning and urban governance

This section seeks a summary of the findings of Chapter 4 which was structured on Research Objective 1 and Research Questions 2 and 3. The chapter sought an analysis of institutional arrangement and legislative provisions for the conduct of spatial planning and urban governance in Ghana and Tamale from colonial period to contemporary times. To elicit information for the stated research objective, two related research questions were posed, namely what national and local regulatory frameworks guide the conduct of spatial planning and urban governance, and whether or not observed spatial development outcomes in Tamale reflect local and national development aspirations.

The findings in Chapter 4 revealed that the efforts to institute spatial planning in Ghana (Gold Coast) by the colonialists started in the 1920s following the enactment of the Mining Areas Ordinance of 1925 which was superseded by the Town and Country Planning Ordinance of 1945 (CAP 84). Stated objectives of colonial planning were to guide spatial development for orderliness, health considerations and to maintain the amenity value of settlements, although these were part of the colonialists' machinery to exploit the colony. The stated planning objectives and the prevailing planning theory at the time meant that colonial planning was modernist, rational scientific and top-down in nature. It had high implementation requirements which were strictly enforced. Consequently, colonial planning was implemented 'successfully' regarding rates of compliance, environmental sanitation and landscaping. Nonetheless, planning in the colonial period was employed to create and reinforce spatial and social inequalities regarding access to basic urban services and infrastructure.

Post-independence governments, especially that of Nkrumah, tried to restructure the economy of the new nation away from the spatially skewed development in favour of the resource rich areas in order to reduce inequalities. The intent of the post-independence governments was to pursue genuine national development and to do so nationwide based on spatial resource endowment and comparative advantages. In this respect, revisions were made to the existing CAP 84 in 1958 (Act 30 of 1958) and 1960 (Act 33 of 1960) to render the planning framework responsive to the development drive of the day. Efforts were made to enhance planning in Ghana through the establishment of Town and Country Planning Departments (TCPDs) nationwide. Planning education was instituted to produce more planning professionals while attempts were made to develop a National Physical Development Plan (NPDP) to integrate economic development with spatial planning similar to contemporary Spatial Development Frameworks (SDFs). Thus, for the first time planning was done outside of the 'Golden Triangle' located within the Accra-Kumasi-Takoradi enclave such that Tamale was declared a planning area in 1959 and the first plans were developed in 1964.

The amendments made to the colonial-planning law led to improved spatial spread of planning in Ghana and this manifested in the construction of tens of new settlements in the country (see Chapter 4, Section 4.4.2). However, planning challenges emerged following the post-independence planning restructuring such that the

objective to achieve spatial equity in investment and development was not realised because investment was still skewed in favour of the well-off Golden Triangle (over 80% of industrial establishments located in this region). The result was a precipitous rural-urban migration into established cities like Accra and Kumasi such that the population of Accra grew by 240% between 1950 and 1960 with net-migration contributing 98% of that growth (see Chapter 4, Section 4.4.2). The rush to cities generated high demand for, and pressure on, existing urban infrastructure and services such that planners and municipal managers could not cope, and that was the beginning of the persistent urban problems in contemporary Ghana.

After about two decades of planning inertia, renewed efforts were made in the early 1990s to reposition planning and local governance to promote national development. These were encapsulated in the Local Government Act (Act 462 of 1993) which laid the foundations for a decentralised governance and planning framework for the Country. The new governance and planning framework provided for multistakeholder engagements involving people at the grass roots, civil society, NGOs, governmental to supranational actors through partnerships building and collaboration. Thus, Act 462 laid the basis for the operationalisation of governance within the DED framework. However, the analysis of governance and planning outcomes in Chapter 4 revealed that implementation of Act 642 has not been successful in tackling urban problems in Ghana; in some respects, these challenges have exacerbated. The persistent and growing urban challenges in Ghana have prompted renewed efforts for policy reforms to improve urban governance and planning in Ghana for sustainable urban development. These are the development of National Urban Policy Framework (NUPF) and Land Use and Spatial Planning Bill (LUSPB). The NUPF is geared towards achieving socially and economically integrated urban settlements, and has several policy objectives to attain these (as discussed in Section 4.5.1). Similarly, the LUSPB seeks to harmonise planning laws and to promote sustainable development through integrated planning along the lines of SDFs from national, regional to district levels. While these initiatives are laudable, efforts should be made to engender their successful implementation so that they do not suffer a similar fate as the decentralised governance and planning laws under Act 462. This requires paying serious attention to the DED framework to deepen decentralisation and democratic processes and at the same time foster partnerships and collaborations as well as strengthen local economies to augment local-level revenue generation capacities. This is because successful programme implementation partly hinges on adequate resources. It is concluded that the description of the trajectory of planning and local governance law reforms answers research Objective 1 and research Question 2. Research Question 3 is answered inferentially from the persistent and growing urban challenges in Tamale (see Chapter 5), and the renewed efforts to tackle them through the development of the NUPF and the LUSPB. In short, the observed spatial development and urban governance outcomes do not reflect local and national development aspirations. This conclusion is further elaborated in Chapters 5 and 6.

7.2.2 Revisiting Objective 2: Spatial growth dynamics and urban governance response in the provision of urban infrastructure and services

Like in Section 7.2.1, this section provides a highlight of the results of spatial growth dynamics in Tamale and urban governance responses regarding provision of, and access to, urban infrastructure and services (Objective 2). Research Questions 1 and 3 (the nature of the physical expansion of Tamale and whether or not the observed spatial development pattern reflect local and national development goals) are tied to answering of research Objective 2.

The spatio-temporal growth analysis of Tamale shows that the built-up area expanded by about 78% between 2001 and 2014. Sectorial growth rates, however, varied from about 158% in the North-West section of the city to -5% in the city centre region. Overall, the city's built-up area increased by 100 ha (much higher than what has been reported in previous studies) per year from 2001 to 2014 with an annual growth rate of 4.4%. Section 5.3.2 (Chapter 5) has also shown that the metropolis recorded consistent population growth over the years. It has always had higher annual growth rates than the national averages except for the latest census in 2010 which showed trends of slowed population growth across Ghana which resulted in Accra recording under 1% population growth compared the TAMA's 2.3%. Comparison between Tamale's spatial expansion and its population growth shows that the built-up area will double its size in only 16 years (2030) while the population is expected to double in 30 years (around 2040). Increasing vehicular and motorcycle numbers added complexities to the city's growth dynamics. While the number of vehicles registered per year for use in the metropolis rose from about 24 in 1995 to over 500 in 2013, that of motorcycles increased from about 400 to over 9,000 per year in the same period. As has been observed elsewhere, the increasing numbers of motorised means of transport is a potent catalyst for spatial expansion as improved intra-city transport eases urban core-periphery travel difficulties thereby contributing to the distance-time collapse phenomenon (Briggs & Yeboah, 2001; Cohen, 2004).

The increasing human population and motorised means of transport make complementary demands on urban infrastructure and services. Thus, urban governance processes have to provide water, sanitary facilities and electricity in sufficient quantity and quality to meet the growing demand. The presentation in Section 5.3.3.2 shows that the metropolis' population has relatively better access to water and electricity compared to other metropolitan areas of the country. Among the five metropolitan areas in Ghana (Accra, Kumasi, Tamale, Sekondi/Takoradi and Tema), the TAMA was the only one where its population's access to piped-water improved between 2000 and 2010. However, urban water supply in the metropolis is erratic which makes the other less popular sources – dams, dug-outs and boreholes – very important alternatives. Yet, these localised sources are not given much attention regarding maintenance such as desilting and protection against encroachment. The metropolis performed rather poorly in waste disposal and sanitary facility provision (Section 5.3.3.3). Only 3% of the TAMA's population disposing off liquid waste through the sewer system compared to 31% in the Tema Metropolitan Area. Over 45% of households in the metropolis reported disposing their liquid waste 'anywhere outside the home' or haphazardly. No other metropolitan area in the

country recorded more than 12% in that category. Similarly, the proportion of solid waste collected at home was the lowest in Tamale compared to the other four metropolitan areas of the Country. Access to toilet facilities was even more appalling in the TAMA as over 34% of its population reported no access to any toilet facility while about 45% depended on public places of convenience.

The results from Chapter 5 have also shown that the development of road infrastructure has not kept pace with the spatial expansion and the increasing vehicular numbers in the metropolis. However, discrepancies emerged between the total road networks (tarred vs untarred) in the TAMA available in this study and the figures obtainable from the metropolis' office of Department of Urban Roads (DUR). These discrepancies resulted from possible definitional inconsistencies regarding the city's built-up extent employed in this study and that used by the DUR, poor maintenance culture with the likelihood of tarred roads relapsing to untarred status and possible misclassification of the road networks.

Regarding the research Questions 1 and 3, it is concluded that the city is expanding rapidly spatially and demographically with concomitant increases in vehicle and motorcycle numbers, and that growth dynamics do not necessarily reflect local and national development aspirations. This leads to conclusion of research Objective 2 that there is an urgent need for stakeholders in urban governance to work assiduously and collaboratively to initiate and implement innovative programmes to improve access to basic urban facilities and services in tandem with the city's spatial and demographic growth.

7.2.3 Revisiting Objective 3: Spatial planning processes and implementation

Like Sections 7.2.1 and 7.2.2, this section seeks to restate the salient findings and issues of Chapter 6 which was structured around Research Objective 3 (examine urban governance processes through identification and assessment of stakeholder engagements in spatial planning). The chapter primarily sought to investigate spatial planning processes and plan implementation as proxy for assessing urban governance practices in the TAMA. This entails an assessment of three related issues: (1) the processes of plan preparation (stakeholder engagement), (2) capturing public interest in plans (plan content analysis), and (3) processes of plan implementation (combining 1 & 2). Research Questions 4 (identification of stakeholders in spatial planning) and 5 (assessment of spatial planning and implementation) were posed to elicit answers for Objective 3.

The results of the content analysis of nine sampled local plans of Tamale showed that about 154 zonings were identified as being allocated for public use. Zonings for sanitary purposes (public toilets and waste disposal sites) recorded the highest numerical representation while zonings for social centres were the least represented. Open space and school/hospital categories also recorded relatively higher representation across the sample plans. The high number of zonings for public use would suggest their general acceptability among the metropolis' population. However, their status on the ground contrasted with the view of general acceptability by the population. The identified public land-use zonings were generally encroached upon by about 54%.

Zonings for open space and buffer/reserve areas recorded the highest encroachment of 86% and 96% respectively. On the other hand, sanitary areas and schools/hospitals recorded lower encroachment. The observed statuses of public land-use zonings were explained by several factors, namely local power relations with respect to land tenure, processes of plan development and implementation as well as the relative immediate utility of those zonings. For instance, sanitary areas were least encroached because they serve practical needs regarding public toilets and public-waste dump sites in the metropolis.

The identified stakeholders in spatial planning included the TCPD, DUR, Environmental Protection Agency (EPA), Tamale Metropolitan Assembly (TaMA), Sagnarigu District Assembly (SDA), Customary Land Secretariat (CLS), chiefs, Lands Commission (LC), Survey Department (SD), quack (self-styled) surveyors. Statutorily, chiefs, quack surveyors and assembly members are not part of active stakeholders in planning, although most land in Ghana and Tamale is in the hands of chiefs. Chiefs are supposed to be represented on the statutory planning committee (SPC) by the CLS. However, the reality in Tamale is that the chiefs have taken control over spatial planning with the support of the self-styled surveyors. The exclusion of the assembly members from the SPC is not a good idea given the strategic role they play in the local governance system (they serve as links between the MMDAs and the people at the grass roots). Regarding multistakeholder participation in planning, the results showed very limited participation against the well-intended participatory governance provided for in Ghana's local-government law as discussed in Chapters 2 and 4). The limited participation in plan preparation meant that there was limited knowledge about plan content and that made it easy for traditional authorities (chiefs) to clandestinely rezone these areas, mostly open space and buffer/reserve areas, and reallocate them for personal gain. This behaviour of the chiefs was supported by the activities of quack surveyors. There is also the failure by the local-government authorities to secure and protect these public land-use zonings as the law requires of them. Therefore, the asymmetry regarding active and balanced stakeholder engagement in planning is the root cause of public interest not being adequately catered for in plan development and implementation in Tamale.

Regarding research Objective 3 and Questions 4 and 5, it can be concluded that spatial planning processes in Tamale are less participatory, although the local-government law prescribes a multistakeholder participatory approach. There is appreciable representation of public interest in local plans of Tamale regarding zonings for public land uses. However, the limited participation in plan preparation and implementation leads to a few stakeholders manipulating the process for personal gain.

7.3 SYNTHETICAL ANALYSIS

This section renders a synthesis of the results of the study presented in relation to the DED analytical framework and collaborative planning theory. Evidence in Chapters 2 and 4 revealed that during the last decade of the 20th Century Ghana established a planning system that was pro-DED compared to the traditional top-down planning system that persisted since colonialism. Yet, the results regarding urban governance response

to urban growth dynamics in Tamale (Chapter 5) regarding urban infrastructure and services provision, and the persistent or worsening urban problems in Ghanaian towns and cities suggest that governance reforms have not had significant positive effects on decision making and governance outcomes as would be expected of a pro-DED urban governance system. Therefore, this section draws on the results presented in this study to provide a contextualised evaluation of urban governance processes and outcomes in Tamale through the DED framework as well as relate the evidence to theoretical debate.

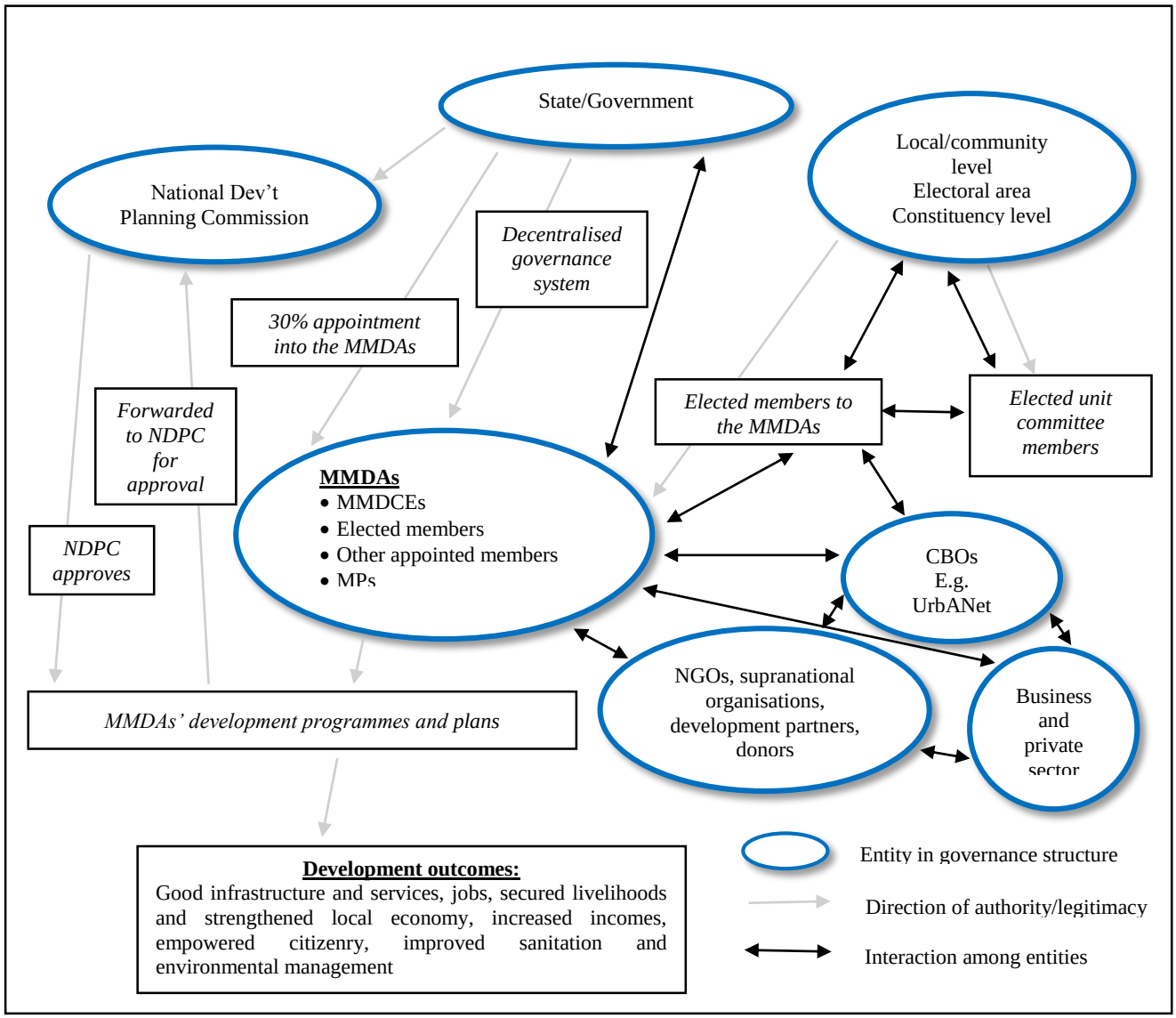

Figure 7.1 Framework for decision making in Ghana's decentralised local governance system

Figure 7.1 shows a simplified diagrammatic representation of the decision-making structure of Ghana's decentralised local governance system. The figure was structured based on the legislative provisions for the composition of stakeholders in the governance system, their staffing, modes of engagement and directions of authority and/or legitimacy. Its purpose is to simplify the governance structure as provided for by the law and to make the processes of governance understood within the DED analytical framework. The elliptic components in the figure represent entities or stakeholders in the governance system while the arrows illustrate directions of authority, legitimacy and engagement among stakeholders. In the ensuing sub-sections, Figure

7.1 will be interpreted in the DED framework in light of the findings of this study. In doing so, new analytical information is occasionally used to elaborate on the key concepts, namely decentralisation, entrepreneurialism and democratisation.

