

**UNIVERSITY OF GHANA**

**DEPARTMENT OF GEOGRAPHY AND RESOURCE DEVELOPMENT**

**BUILDING REGULATIONS AND THE DEVELOPMENT OF  
UNAUTHORIZED STRUCTURES IN URBAN GHANA: A CASE STUDY OF  
THE TEMA METROPOLIS**

**BY**

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**(10276650)**

**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON  
IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD  
OF MASTER OF PHILOSOPHY IN GEOGRAPHY AND RESOURCE  
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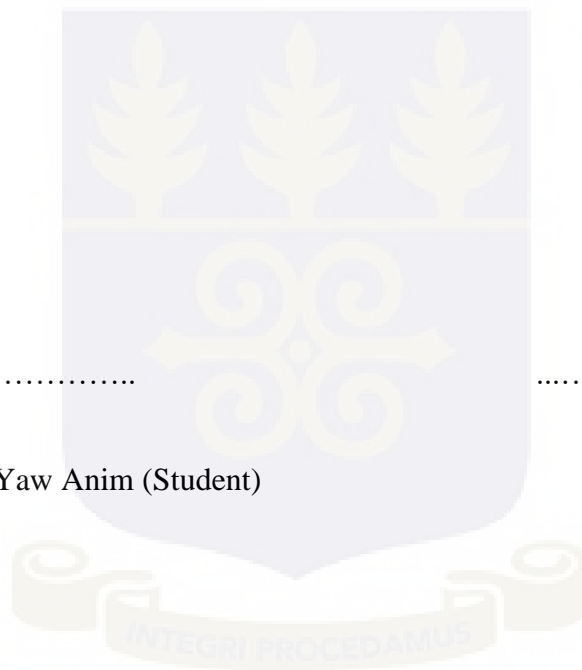
**JULY, 2016**

**DECLARATIONS**

I, **YAW ANIM ASIEDU-DANQUAH** hereby declare that this thesis is the outcome of my own academic research work towards the award of a Master of Philosophy degree in Geography and Resource Development, University of Ghana except for the references to other people's works that have duly been acknowledged. This work has not been presented in any form, wholly or partly, for another degree in this University or another University.

.....  
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**CERTIFICATION**

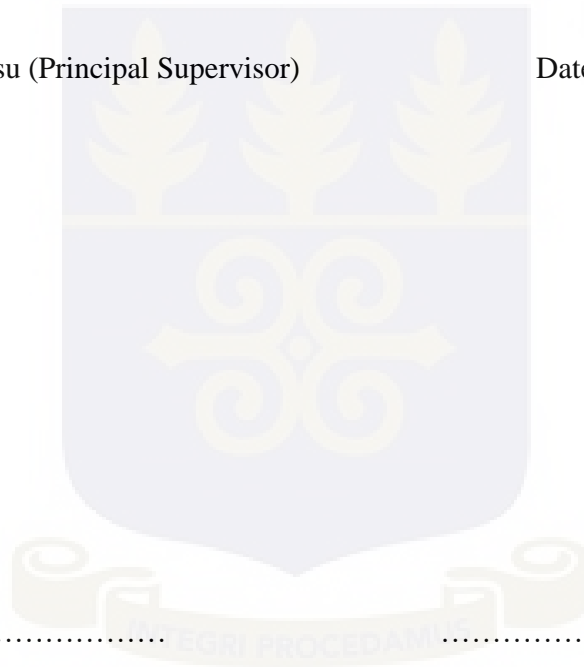
I hereby certify that this thesis was supervised in accordance with procedures laid down by the academic board of the University of Ghana, Legon.

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## ABSTRACT

The development of unauthorized structures has become one of the threatening problems associated with urbanization in developing countries. Multiple factors including institutional, socio-economic, political, physical and cultural contribute to this situation. The most dominant factor to deal with is institutional challenges which included the undue delays in the issuing of building permits, inability of the mandated institutions to effectively monitor and control on-going projects due to limited resources, and high building standards stipulated by the building regulations. These problems often make the processes cumbersome, and costly which pave the way for the enforcing officials to manipulate the system to their personal advantage.

Socio-economic (levels of employment and income, and high cost of rent in the urban centres) and political factors (ineffective government housing policies, limited funding for city planning and the lack of political will to implement the regulations to the letter) followed in that order. The other factors the study considered were the physical and cultural.

The development of unauthorized structures is accompanied by numerous socio-economic-political consequences, and as such most scholars and governments have recommended a more vigorous approach in the application of urban land use planning policies and regulations/codes to deal with the challenges.

This research therefore, attempted to examine the effectiveness of the National Building Regulations as a solution to the rapid growth of unauthorized structures in three selected communities in the Tema Metropolis. It also considered the effectiveness of the measures adopted by the city authorities in dealing with the challenge, the developers' knowledge

and perceptions of the building regulations and their readiness to comply with them. It also delved into the major challenges impeding the effective implementation of the laws.

Data were collected from property owners and developers in the three selected communities in the Metropolis namely; Tema Newtown, Tema Community 1 and Tema Community 25 to reflect the levels of disparity in the development of the communities. While the property owners were systematically selected to respond to a set of questionnaire, the Management staff of the Tema Municipal Assembly (TMA) and Tema Development Corporation (TDC) were interviewed as key informants. Focused Group Discussions were also used to solicit for additional information.

The technique used in analyzing and presenting the data was the descriptive statistical tool. The descriptive tools adopted included the mean, mode and cross-tabulations. The analysis also used pie charts and histogram to give the data a pictorial presentation.

The findings from the study revealed that the development of unauthorized structures persist despite the existence and recognition of building regulations in the Metropolis. In total, house-owners' awareness of the building regulations of Ghana in the various communities were just average, with house owners in Tema Community 25 (which was the most developed among the three communities) having a more useful knowledge of the regulations followed by Tema Community 1 and Tema Newtown (the least developed) in that order. It was therefore, evident that unauthorized structures were more prevalent in the less developed communities than the more developed ones.

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**DEDICATION**

I take great delight in dedicating this project work to my parents -

Mr. and Mrs. Yaw Asiedu-Danquah



**TABLE OF CONTENTS**

<b>CONTENT</b>	<b>PAGE</b>
DECLARATIONS.....	ii
CERTIFICATION.....	iii
ABSTRACT.....	iv
ACKNOWLEDGEMENTS.....	vi
DEDICATION.....	vii
TABLE OF CONTENTS.....	viii
LIST OF TABLES.....	xiii
LIST OF FIGURES.....	xiv
LIST OF PLATES.....	xv
LIST OF ABBREVIATIONS.....	xvi
<b>CHAPTER ONE: INTRODUCTION.....</b>	<b>1</b>
1.1 Introduction to the Study.....	1
1.2 Statement of the Problem.....	4
1.3 Objectives of the Study.....	8
1.4 Research Questions.....	8
1.5 Rationale of the Study.....	9
1.6 Definition of Key Concepts/Terms.....	10
1.7 Organization of the Study.....	11
<b>CHAPTER ONE: LITERATURE REVIEW.....</b>	<b>12</b>
2.1 Introduction .....	12
2.2 Informal Settlements and Unauthorized Structures .....	13
2.3 The Concept of Slum .....	16

2.4 Causes of Informal Settlements .....	18
2.5 Addressing Informal Settlements .....	22
2.6 Land-Use Planning Practices and Policies.....	27
2.7 Housing needs in Ghana.....	28
2.8 Construction and Building Materials.....	32
2.9 Tenure Arrangement in Ghana.....	34
2.10 Population and Ghana's Housing Deficit.....	34
2.11 Ghana Housing Policy.....	36
2.12 Urban land-use planning in Ghana.....	39
2.13 Institutional and Legal Framework for the Building and Housing Sector in Ghana.....	41
2.14 What Is a Building Permit?.....	50
2.15 How Does Building Permit Regulate Unauthorized Structures?.....	51
2.16 Reasons for the low compliance with Building Permit Regulations in Ghana.....	53
2.17 Procedure and Basic Requirement for Obtaining Building Permit in Ghana.....	60
2.18 The Conceptual framework of the Study.....	66
2.19 Conclusion.....	70
<b>CHAPTER THREE: STUDY AREA AND METHODOLOGY.....</b>	<b>71</b>
3.1 Introduction.....	71
<b>3.2 STUDY AREA.....</b>	<b>71</b>
3.2.1 Location and Physical Characteristics.....	73
3.2.2 Economic Characteristics.....	74
3.2.3 Demographic Characteristics.....	75
<b>3.3 METHODOLOGY.....</b>	<b>77</b>
3.3.1 Research Design.....	77