7.3.1 Synthesis with the DED

This section presents the synthesis of the study relative to the DED analytical framework. As discussed in Chapters 3 and 4, the state decentralises legislative, administrative and executive functions to the Metropolitan, Municipal and District Assemblies (MMDAs) within their areas of jurisdiction. Such functions and powers are to be exercised through partnership building and participatory engagements by multistakeholders including elected community representatives (assembly members [AMs]), government appointees, technocrats, non-governmental organisations (NGOs) as well as civil society and community-based organisations (CBOs).

7.3.1.1 Decentralisation

Figure 7.1 shows how the state decentralises power and responsibilities to the local-government entities (the MMDAs) to legislate, administer and then execute their development programmes and projects. However, it can be seen from the figure that the decentralisation process is incomplete on two grounds. First, two (the MMDCEs and about 30% of other staff members of the MMDAs) of the three categories of staff at the MMDAs with voting rights (the MPs at the MMDAs do not have voting rights) are appointed by the President of the Republic. Even though the appointments are made in consultation with local traditional authorities and opinion leaders (the 30% of staff members appointed) and/or are subject to at least a two-thirds majority approval (in the case of the MMDCEs) by the elected members of the MMDAs, the state still wields enormous influence on local-level decision making. For instance, the appointed MMDCEs are not only central government representatives but also the most powerful figures in the local-government setup. The act of appointing the MMDCEs in a hybrid local-governance system (see Section 2.4) hinders the success of decentralisation as well as stifles urban governance practices at city level. This issue will be elaborated in Section 7.3.1.3. The second issue that affects complete decentralisation in Ghana is the requirement that MMDAs must submit their development programmes to the state's National Development Planning Commission (NDPC) for vetting and approval or rejection (
Figure 7.1). This requirement implies that local governance may remotely be controlled in a top-down fashion by the state under the guise of the NDPC's harmonisation exercise. Consequently, some locally relevant issues in terms of stakeholder interests may be sidelined in an attempt to prepare acceptable development programmes by the NDPC's standards and guidelines. This is against the backdrop that the decentralisation system was adopted to check top-down decision making that was considered insensitive to community development aspirations and initiatives, and lacked local-level participation in planning processes (Bandie, 2007).

The hybrid/incomplete decentralised local-government system currently in place is inferior to complete political devolution which allows the citizens to elect all of the important office holders. The Ghanaian citizens'

expressed preference for making the position of the MMDCEs elective (see Chapter 2, Section 2.4.1.1) points to how less desirable the local-government system fashioned out of Act 462 of 1993 has become. However, making the MMDCEs' position elective may appear rather symbolic than improving local and urban governance in the Ghanaian context as issues such as sectionalism, patronage and ethnicity play a far more important role in people's voting behaviour than considerations of socio-economic circumstances (Obeng-Odoom, 2013). The preceding possibility notwithstanding, allowing complete decentralisation whereby the locals are able to elect their own leaders and hold them accountable seems to represent the true spirit of the people's power.

Respondents in this study felt that the current incomplete decentralised local-governance system makes it difficult to pursue locally responsive development initiatives. A member of the TAMA's SPC considered incomplete decentralisation as one of the biggest challenges facing planning in the city. The respondent's view is summarised below:

> … decentralisation in Ghana has not got to the level that the framers had envisioned. I think we still have about 70% centralisation at the headquarters where[by] basic permitting and licensing for planning projects are done in Accra. [I think] we [should] only have about 5% power at the centre in Accra so that only serious matters are dealt with there. Complete decentralisation is good for a number of reasons: 1. The regional and district authorities have proximity advantage for better scrutiny and monitoring of issues, 2. Decision making is also quicker, 3. Centralisation alienates the local people in the decision-making process. The people do not think they have the power and this has been one of the reasons why policies fail [because they] feel everything is owned by central government, every decision is made by government and that is why they stifle some of the implementation processes.

> If we really want planning to succeed in the country then it should be holistic … We must put [power] back in the hands of the people [and] all must be engendering and not merely seen to be participating, and there should be feasible benefits associated with planning for the people and they should be able to visualise it in the medium to long term. It is also important that the people be given a credible base for them to air their grievances in the planning process. … For example, … planning scheme[s] … have to [be] take[n] … to the chief and his elders, the assemblyman, the magazia[24], etc. to explain the content of the plan to them and then give them time to scrutinise and critique the plan. Once that is done then you have a system that allows people to own the process. After all planning is about making decisions, agreeing and disagreeing. It should involve agreeing with the decisions, owning the process, enjoying the benefits and also fac[ing] the consequences therefrom (interview with a respondent at EPA, 11 February 2014).

Another respondent added:

> I think [governance would be better] if the decentralisation concept is what we will go by strictly where everybody is involved in what is happening … But it seems not to be working … Things [decision making] are still centralised at the national level. Sometimes there are obvious things the [MM]DAs should be doing but because of the power that they [national-level officials] want to enjoy they would not allow the [MM]DAs to do those things. They will sit at the top and do everything. Sometimes they even come as far as to the district to do things that the staff of the [MM]DAs could do (interview with a planning official at the SDA, 22 February 2014).

[24] Title for local women's leader in the study area

The challenge of incomplete decentralisation can affect the functioning of the decentralised departments of the MMDAs. For example, accounts like the above have the tendency to dampen the self-esteem of staff of the MMDAs and the local people thereby affecting their performance in the local-governance system. Moreover, the incomplete decentralisation has the tendency to breed unfunded mandate situations whereby the central government imposes certain obligations on local-level governmental bodies without providing the necessary resources for implementation of those obligations (Roin, 1999; Anderson & Constantine, 2005; Dilger & Beth, 2016). Perhaps, the low interest shown (as established in Chapter 6) by people at the grass roots regarding participation in the unit committee elections is partly born out of the frustration and feeling of powerlessness as described above. This assertion seems to be supported by a recent survey by the National Commission for Civic Education (NCCE) that suggested that over 80% of Ghanaians knew the functions and roles of the various sub-structures of the MMDAs (Tetteh, 2015). Yet, the unit committees are the building blocks for community and civil society engagement in the governance processes in that they serve as pivots for community mobilisation by working in close association with the assembly members to identify and forward the communities' needs to the MMDAs for harmonisation into their operations. They also serve as conduits for information dissemination and policy implementation. Therefore, malfunctioning or non-existent unit committees will inevitably affect the efficacy of the whole local governance system. As discussed in Chapter 6, a respondent assembly member lamented about lack of this vital support from his electoral area's unit committee members and that is affecting his performance as an assembly member.

The challenge of decentralisation is not limited to vertical decentralisation (state-periphery relationship) but also horizontally. The decentralised departments of the assembly do not collaborate effectively as the law would require of them (see Chapter 4). Yet, internal collaboration among these decentralised departments could be the starting point for external partnership building with CBOs, NGOs and supranational organisations and development agencies to promote local development.

7.3.1.2 Entrepreneurialism

Unlike decentralisation and democratisation, entrepreneurialism is not explicitly shown in Figure 7.1. Rather, it emerges from the decentralisation and democratisation processes through actual governance practices. Normatively, therefore, entrepreneurialism is expected to emerge from the development programmes and projects through the collaborative interactions among the central decision-making body of the MMDAs, central government, NGOs, supranational development agencies, CBOs, civil society as well as private individuals in various capacities.

There have not been clearly structured local economic development initiatives such as the Sub-committees on Production and Gainful Employment (SPGEs) mentioned in Chapter 3 in some districts in Ghana. However, as discussed in Chapter 3 some initiatives with entrepreneurial intent are being implemented in urban governance in Tamale to support local economic development regarding informal economic activities and

livelihoods, although these are ad hoc in nature compared to the SPGEs. The renovation and expansion of the local market infrastructure are two related projects being executed through collaborative efforts among the local and national government, CBOs and international development partners and organisations. The first component of the project stems from a Ghana Urban Management Pilot Programme (GUMPP) involving the Government of Ghana (represented by the Ministries of Finance and Local Government and Rural Development (MLGRD)) on the one hand, and the Agence Francaise de Developpement (AFD) on the other. Under the programme, the AFD provides a concessionary loan (with a grant component) of €40.5 million to support urban management improvement efforts of four cities in Ghana, namely Ho, Kumasi, Sekondi-Takoradi and Tamale. The programme has a cluster of objectives including to "enhance widespread access to essential services, build the financial, management and ownership capacity of cities, support economic activities and local employment and limit the negative impact of city extension on peripheral ecosystems" (The Ghanaian Times, 2012 para. 5). The beneficiary cities had to apply the funds to their priority development programmes but which would lead to the attainment of the GUMPP objectives outlined above. For Tamale, these included upgrading of markets and transport terminals, construction of storm drains to address seasonal flooding and also to provide other ancillary urban infrastructure and services (The Ghanaian Times, 2012). The implementation of the programme was to benefit from technical assistance from the Institute for Housing and Urban Development Studies (IHS) of The Netherlands as part of the multilevel collaboration to advance urban governance. The technical support related to the establishment, management, monitoring and implementation of the programme with the last receiving special focus to ensure prudent budget spending, project design and timely execution (IHS, 2012). It is hoped that the technical support sought would not be 'transplanted' wholesale as often done regarding knowledge coming from Europe or elsewhere but would be integrated with local knowledge and context for better development outcome.

The other component of the local market development in Tamale is a collaboration between the TaMA and The World Bank. This project is a good example of public-private dialogue yielding results to advance local economic development. Traders in the Old Tamale Market organised themselves into a group known as Progressive Traders Association (PTA) with technical and advisory support from a local business related NGO, the BUSAC Fund (funded largely by DANIDA, USAID and the EU). The BUSAC Fund helped build the capacity of the traders in advocacy and negotiation, and also facilitated dialogue between the traders and the local authorities, the product of which came as a World Bank support of about US$1.1 million for the renovation of the market (see Figure 3.3) (BUSAC Fund, 2014). The two projects under discussion show how vertical and horizontal interaction and collaboration could improve urban governance. If these projects are executed successfully, they could impact positively on local development through job creation, livelihood security and increased income for both the traders and the assemblies. The latter would then be able to provide more urban infrastructure and service.

The SDA's initiative to develop local markets (also mentioned in Chapter 1) is yet another collaborative effort to operationalise entrepreneurialism in urban governance. Here, the SDA tried to invoke the true spirit of

decentralisation that is mobilising and harnessing local resources to promote local development. Attempts to prepare land or space and invite people to develop it with low cost material accessible to them, settle on it and ply their trade is an innovative way of mobilising local resources for development. Partners in the projects were to be incentivised in terms of tax subsidy. According to the planning officer at the SDA, the assembly will initially charge a monthly rent of GHc5 (about US$1.5) because the traders were investing in the project and might not realise high sale from the beginning. The officer added that they had already constructed a 10-unit market facility and rented it out but did not have the resources to develop the other one, hence the decision to partner with the local traders. By so doing, they will be able to generate more income to build more markets and execute other development projects. The innovative programmes and engagements enumerated above reflect the CEO traits Obeng-Odoom (2012a) admonished local government leaders to develop to be able to operationalise urban governance as entrepreneurialism.

As mentioned in the case of the Progressive Traders Association (PTA) of Tamale, CBOs are actively engaging the people at the grass roots to build their capacity to participate meaningfully in urban governance. The BUSAC Fund and Urban Agriculture Network (UrbANet), a Tamale-based research and advocacy organisation, are good examples in this regard. Like the BUSAC Fund did in the case of the PTA, UrbANet has been able to mobilise and train farmers in group engagement, advocacy work and best farming practices. The BUSAC Fund has complemented the efforts of UrbANet in training the farmers in financial management, accounting, marketing skills and occasionally provide funding for some of their activities (BUSAC Fund, 2014). Through the support of the two organisations, vegetable farmers in Tamale were empowered to dialogue with and lobby the local-government authorities and traditional rulers to help secure and protect their farming sites to save their livelihoods. Like the traders, the dialogue with the local authorities will yield more benefits than just securing and protecting their growing sites. The dam redevelopment project discussed in Chapter 5 is the product of these engagements to enable the farmers produce fresh vegetables all year round for the city. Yet again, the project involves a collaborative effort. The TaMA is capitalising on its Sister City relationship with the city of Torino in Italy to have an Italian company redevelop the dams for both dry season farming and for domestic use. In this regard, Torino is joining Louisville, Kentucky, USA to promote local development in Tamale. The city of Louisville, through the leadership of Dr Susan Herlin, has made a significant contribution to the development of Tamale, especially in education, by establishing a scholarship scheme for brilliant but needy students over the last two decades (about 1995-2012).

The activities discussed above suggest that urban governance in the TAMA is being pursued with entrepreneurial ambitions despite the challenges of incomplete decentralisation and undemocratic tendencies among some stakeholders. These initiatives could prove valuable in propelling local development through increased incomes, job and livelihood security and improved quality of life. Increased local economic activities will also have a positive impact on the assemblies' internal revenue generation which, for the TaMA, has been steady at around 10% over the past few years (Tamale Metropolitan Assembly, 2010). See Figure 7.2 for the composition of the sources of revenue for the TaMA in 2010. It is clear from Figure 7.2 that the local

government in Tamale is highly dependent on the central government for financial resources through the DACF. Such over reliance on the central government for financial resources has implications for local-level development and autonomy. First, the local government cannot enjoy autonomy if it relies on central government funding for its development pursuits, and this may explain the case of incomplete decentralisation discussed in Section 7.3.1.1. There is also the possibility of delayed execution of local development agenda if the central government does not release financial resources timely as often is the case in Ghana with regard to the DACF or if the central government funding falls short of expectation (Table 7.1). For example, it is clear from Table 7.1 that except for 2006 the central government monetary allocations to the TaMA consistently fell

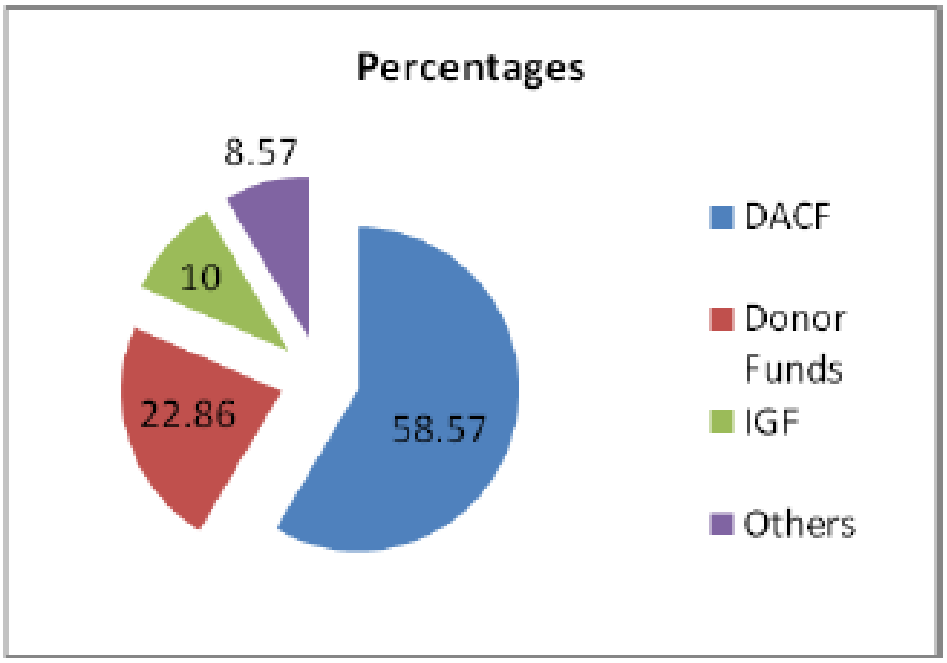

Figure 7.2: Sources of revenue for Tamale Metropolitan Assembly, 2010

Source: Tamale Metropolitan Assembly, 2010

short of expectation for the period 2007 to 2009. Such shortfalls in the component of revenue that accounts for over 50% of the total local budget present serious uncertainties in the pursuit of local development programmes. Again, the over dependent on central government funding can lead to cases of unfunded mandate as the central government may impose more obligations on the local authorities than the financial resources it supplies for the execution of these mandates. Therefore, an improvement in the IGF portfolio through local-level initiatives will not only reduce the local governments' over-dependence on the District Assemblies Common Fund (DACF) but will enable them to pursue more development programmes like the SPGEs impacted on the Ewutu-Efutu-Senya and Ajumako-Enyan-Essiam districts (van Empel, 2007). If nurtured, these initiatives could contribute positively towards the attainment of the Ghana's NUPF objectives to promote local urban economic development and the informal sector, to widen sources of funding for urban development, and to improve efficiency in urban financial management (Chapter 4). Aside from the above

Table 7.1: Revenue performance of the Tamale Metropolitan Assembly, 2006-2009

Revenue Type	2006		2007		2008		2009	
	Budget GH₵	Actual GH₵	Budget GH₵	Actual GH₵	Budget GH₵	Actual GH₵	Budget GH₵	Actual GH₵
DACF	630,787.80	1,928,328.40	730,000.00	39,045.23	1,079,468.60	341,099.33	1,296,761.44	833,214.92
Internal Generated Funds (IGFs)								
Rates	87,007.00	20,751.54	542,701.50	297.00	550,470.00	61,866.58	550,402.00	121,554.01
Land	7,500.00	8,348.31	12,000.00	3,751.28	30,000.00	29,800.74	3,500.00	39,739.96
Fees and Fines	43,122.00	62,053.05	88,160.00	2,391.20	77,260.00	49,775.14	70,050.00	52,258.99
Licences	36,376.05	58,819.49	91,796.40	4,275.50	86,556.00	102,733.37	162,816.00	348,024.36
Rent	20,820.00	27,318.20	39,050.00	14.20	43,450.00	20,637.65	43,550.00	34,510.10
Investment on income	1,517.00	-	2,102.00	-	1,323.00	-	1,354.00	2,249.57
DONOR FUNDS	360,000.00	912,573.93	1,378,000.00	-	1,747,864.79	216,988.28	913,028.43	1,290,938.59
OTHERS								

Source: Tamale Metropolitan Assembly, 2010

activities, however, urban governance efforts in the TAMA should target promoting local tourism to take advantage of the globalisation processes. Operationalising urban governance in this regard may require efforts to improve upon urban services provision as well as projecting a positive image of the city through the provision of up-to-date information for both local and worldwide consumption. The next section discusses operationalisation of urban governance as democratisation.