3.3.2 Sources of Data Collection.....	78
3.3.3 Instrument of Data Collection.....	79
3.3.4 Sample Size and Selection.....	80
3.3.5 Limitations of the study.....	82
3.3.6 Techniques of Data analysis.....	83
<b>CHAPTER FOUR: RESULTS AND DISCUSSION.....</b>	<b>84</b>
4.1 Introduction.....	84
4.2 BACKGROUND VARIABLES.....	84
4.2.1 Distribution of Property Owners by Gender.....	85
4.2.2 Age Distribution of Property Owners.....	86
4.2.3 Distribution of House Owners by Location.....	88
4.2.4 Educational Background of Property Owners.....	88
4.2.5 Nature of Employment.....	90
4.2.6 Monthly Income Distribution of Respondents.....	92
4.3 STRUCTURAL CONDITIONS OR RESIDENTIAL CHARACTERISTICS.....	94
4.3.1 Main Construction Material.....	94
4.3.2 Tenancy Arrangement.....	97
4.3.3 Types of Dwelling Units.....	99
4.4 COMPLIANCE AND GROWTH OF UNAUTHORIZED STRUCTURES.....	100
4.4.1 Mode of Land Acquisition.....	100
4.4.2 Level of Compliance with Building Regulations in the Tema Metropolis.....	101
4.4.3 Major Factors Contributing to the Growth of Unauthorized Structures.....	103
4.4.4 How do People Build without Approved Permit?.....	111
4.5 PERCEPTION AND AWARENESS OF THE BUILDING REGULATIONS.....	112
4.5.1 Perceptions on Building Permits and Construction of Unauthorized Structures...	113

4.5.2 Awareness of the Existence of Building Regulations.....	116
4.5.3 Level of Awareness of the Building Regulations.....	117
4.5.4 Challenges Associated with the Implementation of the Building Regulations...	120
4.6 Conclusion.....	124
<b>CHAPTER FIVE: SUMMARY, CONCLUSIONS AND</b>	
<b>RECOMMENDATIONS.....</b>	<b>125</b>
5.1 Introduction.....	125
5.2 Summary of the Main Findings.....	125
5.2.1 Major Factors Contributing to the Development of Unauthorized Structures in the Tema Metropolis.....	125
5.2.2 How Developers Manage to Build without Permits in spite of the Existence of building regulations.....	126
5.2.3 Challenges Associated with the Implementation of the Building Regulations.....	126
5.2.4 House Owners' Awareness of the Building Regulations, their Perceptions About, and Levels of Compliance with the regulations.....	127
5.2.5 Other Findings.....	128
5.3 Conclusions.....	129
5.4 Policy Recommendations .....	130
5.4.1 Provision of Adequate Resources and Recruitment of Qualified Personnel.....	131
5.4.2 Effective Monitoring and Supervision of the Personnel.....	131
5.4.3 Need to Intensify Public Education.....	132
5.4.4 Streamlining Permit Acquisition process.....	132
5.4.5 Strengthen Revenue Collection.....	132
5.4.6 Defining Functions and Regular Amendment of Laws.....	133
5.5 Suggestions for Further Research.....	133

REFERENCES .....134  
APPENDICES .....145

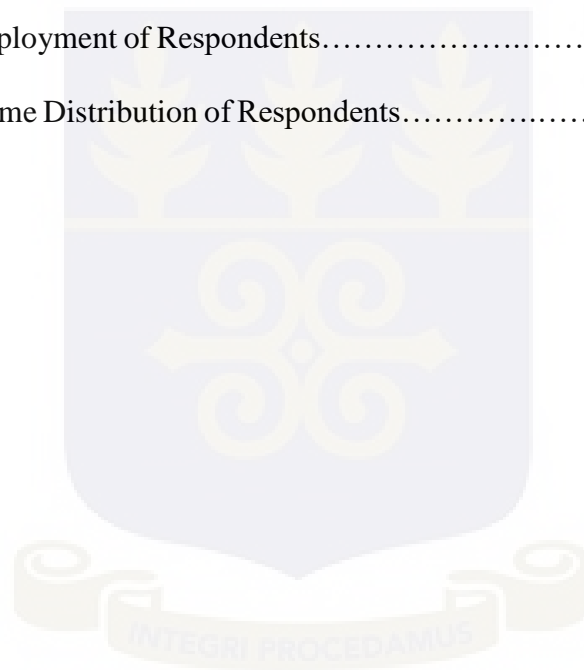


## LIST OF TABLES

<b>Table</b>	<b>Page</b>
2.1: Types of Building Materials Used.....	33
2.2: Population and Housing Deficit in Ghana (1970 - 2010).....	36
2.3: Functions of the Town and Country Planning Department.....	46
2.4: The services provided by the Town and Country Planning Department.....	47
3.1: Population and Sampling Data of the Selected Communities.....	81
4.1: Sex Distribution of Respondents.....	86
4.2: Age distribution of Property Owners.....	87
4.3: Types of Dwelling Units.....	99
4.4: Acquisition of Building Permit.....	102
4.5: Respondents' View on Variables Contributing to the Growth of Unauthorized Structures.....	104
4.6: How Developers Build without Building Permit.....	111
4.7: House Owners' Perception on the Importance of Building Permits.....	113
4.8: House Owners' Perception of Construction of Unauthorized Structures.....	115
4.9: Respondents' Awareness of the Existence of Building Regulations.....	116
4.10: House Owners' Awareness of Specific Aspects of the Building Regulations.....	118

## LIST OF FIGURES

Figure	Page
2.1: Distribution of Houses in Ghana.....	32
2.2: Processes Involved in the Acquisition of Building Permits.....	65
2.3: Conceptual Framework.....	69
3.1: Map of Tema Showing the Study Area in Regional and National Context.....	76
4.1: Distribution of House Owners by Location.....	88
4.2: Educational Background of Property Owners.....	89
4.3: Nature of Employment of Respondents.....	91
4.4: Monthly Income Distribution of Respondents.....	93



**LIST OF PLATES**

<b>Plate</b>	<b>Page</b>
4.1: Wooden Structures at Tema Newtown.....	95
4.2: A Mixture of Wooden and Block Structures at Tema Newtown.....	95
4.3: A Typical Altered TDC Building at Community 1.....	96
4.4: A TDC Structure with a Wooden Extension at Community 1.....	96
4.5: An Uncompleted House in Community 25.....	97
4.6: Executive Houses Being Offered for Rental in Community 25.....	97



## LIST OF ABBREVIATIONS

ARC	Architects Registration Council
CASA	Court Appointed Special Advocates
CBO	Community Based Organization
DCE	District Chief Executives
DHDR	District Human Development Report
DMTDP	Districts' Medium Term Development Plans
DPA	District Planning Authority
DPCU	District Planning Co-ordinating Unit
EPA	Environmental Protection Agency
FAO	Food and Agricultural Organization
GBC	Ghana Building Code
GDP	Gross Domestic Product
GEMA	Ga East Municipal Assembly
GNFS	Ghana National Fire Service
GSGDA	Ghana Shared Growth and Development Agenda
GSS	Ghana Statistical Service
LAP	Land Administration Project
LC	Lands Commission
LRD	Land Registration Division
LUPMP	Land Use Planning and Management Project
LVD	Land Valuation Division
MCE	Metropolitan Chief Executive
MES	Ministry of Environment and Science
MEST	Ministry of Environment and Science and Technology

MLGRD	Ministry of Local Government and Rural Development
MMDA	Metropolitan, Municipal and District Assemblies
MWH	Ministry of Works and Housing
NADMO	National Disaster Management Organization
NBR	National Building Regulation
NDPC	National Development Planning Commission
NGO	Non-Governmental Organization
NRC	National Redemption Council
PHC	Population and Housing Census
PVLD	Public and Vested Land Division
SHC	State Housing Corporation
SMD	Survey and Mapping Division
SPC	Statutory Planning Committee
SUF	Slum Upgrading Facility
TCPD	Town and Country Planning Department
TDC	Tema Development Corporation
TMA	Tema Metropolitan Assembly
UN	United Nations
UNCHS	United Nations Centre for Human Settlements
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe

## CHAPTER ONE

### GENERAL INTRODUCTION

#### 1.1 Introduction

Over the past few decades, urbanization has been the defining global phenomenon (Galeon, 2008). According to Owusu and Asamoah (2005), "Globally towns and cities are growing at rates unprecedented in history" (p. 77). Tibaijuka (2003), in an earlier observation, estimated that the world's urban population that stood at 29.8 percent in 1950 could reach 57 percent in 2020. Interestingly, this current trend of rapid urbanization is more pronounced in the developing countries. UN-Habitat (2012) postulated that urban population in the developing world, had been growing at an average of 1.2 million people per week over the last decade; with Africa being the second largest contributor to this growth, increasing by 0.23 million weekly.