7.3.1.3 Democratisation

It was stated in Section 2.4.1.3 that Ghana's local-government law and structure provide for democratic practices. This manifests in stakeholder composition, engagement and election to the MMDAs as shown in Figure 7.1. Despite the incomplete decentralisation noted in Section 7.3.1.1, the processes of electing unit committee and assembly members, consulting with the local-level authorities before appointing the non-elective members of the assemblies and the requirement of at least two-thirds majority approval of the MMDCEs by the assembly members all depict some semblance of democratic engagement. Figure 7.1 also depicts how decision making in the local-governance system is based on multistakeholder interaction and engagement. The principal decision makers are representatives of different interest groups including the local people, government, CBOs, NGOs and supranational organisations, all working in concert to promote the local development agenda. The spirit of this collaborative multistakeholder engagement was invoked in the works of the SPGEs to promote local economic development in the Awutu-Efutu-Senya and Ajumako-Enya-Essiam districts as described in Section 2.4.1.2.

Practically, however, democratic engagement in the TAMA seems not engrained in everyday decision-making processes, especially with respect to active participation by the locals and/or their elected representatives. A consideration of spatial planning processes in the area as a proxy for analysing urban governance practices

reveals the extent of asymmetry regarding stakeholder involvement in decision making (see Chapter 6). Spatial planning practices are highly skewed in favour of a few stakeholders (traditional authorities and TCPD) against the legislative provision that the process be participatory and conducted at the level of the assembly's SPC (see

Table ***6.4***, Chapter 6). This reality of a lack of democratic practices regarding the use of communally owned resource (land) has a number of implications for local development. First, there is a danger of increased social and economic vulnerability and inequality as there are no efforts to distribute the proceeds from land allocation nor are such proceeds kept in a fund to finance larger societal development pursuits. Consequently, a key concept of democratic engagement – accountability – is violated. Second, the skewed stakeholder participation means that the chiefs only seek their interest over that of the larger society (i.e. maximising the proceeds from land allocation) (see Yeboah & Shaw, 2013). Yet, as evidence in Chapters 5 and 6 shows, integrating public land use needs in spatial planning is highly desirable in Tamale as a large proportion of the metropolis' population still depends on public places of convenience and public dump sites for the disposal of domestic waste. Third, spatial planning based on maximising personal gain pays very little attention to the ecological and environmental needs of society. This is notwithstanding the discussion in Chapter 2 which suggests that environmental and climate changes pose grave dangers to cities and their economies going forward. Indeed, cities in poor countries are already feeling the devastating effects of these changing phenomena. The undemocratic engagement in spatial planning in Tamale poses a threat to ecological and environmental sustainability. The unilateral planning by the chiefs with the aid of quack surveyors, (as discussed in Chapter 6) has no regard for environmentally sensitive areas such as wetlands, streams and river courses. Even where formal planning recognises these, the chiefs would find ways to rezone and reallocate them for residential uses. Consequently, the ecological and ecosystem services functions of these environmentally sensitive areas were compromised, and the populations residing in those areas were exposed to natural disasters such as flooding. Unfortunately, when flooding occurs the local-government authorities and central government would have to expend their limited resources to cater for 'victims' of an otherwise potentially avoidable disaster.

Decision making at the level of the assembly is not spared of undemocratic practices. As Obeng-Odoom (2013) observes generally about Ghana, political patronage, vote buying, nepotism and sectionalism are rife in Tamale. Together with local chieftaincy dynamics, these factors have coalesced into political polarisation along the two dominant political parties in Ghana – the National Democratic Congress (NDC) and the New Patriotic Party (NPP) (see a respondent's take on this in Chapter 6,). The situation engenders mutual mistrust, thereby hindering effective collaboration and partnerships in the decision-making processes at the assembly. It also affects resource allocation in the society. For instance, some respondents were less enthused about the development of local markets in Tamale on grounds that such projects are often distributed to party cronies. This development is completely at odds with the local-government law (Act 462) that proscribes partisanship in the local governance system (Republic of Ghana, 1993). Unfortunately, the same law, rather paradoxically, allows the most powerful officers (the MMDCEs) in the local-government system to be appointed by the President of the Republic from the pool of his/her party's activists. As a result, the non-partisanship of the

MMDAs is best read in the law books than being practical. It is little wonder, therefore, that the National Commission for Civic Education (NCCE) in its recent survey found that over 60% of the respondents thought the current local-government system is partisan with about 70% indicating they would prefer the MMDCEs be elected (Tetteh, 2015).

From the above, it can be inferred that the MMDCEs may not be effective in ensuring social and economic inclusion in the manner a Hobbesian Leviathan would superintend the affairs of his subjects. Information gathered from the interviews suggests that just as the chiefs do in spatial planning, other powerful persons in society (including politicians) are conniving with the local leaders to bend the rules in their favour. An incident in this regard relates to a land transaction that generated serious controversy at the time of our fieldwork in Tamale. Respondents recounted that a 'big man' in town schemed and bought a piece of land that belonged to the state and was occupied by the metropolitan agriculture development unit (MADU). It meant that taking ownership of the said land by the private person would make the MADU 'homeless' in terms of its offices and few staff quarters and that would impact negatively on societal development. The matter was brought before the assembly for deliberation. All but two (these were rumoured to be allies of the said developer) of the assembly members voted against it. However, the will of the people, expressed through their elected representatives, was subverted as the MCE vetoed the outcome of the vote, in an unprecedented manner, to sanction the transaction. "… the MCE … did not show good leadership. Because if you are a leader and you are aware the Assembly represents the people; and the people's representatives say, 'no, this one is wrong', [you should listen to them][25]". The MADU then took the matter to court, and one of the principal witnesses (TCPD) gave its testimony in favour of the state and MADU. This incident raises serious questions about the democracy in Tamale, and whether governance is pursued to better the lot of the people or that of a select few.

Another important element of democracy – transparency in governance – seems lacking in urban governance in Tamale. Democratic governance requires that information regarding administrative, service delivery, finances and budgets, fees and rates and all forms of documentation be made readily available for public consumption. Modern societies improve transparency in this regard by employing technology such as maintaining up-to-date web portals to provide their citizens and visitors enormous resources about living and doing business in these societies. A cursory search on the internet shows that local-government units such as the Accra Metropolitan Assembly (AMA), City of Cape Town and Kampala Capital City Authority (KCCA) render varying degrees of e-services to facilitate service delivery and administrative processes. These efforts are also relevant in reducing bureaucracy and speeding up document processing time, thereby help reduce corruption as, in Ghanaian parlance, the 'anything for the boys' request is common when dealing face-to-face with administrative officials. More so, promoting transparency and easy access to information could help boost the city's tourism and investment climate in ways that enhance entrepreneurial drive of urban governance (see discussion in Section 7.3.1.2).

[25] No attribution is made to this quote in order to anonymise information pertaining to the issue

Unfortunately, promoting transparency and access to information as described above is not taken seriously in urban governance processes within the TAMA; at least not in providing public information through the application of modern technology as some of the cities mentioned above (the city's website has been down since the first quarter of 2014) or through the orthodox paper work. It had been discussed in Chapter 6 how limited public knowledge about the content of local plans contributes to the spate of encroachment and rezoning of public lands in the metropolis. FM radio broadcast is commonly used as a medium for information dissemination in the city but its effectiveness is unclear. For example, in explaining the ineffectiveness of development permitting in Tamale (see Chapter 6), a respondent had doubts if many residents of the metropolis were aware that they have to obtain a permit to develop their properties.

> I do not know what exactly the problem is but it appears people are not even aware that they have to take building permit before they build. There are people who may genuinely be surprised to hear that they are required to take building permit before they build (interview with a planning official at the TaMA, 25 January 2014).

Besides, as local governments strive to build partnerships, collaborate with development partners and market themselves in this globalised world, it is important to project the democratic credentials as well as investment and tourism potential of the TAMA by using modern technology as other cities do. Maintaining a functional web portal would appear the minimum requirement at this stage. For instance, it was intimated in Chapter 6 that development permit applications are delayed because many applicants do not supply all the relevant supporting documents. This may likely result from applicants not having adequate information such that if the TAMA could maintain a functional website like the City of Cape Town or Stellenbosch Municipality (smaller than the TAMA), it would be much easier for applicants to keep abreast of all the requirements before tendering in their applications. Of course, knowledge of, and accessibility to, the internet is assumed. The next section presents an evaluative discussion of urban governance in Tamale using the DED analytical framework.

7.3.2 Evaluation of urban governance in Tamale using the DED framework

It was stated in Chapter 2 that the DED framework would be employed to evaluate urban governance processes and outcomes in Tamale. Obeng-Odoom (2012) proposed a set of questions for the evaluation of urban governance outcomes using the DED framework and four of these questions are employed in this study, namely (1) how is urban governance lived; (2) does urban governance lead to job creation, and for whom; (3) does urban governance lead to improved urban services and infrastructure; and (4) do the elements of urban governance engender empowerment and accountability in governance? The following discussion answers these questions based on the results and analysis of the study.

7.3.2.1 How is urban governance lived in Tamale?

To a large extent, the answer to how urban governance is lived in Tamale is a function of how governance is operationalised within the local-government structures. That is, the structures lay the functions for multistakeholder collaboration in development pursuit such that the central government, local government,

international organisations, NGOs, CBOs, civil society and citizens at the grass roots build relationships at different levels (see Section 7.3.1.2). However, a lot more happens outside of the formal local-government structures. An example of this is the interaction between some CBOs (BUSAC Fund and UrbANet) and people at the grass roots leading to the latter being empowered and participating actively in governance. This is different from what transpired in Ewutu-Efutu-Senya and Ajumako-Enyan-Essiam districts regarding the SPGEs. Similarly, the landlords' initiatives to organise themselves and partner with utility providers such as the GWCL (see Chapter 5) to improve their access to services are cases of stakeholder collaboration outside of the formal structures.

Urban governance in Tamale also tries to promote local economic development by adopting and implementing entrepreneurial projects (see Section 7.3.1.2). Although these projects are laudable, they appear ad hoc and may not generate great impact like the SPGE programmes did in the districts mentioned above. However, efforts to build local government's capacity in financial management and administrative skills such as the GUMPP seeks to do, could engender long-term local development. Urban governance in Tamale also fails to secure public good in spatial planning by acquiring and protecting areas zoned for public use.

Urban governance in Tamale is riddled with undemocratic practices such as patronage and nepotism as observed in Ghana as a whole (Obeng-Odoom, 2013). This creates an environment of distrust with attendant issues like lack of social cohesion, favouritism in resource allocation (e.g. market stores) and exclusive development.

7.3.2.2 Does urban governance lead to job creation in Tamale, and for whom?

Drawing from Section 7.3.1.2, the answer to whether or not urban governance leads to job creation in Tamale is yes. For example, it is quite simple to argue that the construction of the markets in the City would generate direct and ancillary jobs for inhabitants of the metropolis. Others may also get or have their jobs secured by accessing space to ply their businesses upon the completion of the projects. Also, there are potential job creation opportunities in UPA (vegetable production and fish farming) if the proposed dam redevelopment projects are executed.

However, the magnitude of such jobs and for whom and how secure they are or would be are not very clear. Political patronage and nepotism (Section 7.3.1.3) are alleged to cause skewed resource allocation in favour of some sections of society, and their influence in Tamale would not engender economic and social equity. Also, it is not clear if there would be job sustainability if no structured programmes are designed and implemented like the SPGEs in Ewutu-Efutu-Senya and Ajumako-Enyan-Essiam districts. It was stated in Chapter 3 that about 81% of employment in the local economy of Tamale was to be found in the informal sector compared to a combined proportion of 18% in the public and private formal sectors. It was further reported in Chapter 5 how these private informal economic activities accessed space to conduct their activities; occupying every available space including on roads. In essence, these are 'system generated' jobs other than

those evolved from conscious urban governance processes. By system generated, I mean one-person table/basin top, roadside or mobile vendors who were seen everywhere in the City but who did not exist in the database of the local authorities. These are the most vulnerable categories of land users that the 'planned city easily sweeps' away (Watson, 2009; Obeng-Odoom, 2013). How urban governance in Tamale accommodates the livelihoods of this group in the land-use mix of the metropolis in a sustainable manner remains a daunting task.

From the above, it is clear that urban governance led to job creation in Tamale but the equitable distribution, security and sustainability of such jobs remained unclear. Therefore, conscious efforts may need to be made to promote equity in job distribution as well as designing programmes to ensure job security and sustainability.

7.3.2.3 Does urban governance lead to improved urban services in Tamale?

Unlike job creation, it is a difficult proposition regarding whether or not urban governance in Tamale enhanced access to improved urban services. Some examples could be shown to support a 'yes' answer but there were many others that could be cited to support a 'no' answer. It was reported in Chapter 5 that households in the TAMA have enjoyed improved access to water and electricity over the past decade. In the case of water, for example, the TAMA was the only metropolitan area (among the five metropolitan assemblies in Ghana including Accra) that witnessed an increase in its population's access to pipe-borne water between 2000 and 2010. However, water supply through the piped system remained erratic and urban governance was not effective in providing or sustaining the less popular alternative sources of water such as dams, dug-outs and boreholes. Access to sanitation and waste disposal services was very poor in the metropolis (Chapter 5). Very low proportions of households or residents in the metropolis had access to in-house toilet facilities and/or in-house waste collection or access to developed sewage systems for liquid waste disposal. Consequently, large numbers of the metropolis' inhabitants resorted to public toilets and refuse dump sites as practical alternatives. In between these, there were substantial numbers of people without access to any toilet facility and thus resorted to open defecation as well as those who disposed of waste indiscriminately (UN-Habitat, 2009b). This presents direct public health risks in the metropolis. According to UN-Habitat (2009), the problem of poor urban services provision in Tamale was partly due to uncoordinated spatial growth in the City, a claim to which this study lends support (see Chapters 5 and 6). Chapter 6 in particular suggests potential future social and environmental problems arising out of such uncoordinated spatial growth. This seems to validate the claim of planning theory that "public interest is best served when community development does not proceed haphazardly but is instead guided and coordinated by an officially adopted plan that expresses community goals and includes strategic mechanisms for achieving those goals" (Stevens et al., 2014 p. 77).

In terms of urban infrastructure, the discussion suggests that urban governance in Tamale led to improvement in local market infrastructure. There was also improvement in the metropolis' road networks. Nevertheless, as illustrated in Figure 5.4 in Chapter 5, a large part of the peri-urban areas lack road infrastructure and this was

confirmed by a respondent at the DUR who maintained that many roads in the metropolis required opening (the first step in road development in the metropolis).

From the foregoing, it can be concluded that urban governance in Tamale had mixed results regarding the production of urban services and infrastructure. There was relatively better access to water and electricity in the metropolis than there was to sanitation and waste disposal facilities. Even the water situation was not efficient in that erratic supply from the urban water system often led to periodic shortages as there were few alternatives (dams, boreholes and dug-outs) on which to rely. There was improvement in the road infrastructure too, but again, large parts of the City, especially in peri-urban areas, remained poorly connected. Efforts to improve the local markets infrastructure are also positive signs of urban governance promoting local development in Tamale. In the final analysis, urban governance in Tamale led to improved urban services and infrastructure but at a slow pace. Therefore, much needs to be done, especially in the areas of sanitation and waste disposal.

7.3.2.4 Does urban governance in Tamale empower people to hold their leaders accountable?

Modern democratic practices present people with opportunities to hold their leaders accountable. Some of these opportunities include voting to elect, replace or impeach ineffective leaders, lobbying the power brokers (appointing authorities) to remove unresponsive leaders and in some cases taking to the streets in public demonstration to impress upon leadership to act in a certain way. For example, Ghana's Local Government Act (Act 462 of 1993) stipulates that an elected member of the assembly can be removed from office if at least 25% of registered voters in the electoral area concerned petitions the Electoral Commission (EC) in that regard. The EC will then organise a referendum in which a minimum voter turnout of 40% is required with at least 60% of votes cast supporting the move to remove the embattled member from office (Republic of Ghana, 1993). Similarly, an appointed member can be removed from office at the discretion of the appointing authority or based on a three-quarters recommendation by members of the assembly on grounds of impropriety and/or negligence of duty. Thus, by these arrangements disgruntled members of an urban governance system no longer have to 'vote with their feet' as the only practical method to escape from bad leadership (Obeng-Odoom, 2013).