Ghana appears to be overwhelmed by the rapid growth of its cities and towns in recent years. According to the Ghana Statistical Service (GSS), the urban population of Ghana grew from 22.9 percent in 1960 to 32 percent in 1984, and reached the 43.8 percentage mark in 2002 (GSS, 2002). Considering Ghana's current annual population growth rate of 2.6 percent, the nation's urban population is expected to double in the next 17 years (Otoo, Whyatt and Ite, 2006),

Urbanization has long been associated with numerous socio-economic and political hurdles which must be surmounted by developing countries. Unfortunately, these

economies do not have the needed capacity and wherewithal to manage these urban challenges such as resource scarcity, increased poverty, health and security (World Bank, 2014). One of such life-threatening consequences in this regard is the development of unauthorized structures; which is affecting the survival of many developing countries (Mankongoro, 2002).

In most developing countries, an estimated 20 to 80 percent of the urban settlements are occupied by low income earners, otherwise known as the disadvantaged (Aluko and Amidu, 2006). More often, these poor urban dwellers are unable to cope with the high cost of renting or constructing decent houses and thereby, end up settling in sub-standard housing units.

The World Bank (1986) observes that access to housing is a basic human right that must be available to all. The Bank is however, saddened by the fact that in most cities of the developing world, about 70 percent of the residents are found in informal settlements which are characterised by slums or unauthorized structures.

Much effort has been expended over the years to confront the challenges associated with unauthorized structures but with little success. One of such approaches has been the development and enforcement of flexible and effective building checks and control procedures that ensure a high degree of regulatory compliance with planning and building code requirements (World Bank Group, 2013). Meng (2002) also recommended the application of urban land use planning policies and practices as a solution to the rapid growth of unauthorized structures in our cities.

One of the fundamental legal frameworks that was introduced to regulate the building and construction industry in Ghana was the Ghana Building Code (GBC). This document was produced by the Building and Road Research Institute of the Council for Scientific

and Industrial Research in February 1988. According to the Court Appointed Special Advocates (CASA) (2012) however, while this instrument proved to be useful in regulating the building and construction industry in the country, it lacked legal authority in its compliance. It therefore, became a mere advisory tool which served as a guideline for practitioners. The Code was therefore, not enforceable by the development authorities.

As far as the Building Code regime is concerned, Ghana is currently governed by the National Building Regulations (NBR) L1 1630 (1996) which was derived from Act 462 – The Local Government Act of 1993. According to Ametepey, Ansah and Edu-Buandoh (2015), this Act was enacted to regulate the construction and alteration of building structures and also to execute works or install fittings in relation with any building. Again, it was to strengthen the decentralization policy of the government under the Fourth Republican Constitution of Ghana by classifying and reinforcing the planning and development functions of the District Assemblies (Republic of Ghana, 1993). Kassanga and Kotey (2001) were also of the opinion that Metropolitan, Municipal and District Assemblies (MMDAs) were given legislative powers to make by-laws to regulate building construction, improve sanitation and protect the environment. The Assemblies were therefore, empowered to prescribe sanctions for breach of the regulations.

Although development and planning authorities provide framework for effective planning, the complexities in most building regulations often create widespread opportunities for discretion and corruption, and ultimately lead to high numbers of unauthorized structures (World Bank Group, 2013). A report by the Santa Cruz Grand Jury in 2004, emphasized that planning and building regulations that are too complex

and difficult to understand may prevent people from building, and in some cases build without the necessary building permit.

The issue of non-compliance with building and development regulations has raised several questions about the effectiveness of Building Codes. The unwillingness on the part of developers to abide by the established regulations has often resulted in many disasters such as flooding, fire outbreaks, environmental degradation, health hazards and occasional collapse of buildings. These actions by developers are some of the major causes of the rapid growth of unauthorized structures in the urban communities.

## **1.2 Statement of the problem**

Ghana, since the pre-independence days has adopted numerous land use policies as means of regulating and controlling the use of land in the country. Land use policies have proved to be effective in dealing with the challenges of human settlements in many developing cities. The World Bank (2014), is of the view that if urban land use policies are well-planned and properly coordinated, the challenges of informal settlement can be resolved. The need for efficient management of land has therefore, become more urgent in the face of an ever-increasing population and the growing demands in the various land based activities (Gyasi, Karikari, Kranjac-Berisavljevic and Vordzogbe, 2006).

Ghana has one of the fastest urban growth in the world with a projected 55.4 percent of the population to live in urban areas in 2015 (National Population Council, 2011). What is more alarming is the fact that most of the migrants who drift from the less deprived communities settle in the relatively more resourced urban centres with the hope of finding employment opportunities and hence improve upon their living conditions. These movements ultimately worsen the urban housing challenges and accelerate the growth of unauthorized structures.

In an effort to ensure development controls and instil discipline in the building industry in the country, a number of building regulations and legal frameworks have been introduced. In addition, Ghana has established a number of land planning and management institutions to plan, control and promote harmonious, sustainable and cost effective development of human settlements in accordance with sound environmental and planning principles (Town and Country Planning Department, 2007). These institutions include the Metropolitan, Municipal and District Assemblies (MMDAs), Town and Country Planning Department (TCPD) and the Lands Commission (LC). In the Tema Metropolis, the Tema Metropolitan Assembly (TMA) and Tema Development Corporation (TDC) are the two institutions which are legally mandated to oversee the planning, development and regulation of human settlements.

Notwithstanding the good intents of these legislative arrangements and development agencies, the growth of unauthorized structures is still a major challenge in the Tema Metropolis. Many factors account for this situation.

History has it that with the opening of the new Tema Harbour in February, 1962, the once silent and unknown community experienced a massive migration of people in search of jobs. According to a Feature Article in the *Ghana Web*, 2006, there was a mass movement of many experienced longshoremen, or stevedores, able bodied seasoned seamen, and even landlubbers from the west coast who dreamt of someday going to sea. They therefore, flocked to Tema in the hopeful search for sailor jobs and for the prosperity potential of the modern town. Others were attracted to the rapidly growing industries that were cropping up in the town. Many experienced professionals were also lured from all parts of the country and beyond to fill employment needs of the government and the private sector.

This surge of population in Tema resulted in an exponential growth and expansion of the town. This situation posed a big threat to the development agencies (TMA and TDC), but unfortunately, they were unable to provide adequate housing and other services to meet the needs of this migration ([www.vibeghana.com](http://www.vibeghana.com)). This development was worsened by the fact that the majority of the people moving to the urban areas lacked the necessary finances to acquire or rent houses with the minimum acceptable standards (Nawagamuwa and Viking, 2003). The immigrants were therefore, compelled to settle in the most deprived communities, resulting in an increase in the development of slums and unauthorized structures in the Metropolis.

The TMA is also confronted with the challenge of weak development control measures resulting from the lack of administrative will on the part of policy makers to enforce the established regulations. Again, some personnel of the land institutions do not exhibit professionalism in the performance of their duties. Such lackadaisical attitude tend to give credence to the perception that they compromise their positions by assisting developers to construct projects without permits.

Political leaders are also occasionally accused of interfering with the administration of the building regulations, especially during the demolishing of unauthorized structures. In such situations, some politicians want to appear humane in the eyes of the offenders to score political points. Ametepey et al. (2015) concluded in a study that among others, corruption and political interferences were major contributory factors to the growth of unauthorized structures in Ghana.

Another disturbing factor is the fact that the city planners receive limited financial support from central and local governments which negatively impact on their performance. In such cases, they are unable to recruit adequate qualified personnel for

the speedy processing of building permits. Subsequently, most of the field inspections and monitoring activities are haphazardly done, leaving most illegal developments unnoticed (Agyeman, Abeka and Assiamah, 2016). Inadequate financing also affect the ability of these agencies to acquire the requisite modern equipment for any meaningful operation and sustained public education.

Potential developers are also confronted with undue delays when processing their building permits. Reasons accounting for this include bureaucratic procedures, corruption and overlapping and duplications of the functions of TMA and TDC. This results in increased frustration for developers and ultimately, the cost of construction. According to Agyeman, Abeka and Assiamah (2016), many individuals and corporate developers have stories to recount about the level of frustration and cost incurred due to the numerous follow ups and accompanying delays experienced whilst patiently waiting for building permits.

With these mitigating factors and more, developers in the Tema Metropolis are often torn between the options of patiently going through the frustrating, cumbersome and expensive processes of acquiring the building permits before commencing their building projects, and side stepping the process. Unfortunately, many developers and house owners, especially those in the lower income bracket choose to build without the required building permits, hence ignoring the potential negative consequences of their actions. Such developers usually adopt many schemes including paying bribes to the building inspectors and working at night or weekends when building inspectors would not be at work to outwit the city planners.

### **1.3 Objectives of the study**

The study generally examines the building regulations of Ghana and its relevance to the management of unauthorized structures in the Tema Metropolis.

The specific objectives are stated as follows:

1. To analyze the major contributory factors to the development of unauthorized structures in the Metropolis.
2. To examine the house owners or developers level of awareness of the building regulations and practices, their perceptions about, and levels of compliance in the Tema Metropolis.
3. To examine the challenges associated with the implementation of these building regulations.
4. To assess how developers are able to build without building permits in spite of the existence of building regulations and legal institutional frameworks.

### **1.4 Research Questions**

The study further attempted to answer the under-listed questions:

1. What are the major contributory factors to the development of unauthorized structures in the Metropolis?
2. What are the levels of awareness of the house owners or developers with respect to the building regulations in the Tema Metropolis; their perceptions about the existing regulations and their levels of compliance?
3. What are the challenges associated with the implementation of these building regulations?

4. How are developers able to build without building permits in spite of the existence of building regulations and legal institutional frameworks?

### **1.5 Rationale of the study**

It is the intent of this study to examine the major causes of the development of unauthorized structures in the Tema Metropolis, in spite of the existence of building regulations and bye-laws, and regulatory institutions such as the TMA, TDC, TCPD and LC. It therefore, examines the contents of the legal frameworks underlining the development of structures and the mandates of some of the regulatory bodies in the Metropolis.

The study considers the awareness and understanding of these legal frameworks and regulation of the stakeholders as very vital in dealing with the challenges of the situation. It therefore, took further steps to interact with the developers or house owners to establish their level of awareness and more importantly, their readiness to comply with the laid down building requirements. It also embarked on an in-depth discussion of some of the major difficulties the developers encounter in their effort to register their properties and acquire the relevant building permits, and how these contribute to the development of unauthorized structures. The study further attempted to investigate how developers manage to circumvent the building regulations and embark on their projects without approval.

It is hoped this study will add to the existing knowledge on how the acquisition or otherwise of building permits contribute to the growth of unauthorized structures. The study is also intended to be a useful tool in regulating human settlement in the country as a whole. It will again provide an avenue for further research into this field of study.

### 1.6 Definition of Key Concepts/Terms

- **Unauthorized structures:** A building (i) occupied by a person who does not have the requisite permit, or (ii) being constructed by a developer who lacks a permit, or (iii) when the owner, occupier or developer builds outside the scope of the permit.
- **Building regulations:** National standards backed and enforced by law for design and construction, which apply to most types of building.
- **Institutional legal frameworks:** Systems of formal laws, regulations, and procedures, and informal conventions and norms that shape human activity and behaviour.
- **Building permit:** Development approvals granted to prospective developers by a statutory authority to put up buildings in approved locations within a set time frame and in line with local or national building regulations.
- **Challenges of Implementation:** Difficulties or constraints involved in the enforcement of laid down rules and regulations
- **House Owners' Awareness:** House owners' knowledge and understanding of specific information, facts, ideas, truths or principles.
- **House Owners' Perception:** House owner(s) observations, thoughts or pre-conceived ideas about specific issues.
- **Levels of compliance:** degree at which an individual(s) adheres to sets of laid down rules and regulations.
- **Land lords/ladies:** individual(s) who own or have legal access to land acquired through inheritance, purchase or the traditional authorities and therefore had the right to rent or lease their properties for a specific period of time.
- **Land guards:** thugs or strong persons usually hired by developers to protect their on-going projects.

### **1.7 Organization of the study**

In all, the study consists of five chapters. Chapter 1 deals with the introduction, problem statement, the general and specific objectives, the research questions and the rationale and organization of the study.

Chapter 2 discusses the existing literature on the subject of unauthorized structures. The literature ranges from the definition of unauthorized structures, informal settlements among others to reasons why people build without permits. It continues to raise issues about the institutional framework and regulations, and the steps involved in the acquisition of a building permit. The Chapter again discusses in detail the respective functions and challenges of the major regulatory institutions that are mandated to regulate and control development in the Metropolis, and ends with the conceptual framework adopted by the study.

Chapter 3 deals with the study area and the methodology used by the study; this includes the research design, sources of data, and instruments of data collection, population and sample, limitations of the study and the techniques of data analysis.

Chapter 4 discusses the results of the main findings of the study and finally, Chapter 5 looks at the summary and conclusions, as well as highlights the implications of the major findings. The chapter ends with suggested areas of the study that need to be researched into further.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This Chapter presents a review of some of the related literature on the subject of the development of unauthorized structures in the developing world as a whole, and with specific reference to the Tema Metropolis as a fast growing industrial hub of Ghana. It begins with the concepts of informal settlements and slums development, their causes and solutions. It continues with a discussion on the concept of land-use planning practices and policies, Ghana housing needs, Population and Ghana's housing deficit.

The Chapter again discusses the main institutional and legal frameworks for the building and housing sector in Ghana with emphasis on the Local Government Act of 1993 (Act 462) and the National Building Regulation of 1996 (LI 1630). It also looks at the land planning and management institutions mandated by these laws to regulate and ensure sanity in the building and construction sector of the country. The institutions discussed are the Metropolitan, Municipal and District Assemblies (MMDAs), Town and Country Planning Department (TCPD) and the Lands Commission (LC) and its auxiliaries.

There is also a discussion on building permits and the seeming long and expensive bureaucratic processes potential developers go through in acquiring development permits, and how the accompanying frustrations influence them to build without the required permits. The Chapter ends with the conceptual framework of the study.

## **2.2 Informal Settlements and Unauthorized Structures**

The concept of informal settlements is often interchanged with unauthorized structures, recognizing the fact that they incorporate predominantly unauthorized structure developments (UNECE, 2008). Gilbert and Gugler (1987) stated that the need to find an accurate definition for informal settlements could lead to more questions than answers since its precise definition remains elusive. According to them it seems useful to associate the concept with two or more of the following features; illegitimate occupation of land; low-income household; shelter developed through own effort; inadequate infrastructure and services. The many categories of informal settlements range from sub-standard slums to housing that does not have the proper development permit (UNECE, 2008). They are often found on public, private or customary land accessed by invaders who construct or develop their houses against planning, building and ownership regulations (Abbott & Douglas, 2001).

The definition of informal settlement is context-specific with some focusing on the aspects of well-being of the individuals or group of people living in a particular place. According to UN-Habitat (2007), informal settlements are human settlements which do not provide their inhabitants the opportunity for enjoying their rights to an adequate standard of living. Thus, there is the need to promote the “right to the city”; in that every individual in the city or community has the right to be an equal member of that community. This implies that, each inhabitant of the city should enjoy the same level of realization of his or her rights to an adequate standard of living and access to services.

Other useful definitions also reflect on the non-conformity of human settlements to established rules and regulations by legally authorized units. Asperen and Zevenbergen (2007), for example, relate it to the non-compliance with respect to land use plans and regulations for subdivisions. This is supported by UN-Habitat (1995) which also defined informal settlements as unplanned settlements and areas where housing is not in compliance with current planning and building regulations, or “does not conform to the laws and regulatory frameworks set up in the city in which it occurs” (UN Habitat 2003).

Similarly, Chung and Hill (2002) defined an informal settlement as one where people live in a way that does not conform to urban land-use or housing regulations and laws. Ali and Sulaiman (2006) also iterated that informal settlements may be defined in various ways depending on the planning and legal framework of the country where they exist. They therefore, define them as residential buildings built on “planned” and “unplanned” areas which do not have formal planning approval. UN 1996 is however, emphatic that informal settlements exclude units where land titles, leases or occupancy permits have been granted.