Despite the aforementioned checks and balances, there was little to no direct evidence to suggest that the urban governance processes in Tamale afforded the people an opportunity to hold their leaders accountable. The conduct of the chiefs in regard to land appropriation and the related grumbling by people at the grass roots were cases in point (see Chapter 6 and Section 7.3.1.3 of Chapter 7). The chiefs explicitly appropriated communal property without any form of accountability. The case of an MCE overturning the collective decision of the assembly members was another example of blatant disregard for the rule of law but for which no punitive action was taken to hold him accountable. Many factors made it difficult to hold leaders accountable in Tamale. Among these were what have been mentioned as political polarisation and patronage,

nepotism and sectionalism, vote buying as well as too much reverence for traditional authority. According to Obeng-Odoom (2013 p. 174), "in such a politically imperfect context, accountability is sacrificed for voter short cuts". In the context of the preceding, it will be difficult to remove MMDCEs from office because they will often build alliances with certain interest groups that would support them at all cost. Therefore, securing a 25% of registered voters to move for their removal, then getting 40% turnout in a referendum and finally securing a 60% approval is almost unthinkable. For example, securing 40% turnout in local-government election is not easy in Ghana. Three out of five local elections in Ghana between 1994 and 2011 recorded turnout rates below 40% while the rates for the other two were 42% and 43% (Obeng-Odoom, 2013). On the part of traditional authority, the reverence with which it is held makes it particularly difficult for people to speak out and those who may be brave enough to speak out are afraid of being victimised. The problem is compounded by the fact that chieftaincy office is held for life and there is no opportunity available to the people for their removal from office except only by the enskinning authority. However, this is very uncommon; it might happen just once in a generation.

Regarding the Ghanaian local-government structure, it appears the question of accountability is more difficult to deal with in applying the DED framework to analyse urban governance processes and outcomes. The hybrid nature of the Ghanaian local-government structure (a combination of devolution and deconcentration), especially the requirement for removing bad leaders, makes it much more difficult for people to hold their leaders accountable. The question of accountability may be more evaluative in a complete decentralised governance system than a hybrid one like Ghana's. Consequently, the evaluation of accountability within the DED framework should be contextualised to make it qualitatively measurable in specific cases. For better assessment of accountability in urban governance, it is suggested that the question of accountability as proposed by (Obeng-Odoom, 2013) should be modified to, first, understand the structural arrangements for holding local-government leaders accountable and, second empirically evaluate the concept. The modified question will then be similar to the two-pronged question of job creation and distribution in urban governance (Obeng-Odoom, 2013).

From the above, it is reasonable to conclude that urban governance processes in Tamale do not provide adequate avenues for the people to hold their leaders accountable. Nonetheless, it is a national problem and efforts are needed to improve democratic practices in urban governance across the country. Perhaps, complete decentralisation whereby all important local leaders are elected could promote accountability in local and urban governance. However, it is possible that the problems discussed here would permeate an elective mayoral system and thus render it unaccountable as well (Obeng-Odoom, 2013).

The evaluative discussion presented in Section 7.3.2 (Sections 7.3.2.1 to 7.3.2.4) answers research Question 6 regarding whether or not urban governance processes in Tamale are pro-DED. The statutory provisions for the conduct of urban governance (as discussed in Section 2.4.1) and local initiatives to promote local economic development (see Section 7.3.1.2) indicate a pro-DED urban governance in Tamale. On the contrary, the

incomplete decentralisation discussed in Section 7.3.1.1 and undemocratic practices such as lack of accountability, self-centredness and political patronage shown in Section 7.3.1.3 did not engender pro-DED urban governance in Tamale. The lack of clear-cut answer in this situation and in Sections 7.3.2.1 to 7.3.2.3 suggests that it will be difficult to apply the DED analytical framework in complex systems like urban governance. For example, it will be practically challenging to identify all stakeholders in urban governance in situations of high urban informality associated with overlapping and conflicting legitimacy issues as often is the case in sub-Saharan Africa. Given this difficulty, there is a danger of analysts narrowly focusing attention on governance processes and outcomes in formalised structures to the neglect of more potent forces embedded in informal structures as illustrated in spatial planning processes in Tamale (where the chiefs are not recognised and represented directly on the Statutory Planning Committees (SPCs) of the MMDAs but have greater control over practical planning and implementation processes). The challenge hinges on developing appropriate matrices for comprehensive evaluation of urban governance processes and outcomes using the DED. In spite of the challenge noted in the preceding discussion, the application of the DED framework in urban governance provides analysts the opportunity to identify loopholes and inefficiencies in governance for improvement by the relevant stakeholders.

7.3.3 Theoretical analysis

It was stated in Chapter 3 that Healey's collaborative planning theory would be adopted in this study. Its relevance in this context stems from the convergence between governance as conceived in Ghana's local-government law and the core propositions of collaborative planning as a participatory and partnership-building endeavour. The evidence provided in this study supports how collaborative planning and/or participatory urban governance would be beneficial for local development. For instance, unlike other strands of normative planning that prescribe minimal government involvement in planning (e.g. communicative theory or the theory of monocracy by Moroni), conception of planning as a collaborative and partnership-building activity enables the government of Ghana to facilitate local development by fostering collaboration and partnerships among itself, the local governments, the AFD and the IHS in the initiation and implementation of city-specific priority projects under the GUMPP. These multilevel, horizontal and vertical collaboration and partnerships also saw people at the grass roots being empowered through their interactions with some CBOs (e.g. UrbANet and BUSAC Fund) to enable them to participate effectively in urban governance. Thus, empathic understanding, and empowered and purposeful stakeholder participation do not only promote pro-poor or inclusive urban governance but more importantly have the potential to engender sustainable urban development.

However, the undemocratic practices observed in the study point to the inherent challenges of collaborative planning or participatory governance. In reality, decision making unfolds quite differently from theory and the structural framework extracted from the local-government law. For instance, the self-interested behaviour (e.g. that of the chiefs) and undemocratic practices (exemplified by the political patronage, nepotism and lack of accountability in governance) show how difficult it is to pursue broad societal interest in complex systems like

urban space. This means that Huxley's (2000) scepticism about dominant interests being assuaged by better argument in favour of the common good in communicative planning is a valid challenge in collaborative planning as well. Societal power imbalances and stakeholder self-centredness could easily unsettle the key proposition of collaborative planning – empathic understanding among stakeholders – and cause ineffective participatory engagements. Regarding the structures provided in Ghana's local-government law to guide collaborative and participatory governance, Berrisford (2014) argues that it is not enough to just provide avenues for participation, especially when valuable resource like urban land is involved. Rather, it is imperative that strategic means to enforcing such guidelines be devised and activated.

The challenges to collaborative planning and participatory urban governance observed in Tamale seem characteristic of planning reform in sub-Saharan Africa. While Watson (2002) acknowledges the value of normative planning theory in sub-Saharan Africa regarding giving voice to the vulnerable in planning and its potential for poverty reduction and ensuring distributive justice, she is concerned that certain factors may inhibit its applicability on the continent. For instance, she is concerned that civil society in Africa is less robust and often times groupings at the grass roots are based on ethnicity rather than on the will to promote a larger societal development agenda (Watson, 2002). The weak civil society, Watson (2002) continues, breeds 'clientelist' relationships between these local groups (their leadership especially) and politicians. While ethnic-based group interests were not discernible in Tamale, sectionalism, political patronage and self-centredness were apparent as discussed in the previous sections. According to Berrisford (2014), the difficulty in planning reform in Africa is partly blamed on little attention to regulating the self-centred interests of the powerful and privileged classes in society. To deal with 'elite capture' of the process requires an effective "framework of rules to mediate and regulate competing pressures and interests" by putting in place in-built mechanisms to alert the system when elite groups, including the traditional authorities, try to twist the process to their advantage (Berrisford, 2014 p. 167).

In the African context (where traditional leadership enjoys an awesome reverence, e.g. in Tamale), therefore, planning theory reform has to pay particular attention to issues of cultural dynamics with special focus on power relations. Somehow, this may require government playing an active role, but not in the sense of absolute control of planning or governance. Most of the respondents who participated in this study suggested that active government involvement was the surest way to achieve inclusivity and protection of public interest in spatial planning in Tamale because the state has the resources and legal obligation to guarantee distributive justice in resource allocation. This obligation is vested in the state by the Ghanaian Constitution as quoted in Chapter 6, Section 6.4. The argument put forward for active government involvement in planning in Tamale is in line with Berrisford's (2014) call for moving beyond providing prescriptive entitlements in laws and policy documents to devising strategic and practical measures to effecting them. For example, while restituting Northern Ghana lands to the respective owners after it had been vested in the state in trust for the people since colonial rule (Republic of Ghana, 1992), the state could have developed effective ancillary regulatory frameworks to guarantee the Constitutional imperative mentioned above. Admittedly, this would not be an

easy endeavour given traditional authorities' professed ambivalence to active government involvement in customary/communal land administration (see Chapter 6, Section 6.4). This is typical of elite groups trying to keep the status quo to maximise personal benefits in planning.

It appears, therefore, that only empathic understanding backed by empowered collaboration in multilevel and multistakeholder partnerships are the most desirable approaches to doing inclusive planning and urban governance in Tamale, and that may well apply to other parts of the Global South. Instilling such a sense of empathic reasoning among self-interested stakeholders in complex systems like urban governance and planning is undoubtedly a daunting task. This then raises doubts about the feasibility of Lovering's (2009) persuasive dilemma regarding whether to reorient planning to cater for the vulnerable or to continue planning for the interest of the elites. Certainly, elite capture of planning or governance reinforces social and economic inequalities, and this contradicts the premise of collaborative planning and/or participatory governance. Thus, theorising planning reform and improvement in urban governance in the context of sub-Saharan Africa would require conscious efforts to deal with local-level power relations, stakeholder self-centredness, instilling the value of empathic reasoning among stakeholders and empowering people at the grass roots to participate effectively in decision making.

7.4 SUMMARY

This chapter set out to synthesise the findings of the study regarding legislative and institutional framework for doing planning and urban governance in Ghana, spatial analysis of the city's growth and how urban governance processes respond by way of urban infrastructure and service provision. The objective in the synthesis was to analyse urban governance in Tamale within the DED framework, and thereafter evaluate the results against four questions proposed as benchmarks for evaluating the effectiveness of the DED in urban governance.

The analysis showed that the decentralised governance system implemented in Ghana since the last decade of the 20th Century provides enough room for multistakeholder participation in governance. However, people would prefer complete decentralisation that gives them the opportunity to elect all of the most important leaders of the local governance system and hold them accountable. There was also evidence that urban governance in Tamale was being operationalised in entrepreneurial lenses in order to promote local socio-economic development, and that this was made possible by multilevel and multistakeholder partnerships and collaboration among central government, international development agencies and organisations, CBOs and people at the grass roots. The CBOs played a particularly important role to empower the local people to be able to participate effectively in the urban governance processes. The results were less than favourable regarding the conception of urban governance in terms of democratisation. Issues raised in this respect included incomplete decentralisation, leadership self-centredness and lack of accountability among both local government and traditional leaders.

The evaluative analysis showed that (1) urban governance in Tamale was operationalised in the DED framework but undemocratic practices by the leadership such as patronage, clientelism and nepotism were apparent and have the potential to create or reinforce social and economic exclusion, (2) urban governance creates jobs in Tamale but the magnitude, and whom those jobs benefit were not very clear (due to some of the undemocratic practices outlined above), (3) urban governance in Tamale has had a limited impact on access to improved services and infrastructure with better access to water and electricity while much needs to be done regarding others like sanitary facilities and road infrastructure, (4) the question of whether or not urban governance empowers people to hold their leaders accountable received largely a negative rating due to some of the undemocratic tendencies mentioned earlier.

On a theoretical level, it was observed that the urban governance outcomes, especially those related to entrepreneurial activities geared towards local development, unfolded in the context of collaborative planning. Nonetheless, many factors including political patronage, nepotism, elite capture among others precluded effective urban governance as conceived of in collaborative theory and the DED framework. The main reason for this was self-centredness on the part of leaders which hampered empathic understanding among stakeholders.

CHAPTER 8 CONCLUSIONS

8.1 INTRODUCTION

This chapter concludes the presentation of the results of the study by providing summary of key findings and arguments (Section 8.2), the DED analysis and evaluation (Section 8.3), theoretical commentary in Section 8.4, the study's contribution to scholarship in Section 8.5 and recommendations for further research and policy in Section 8.6.

8.2 SUMMARY

The findings of the study are summarised under the study objectives, namely a review of statutory provisions for spatial planning and urban governance, describe spatio-temporal growth dynamics of Tamale and assess the provision of and access to urban services, and to examine urban governance processes through identification and assessment of stakeholder engagements in spatial planning. Summary of the synthesis of the findings and evaluation of urban governance in Tamale using the DED framework and collaborative theory is also given while discussion of the study's contribution to scholarship concludes the section.

8.2.1 Statutory provisions for urban governance and planning

The foundations of planning in Ghana were laid in the 1920s as the colonialists attempted to manage human settlements primarily on health grounds and to some extent for aesthetic appeal. However, it was not until 1945 that the Town and Country Planning Ordinance (Cap 84) was passed, which served colonial planning and remains integral to contemporary planning law of Ghana. In line with the exploitative character of colonial rule, the practice of planning created social, economic and spatial inequalities in the colony which post-independence governments, especially that of President Nkrumah, tried to redress through reorientation and practice of planning. The immediate post-independence government embarked on planning reforms including efforts to prepare a National Physical Development Plan (NPDP) and promotion of planning education to produce professional planners to guide development to achieve social, economic and spatial equity. However, little was achieved from these processes due to a multitude of factors, namely high urbanisation rates, inadequate resources and the 1966 coup that toppled the first republican government of Nkrumah. Consequently, urban problems got worse than before due to the rapid urban growth that followed the nation's independence.

Planning inertia occurred in Ghana for about two decades following political instability after the overthrow of Nkrumah's government. A new planning system was introduced in the early 1990s based on decentralised and participatory local governance but key features of the colonial planning framework (CAP 84) remained the guiding framework for spatial planning albeit with revisions with subsidiary legislations. Like the immediate post-independence planning reforms, however, the decentralised governance system could not engender the expected local and urban development due to factors such as poor resourcing, political interference, land tenure

dynamics, lack of institutional coordination and institutional incongruence. As a result, urban problems in Ghanaian towns and cities have intensified such that poor urban services and infrastructure, slum development, haphazard spatial development, increasing poverty and vulnerability to natural disasters like flooding, and livelihood stress among urban and peri-urban dwellers are prevalent. The aforementioned challenges have led to renewed efforts to promote sustainable urban development in Ghana through the formulation of a national urban policy framework (NUPF) as well as the yet-to-be promulgated spatial development framework (SDF) to guide planning at the national, regional and districts levels. The new developments seek to improve planning in Ghana by integrating the social, economic and environmental aspects of development in the frame of integrated development plans (IDPs) and spatial development frameworks (SDFs) to strengthen urban governance, promote local economic development and enhanced delivery of urban infrastructure and services. It is argued that the NUPF and the LUSPB need to be harmonised to promote efficiency and capacity building of institutions and staff. Also, needs assessment should form the backbone of planning in order to promote judicious use of the environmental and natural resources such as land. There is also the need to rethink the essence of decentralised local government by building stakeholder capacity for effective participation in decision making as well as delinking overly parochial political interests of individuals and groups from those of societal interests to allow development programmes to progress uninhibited.

8.2.2 Spatial and demographic growth dynamics and urban governance response in infrastructure and service provision

Demographically, the TAMA has witnessed rapid growth since Ghana's independence in 1957 to become the country's third largest metropolis. The TAMA presently has an estimated population of 400 000 compared to a total population of 40 000 during the first post-independence census in 1960. The TAMA recorded the second highest intercensal annual population growth rate in 2010 after historically registering the highest intercensal annual growth rate of 7.3% between 1960 and 1970. Rapid increases in the number of vehicles and motorcycles registered for use within the metropolis have added complexity to the TAMA's demographic and spatial growth dynamics as improvement in intra-city transportation, especially between the peri-urban areas and the urban core, enables people to settle farther away from the city centre. Consequently, the City has consistently experienced rapid spatial growth which was about 100 ha per annum at 4.4% growth rate between 2001 and 2014.

The analysis in Chapter 5 showed that the city's spatio-demographic growth dynamics exact complementary demands on urban infrastructure and services so much that urban governance systems have been overwhelmed by the sheer demand for adequate road infrastructure. Most parts of the peri-urban areas were connected with poorly developed and dusty roads. The results further revealed that urban governance systems in Tamale have not been able to provide adequate infrastructure for the disposal and treatment of both liquid and solid waste. Access to toilet facilities was also very low in Tamale compared to other metropolitan areas like Accra, Kumasi and Tema. However, the TAMA's population had better access to piped-water and electricity, and this was

partly the result of co-production with individual households once the basic trunk infrastructure was laid. Access to piped-water in the City between 2000 and 2010 was better than it was in any other metropolitan area in Ghana, even though delivery was erratic due to system inefficiencies. Unfortunately, the urban governance systems in the city did not effectively secure and protect less common sources of water such as dams, boreholes and dug-outs to tackle the perennial water crisis occasioned by erratic supply from the urban water system.

The results of Chapter 5 have implications for socio-economic development of the TAMA, namely the infrastructure deficit has the potential to stifle local economic development and the low access to sanitary facilities poses a risk of public health crisis in the city. It is concluded that the results presented in this study point to challenges regarding sustainable management of urban growth within the TAMA. It thus behoves the authorities to devise innovative initiatives to improve urban infrastructure and service delivery to promote local economic development and to avert any possible public health crisis from the dearth of sanitary and waste disposal facilities. The innovative initiatives could be modelled along the lines of the self-help co-production efforts exhibited by households regarding water and electricity delivery and channelled through participatory approaches in the frame of local-government system. In this regard, practical innovations to improve urban governance and service delivery should entail operationalisation of urban governance with entrepreneurial intent to generate adequate resources to execute urban governance programmes. This will be a giant step towards the attainment of the objectives of Ghana's national urban policy framework.