Baken et al. (1991) on the other hand widened the definition by classifying informal settlements as those settlements that:

- Occur due to unauthorized invasion and development of public and private land,
- Are subdivisions that are not registered officially or subdivisions that do not conform to planning regulations,
- Are within areas covered by customary tenure which have been made part of the city through cities expansion,

- Are built without permits from the local authorities

Majale & Payne (2004) added the following characteristics to the views of Baken et al. (1991):

- Substandard housing or illegal and inadequate building structures;
- Illegal subdivision of buildings;
- Poverty, criminality and social exclusion; and
- Unhealthy living conditions and hazardous

Mensah (2010) on his part, attempts to differentiate between informal settlements and unauthorized structures. According to him, informal settlements refer “to the community or the settlement whose buildings or structures are unauthorized”. He defines unauthorized structures as “permanent structures such as houses and temporal structures such as kiosks, metal containers and any other structures that do not conform to the building regulations or land-use regulations in towns and cities (p.1)”. By these definitions, it can be deduced that a group of unauthorized structures can be categorized as informal settlements. Njamwea (2003) therefore, concluded that informal settlements are unauthorized residential areas.

As explained in the previous paragraphs, it is noted that whereas the definition of unauthorized structures is largely limited to non-conformity to laid down rules and regulations, that of informal settlements may be extended to include aspects of individual and societal well-being, planning and legal framework. It is therefore worth noting that the definition of these two concepts in this study will play an important role in explaining and understanding the variations between the other related concepts.

### **2.3 The Concept of Slum**

Since its first appearance in the 1820s, the word "slum" has been used to refer to any part of the urban area characterized by inadequate access to safe water, unhealthy environmental conditions and poor sanitation, a likely source of the spread of diseases and other infrastructural problems including sub-standard housing, insecure residential status and overcrowding; a place that is not decent, comfortable and safe to live in (UN Habitat, 2007).

Though the definition and use of the term has evolved into several connotations and meanings over the years by different writers and organizations based on their working purposes, their main characteristics and descriptions have virtually remained unchanged (Giddings, Anyigor and Matthews, 2013). According to UN-Habitat (2007), slums are defined as blighted areas in a city that are densely populated and characterized by poor and deteriorating housing conditions, and mostly without tenure security. This definition has generally been adopted by many academics as an official working tool.

Though slums have been identified to have similar characteristics, and however akin they may be, they are very distinct and diverse from one another. The Global Development Research Centre (2003) defines slums as highly congested urban areas marked by deteriorated, unauthorized and insanitary buildings, poverty and social disorganization. According to Mertins et al. (1998) slums are high-density, downgraded residential areas that used to house the upper, middle and working classes, usually in or near the old city centres. UN Habitat (2003) shares this view that slums could originally be areas located in urban centres in developed countries that were once respectable, but had deteriorated over time.

Slums may contain settlements which meet some of the criteria of informal and squatter settlements usually found in developing countries that shows the signs of increasing urban poverty in these countries (Mertins et al. 1998, UN Habitat, 2003). However while the term “informal settlement” emphasizes the residents lack of property rights, the expression “slum” focuses on the inadequate infrastructure of these settlements (World Bank and UNCHS, 1999). This is supported by Oreoluw (2008) who defined slum as an area or settlement deprived of basic services and infrastructure that is needed by its inhabitants.

According to the UN-Habitat (2003), slums are contiguous settlements where inhabitants are characterized as having:

- i) insecure residential status;
- ii) inadequate access to safe water;
- iii) inadequate access to sanitation and other basic infrastructure and services;
- iv) poor structural quality of housing; and
- v) Over-crowding.

Generally, slums are plagued with problems such as: land insecurity, poor living conditions (due to environmental pollution), frequent flooding, frequent disease outbreaks, unemployment, juvenile delinquencies, high crime rate, and accelerated population growth (Leahy, 2012).

Nawagamuwa and Viking (2003) argued that rapid growth of slums in many major cities could become a problem if proper attention is not given to it economically, socially, and environmentally. The challenges of slums often tend to be severe and affect the individual and the country as a whole. Slums are often prone to wide spread of diseases and criminal activities,

which cause discomfort to both the residents and the entire urban area (Cairncross et al., 1990). It is not surprising that slums are often considered as one of the world's most life-threatening environments.

#### **2.4 Causes of Informal Settlements**

Several theories have been propounded linking the formation of informal settlements in developing countries to many factors. These include the colonial legacy theory, the land management theory, the inadequate economy theory, and the demand and supply disequilibrium theory. According to Debusmann & Arnold (1996), the colonial legacy links the growth of informal settlements to political and historical factors such as colonialism and political instabilities. The land management theory management relates the development of informal settlements to institutional factors such as bureaucracy, lack of skilled personnel and poor land management practices (Fekade, 2000).

The inadequate economic theory links the growth of informal settlements to income and class variations among citizen which spatially translate into residential discrimination and social exclusion (Huchzermeyer, 2002). Jacobsen, Hasan Khan & Alba (2002) in describing the demand and supply disequilibrium theory attributes the development of informal settlements to imbalances between demand and supply of urban commodities such as land, services and infrastructures.

However various literature have explained that no one single theory can fully and adequately explain the emergence and growth of informal settlements. According to Sietchipings (2004), the growth of informal settlement can be attributed to the combination of several related factors.

This study conveniently adopted the UN concept of informal settlements which categories the causes of unauthorized structures in cities into political, socio-economic, institutional, physical and cultural factors.

**a) Political factors**

Poor urban governance is considered one of the main causes of informal settlement (World Bank, 2006). Urban governance can be defined as a political response to broader developments and changes in society, such as globalization, internationalization, and privatization (Van Marissing, Bolt & Van Kempen, 2006). The lack of political will to provide affordable housing units for the majority urban poor have resulted in an acute shortage of housing for the low-income households (Sivam 2003). In some cases, government which is the main actor involved in land use planning decisions often neglects or disapproves certain important policies and projects due to political tension and even if approved may take a long while to be implemented (Magigi and Majani, 2006).

**b) Socio-economic factors**

The rapid urbanization and growth of the urban population has undisputedly being the driving force for the development of informal settlements in many cities around the world. These problems are often realized to be heightened by increased poverty and unemployment. In many developing countries, poverty has been realized to be the main cause of informal settlements. Uzun and Cete (2004) asserted that the construction of slum is a solution for slum residents who have insufficient income at the beginning of their settlement. That is to say, slums are a physical and spatial proof of urban poverty and intra – city inequality.

Durand-Lasserve (2006) is also of the opinion that poverty induces insecure tenure, which itself worsens poverty in slums. Slums however, do not accommodate all of the urban poor, nor are all slum dwellers always poor. According to Amao (2012), the formation of informal settlements may be caused by several interrelated factors on cities overtime. Sietchiping (2000) supported this opinion by asserting that many unauthorized structures in developing countries are caused by high rent charges and high cost of land in the cities, high immigration rate, problems of landlessness among others. Kings-Amadi (2004) observed in Port Harcourt, Nigeria, that unauthorized structures are the result of lack of public education on planning regulations and their unwillingness to accept laid down regulations, ignorance by developers and land users, and high cost of money involved in acquiring permits.

**c) Institutional factors**

The UN (2007) identified various institutional factors that lead to the emergence of unauthorized structures to include complex legislation and inappropriate high building standards, corruption on the part of enforcement officials, lack of proper urban land-use planning by the planning authorities, lack of enforcement or inadequate development control mechanisms and excessive bureaucracy and complications involved in issuing land development and building permits. In a research conducted by the UN-Habitat (2007) in Kampala for instance, it was observed that failure of past Kampala planning authorities to formulate proper structural plans to cater for the development of the city and its neighbourhoods and the inability to adequately fund and ensure a sustainable urban planning policies led to proliferation of informal settlements.

**d) Cultural factors**

Most culturally oriented housing is associated with the designation of a focal area that provides an opportunity for neighbourhood residents to develop a sense of belonging. According to Magigi and Majani (2006), in Tanzania there are many urban dwellers who still deem it culturally important to stay in informal settlements. Living in such communities leads to a sense of belonging, and they perceive it as the only place where one can enjoy “Swahili life” of sharing and togetherness among neighbours. To them the well planned and serviced areas like Mombasa, Mbweni and Mazizini are considered to be places meant for people of high income earners (*uzunguni*). “*Masikini hajengi*” which “means poor cannot afford to build” are such label given to some of these place. In the minds of the residents, there is no doubt about the “legality” of their houses.