8.2.3 Secure public interest in planning – planning processes and stakeholder engagement

The analysis of the content of nine sampled local plans of Tamale revealed appreciable representation of public interest in plan content through zonings for public uses. The broad categories of these public land-use zonings are open space, reserve/buffer, sanitary area, school/clinic, market, social centre and worship. The relatively high representation of these public land-use zonings suggested a needs-based planning that would be implemented to serve the purposes for which they were zoned. However, analysis of their status on the ground revealed serious encroachment on them, suggesting that those zonings might not, after all, be appreciated by the larger society. There were variations regarding rates of encroachment on the identified public land-use zonings with sanitary areas and zonings for schools and clinics encroached the least. In contrast, zonings for open space, reserve and buffer were encroached the most. The explanation for sanitary areas being encroached the least was given as their apparent utility as sites for public toilets (which provided greatest access to the population of the metropolis) and the fact that some of those land uses predated many local plans, making it difficult for them to be encroached upon.

General explanation for the observed encroachment was related to the limited participatory nature of planning that kept content of plans in obscurity, enabling traditional authorities (chiefs) to clandestinely rezone and reallocate these public land-use zonings for personal gain. The behaviour of the chiefs in this regard was part of a broader scheme to arrogate land ownership to themselves in direct contravention of traditional customary

land tenure arrangements which forbade chiefs from alienating land for personal gain. The encroachment was also blamed on local-government authorities' failure to properly acquire and protect these public land-use zonings in the interest of larger society as the law mandated. Part of the failure of the local-government authorities manifested in weak monitoring of spatial development.

It is argued that the spate of encroachment on public land-use zonings will have negative ramifications for sustainable urban development in the TAMA. First, it will affect social development by restricting access to places for public interaction and socialisation. Second, the land tenure changes occurring in the area will breed inequalities by rendering people landless at the expense of a few. Third, the encroachment on open space and reserve/buffer areas (often associated with wetlands, banks of rivers and dams) will likely result in impaired ecological and ecosystem services functions of the urban environment in Tamale, at the time of growing concerns for the impact of cities on climate change. Physical development in these areas also exposes people to natural disasters such as flooding, which not only poses threat to lives and property but also can put pressure on local-government budgets in times of disaster.

It is concluded that structural reforms are needed in the decentralised governance system to improve stakeholder participation in spatial planning and urban governance to orient planning to benefit the larger society. In this regard, attention should be given to engagements between the chiefs and local-government authorities to promote democratic tenets such as participation, accountability and transparency in planning with the view to upholding Ghana's Constitutional provision that tasks managers of public, stool, skin and family lands to ensure distributive justice for all. These reforms would then be mainstreamed into the broader urban governance system to promote needs-based spatial planning and bottom-up local development.

8.3 THE DED ANALYSIS AND EVALUATION

The analysis of the DED framework involved an assessment and ascertainment as to whether or not the results presented in this study (urban governance practices in Tamale) conform to decentralisation, entrepreneurialism and democratisation principles. The evaluative aspect, on the other hand, relates to certain development outcomes that point to effective urban governance, and in this study these were centred on processes of urban governance, job creation, access to improved urban services and accountability.

On decentralisation, it was found that Ghana's local-government law (Act 462 of 1993) offered the model that does not allow for complete decentralisation. This conclusion was reached based on the fact that 30% of the staff of the MMDAs (including the most powerful figures in the MMDCEs) is appointed by the President of Ghana , and also the requirement that local-level development programmes and plans be audited and approved by a state agency (National Development Planning Commission [NDPC]). The incomplete decentralisation makes people feel powerless and alienated from the governance processes and this affects their enthusiasm and participation in the process. A related issue is the possible continuous top-down control of local-level

development by the activities of the NDPC which will likely inhibit local initiatives and the pursuit of programmes relevant to local development.

Operationalisation of urban governance as entrepreneurialism was observed to emerge from the interactions among the various stakeholders the local-government law of Ghana prescribed. It was observed that urban governance in Tamale was entrepreneurial in character even though no clearly structured programmes existed in this regard like those implemented in the Ewutu-Efutu-Senya and Ajumako-Enyan-Essiam districts of Central Region of Ghana. Several efforts to improve local economic development such as the renovation and expansion of existing market infrastructure and building of new ones were considered entrepreneurial as those have the potential to create and support jobs in the informal sector, and improve the incomes of the locals and the MMDAs. Improved internally generated income (IGF) will not only make the MMDAs less dependent on the District Assemblies Common Fund (DACF) but will more importantly enable them to execute their development programmes successfully and on time. It was particularly refreshing to learn that these efforts were products of collaboration, partnership-building and participatory engagements among the local-government authorities, the central government, supranational agencies, NGOs, CBOs and people at the grass roots. The interactions between some CBOs and certain livelihood groups or people at the grass roots leading to the latter being empowered to participate meaningfully in urban governance was especially admirable. This therefore supports collaborative planning theory's argument that empathic understanding and engagement among stakeholders has the potential to promote inclusive and sustainable development.

In respect of urban governance as democratisation, Ghana's local-government law provides for democratic practices through staffing of membership of the MMDAs and multistakeholder engagement as observed above. In terms of staffing, about 70% of the membership of the MMDAs is elected by universal adult suffrage while the remaining 30% is appointed in consultation with traditional and other local leaders, and approved by the elected assembly members. Notwithstanding the above arrangements to ensure democratic practices, certain undemocratic tendencies were discernible in urban governance processes of Tamale. These relate to self-centred decision making and lack of accountability and transparency in governance, and were sustained by political patronage, nepotism, sectionalism and local chieftaincy dynamics. These weaknesses have far-reaching negative implications for inclusive development including resource distribution and participation in decision making by relevant stakeholders. As governance involves building of partnerships, collaboration with development partners and projecting the image and credibility of entities in this globalised world, it is important to promote and project the democratic credentials of the TAMA alongside its investment and tourism potentials to attract both local and international support like those from its sister city relationships and some supranational agencies.

The above summary leads us to the evaluation of urban governance processes and outcomes in Tamale through the DED framework regarding four questions highlighted earlier. For the first question (how urban governance in Tamale is lived), it was concluded that urban governance in the city was collaborative, participatory,

entrepreneurial albeit project-based as opposed to structured programme-based. However, certain undemocratic practices have the tendency to stifle inclusive development and promote social and economic inequalities. Regarding the second evaluative question (whether or not urban governance in Tamale creates jobs, and for whom), it was also concluded that urban governance in Tamale creates jobs but the magnitude, distribution and sustainability of those jobs were not very clear. For example, some respondents in the interviews alleged that the undemocratic practices discussed earlier had the tendency to influence the distribution of these jobs or opportunities based on partisan considerations. The third question (whether or not urban governance in Tamale enhanced access to urban services and infrastructure) also received a mixed answer. There was evidence to the effect that urban governance in Tamale has brought about improved access to water and electricity. There had also been improvement in road infrastructure even though the extent of tarred road network was limited within the city's built-up areas and a greater part of the peri-urban areas still needed opening. On the other hand, there was not much to celebrate regarding access to sanitary and waste disposal facilities. In the nutshell, urban governance in Tamale led to improved access to urban infrastructure and services albeit at a slow pace. Perhaps, evaluative question number four (whether or not urban governance empowered the people to hold their leaders accountable) attracted the clearest cut answer. There was very little evidence that urban governance in the City promoted accountability despite the local-government law showing some in-built mechanisms to achieve that. The undemocratic practices noted earlier were the main reasons for the lack of accountability in urban governance processes of Tamale. However, it was argued that the hybrid nature of Ghana's decentralisation system (a combination of devolution and deconcentration) made it difficult to achieve accountability in urban governance. It was suggested that complete decentralisation will be more amenable to evaluation than the hybrid system like Ghana's. It was suggested further that the question of accountability be modified in a two-pronged format to first evaluate the disposition of the decentralisation system towards accountability (structural evaluation) before evaluating its accountability credentials (outcome evaluation). This would be similar to the question of job creation and distribution.

Besides the specific problem with evaluation of accountability in the application of the DED framework, there was a general challenge of the applicability of the framework in complex systems like urban governance. This difficulty follows from the lack of clear-cut answer in the first three evaluative questions. In this regard, analysts applying the DED framework in the urban context may be overwhelmed by the sheer numbers of stakeholders – both formal and informal – with conflicting and overlapping interests, legitimacy and power relations. This makes it difficult to collate information and develop matrices for empirical evaluation of urban governance using the DED framework. Notwithstanding this challenge, the DED analytical framework remains useful in evaluating urban governance, especially as it enables analysts to identify the ineffectiveness of urban governance systems through its application.

8.4 THEORETICAL COMMENTARY

The theoretical point of entry for this study was Healey's collaborative planning that proposes active multistakeholder participation in planning to promote pro-poor development. The processes and outcome of urban governance in Tamale (fashioned on Ghana's local-government law) show the potential of collaborative decision making in promoting inclusive development. Thus, the vertical and horizontal collaboration and partnerships among the governmental, non-governmental, local-government authorities, CBOs and people at the grass roots impacted positively on local development through infrastructure and service provision, job creation and livelihoods support. Nonetheless, several challenges were identified to inhibit collaborative planning and participatory urban governance in the metropolis. These were self-centredness, elite capture and undemocratic practices such as political patronage, nepotism, sectionalism and lack of accountability and transparency in decision making. These challenges are by no means peculiar to Tamale. Indeed, they have been acknowledged as genuine hindrances to collaborative planning and participatory urban governance, especially in the context of sub-Saharan Africa (Huxley, 2000; Watson, 2002; Obeng-Odoom, 2013; Berrisford, 2014). Therefore, this study provides empirical support in that regard. It is thus concluded that, theorising planning reform and improvement in urban governance in the context of sub-Saharan Africa would require conscious efforts to deal with local-level power relations, stakeholder self-centredness, instilling the value of empathic reasoning among stakeholders and empowering people at the grass roots to participate effectively in decision making.

8.5 DISTILLING THE STUDY'S CONTRIBUTION TO SCHOLARSHIP

This section summarises the study's contribution to knowledge regarding research and theory. Contribution to research in this context concerns the processes of 'knowing' about urbanisation dynamics and outcomes of Tamale as other studies have done in the past. On the contrary, contribution to theory is conceived of as enhancing knowledge and understanding of urbanisation processes in broader terms and this is situated within the collaborative planning theoretical and the DED analytical frameworks.

8.5.1 Contribution to research on urbanisation dynamics in Tamale

The study contributed to research on urbanisation dynamics in Tamale in a related number of ways. First, the study provided a nuanced analysis of urban growth of Tamale and urban governance response in terms of spatial planning and urban infrastructure and services provision. Therefore, the work has advanced our knowledge of urban growth dynamics of Tamale beyond (and by building on) previous studies such as Braimoh & Vlek (2004), UN-Habitat (2009), Naab et al. (2013), Fuseini (2014), Yakubu et al. (2014) and Gyasi et al. (2014a,b). Second, the evaluative application of the DED analytical framework offered a comprehensive empirical assessment of the operation of Ghana's local-government framework more than other studies have done (see Yeboah & Obeng-Odoom 2010; Boamah et al. 2012; Boamah 2013; Yeboah & Shaw 2013; Baffour Awuah & Hammond 2014; Baffour Awuah et al. 2014; Kuusaana & Eledi 2015). The study's analysis of legislative and institutional development for the conduct of spatial planning and urban governance also

provides a first-hand assessment of the new efforts – the development of the NUPF and the proposed LUSPB – to promote sustainable urban development in Ghana. Interestingly, The World Bank's (2015) assessment of the NUPF in its Ghana Urbanisation Review Report concurs with the view held in this study (which suggests the relevance of this study's assessment efforts) regarding the successful implementation of the NUPF. Therefore, the study not only furthers knowledge about urbanisation and urban governance experiences of Tamale, but also contributes to the broader understanding of urban growth issues in Ghana. The next section discusses the study's contribution to theory.

8.5.2 Contribution to theory

The study contributes to theory and practice of planning and urban governance in the context of sub-Saharan Africa in two ways. First, the evidence presented in this study confirms that collaborative planning and participatory urban governance represent better models to promote inclusive and pro-poor urban development compared to top-down approaches that downplay multistakeholder agency in decision making. Collaboration, partnership-building and participatory governance seem well suited in developing countries, especially in the African context where there exist limited resources, weak civil society, growing inequality and high informality (Watson 2002, 2009; UN-Habitat 2009b; Simone 2014; Berrisford 2014). Governance based on collaboration and participation will promote inclusivity and efficiency in resource allocation as stakeholders will be enabled to pool together and channel their limited resources to tackle societal needs in a prioritised manner. Evidence in the study showed that building the capacity and empowering people at the grass roots could enable them participate actively in decision making.

Similarly, the study shows that collaborative planning and/or participatory governance is difficult to achieve due to a host of challenges as discussed in Section 7.3.1.3 above. The challenge here might not be about 'which theory for what kind of practice' (Moroni, 2010), as the theoretical and analytical frames used in this study appeared appropriate in the context, but rather, how to engender successful practice of these theory and analytical frameworks. For instance, promoting empathic understanding among stakeholders, dealing with self-centredness and power imbalances appear difficult in practice than in theoretical prescription. In the case of Tamale, the difficulty is compounded by cultural dynamics (chieftaincy) and a political system shrouded in clientelism and patronage. Therefore, many of the challenges thought to militate against theorising for participatory planning or governance (see Huxley 2000; Watson 2002; Berrisford 2014) were present in Tamale. The challenge of the application of the DED analytical framework in urban context was also noted. This relates to developing methodologies or mechanisms to construct appropriate matrices from complex urban systems with overlapping and conflicting interests, aspirations and power relations to answer evaluative questions. Experience gained from the application of the DED framework in this study suggests that it will be worthwhile to modify the evaluative question that concerns accountability to a two-pronged question to analyse particular decentralised governance structures' in-built mechanisms to achieve accountability before investigating governance outcomes emanating from them.

From the preceding discussion, it can be stated that this study contributes to theory as the findings render empirical support to the theoretically held views about the utility, potential and challenges of collaborative planning and participatory urban governance. Similarly, the study provides practical evidence regarding the potential, applicability and limitations of the DED framework in the urban context.

8.6 RECOMMENDATIONS

"Any serious research can only be to make two questions grow where only one grew before".

Thorstein Veblen

The above quote points to the fact that research almost always stimulates new questions requiring further research. It is in the light of this that recommendations are made in this section for further research in Tamale and for policy reform.

8.6.1 Recommendations for further research

The following recommendations are presented for further research in Tamale to provide a better understanding of urbanisation-urban governance-development relationships.

First, more research is recommended to determine the extent of livelihood support of urban governance processes in Tamale as the City gets increasingly urbanised with concomitant growth in informal livelihood activities. In this regard, empirical studies to ascertain the magnitude, distribution and sustainability of livelihood and job creation activities being implemented in the city are worthwhile. It is equally important to determine the best forms of livelihoods diversification and support opportunities for those who lose their land-based livelihoods to the processes of urbanisation.

Second, more localised research could be done within the TAMA to ascertain whether or not complete decentralisation would promote inclusive and pro-poor development in the light of prevailing urban governance challenges such as political polarisation and patronage, nepotism, sectionalism and polarised chieftaincy dynamics. Specific case studies that provide detailed description of the usefulness of complete decentralisation in certain contexts while at the same time overcoming the identified challenges could then augment the advocacy for complete decentralisation.

It is also recommended that further research be done to understand the barriers to households' low participation in in-house provision of sanitary and safe waste disposal facilities such as in-house waste collection and toilet provision.

8.6.2 Policy focus recommendations

The following recommendations are with regards to policy making to improve urban governance in Tamale in order to promote pro-poor and inclusive development.

First, it is recommended that complete decentralisation be implemented in Ghana to improve local level – and urban governance. Complete decentralisation not only allows people to elect their leaders and hold them accountable, but it also bestows a sense of ownership and belonging on them such that they gladly and wilfully support the process. However, this call should be supported by the recommendation to research and understand the feasibility of complete decentralisation, as it is not completely apparent that allowing the people to elect the most powerful officers in the governance system would bring about better governance and governance outcomes (Obeng-Odoom, 2013).

Related to the above is the need for concerted efforts to do a lot more civic education to reduce the level of political polarisation in Ghana. To this end, the NCCE could collaborate with political parties, civil society groups, the legislative, judiciary and executive arms of government to promote non-partisan approaches to local, regional and national issues. Even when partisanship is introduced in local-level elections (in case complete decentralisation is granted), it should be practised responsibly rather than in a polarised manner.

Third (also in line with complete decentralisation), it is recommended that locally feasible approaches to land management (especially communal land) be devised to curb the wanton personalised commoditisation and allocation of land for personal gain. This leads to another recommendation that calls for ancillary legislative frameworks and bylaws to enforce national constitutional provision of protecting public interest in customary land tenure systems.

Five, there is the need to promote deliberate policies and programmes to facilitate local economic development in Tamale as in the SPGEs which were implemented in the Ewutu-Efutu-Senya and Ajumako-Enyan-Essiam districts of the Central Region of Ghana. This could be tied to collaborative efforts to promote provision of in-house sanitary facilities (toilet and waste management practices). Specific areas of note in this regard should centre on local job creation and livelihood support including capacity building, local tourism development, strengthening of the sister city relationship and facilitating partnerships and collaboration with both local and international NGOs and supranational agencies as witnessed on a limited scale in Tamale.

Finally, more advocacy work should be done to facilitate the passage into law the LUSPB which has been pending before the national Parliament or Cabinet since 2011. The passage of the bill into law would represent a major practical step towards the integration of the social, economic and environmental facets of development to promote sustainable development. This integration would increase the efficiency and speed of decision making than is currently witnessed in urban governance and spatial planning spheres.

REFERENCES

AAAS [American Association for the Advancement of Science]. 2000. *AAAS Atlas of population and environment*. Berkeley: University of California Press.

Adarkwa, K.K. 2012. The changing face of Ghanaian towns. *African Review of Economics and Finance*. 4(1):1–29.