A research on informal settlements revealed that security of tenure is generally not considered to be an issue, because of the ignorant perception that once you build a house no one can claim ownership of it (Azzan et al 2005), and there is almost no possibility of being forcefully ejected from the area. Similarly, a research conducted in Santa Marta, Columbia, identified a small group of people known as the Samarios who express a great deal of culture in marriage. Due to their nature of polygamous marriage which consequently leads to the formation of several separate parallel households, males who are mostly bread winners demonstrate very little incentive in investing time and money into dwelling for a household about which many feel less than fully committed. These people therefore normally put up smaller informal structures made up of temporal materials (Kellett, 1993).

**e) Physical factors**

The physical characteristics of cities have influenced the growth of unauthorized structures. The location, availability of both economic and social infrastructure and the type of economic activity presented by the location are examples of such characteristics. People would usually prefer to live in areas where they have easy access to their place of work, infrastructure, health services and education (Magalhaes & Eduardo, 2007). The desire for individuals and families to move to urban centres (which comparatively have better physical characteristics than rural areas) in order to secure a better standard of living has been the norm for many migrants.

According to Kellett (1993), dwellers in squatter settlements are by their very nature decision makers who may decide whether or not to join invasion of new settlements. To him, they make rational decisions to move to a preferred destination of choice with is often influenced by their beliefs and values as well as the physical characteristics of the environment.

**2.5 Addressing Informal Settlements**

Due to the growing urban and social challenges of informal settlements in developing countries, a great of attention has been given to the housing sector. In recent years the search for solutions to these problems is increasingly gaining importance in the development agenda of most large cities around the world. Many countries have developed various strategies and mechanics to cope with the development of informal housing. Currently, there is a global call for urgent yet sustainable interventions and governments are translating these relevant global strategies into specific national contexts (UNECE, 2008). The solutions, thus, range from legalization and regularization to resettlement programmes in social housing.

The United Nations Economic Commission for Europe [UNECE] (2008) identified certain major types of policy interventions addressing specifically the “urban problems” of informal settlements. These included;

**a) Formalization and legalization**

The formalization approach emphasizes the integration of informal land and housing markets within the planning framework of a city’s or country’s formal economy. Formalization protects informal settlements from government actions like evictions and demolitions by ensuring the security of land tenure in such communities. According to UN HABITAT (2007), the lack of secure tenure is a primary reason why slums persist. As a results, international donors and governments have therefore realized the need to extensively promote land titling programmes as a means of increasing tenure security, improving access to formal credit and reducing poverty (Payne 1997).

The legalization of informal settlement is driven by the need for government to capture public revenue through the imposition of taxes on land and economic activities, other land related fees or revenue from penalties)—(UNECE, 2008). The process provides legal backing to the existing informal settlements and other tenure systems with the objective of stabilizing defected communities through the provision of potential social and infrastructure upgrading programmes.

Access to land is recognized by many as a basic human right which when scarce leads to the development of informal settlements. Legalization strategies essentially support the Global Plan

of Action of the Habitat II Declaration, which realizes the importance of land and therefore emphasize the need for ensuring access to land (UNECE, 2008).

The need to understand and ensure security of tenure has therefore been one of the priorities of several international organizations and many governments deem it important to implement an appropriate and effective policies and strategies on tenure regularization to promote sustainability in the housing industry. It is, however, worthy to note that the responses to legalization differ from one locality to the other in terms of the types of informal settlements, governments' political setup, the effectiveness of the approaches and implementation strategies adopted, the attitude and actions taken by concern citizens and other stakeholders among others.

#### **b) Regularization and upgrading**

In most countries around the world regularization and upgrading of informal settlements has been considered to be a more comprehensive intervention. In order to ensure an effective upgrading programmes, they must be integrated in the wider socio-economic context such as the national poverty reduction strategy. According to the UN Habitat (2003), informal settlements should be bounded by a clear and consistent policies for urban planning and management and also low-income housing development. That is to say, efforts to reduce the formation of informal settlements should involve a cost effective housing development and focus on the low income group of the society.

Current approaches to upgrading informal settlements have placed greater emphasis on local participation and partnership with in situ upgrading considered a more preferable solution to resettlement programmes. According to Huchzermeyer (2011), in situ approaches which is

based on participation and incremental upgrading on site – contrast with formalization projects – prioritizes the construction of new housing where people are (often involuntarily) relocated to make space for formal housing developments.

The choice involved in regularization of informal settlements (for instance legalization versus upgrading) however depends on the political will of the authorities, the negotiating skills and strategies of the residents and the location of the settlement itself (e.g. its size and quality of housing). The various regularization approaches also realizes the need to ensure results in both physical and social infrastructure and services.

**c) Resettlement and reallocation: an issue for public housing**

Another solution to the problems of informal settlements is the resettlements and reallocation of slum settlers in social housing. The implementation of policies for public housing involving the constructions of affordable homes for low-income group has undoubtedly proved to be one of the most expensive solutions to informal settlements. In most cases, government institutions coupled with auxiliary private companies (developers) are significantly important in the housing and land market and are heavily responsible for the resettlements and reallocation as a means to ensure urban renewal and regeneration of urban centres that have problems with overcrowding and social service deprivation.

In general eviction and demolition exercise becomes the instant response to poor settlements (which have unlawfully been built and are not consistent with the procedures provided by planning authorities or the existing building regulations) and resettlements of the low-income groups to private or government owned houses. The need to provide effective policies,

strategies and programmes to provide equal access to safe and affordable housing based on resettlement and reallocation often supersedes the financial capabilities of the various stakeholders especially in developing countries which have poor revenue bases, limited investment capacity and increased dependence on central government transfers .

One of the major handicaps or challenges to this approach is the tendency for corrupt officials at the various levels of the implementation to abuse the process of reallocation and implementation of the resettlement scheme for their personal selfish interest. The process may also be tainted with favouritism, nepotism and similar unfair social practices.

**d) Alternative housing systems for informal settlements**

The high cost and complexities involved in the resettlement and reallocation approaches has led to alternative housing systems for informal settlements. Alternate options by governments and policy makers have placed emphasis on a more cost effective way involving the creating of a conducive environment, increased participation of the local communities in decision making processes, mobilizing of local and human resources in construction of standard homes. In many developing countries, there have been the focus to facilitate access to housing finance by low income earners in the form of micro-loans, government subsidy programmes, and traditional mortgage finance among others in order to improve the conditions of informal settlements. It has however, argued that this humanistic approach – which advocates for self-belief, self-organization and management of local people to be effective must be connected with administrative control at the higher level.

## 2.6 Land-Use Planning Practices and Policies

The application of urban planning practices and policies have over the years gained the attention of several experts including urban and development planners around the world. In most countries, the quest to transform cities and towns into proper habitats have taken a huge step as a results of the adoption of effective urban planning practices and policies.

The Food and Agricultural Organization [FAO] (1993, p.6), defines urban land-use planning as "the systematic assessment of land and water potential, alternatives for land use, and economic and social conditions in order to select and adopt the best land-use options". The purpose of this is therefore, to select and put into use those practices that will best meet the needs of the people while safeguarding resources for the future. The driving force in planning therefore, is the need for change, the need for improved management, and the need for a different pattern of land use dictated by changing circumstances (FAO, 1993).

Thomas (2001) also defines land use planning as 'the process by which land is allocated between competing and sometimes conflicting uses in order to secure the rational and orderly development of land in an environmentally sound manner to ensure the creation of sustainable human settlement'. He sees land use planning as an integral part of the process of national growth and development since this policy does not only have the capacity to develop or plan land use, but also control the development of human settlements. According to The World Bank (2014), if urban land use planning is led by well-informed policies based on sustainable development principles and supported by well-planned and well-managed initiatives, the challenges of informal settlement can be settled.

In the view of Mcmanus (2005), a better urban land-use planning enhances local and national goals such as sanitation, better health conditions, wealth creation, better transportation network, avoidance of congestion, and sustainability of natural resources such as rivers. He continues that the beautiful nature of many cities in many parts of the world can be attributed in part to their comprehensive land use plan.

According to Seattle Planning Commission 1993, how a city's land is used defines its character, its potential for development, the role it can play within a regional economy and how it impacts the natural environment. The Planning Academy (2011) supports this assertion by stating that the way a city or town is planned and developed, has a direct impact on the needs and quality of life of its citizens.