Addink, E.A., Van Coillie, F.M.B. & De Jong, S.M. 2012. Introduction to the GEOBIA 2010 special issue: From pixels to geographic objects in remote sensing image analysis. *International Journal of Applied Earth Observation and Geoinformation*. 15:1–6.

Adi, S.B. 2008. Development of an urban road maintenance management system for Tamale. Kwame Nkrumah University of Science and Technology.

Adiaba, S.Y. 2014. A framework for land information management in Ghana.

Agyei-Mensah, S. 2006. Marketing its colonial heritage: A new lease of life for Cape Coast, Ghana? *International Journal of Urban and Regional Research*. 30(September):705–716.

Ahern, J., Cilliers, S. & Niemelä, J. 2014. The concept of ecosystem services in adaptive urban planning and design: A framework for supporting innovation. *Landscape and Urban Planning*. 125:254–259.

Albrechts, L. 2004. Strategic (spatial) planning reexamined. *Environment and Planning B: Planning and Design*. 31(5):743–758.

Allmendinger, P. & Haughton, G. 2010. Spatial planning, devolution, and new planning spaces. *Environment and Planning C: Government and Policy*. 28(5):803–818.

Amanor, K. 2008. The Changing face of customary land tenure. In *Contesting land and custom in Ghana: State, Chief and the Citizen*. J.M. Ubink & K.S. Amanor, Eds. Leiden: Leiden University Press. 55–79.

Amanor, K.S. 2009. Securing land rights in Ghana. In *Legalising Land Rights: Local practices, state responses and tenure security in Africa, Asia and Latin America*. J.M. Ubink, A.J. Hoekema, & W.J. Assies, Eds. Leiden: Leiden University Press. 97–131.

Anderson, S. & Constantine, R. 2005. *Unfunded mandates*. Harvard Law School: Federal Budget Policy Seminar. Briefing Paper No. 7.

Andersson, E., Barthel, S., Borgström, S., Colding, J., Elmqvist, T., Folke, C. & Gren, A. 2014a. Reconnecting cities to the biosphere: stewardship of green infrastructure and urban ecosystem services. *Ambio*. 43(4):445–53.

Andersson, E., Tengö, M., McPhearson, T. & Kremer, P. 2014b. Cultural ecosystem services as a gateway for improving urban sustainability. *Ecosystem Services*. (September):1–4.

Andoh, D. & Dodoo, A. 2014. *Government not well prepared to manage urbanisation - report*. Available at: http://www.graphic.com.gh/news/general-news/24595-govt-not-well-prepared-to-manage-urbanisation-report.html.

Angel, S., Sheppard, S.C., Civco, D.L., Buckley, R., Chabaeva, A., Gitlin, L., Kraley, A., Parent, J. & Perlin, M. 2005. *The Dynamics of Global Urban Expansion*. Washington DC.

Angel, S., Parent, J., Civco, D.L. & Blei, A.M. 2011. *Making Room for a Planet of Cities*. Cambridge.

Awedoba, A.K. 2010. *An ethnographic study of Northern Ghanaian conflicts: Towards a sustainable peace*. 2nd ed. Accra: Sub-Saharan Publishers.

Ayee, J. & Crook, R. 2003. *"Toilet wars": Urban sanitation services and the politics of public-private partnerships in Ghana*. (213). Brighton.

Babbie, E. 2005. *The basics of social research*. 3rd ed. Belmont: Wadsworth.

Baffour Awuah, K.G. & Hammond, F.N. 2014. Determinants of low land use planning regulation compliance rate in Ghana. *Habitat International*. 41:17–23.

Baffour Awuah, K.G., Hammond, F.N., Lamond, J.E. & Booth, C. 2014. Benefits of urban land use planning in Ghana. *Geoforum*. 51:36–46.

Bandie, B. 2007. NDPC at the best practices. In *Conference on Decentralisation in Ghana*. Vol. May 8. Accra: Institute of Local Government Studies.

Barwa, S.D. 1995. *Structural adjustment programmes and the urban informal sector in Ghana*. (3). Geneva.

Bawumia, M. 1998. Understanding the rural-urban voting patterns in the 1992 Ghanaian presidential election . A closer look at the distributional impact of Ghana ' s Structural Adjustment Programme. *The Journal of Modern African Studies*. 36(1):47–70. Available at: http://www.jstor.org/stable/161637.

Bengston, D.N., Fletcher, J.O. & Nelson, K.C. 2004. Public policies for managing urban growth and protecting open space: policy instruments and lessons learned in the United States. *Landscape and Urban Planning*. 69(2-3):271–286.

Berke, P.R. & Conroy, M.M. 2000. Are We Planning for Sustainable Development? *Journal of the American Planning Association*. 66(1):21–33.

Berrisford, S. 2014. The challenge of urban planning law reform in African cities. In *Africa's urban revolution*. S. Parnell & E. Pieterse, Eds. Cape Town: University of Cape Town Press. 167–183.

Bierbaum, R., Stocking, M., Bouwman, H., Cowie, A., Diaz, S., Granit, J., Patwardhan, A., Sims, R. 2014. *Delivering Global Environmental Benefits for Sustainable Development Report to the 5 th GEF Assembly , México , May 2014*. Mexico City.

Blaschke, T. 2010. Object based image analysis for remote sensing. *ISPRS Journal of Photogrammetry and Remote Sensing*. 65(1):2–16.

Blaschke, T., Hay, G.J., Kelly, M., Lang, S., Hofmann, P., Addink, E., Feitosa, Q.R., van der Meer, F., van der Werff, H., van Coillie, F. & Tiede, D. 2014. Geographic Object-Based Image Analysis - Towards a new paradigm. *ISPRS journal of photogrammetry and remote sensing : official publication of the International Society for Photogrammetry and Remote Sensing (ISPRS)*. 87(100):180–191.

Boamah, N.A. 2013. Land use controls and residential land values in the Offinso South municipality, Ghana. *Land Use Policy*. 33:111–117.

Boamah, N.A., Gyimah, C. & Nelson, J.K.B. 2012. Challenges to the enforcement of development controls in the Wa municipality. *Habitat International*. 36(1):136–142.

Boeije, H. 2010. *Analysis in qualitative research*. Los Angeles: SAGE.

Bokpe, S.J. 2012. *East Ayawaso sun-metro in perspective: Accra New Town residents call for construction of drains*. Available at: http://sethbnews09.blogspot.com/2012/02/east-ayawaso-sub-metro-in-perspective.html [2015, May 24].

Bourke, B. 2014. Positionality: Reflecting on the Research Process. *The Qualitative Report*. 19(18):1–9. Available at: http://www.nova.edu/ssss/QR/QR19/bourke18.pdf.

Braimoh, A.K. & Vlek, P.L.G. 2004. Land-Cover Dynamics in an Urban Area of Ghana. *Earth Interactions*. 8(1):1–15. Available at: http://journals.ametsoc.org/doi/pdf/10.1175/1087-3562(2004)008<0001:LDIAUA>2.0.CO;2.

Brenner, N., Peck, J. & Theodore, N. 2010. Variegated neoliberalization: Geographies, modalities, pathways. *Global Networks*. 10(2):182–222.

Briggs, J. & Yeboah, I.E.A. 2001. Structural adjustment and the contemporary sub-Saharan African city. *Area*. 33(1):18–26.

Bryman, A. 2012. *Social research methods*. 4th ed. Oxford: Oxford University Press.

BUSAC Fund. 2014. New face for Tamale central market. *Business Advocacy News*. (April):4–5. Available at: http://www.busac.org/downloads/April 2014 Newsletter-final draft.pdf.

Campbell, H. & Marshall, R. 2002. Utilitarianism's bad breath? A re-evaluation of the public interest justification

for planning. *Planning Theory*. 1(2):163–187.

Campbell, J.B. & Wynne, R.H. 2011. *Introduction to Remote Sensing*. Fifth ed. New York: Guilford Press.

Chobokoane, N. & Horn, A. 2014. Urban Compaction and Densification in Bloemfontein, South Africa: Measuring the Current Urban Form Against Mangaung Metropolitan Municipality's Spatial Planning Proposals for Compaction. *Urban Forum*. (May, 25).

Christiansen, L.D. 2015. The timing and aesthetics of public engagement: insights from an urban street transformation initiative. *Journal of Planning Education and Research*. 1–16.

City of Cape Town. 2012. *Cape Town Spatial Development Framework - Statutory Report*. South Africa: Provincial Gazatte.

Cobbinah, P.B. & Amoako, C. 2012. Urban Sprawl and the Loss of Peri-Urban Land. *International Journal of Social and Human Sciences*. 6:388–397. Available at: http://www.researchgate.net/publication/232957200_Urban_Sprawl_and_the_Loss_of_Peri_Urban_Land_in_Kumasi_Ghana/file/d912f509af6f7c7ef5.pdf.

Cobbinah, P.B. & Korah, P.I. 2015. Religion gnaws urban planning : the geography of places of worship in Kumasi , Ghana. *International Journal of Urban Sustainable Development*. (OCTOBER):1–17.

Cohen, B. 2004. Urban Growth in Developing Countries: A Review of Current Trends and a Caution Regarding Existing Forecasts. *World Development*. 32(1):23–51.

Cohen, B. 2006. Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability. *Technology in Society*. 28(1-2):63–80.

Cohen, M.J. & Garrett, J.L. 2009. *The food price crisis and urban food (in) security*. London.

Conroy, M.M. & Berke, P.R. 2004. What makes a good sustainable development plan? An analysis of factors that influence principles of sustainable development. *Environment and Planning A*. 36(8):1381–1396.

Crook, R.C. 2008. Customary justice institutions and local Alternative Dispute Resolution: What kind of protection can they offer to customary landholders ? In *Contesting Land and Custom in Ghana: State, Chief and the Citizen*. J.M. Ubink & K.S. Amanor, Eds. Leiden: Leiden University Press. 131–154.

Dewan, A.M., Yamaguchi, Y. & Rahman, M.Z. 2012. Dynamics of land use/cover changes and the analysis of landscape fragmentation in Dhaka Metropolitan, Bangladesh. *GeoJournal*. 77:315–330.

Dickson, K.B. 1968. Background to the problem of economic devt of northern Ghana. *Annals of the Association of American Geographers*. 58:686–696.

Dickson, K.B. 1969. *A historical geography of Ghana*. First ed. London: Cambridge University Press.

Dilger, R.J. & Beth, R.S. 2016. *Unfunded Mandates Reform Act: History, Impact, and Issues*. Available at: www.crs.gov.

Drakakis-Smith, D. 1995. Third W orld Cities : Sustainable Urban Development , 1. *Urban Studies*. 32(4-5):659–677.

Drakakis-Smith, D. 1996. Third World Cities : Sustainable Urban Development IIÐ Population , Labour and Poverty. *Urban Studies*. 33(4-5):673–701.

Drakakis-Smith, D. 1997. Third World Cities : Sustainable Urban Development IIIÐ Basic Needs and Human Rights. *Urban Studies*. 34(5-6):797–823.

Drechsel, P. & Keraita, B. Eds. 2014. *Irrigated urban vegetable production in Ghana: characteristics, benefits and risk mitigation*. 2nd ed. Colombo: International Water Management Institute.

Duke, J.M. & Wu, J. 2014. Land as an integrating theme in economics. In *The Oxford Handbook on Land Economic*. Joshua M. Duke and Junjie Wu, Ed. Oxford: Oxford University Press. 1–22.

van Empel, C. 2007. *Local economic development in Ghana: Rooting public-private dialogue*. (3). Geneva.

Fainstein, S.S. 2000. New Directions in Planning Theory. *Urban Affairs Review*. 35(4):451–478.

Farvacque-Vitkovic, C., Eghoff, C., Raghunath, M. & Boakye, C. 2008. *Development of the Cities of Ghana:*

Challenges, priorities and tools. (110).

Foresight. 2011. *The Future of Food and Farming : Challenges and choices for Global Sustainability*. London: The Government Office for Science. Available at: http://www.bis.gov.uk/assets/bispartners/foresight/docs/food-and-farming/11-547-future-of-food-and-farming-summary.pdf.

Foresight LUFP. 2010. *Land Use Futures : Making the most of land Land Use Futures : Making the most of land in the 21st century*. London: The Government Office for Science, UK.

Frieddrich Ebert Stiftung-Ghana & Institute of Local Government Studies (Ghana). 2010. *A guide to district assemblies in Ghana*. Accra.

Friese, S. 2013. ATLAS . ti 7 User Guide and Reference. , pp.1–466.

Fuseini, I. 2014. *Land use competition: Its implication for food security in peri-urban Tamale, Ghana*. Saarbrücken: Lambert Academic Publishing.

Fuseini, I. & Kemp, J. 2015. A review of spatial planning in Ghana's socio-economic development trajectory: A sustainable development perspective. *Land Use Policy*. 47:309–320.

Ghana Broadcasting Corporation. 2014. *President Mahama inaugurates electrification project at Kootingli in Tamale*. Available at: http://www.gbcghana.com/m/kitnes/cache/pages/article/1.1836801/1.htm [2015, May 24].

Ghana News Agency. 2015. *Ghana to score universal access for electricity 2020*. Available at: http://www.ghanaweb.com/GhanaHomePage/business/artikel.php?ID=359157 [2015, May 24].

Ghana Statistical Service. 2005. *2000 population and housing census of Ghana: The gazetteer (NA-ZU)*. Accra.

Ghana Statistical Service. 2012. *2010 population and housing census: Summary report of final results*. Accra.

Ghana Statistical Service. 2013a. *2010 population and housing census: National analytical report*. Accra.

Ghana Statistical Service. 2013b. *2010 population and housing census: Regional analytical report, Northern Region*. Accra.

Ghana Statistical Service. 2013c. *2010 population and housing census: Regional analytical report: Ashanti Region*. Accra.

Ghana Statistical Service. 2013d. *2010 population and housing census: Regional analytical report: Greater Accra Region*. Accra.

Ghana Statistical Service. 2013e. *2010 Population and housing census: Regional analytical report - Western Region*.

Ghana Statistical Service. 2014. *Ghana living standards survey (round 6) - Main report*. Accra.

Ghanaweb. 2015. *Ghana's urban population to hit 22m in 15yrs - World Bank report*. Available at: http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=358154 [2015, May 17].

Gill, P., Stewart, K., Treasure, E. & Chadwick, B. 2008. Methods of data collection in qualitative research: interviews and focus groups. *British dental journal*. 204(6):291–295.

Glaser, B. & Strauss, A. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine Publishing Company.

Godschalk, D.R. 2004. Land Use Planning Challenges: Coping with conflicts in visions of sustainable development and livable communities. *Journal of the American Planning Association*. 70(1):5–13.

Golafshani, N. 2003. Understanding reliability and validity in qualitative research. *The Qualitative Report*. 8(4):597–607. Available at: http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf.

Government of Ghana. 2012. *National urban policy framework*. Accra, Ghana: Ministry of Local Government and Rural Development.

Grant, R. 2009. *The globalizing city: The urban and economic transformation of Accraa, Ghana*. First ed. New

York: Syracuse University Press.

Grant, R. & Yankson, P. 2003. City profile: Accra. *Cities*. 20(1):65–74.

Graphic Online. 2015. *Apocalypse in Accra! 150 Dead so far in floods, inferno*. Available at: http://graphic.com.gh/news/general-news/44214-apocalypse-in-accra-150-dead-so-far-in-floods-inferno.html [2015, June 09].

Gyasi, E.A., Fosu, M., Kranjac-Berisavljevic, G., Mensah, A.M., Obeng, F., Yiran, G.A.B. & Fuseini, I. 2014a. *Building Urban Resilience: Assessing Urban and Peri-urban Agriculture in Tamale, Ghana*. Nairobi: United Nations Environment Programme (UNEP).

Gyasi, E.A., Kranjac-Berisavljevic, G., Fosu, M., Mensah, A.M., Yiran, G.A.B. & Fuseini, I. 2014b. Managing threats and opportunities of urbanisation for Urban and Peri-urban Agriculture in Tamale, Ghana. In *The security of water, food, energy and liveability of cities: Challenges and opportunities for peri-urban futures*. B. Maheshwari, R. Purohit, H. Malano, V.P. Singh, & P. Amerasinghe, Eds.

Harding, R. 2015. Attribution and accountability : Voting for roads in Ghana. *World Politics*. 67(4):656–668.

Harris, R. 2014. Urban land markets: A southern exposure. In *Routledge Handbook on Cities of the Global South*. S. Parnell & S. Oldfield, Eds. London and New York: Routledge. 109–121.

Haug, J. 2014. *Critical Overview of the (Urban) Informal Economy in Ghana*. Accra.

Hayek, F.A. 1944. *The Road to Serfdom*. London: Routledge.

Hayek, F.A. 1948. *Individualism and economic order*. Chicago: University of Chicago Press.

Healey, P. 1992. Planning through Debate: The Communicative Turn in Planning Theory. *The Town Planning Review*. 63(2):143–162.

Healey, P. 1997. *Collaborative Planning: Shaping Places in Fragmented Societies*. London: Macmillan.

Healey, P. 2002. On creating the'city'as a collective resource. *Urban Studies*. 39(10):1777–1792.

Healey, P. 2003. Collaborative planning in perspective. *Planning Theory*. 2(2):101–123.

Healey, P. 2006. Transforming governance: Challenges of institutional adaptation and a new politics of space1. *European Planning Studies*. 14(3):299–320.

Home, R. 2014. Shaping cities of the global south: Legal histories of planning and colonialism. In *Routledge Handbook on Cities of the Global South*. S. Parnell & S. Oldfield, Eds. London and New York: Routledge. 75–85.

Hunt, E.F. & Colander, D.C. 2011. *Social science: An introduction to the study of society*. 14th ed. Boston: Pearson.

Huxley, M. 2000. The limits to communicative planning. *Journal of Planning Education and Research*. 19(4):369–377.