The importance of urban land use planning can therefore not be over emphasized, and it was a matter of course that the United Nations chose the topic "Planning our urban future" as the theme for the celebration of World Habitat Day held on 5th October, 2009. Godschalk (2000) in his works hinted on the opportunities and threats faced by urban land-use planning in contemporary times. On one hand it is relied upon to provide and ensure *sustainable development* and *livable communities*. On the other hand, it must deal with the serious conflicts in the values related to these two beguiling visions.

## **2.7 Housing needs in Ghana**

According to a report prepared by the Research Department of the Bank of Ghana in November 2007 on the title 'The Housing Market in Ghana', Ghana's housing industry is at a rudimentary stage when compared with many advanced countries. It adds that the high property prices

particularly in the urban centres such as Accra, Tema, Kumasi and Takoradi fuelled by a rapidly growing middle-class, as well as rapid and uncontrollable urbanization have turned the housing industry into one of the critical developmental issues facing policymakers.

A Ministry of Housing Report (2005) projected a 'huge demand for housing in Ghana which is estimated at about one million units over the next ten years'. Alternatively, some experts and to some extent the Government of Ghana have suggested that an annual delivery stock of 150,000 units is what would be needed if the situation is to be arrested (Ahadzie and Amoa-Mensah, 2010). Currently, the country's housing shortfall is widely estimated at 1.7 million units, and expected to hit 2 million by 2018. According to the Minister of Water Resources, Works and Housing during the launching of the new National Housing Policy in March, 2015, Ghana requires a minimum annual delivery of about 190,000 units for the next 8 years to address its housing deficits (*Peacefmonline.com 2015*).

Recent developments in the Ghanaian economy however, indicate a steady growth in the construction sector, including the housing sector resulting in a gradual improvement in housing supply in the country. According to the UN Habitat (2011) over the last decade, the industry has grown steadily at an annual rate of 8.6% in 2008 and 9.3% in 2009. Its contribution to the nation's Gross Domestic Product has remained at 25% over the same period.

Housing is considered as one of the most important basic needs of life in every society. To the World Bank (1986), access to housing is a basic human right that should be available to all individuals. UN Habitat (2011) describes housing as a 'driver of economic growth'. Consequently, governments globally and international communities have over the years

adopted various programmes and policies aimed at confronting the barriers to decent and affordable housing. Majale and Payne (2004) make specific reference to the Habitat Agenda (Habitat 11) which is the United Nations established conference on human settlements adopted in June 1996 with the aim of providing a practical roadmap to an urbanizing world, setting out approaches and strategies towards the achievement of adequate shelter for all, as well as the sustainable development of the world's urban centres.

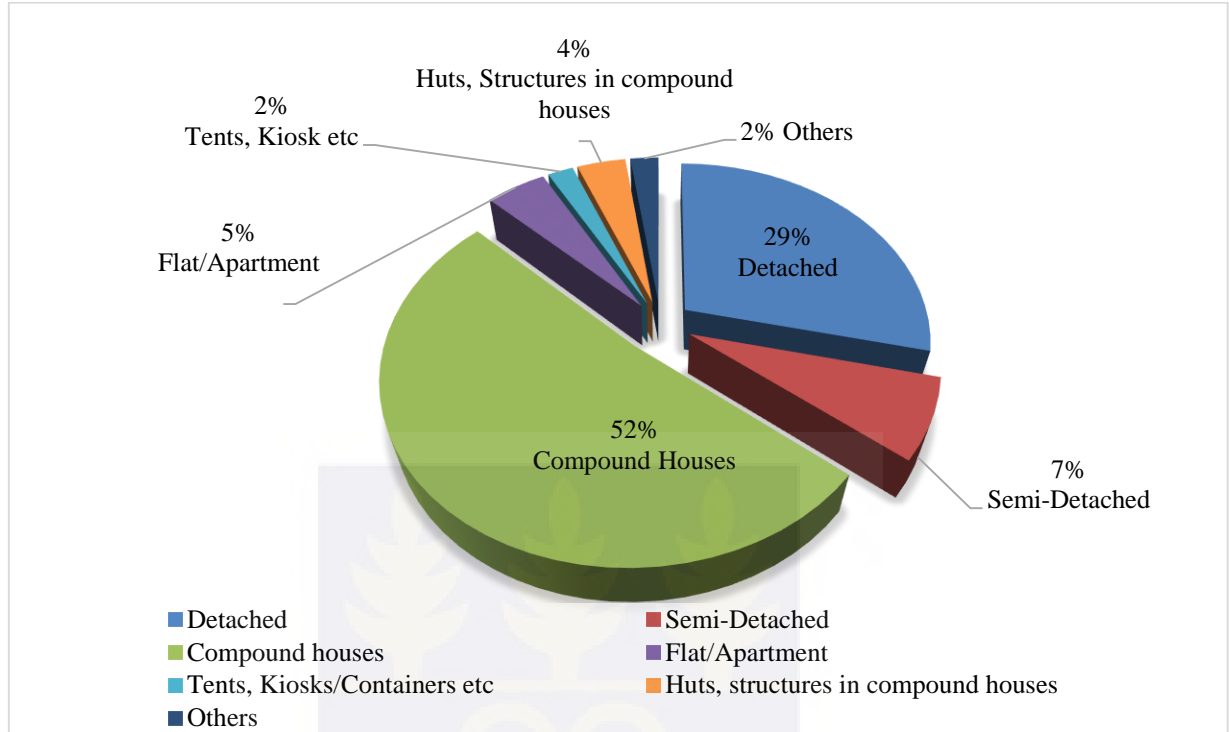
The Bank of Ghana (2007) suggests that the development of housing solutions has proven to be one of the most cost-effective ways of expanding the asset base of low-income households and enhancing both equity and growth. Unfortunately, this has become one of the many systematic failures of most developing economies.

The Ghana Statistical Service (GSS) in its exercises tries to differentiate between a dwelling unit and a house. The Service defines a dwelling unit as “a specific area or space occupied by a particular household and therefore need not necessarily be the same as a house of which the dwelling unit may be a part”. In the 2000 and 2010 Population and Housing Census (PHC), the GSS adopted the UN recommended definition of a house which is given as “...a structurally separate and independent place of abode such that a person or group of persons can isolate themselves from the hazards of climate such as storms and the sun”. This definition therefore, expands the coverage to include any type of shelter used as living quarters, such as separate houses, semi-detached houses, flats/apartments, compound houses, huts, tents, kiosks and containers.

The GSS in its 2000 and 2010 Population and Housing Censuses broadly categorised occupied dwellings into 10, namely rooms in a compound, the separate house or the detached house, semi-detached house, several huts/buildings, improvised house (kiosk/container), living quarters attached to shop, camps or tent, hotel or hostel, flat or apartment, and others. The 'Compound houses' remained predominant in the distribution of dwelling units in Ghana; while 45% of Ghanaian households lived in compound houses in 2000, the number increased significantly to 51.5% in 2010 in both urban and rural areas. Though UN Habitat (2011) is of the opinion that while the traditional compound house is now hardly being built, existing ones are being fully utilized. The second most common dwelling type in all regions was 'Separate or detached house' which also grew from 24.1% to 28.7% over the ten year period. Though the 2010 Census showed a decline from 15.2% in 2000 to 7.1% in 2010 with respect to 'Semi-detached house', it was still ranked third among types of dwelling units in Ghana. 'Flat or apartment' came next in the country with 4.7%. Other house types such as 'huts' (3.8%), makeshift or 'improvised houses' ('kiosks' and 'containers') and 'tents' (2%) and dwellings in uncompleted buildings still remained important in Ghana in 2010.