IHS. 2012. *IHS wins tender to provide technical assistance for the Implementation of the Ghana Urban Management Pilot Programme*. Available at: http://www.ihs.nl/news_events/news/news_detail/article/38316-ihs-wins-tender-to-provide-technical-assistance-for-the-implementation-of-the-ghana-urban-mana/ [2015, August 30].

Inkoom, D.K.B. 2009. *Planning Education in Ghana*. Nairobi. Available at: www.unhabitat.org/grhs/2009.

Joseph, A. 2009. *The Achievements and Failures of President Kwame Nkrumah*. Available at: http://www.ghanaweb.com/GhanaHomePage/features/artikel.php?ID=166895.

Kasanga, K. 2001. Land Administration Reforms and Social Differentiation: A Case Study of Ghana's Lands Commission. *IDS Bulletin*. 32(1):57–64.

Kasanga, K.R. 1995. Land tenure and regional investment prospects: the case of the tenurial systems of Northern Ghana. *Property Management*. 13(2):21–31.

Kasanga, K. & Kotey, N.A. 2001. *Land Management in Ghana : Land Management in Ghana*. London: IIED,

International Institute for Environment and Development. Available at: http://www.eldis.org/vfile/upload/1/document/0708/DOC5021.pdf.

Kennedy, L. 2009. New forms of governance in Hyderabad: How urban reforms are redefining actors in the city. In *New Forms of Urban Governance in India Shifts, Models, Networks and Contestations*. I.S.A. Baud & J. De Wit, Eds. SAGE Publications. 253–290.

Kirby, A. 2008. The production of private space and its implications for urban social relations. *Political Geography*. 27(1):74–95.

Klosterman, R.E. 1978. Foundations for Normative Planning. *Journal of American Institute of Planners*. 44(1):37–46.

Klosterman, R.E. 1985. Arguments for and against planning. *The Town Planning Review*. 56(1):5–20.

Klosterman, R.E. 1999. The what if? collaborative planning system. *Environment and Planning B Planning and Design*. 393–408.

Korboe, D. & Tipple, A.G. 1995. City profile: Kumasi. *Cities*. 12(4):267–274.

Kruger, M. 2014. Planning with purpose. *Without prejudice, Landlaw*. (April 2014):94–95. Available at: http://www.withoutprejudice.co.za/index.php/issues/category/april-7/3.

Kumbun-Naa Yiri II. 2006. Customary Lands Administration and Good Governance – The State and the Traditional Rulers Interface 1. In *5th FIG Regional Conference - Promoting Land Administration and Good Governance*. Accra: International Federation of Surveyors. 1–17.

Kundu, A. 2012. Globalization and urban growth in the developing world with special reference to Asian countries. In *The Oxford handbook on urban economics and planning*. N. Brooks, K. Donaghy, & G.-J. Knaap, Eds. Oxford: Oxford University Press. 845–881.

Kuusaana, E.D. & Eledi, J.A. 2015. Customary land allocation, urbanization and land use planning in Ghana: Implications for food systems in the Wa Municipality. *Land Use Policy*. 48:454–466.

Lai, L.W. 2005. Neo-institutional economics and planning theory. *Planning Theory*. 4(1):7–19.

Lambin, E.F. & Meyfroidt, P. 2011. Global land use change, economic globalization, and the looming land scarcity. *Proceedings of the National Academy of Sciences of the United States of America*. 108(9):3465–72.

Laryea-Adjei, G. 2000. Building capacity for urban management in Ghana: some critical considerations. *Habitat International*. 24(4):391–401.

Leith, J.C. 1974. Growth factors. In *Foreign Trade Regimes and Economic Development: Ghana*. Vol. 2 ed. J.C. Leith, Ed. New York: UMI. 81–108. Available at: http://www.nber.org/chapters/c4121.

Lovering, J. 2009. The recession and the end of planning as we have known it. *International Planning Studies*. 14(1):1–6.

Lund, C. 2000. *African land tenure: Questioning basic assumptions*. London: IIED.

MacGaffey, W. 2006. A history of Tamale, 1907-1957 and beyond. *Historical Society of Ghana*. 10:109–124.

MacGaffey, W. 2013. *Chiefs, Priests, and Praise-Singers: History, Politics, and Land Ownership in Northern Ghana*. Virginia: University of Virginia Press.

Maes, J., Barbosa, A., Baranzelli, C., Zulian, G., Batista e Silva, F., Vandecasteele, I., Hiederer, R., Liquete, C., Paracchini, M. L., Mubareka, S., Jacobs-Crisioni, C., Castillo, C. P. & Lavalle, C. 2014. More green infrastructure is required to maintain ecosystem services under current trends in land-use change in Europe. *Landscape Ecology*. (August, 20).

Mascarenhas, A., Ramos, T.B., Haase, D. & Santos, R. 2015. Ecosystem services in spatial planning and strategic environmental assessment—A European and Portuguese profile. *Land Use Policy*. 48:158–169.

Mather, A.S. 1986. *Land use*. London: Longman.

McGregor, D.F.M., Adam-Bradford, A., Thompson, D.A. & Simon, D. 2011. Resource management and

agriculture in the periurban interface of Kumasi, Ghana: Problems and prospects. *Singapore Journal of Tropical Geography*. 32(3):382–398.

Miller, T. & Bell, L. 2002. Consenting to what? Issues of access, gate-keeping and 'informed consent. In *Ethics in qualitative research*. M. Mauthner, M. Birch, J. Jessop, & T. Miller, Eds. London: SAGE Publications. 54–67.

Miller, T. & Boulton, M. 2007. Changing construction of informed consent: Qualitatve research and complex social worlds. *Social Science and Medicine*. 65:2199–2211.

Von Mises, L. 1927. *Liberalismus*. Jena: Gustav Fischer.

Modern Ghana. 2013. *AMA warns landlords : Public toilets are for edestrians*. Available at: http://www.modernghana.com/print/504238/1/ama-warns-landlords-public-toilets-are-for-pedestr.html [2015, May 24].

Mohammed, A.K. 2014a. Assessment of sub-nationals of Ghana's performance in planning. *European Scientific Journal*. 10(10):108–130.

Mohammed, H. 2014b. *President Mahama : I will continue all abandoned projects*.

Montgomery, M.R. 2008. The urban transformation of the developing world. *Science (New York, N.Y.)*. 319(5864):761–4.

Moroni, S. 2010. Rethinking the theory and practice of land-use regulation: Towards monocracy. *Planning Theory*. 9(2):137–155.

Morse, J.M., Barrett, M., Mayan, M., Olson, K. & Spiers, J. 2002. Verification Strategies for Establishing Reliability and Validity in Qualitative Research. *International Journal of Qualitative Methods*. 1(2):13–22.

Myburgh, G. & Van Niekerk, A. 2013. Effect of Feature Dimensionality on Object-based Land Cover Classification : A Comparison of Three Classifiers. *South African Journal of Geomatics*. 2(1):13–27.

Myburgh, G. & van Niekerk, A. 2014. Impact of Training Set Size on Object-Based Land Cover Classification: *International Journal of Applied Geospatial Research*. 5(3):49–67.

Myint, S.W., Gober, P., Brazel, A., Grossman-Clarke, S. & Weng, Q. 2011. Per-pixel vs. object-based classification of urban land cover extraction using high spatial resolution imagery. *Remote Sensing of Environment*. 115(5):1145–1161.

MyJoy Online. 2014. *Blame political leaders for slums - Town & Planning Expert*. Available at: http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=315905.

Naab, F.Z., Dinye, R.D. & Kasanga, K.R. 2013. Urbanisation and its impact on agricultural lands in growing cities in developing countries: A case study of Tamale in Ghana. 2(2):256–287.

Naess, P. 2001. Urban Planning and Sustainable Development. *European Planning Studies*. 9(4):503–524.

Njoh, A.J. 2003. Urbanization and development in sub-Saharan Africa. *Cities*. 20(3):167–174.

Nkrumah, K. 1964. *7-Year Development Plan - Presentation*. Available at: http://nkrumahinfobank.org/article.php?id=355&c=51.

Nurudeen, S. 2013. TaMA to decongest Tamale central market. *Daily Graphic* (Accra). 22 May: 22.

Obeng-Odoom, F. 2010a. " Abnormal " Urbanization in Africa : A Dissenting View. *African Geographical Review*. 29(2):13–40.

Obeng-Odoom, F. 2010b. An urban twist to politics in Ghana. *Habitat International*. 34(4):392–399.

Obeng-Odoom, F. 2012a. On the origin, meaning, and evaluation of urban governance. *Norwegian Journal of Geography*. 66(4):204–212.

Obeng-Odoom, F. 2012b. Neoliberalism and the Urban Economy in Ghana: Urban employment, inequality and poverty. *Growth and Change*. 43(1):85–109.

Obeng-Odoom, F. 2013. *Governance for pro-poor urban development: Lessons from Ghana*. First ed. London:

Routledge.

Obeng-Odoom, F. 2015a. *Oil rents , policy and social development: Lessons from the Ghana controversy*.

Obeng-Odoom, F. 2015b. Sustainable Urban Development in Africa? The case of urban transport in Sekondi-Takoradi, Ghana. *American Behavioral Scientist*. 59(3):424–437.

Osei-Bonsu, K. 2012. *Structural transformation Of Ghana's economy: The role of long-term development planning*. Vol. 2020. Available at: http://www.ghanaweb.com/GhanaHomePage/features/artikel.php?ID=234320.

Otiso, K.M. & Owusu, G. 2008. Comparative urbanization in Ghana and Kenya in time and space. *GeoJournal*. 71(2-3):143–157.

Owens, S.E. & Cowell, R. 2002. *Land and limits : interpreting sustainability in the planning process*. London: Routledge.

Owusu, G. 2004. Small towns and decentralised development in Ghana: Theory and practice. 39(2):165–195. Available at: http://www.jstor.org/stable/40175021.

Owusu, G. 2005. Small Towns in Ghana : Justifications for Their Promotion under Ghana's Decentralization Programme. *African Studies Quarterly*. 8(2):48–69.

Owusu, G. 2010. URBAN DEVELOPMENT TRENDS IN GHANA AND ACCRA Ghana ' s Macro -urban Environment Institutional and Policy Framework for Urban.

Owusu, G. 2011. Urban Growth, Globalization and Access to Housing in Ghana's Largest Metropolitan Area, Accra. In *Contribution to Panel 90 Discussion at the 4th European Conference on African Studies, 15-18 June 2011*. Uppsala. Available at: www.nai.uu.se/ecas-4/.../ECAS-FULL-PAPER-GEORGE-OWUSU.pdf.

Pacione, M. 2009. *Urban geography: A global perspective*. Third ed. London: Routledge.

Padgham, J., Jabbour, J. & Dietrich, K. 2015. Managing change and building resilience: A multi-stressor analysis of urban and peri-urban agriculture in Africa and Asia. *Urban Climate*. 12:183–204.

Peprah, D., Baker, K.K., Moe, C., Robb, K., Wellington, N., Yakubu, H. & Null, C. 2015. Public toilets and their customers in low-income Accra, Ghana. *Environment & Urbanization*. 27(2):1–16.

Pieterse, E. & Parnell, S. 2014. Africa's urban revolution in context. In *Africa's urban revolution*. S. Parnell & E. Pieterse, Eds. Cape Town: University of Cape Town Press. 1–17.

Plange, N.-K. 1979. Underdevelopment in Northern Ghana : Natural Causes or Colonial Capitalism ? *Review of African Political Economy*. 15/16:4–14. Available at: http://www.jstor.org/stable/3997987.

Polanyi, M. 1951. *The Logic of liberty*. London: Routledge.

Potts, D. 2012a. Challenging the Myths of Urban Dynamics in Sub-Saharan Africa: The Evidence from Nigeria. *World Development*. 40(7):1382–1393.

Potts, D. 2012b. What do we know about urbanisation in sub-Saharan Africa and does it matter? *International Development Planning Review*.

RapidEye. 2012. Available at: http://www.flyby.it/images/brochure/rapideye/eng/re_product_specifications_eng.pdf.

Rapoport, E. (in press). Globalising sustainable urbanism: the role of international masterplanners. *Area*. (March, 13):n/a–n/a.

Rawls, J. 1971. *A theory of justice*. Cambridge: Harvard University Press.

Republic of Ghana. 1992. *Constitution of Ghana the Republic of Ghana, 1992*. Ghana.

Republic of Ghana. 1993. *Local government act: ACT 462*. Ghana: Parliament of Ghana. Available at: http://faolex.fao.org/docs/pdf/gha91927.pdf.

Republic of Ghana. 2013. *The composite budget of the Tamale Metropolitan Assemble for the 2013 fiscal year*. Tamale.

Republic of South Africa. 2013. *Spatial Planning and Land Use Management Act, 2013*. South Africa: Government Gazatte, Cape Town.

Roberts, P., Priest, H. & Traynor, M. 2006. Reliability and validity in research. *Nursing Standard*. 20(44).

Rogerson, C.M. & Rogerson, J.M. 2010. Local economic development in Africa: Global context and research directions. *Development Southern Africa*. 27(4):465–480.

Roin, J. 1999. Reconceptualizing unfunded mandates and other regulations. *93 Northwestern University Law Review*. 351.

Roy, A. 2014. Worlding the south: Toward a post-colonial urban theory. In *The routledge handbook on cities of the global south*. S. Parnell & S. Oldfield, Eds. London: Routledge. 9–20.

Roy, M. 2009. Planning for sustainable urbanisation in fast growing cities: Mitigation and adaptation issues addressed in Dhaka, Bangladesh. *Habitat International*. 33(3):276–286.

Sandercock, L. 2000. Negotiating fear and desire: The future of planning in multicultural societies. *Urban Forum*. 11(2):201–210.

Satterthwaite, D. 2007. *The transition to a predominantly urban world and its underpinnings*. (4). London. Available at: www.iied.org/pubs/display.php?o=10550IIED.

Sawyerr, A. 2007. *Dr Kwame Nkrumah realising the vision for the next 50*. Available at: http://www.modernghana.com/news/138753/1/dr-kwame-nkrumah-realising-the-vision-for-the-next.html.

Schewenius, M., McPhearson, T. & Elmqvist, T. 2014. Opportunities for Increasing Resilience and Sustainability of Urban Social-Ecological Systems: Insights from the URBES and the Cities and Biodiversity Outlook Projects. *Ambio*. 43(4):434–44.

Schwartz, A. 1992. *Contested concepts in cognitive Social Science*. Chicago: University of Illinois.

Simone, A. 2014. The missing people:Reflections on an urban majority in cities of the south. In *Routledge Handbook on Cities of the Global South*. 1st ed. S. Parnell & S. Oldfield, Eds. London and New York: Routledge. 322–336.

Simone, T.A. 2000. *On Informality & Considerations for Policy*. (3). Cape Town.

Singh, A.L. & Asgher, M.S. 2005. Impact of brick kilns on land use/landcover changes around Aligarh city, India. *Habitat International*. 29:591–602.

Smith, D. 2015. *Death toll rises in Accra floods and petrol station fire*. Available at: http://www.theguardian.com/world/2015/jun/05/death-toll-accra-floods-petrol-station-fire [2015, June 09].

Songsore, J. 2003. *Regional development in Ghana: The theory and the reality*. Accra: Woeli Publishing Services.

Songsore, J. 2009. *The urban transition in Ghana: Urbanisazation, national development and poverty reduction*. Available at: pubs.iied.org/pdfs/G02540.pdf.

Staniland, M. 1975. *The lions of Dagbon: Political change in northern Ghana*. Cambridge: Cambridge University Press.

Stevens, M.R., Lyles, W. & Berke, P.R. 2014. Measuring and reporting intercoder realiability in plan quality evaluation research. *Journal of Planning Education and Research*. 34(1):77–93.

Stoker, G. 1995. Regime theory and urban politics. In *Theories of urban politics*. D. Judge, G. Stoker, & H. Wolman, Eds. London: SAGE. 54–71.

Stone, C.N. 2004. It's more than the economy after all: Continuing the debate about urban regimes. *Journal of Urban Affairs*. 26(1):1–19.

Stone, C.N. 2005. Looking back to look forward: Reflections on urban regime analysis. *Urban Affairs Review*. 40(3):309–341.

Tamale Metropolitan Assembly. 2010. *Medium term development plan (draft), 2010-2013*. Tamale.

Tetteh, N.O. 2015. *Ghanaians want DCEs elected*. Available at: http://www.dailyguideghana.com/ghanaians-

want-dces-elected/ [2015, August 28].

Thanasegaran, G. 2009. Reliability and Validity Issues in Research. *Integration & Dissemination*. 35–40.

The Ghanaian Times. 2009. *The famous Seven Year Development Plan of Dr . Kwame Nkrumah*. Available at: http://www.ghanaculture.gov.gh/index1.php?linkid=65&adate=22/09/2009&archiveid=1600&page=1.

The Ghanaian Times. 2012. Urban control pilot scheme launched. *The Ghanaian Times News, 8 May 2012*. 8 May.

The World Bank. 1999. *Entering the 21st century: World development report, 1999/2000*. Washington DC.

The World Bank. 2015. *Rising through Cities in Ghana: Ghana urbanization review overview report*. Washington DC. Available at: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2015/05/13/090224b082e76e98/1_0/Rendered/PDF/Ghana000Rising0view0overview0report.pdf.

Thuo, A.D.M. 2013. Place of positionality , values , ethics and reflexivity in qualitative urban field work research. *Journal of Human and Social Science Research*. 1(1):19–29.

Thurman, K.G. 2010. Land Use Regulations and Urban Planning Initiatives in Accra , Ghana. 1–35.

Tibaijuka, A.K. 2007. The importance of urban planning in good governance and globally sustainable urban development. In *Address to the Planning Convention of the Royal Town Planning Instutution*. London: UN-Habitat. 1–8. Available at: http://mirror.unhabitat.org/downloads/docs/4971_60504_ED-RTPI-Adress-jun07.pdf.

Tibaijuka, A.K. 2009. There is no sustainable development without sustainable urbanisation. In *17th Session of the Commission on Sustainable Development (CSD-17), High Level Segment*. New York: UN-Habitat.

Town and Country Planning Department. 1945. *Town and Country Planning Act, 1945 (CAP 84)*. Available at: http://faolex.fao.org/docs/pdf/gha93485.pdf.

Town and Country Planning Department. 2011. *Land use and spatial planning bill- Draft*. Accra: Parliament of Ghana.

Turner, D.W. 2010. Qualitative Interview Design : A Practical Guide for Novice Investigators. *The Qualitative Report*. 15(3):754–760. Available at: http://www.nova.edu/ssss/QR/QR15-3/qid.pdf.

Turner, B.L., Lambin, E.F. & Reenberg, A. 2008. The emergence of land change science for global environmental change and sustainability. *PNAS*. 105(128):20666–20671.

Tzotsos, A. & Argialas, D. 2008. Support vector machine classification for object-based image analysis. In *Object-based image analysis : spatial concepts for knowledge-driven remote sensing applications*. T. Blaschke, S. Lang, & G.J. Hay, Eds. Berlin: Springer Berlin Heidelberg. 663–677.

Ubink, J.M. & Amanor, K.S. Eds. 2008a. *Contesting Land and Custom in Ghana: State, chief and the citizen*.

Ubink, J. 2007. Traditional authority revisted: Popular perceptions of chiefs and chieftaincy in peri-urban Kumasi, Ghana. *Journal of Legal Pluralism*. 55:123–161.

Ubink, J.M. 2008. *In The Land of the Chiefs: Customary law, land conflicts and the role of the state in peri-urban Ghana*.

Ubink, J.M. & Amanor, K.S. 2008b. Contesting Land and Custom in Ghana: Introduction. In *Contesting Land and Custom in Ghana: State, Chief and the Citizen*. J.M. Ubink & K.S. Amanor, Eds. Leiden: Leiden University Press. 9 – 26.

Ubink, J.M. & Quan, J.F. 2008. How to combine tradition and modernity? Regulating customary land management in Ghana. *Land Use Policy*. 25(2):198–213.

UNDP. 2005. *Pro-poor urban governance : Lessons from LIFE 1992-2005*. New York.

UN-Habitat. 2009a. *Planning sustainable cities: Global report on human settlements 2009*. Nairobi.

UN-Habitat. 2009b. *Ghana: Tamale city profile*. Nairobi.

UN-Habitat. 2010. *The state of African cities 2010: Governance, inequality and urban land markets*. Nairobi: United Nations Human Settlements Programme. Available at: https://www.citiesalliance.org/sites/citiesalliance.org/files/UNH_StateofAfricanCities_2010.pdf.

UN-Habitat. 2011. *Cities and Climate Change: Global report on human settlements 2011*.

UN-Habitat. 2012. *URBAN PATTERNS FOR SUSTAINABLE DEVELOPMENT : TOWARDS A GREEN ECONOMY*. Nairobi.

UN-Habitat. 2014. *The state of African cities 2014: Re-imagining sustainable urban transitions*. Nairobi: United Nations Human Settlements Programme.

United Nations. 2011. *Population Distribution, Urbanization, Internal Migration and Development: An International Perspective*. New York.

United Nations. 2012. *World Urbanization Prospects The 2011 Revision*.

Van Veenhuizen, R. 2006. Cities farming for the future. In *Cities farming for the future: Urban agriculture for green and productive cities*. R. Van Veenhuize, Ed. Ottawa: RUAF Foundation, IDRC and IIRR. 1–17.

Visser, G. 2001. On the politics of time and place in a transforming South African research environment: New challenges for research students. *The South African Geographical Journal*. 83(3):233–239.

Watson, V. 2002. The usefulness of normative planning theories in the context of Sub-Saharan Africa. *Planning Theory*. 1(1):27–52.

Watson, V. 2009. "The planned city sweeps the poor away…": Urban planning and 21st century urbanisation. *Progress in Planning*. 72(3):151–193.

Watson, V. 2014. Learning planning from the south: Ideas from the new urban frontiers. In *The Routledge Handbook on Cities of the Global South*. S. Parnell & S. Oldfield, Eds. London and New York: Routledge. 98–108.

Watts, S. & Halliwell, L. Eds. 1996. *Essential environmental science: Methods and techniques*. London: Routledge.

Wehrmann, B. 2008. The dynamics of peri-urban land markets in Sub-Saharan Africa: adherence to the virtue of common property vs. quest for individual gain. *Erdkunde*. 62(1):75–88.

Wenban-Smith, H. 2006. Urban infrastructure: Density matters, not just size. *Research Papers in Environmental & Spatial Analysis*. (104):1–16. Available at: http://www2.lse.ac.uk/geographyandenvironment/research/researchpapers/104 wenban-smith.pdf.

Whittemore, R., Chase, S.K. & Mandle, C.L. 2001. Validity in qualitative research. *Qualitative health research*. 11(4):522–537.

De Wit, P. & Verheye, W. 2003. Land use planning for sustainable development. In *Land cover, land use and soil sciences*. Vol. III. H.W. Verheye, Ed. Oxford, UK: UNESCO-EOLSS Publishers.

Wood, S. 1970. Some problems of town and country planing in Africa. *The Journal of Legal Pluralism and Unofficial Law*. 2(3):77–95.

Yakubu, I., Akaateba, M.A. & Akanbang, B.A.A. 2014. A study of housing conditions and characteristics in the Tamale Metropolitan Area, Ghana. *Habitat International*. 44:394–402.

Yaro, J.A. 2010. Customary tenure systems under siege: contemporary access to land in Northern Ghana. *GeoJournal*. 75(2):199–214.

Yaro, J.A. 2012. Re-inventing traditional land tenure in the era of land commoditization: some consequences in periurban Northern Ghana. *Geografiska Annaler: Series B, Human Geography*. 94(4):351–368.

Yeboah, I.E.A. 2000. Structural Adjustment and Emerging Urban Form in Accra , Ghana. *Africa Today*. 47(2):61–89.

Yeboah, I.E.A. 2003. Demographic and Housing Aspects of Structural Adjustment and Emerging Urban Form in Accra , Ghana. *Africa Today*. 50(1):107–119. Available at: http://www.jstor.org/stable/4187553.

Yeboah, E. & Obeng-Odoom, F. 2010. " We are not the only ones to blame ": District Assemblies ' perspectives on the state of planning in Ghana. *Commonwealth Journal of Local Governance*. (7).

Yeboah, E. & Shaw, D.P. 2013. Customary land tenure practices in Ghana: examining the relationship with land-use planning delivery. *International Development Planning Review*. 35(1):21–39.

Yeboah, I.E.A., Codjoe, S.N.A. & Maingi, J.K. 2013. Producing an urban system for the spatial development of Ghana: lessons for sub-Saharan Africa. *African Geographical Review*. 32(2):140–156.

De Zeeuw, H., Van Veenhuizen, R. & Dubbeling, M. 2011. The role of urban agriculture in building resilient cities in developing countries. *The Journal of Agricultural Science*. 149(S1):153–163.

Zhou, W. & Troy, a. 2008. An object-oriented approach for analysing and characterizing urban landscape at the parcel level. *International Journal of Remote Sensing*. 29(11):3119–3135.

APPENDICES

Appendix 1 Confusion matrix showing producer and user classification accuracies of Ikonos image for 2001

Classification Data

Reference Data

CLASS/REFERENCE	Vegetation_Trees	Vegetation_Grass	Water	Bare ground	Built up	TOTALS	Omissions	Producer's Accuracy	K
Vegetation_Trees	73	6				79	6	92.41	0.2020
Vegetation_Grass	7	110		1		118	8	93.22	0.3018
Water		10	44	1	3	58	14	75.86	0.1483
Bare ground	1	10		56	2	69	13	81.16	0.1765
Built up	5	3		2	57	67	10	85.07	0.1714
TOTALS	86	139	44	60	62	391			
COMMISSIONS	13	29	0	4	5				
USER'S ACCURACY	84.88	79.14	100.00	93.33	91.94				
K	0.2199	0.3555	0.1125	0.1535	0.1586				
% Cover	21.99	35.55	11.25	15.35	15.86				

			Combined K
Total correct classifications	340	1	0.04444
Total number of samples	391	2	0.107286
Kappa	0.866	4	0.016693
Overall accuracy	87.0	5	0.02708
		6	0.027171
			0.22267

Appendix 2 Producer and user classification accuracies for RapidEye image for 2014

Classification Data

Reference Data

CLASS/REFERENCE	Built up	Bare ground	Water	Vegetation_Grass/UPA sites	Vegetation_Trees	TOTALS	ECs	PAs	K
Built up	131	14			5	150	19	87.33	0.3623
Bare ground	3	145		1	1	150	5	96.67	0.3623
Water		3	21			24	3	87.50	0.0580
Vegetation_Grass/UPA sites		1		33	6	40	7	82.50	0.0966
Vegetation_Trees		6			44	50	6	88.00	0.1208
TOTALS	134	169	21	34	56	414			
COMMISSIONS	3	24	0	1	12				
USER'S ACCURACY	97.76	85.80	100.00	97.06	78.57				
K	0.3237	0.4082	0.0507	0.0821	0.1353				
% Cover	32.37	40.82	5.07	8.21	13.53				

				Combined K
Total correct classifications	374	Chance	1	0.117272
Total number of samples	414		2	0.147903
			3	0.002941
Kappa	0.863		4	0.007935
Overall accuracy	90.3		5	0.016336
				0.292387

Appendix 3 Ethical clearance approval letter

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Approval Notice
New Application

03-Dec-2014
Fuseini, Issahaka I

Proposal #: DESC/Fuseini/Nov2014/21
Title: Land use competition in peri-urban Tamale: Analysis of spatial planning for sustainable urbanisation

Dear Mr Issahaka Fuseini,

Your **New Application** received on **11-Nov-2014**, was reviewed
Please note the following information about your approved research proposal:

Proposal Approval Period: **18-Nov-2014 -17-Nov-2015**

Please take note of the general Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

Please remember to use your **proposal number** (**DESC/Fuseini/Nov2014/21**) on any documents or correspondence with the REC concerning your research proposal.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Also note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required. The Committee will then consider the continuation of the project for a further year (if necessary).

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) registration number REC-050411-032.

We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at 218089183.

Included Documents:
DESC application
Research proposal
Informed consent form
Interview schedule

Sincerely,

Clarissa Graham
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

Appendix 4 Departmental introductory letter for fieldwork

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Geografie en Omgewingstudie
Geography and Environmental Studies

13 December 2013

To whom it may concern

DECLARATION OF STUDENT STATUS: FUSEINI I (17439639)

The undersigned hereby confirms that **Mr Issahaka Fuseini** (Student number 17439639) is a registered student in the Department of Geography and Environmental Studies at Stellenbosch University. He is registered for a *PhD in Geography and Environmental Studies* and is currently doing research entitled "Land use competition in peri-urban Tamale: analysis of spatial planning for sustainable urbanisation".

The views and experiences of establishments such as yours, as well as knowledgeable individuals are crucial to this research project. It is imperative that qualified representatives with a thorough knowledge of the matter under investigation invest a small amount of time to assist the researcher in the way he requests.

Since the success of the research and its value to the community and society in general depends on the ready availability and high quality of information, your co-operation in providing complete and truthful cooperation is requested. The University guarantees that all information provided will be treated in strict confidence and that the information will be applied responsibly.

Should further technical queries arise you may contact the project supervisor Dr Jaco Kemp by telephone on number +27 (0)21 808 9147. Please contact the undersigned directly to clear up any other related uncertainties and accept our gratitude for your participation in this important research.

Yours sincerely

Prof JH (Hannes) van der Merwe
Departement Geografie en Omgewingstudie, Universiteit Stellenbosch, Kamer van Mynwesegebou 2022, h/v Merriman&Reyneveld St, Stellenbosch

Private Bag X1
7602 Matieland
Tel:(w) 021-8083218
Fax: 021-8083109
http://www.sun.ac.za/geography

Appendix 5 Consent form for research participants

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STELLENBOSCH UNIVERSITY

CONSENT TO PARTICIPATE IN RESEARCH

TITLE OF THE RESEARCH PROJECT: Land use competition in peri-urban Tamale: Analysis of spatial planning for sustainable urbanisation

REFERENCE NUMBER: 17439639

RESEARCHER: Mr. Issahaka Fuseini

ADDRESS: Department of Geography and Environmental Studies,
Stellenbosch University
Kamer van Mynwese Building, Cnr Merriman & Ryneveld Str, Stellenbosch, 7600

CONTACT NUMBER:

Dear …….. (*To whom it may concern*)

My name is **Issahaka Fuseini** and I am a **student from Stellenbosch University, South Africa.** I would like to invite you to participate in a research project entitled **Land use competition in peri-urban Tamale: Analysis of spatial planning for sustainable urbanisation**. The objective of the study is to assess how spatial/land use planning is done is the city in line with sustainable development goals or principles. In this regard, the economic, social and environmental dimensions of spatial planning as well as the processes of planning would be explored. You and/or your outfit are identified as a relevant stakeholder in land use planning or urban governance in the city. Accordingly, you are invited to participate in this under the terms and conditions outlined below.

Please take some time to read the information presented here, which will explain the details of this project and contact me if you require further explanation or clarification of any aspect of the study. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Humanities Research Ethics Committee (HREC) at Stellenbosch University** and will be conducted according to accepted and applicable national and international ethical guidelines and principles. Below are further details regarding your participation in this research:

- You are free to ask me any question before, during and after the discussion to clarify any doubt you may have about this research or any aspect of it.
- There are no foreseeable negative effects or risk of harm to you for participating in the research. If you agree to participate, the time and venue of the interview would be scheduled at your own convenience.
- No material or monetary benefit would accrue to you for participating in the research. However, your participation could yield potential benefits in terms of bringing to fore the successes and challenges of sustainable management of urbanisation in Tamale which would be beneficial to policy.
- If you agree, I would like to audio record the interview to facilitate speedy conduct and also to enable me capture every detail of the discussion.
- Be assured that your responses would be anonymised through an integrated process with other responses by many other respondents.
- Your privacy would be respected before, during and after the interview. Consequently, information gathered would be used strictly for the intended purpose, and no third party would have access to this information other than my supervisor and me.
- As stated earlier, your participation is voluntary, and you have the right to withdraw entirely from the research even after agreeing to participate or refuse to answer certain questions about which you might not feel comfortable.

If you have any questions or concerns about the research, please feel free to contact me:

Issahaka Fuseini

+233 242604330

+27 746728030

issahaqf@yahoo.com; 17439639@sun.ac.za

Or my supervisor:

Dr Jaco Kemp

+27 (0) 21 808 9147

jkemp@sun.ac.za

RIGHTS OF RESEARCH PARTICPANTS: You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

You have right to receive a copy of the Information and Consent form.

If you are willing to participate in this study please sign the attached Declaration of Consent for me.

Yours sincerely

(Issahaka Fuseini)

Principal Investigator

DECLARATION BY PARTICIPANT

By signing below, I ……..…… agree to take part in a research study entitled *Land use competition in peri-urban Tamale: Analysis of spatial planning for sustainable urbanisation* and conducted by *Issahaka Fuseini.*

I declare that:

- I have read the attached information leaflet and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.

- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.
- All issues related to privacy and the confidentiality and use of the information I provide have been explained to my satisfaction.

Signed at (*place*) .....…..…….. on (*date*) ……...…….. 2009.

Signature of participant

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ [*name of the participant] [H*e/she] was encouraged and given ample time to ask me any questions. This conversation was conducted in English or Dagbanli[26].

_____ _____

Signature of Investigator **Date**

[26] There may be a small chance of conducting the discussion in the local language of the area (Dagbanli). If the need arises I will not need any interpreter as I am fluent in the language.

Appendix 6 Instrument for research interview in Tamale

Interview Guide for PhD Data Collection on the Topic: *Land use competition in peri-urban Tamale: A*nalysis of spatial planning for sustainable urbanisation.

1. What is/are the existing regulatory frameworks guiding urban governance and spatial planning framework
   - ❖ Its core objectives and scope
   - ❖ Vision
   - ❖ Origins
2. Who are the stakeholders in urban governance and spatial planning? And what are their roles (as set out in the existing regulation frameworks)?
   - ❖ Traditional authorities/land owners
   - ❖ Local government authorities
   - ❖ Other relevant state institutions/agencies
3. What is the level of participation in decision making by identified stakeholders?
   - ❖ Type(s) of stakeholder participation
     - ✓ Consultative (processes?)
     - ✓ Collaborative (processes?)
     - ✓ Expert led?
   - ❖ Goal identification and policy setting
   - ❖ Community awareness creation (for broader participation and acceptance of policy)
   - ❖ Policy implementation and monitoring
4. How are issues regarding land tenure treated or handled under the spatial planning framework?
5. What are the successes and challenges facing urban governance and of spatial planning in Tamale?
   - ❖ Capacity to enforce planning legislations by local authorities
     - ✓ Normative and actual
   - ❖ Issues of stakeholder participation
   - ❖ Desired outcome achieved/likely to be achieved/not likely attainable
6. Do the successes and challenges facilitate or constrain local development objectives?
7. What should be done differently and by whom to achieve better urban governance and spatial planning outcomes to promote sustainable urban development in Tamale?

Department of Geography & Environmental Studies, Private Bag X1, Matieland 7602, South Africa. Tel: +27 21 8083218; Fax: +27 21 8083109; Email: geom@sun.ac.za; Website: http://www0.sun.ac.za/geography/

Appendix 7 Rulset for image classification in eCognition Developer software