The 2010 PHC recognizes that 'Improvised houses' and living quarters attached to shops or offices were found mostly in urban localities of the Greater Accra (6.2%) and Ashanti Regions (1.8%) due to the high rural urban migration resulting in rapid urbanization. It is however, less than 1% in the other regions. In Greater Accra, for example, these improvised houses are used for both commercial and residential purposes. Figure 2.1 shows the breakdown of the various dwellings in the recent Population and Housing Census:

**Figure 2.1: Distribution of houses in Ghana**



Source: 2010 Population and Housing Census

### 2.8 Construction and Building Materials

Building Regulations and Code are generally concerned with the provision of guidelines for safety, health and governance; as such materials used in building are usually scrutinized to ensure their conformity with laid down acceptable standards. The Population and Housing Census (2010) therefore, took into consideration the various materials used in the construction and building sector in the country. The result is shown in Table 2.1

**Table 2.1 Types of building materials used**

<b>Main Construction materials</b>										
<b>Outer wall</b>				<b>Floor</b>			<b>Roofing</b>			
Cement blocks/ concrete	Mud brick/ earth	Wood	Others	Cement/ concrete	Earth/ mud	Others (terrazzo, wood etc.)	Metal sheets	Slate/ asbestos	Palm leaves/ raffia	Others
<b>57.5%</b>	<b>34.2%</b>	<b>3.4%</b>	<b>4.9%</b>	<b>77.8%</b>	<b>16%</b>	<b>6.2%</b>	<b>71.4%</b>	<b>13.0%</b>	<b>8.6%</b>	<b>7%</b>

Source: Population and Housing Census (2010)

It is observed from the Table that cement blocks or concrete are the main construction material used for the outer walls of dwelling units; this is followed by mud bricks or earth (34.2%). Only 3.4 percent of construction material is made of wood. More than three-quarters of households also use cement or concrete for the floor, while 16.0% depend on earth/mud. Other materials such as terrazzo, vinyl tiles and wood are marginally used in the country. The report also shows that metal sheets constitute 71.4% of the materials used for roofing dwelling units. This is followed by slate/asbestos and thatch or palm leaves and raffia.

Generally, the quality of materials used in the Ghanaian Building and Construction Industry has been brought into questioning. According to UN-HABITAT (2011), the market is flooded with cheap imported building materials which may not be as durable as the home-produced equivalents. This has not only weakened the market share of local manufacturing industries, but has also challenged the quality of houses that are produced.

## **2.9 Tenure Arrangement in Ghana**

The 2010 census revealed that nationally 47.2% of dwelling units are occupied by their owners, 31.1% are rented out and 20.8% are occupied rent-free. Squatting and perching which other forms of occupancy are accounted for only 1%. With the exception of Greater Accra (47.0%) and Ashanti (38.0%) regions where relatively high proportions of the dwelling units are occupied by tenants, owner-occupied dwelling units are predominant in all the other regions (ranging from 46.1 percent in Central Region to 86.8 percent in Upper East Region). This distribution supports the proposition by UN Habitat (2011) that Ghanaians are greatly concerned about owning a home of their own.

## **2.10 Population and Ghana's Housing Deficit**

Total number of houses as at 2010 compared with number of households indicated acute overcrowding in most houses. The Ghanaian population is generally poorly housed with almost 60 percent of households in urban Ghana occupying single rooms (UN Habitat, 2011). According to the report, 'while a taxi-driver in Lilongwe, Malawi's capital, routinely lives in two or three rooms, one in Accra is likely only to have one room'.

One of the major challenges facing Ghana is reducing its high population growth rate which is currently estimated by the 2010 Population and Housing Census as 2.4 percent per annum, a decrease from the 2.7 percent estimate of 2000. It is again observed that Ghana has one of the fastest growing populations in the world despite the desire of many Ghanaian women and men for smaller families (Ghana Demographic and Health Survey, 2008). What makes the situation more alarming is the fact that:

*"Ghana exhibits one of the fastest urban growth in the world. In 1960, almost one-quarter (23%) of the population lived in urban areas. By 2000, about 44 percent of Ghana's population lived in urban areas, and it is projected that 55.4 percent of the population will be residing in urban areas in 2015, increasing to 59.2 percent by 2020" (National Population Council, 2011).*

This grim picture has a dire consequence on the total national development agenda of the country, including the already worsening urban housing challenge and the uncontrollable growth of unauthorized structures. According to Obeng-Odoom (2010) currently, while urban housing constitutes one third of the total housing stock, urban population is more than half the national total. Tomilinson (2007) also opined that, high growth rates of urbanization in Africa results in expanding informal or unplanned settlements in their urban areas which become homes for the poor and middle class who cannot afford decent housing due to their scarcity and corresponding high rent. The UN-Habitat (2003) concludes that the many who do not have access to affordable housing have found their own solution in various types of slums and unauthorized informal settlements. Table 2.2 shows the estimated housing deficits in Ghana from 1970 to 2010:

**Table 2.2. Population and Housing Deficit in Ghana (1970 - 2010)**

<b>Year</b>	<b>Population</b>	<b>Housing demand</b>	<b>Housing supply (dwelling units)</b>	<b>Housing deficit</b>
1970	8,559,313	1,678,296	941,639	736,657
1984	12,296,081	2,410,096	1,226,360	1,184,636
2000	18,912,079	3,708,250	2,181,975	1,526,275
2010	24,233,431	5,467,136	3,392,745	2,074,3910

Source: Obeng-Odoom (2010); Population and Housing Censuses (2010)

Table 2.2 shows that there has been excess demand for housing in Ghana resulting in huge deficits since 2007. It is observed again that the rate of increase of the deficit rises faster than that of population growth. This supports the already stated fact that Ghana is at a near crisis situation when it comes to housing for the people.

### **2.11 Ghana Housing Policy**

Ghana's quest to develop the housing industry begun soon after attaining independence in the late fifties. The first National Development Plan (1960 - 1965) had housing as a central focus which led to the establishment of two state own institutions to address housing related issues: the State Housing Corporation (SHC) and the TDC. The TDC was created with the special purpose of creating residential units in the rapidly growing Tema area as part of a major industrialization drive. SHC on the other hand, worked in the regions across Ghana, providing real estate countrywide (Bank of Ghana, 2007). This led to the development of housing estates across the urban areas, predominantly intended for single households (UN Habitat, 2011). To provide the needed financial base for these projects, a state-owned financial institution, the First

Ghana Building Society was formed in June, 1956. Other state interventions that were introduced during that period included the Roof Loan Scheme and the Doxiadis plan for the Tema township during this period.

The state's active involvement in housing delivery continued through the 1970s under the various military regimes leading to the construction of Low-Cost Houses in district and regional administrative capitals under the National Redemption Council (NRC) in 1972, and the formation of the Bank for Housing and Construction in 1973 to support the housing and construction industry in general (UN Habitat 2011).

Unfortunately, most of the policies formulated to improve upon the housing situation immediately after the country's independence did not meet the desired objectives. Many factors in fact worked against them; the deepening poor economic conditions of the country, especially in the late 1970s, due to economic mismanagement and political instability, and resources allocated to public housing agencies ran dry (GoG/MWRWH, 2009). In the view of Songsore (2003), these government housing agencies consequently turned out to be a near drain on public wealth and incapable of pursuing their fundamental mandate of public housing provision. Ahadzie and Amoa- Mensah (2010) write that "literature is saturated with reports of the implementation of numerous housing projects, which sadly failed to meet expected production target amidst an acute housing delivery deficit (p. 1)".

UN Habitat (2011) indicates that broadly, there have been three National Housing Policies but their implementation has been their greatest challenges. These are the 1986 National Housing Policy and Action Plan (1987 – 1990), the 1992 National Shelter Strategy and the National

Housing Policy Review (2005 - 2010). The 1986 National Housing Policy and Action Plan failed because of "a proposal to establish a national housing fund with mandatory contributions from the state and, another, imposing taxes on building materials imports" (Safroh, 2010, p. 190). The 1992 National Shelter Strategy, which was a collaboration with the UN-HABITAT also stalled when it was submitted to Cabinet for approval because the impetus for its implementation had weakened consideration. According to Habitat (2011), a reviewed edition in 1999 failed again at Cabinet level because of lack of political will and commitment on the part of the government.

The State in 2005 again initiated series of reviews of the existing housing policies with the support of UN Habitat through its Slum Upgrading Facility (SUF) Project (2005 to 2010) but the success of this initiative cannot be measured as the reviews could not be concluded. In the opinion of UN Habitat (2011) therefore, "from 2000 to the present date, there has not been any ratified housing policy document. The draft National Shelter Strategy has been reviewed twice, in 1999- 2000 and from 2005 onwards. None of these reviews have however, yielded housing initiatives at any appreciable level (p. 24)".

On 28th March, 2015, however, the *Ghana News Agency* reported that the Minister of Water Resources, Works and Housing launched in Accra "a comprehensive National Housing Policy that would serve as a guide to the activities of all state and non-state actors in the housing sector". According to the report:

*"The policy would also ensure that housing is designed and built to sustainable building principles, leading to the creation of green communities, ensuring full participation of all*

*stakeholders in decision-making on housing development and allocation in their communities, and ensuring adequate and sustainable funding for the supply of diverse mix of housing in all localities".*

In Ghana, the formal sector actors provide only a few thousand dwellings a year which are targeted at the small but growing middle classes. The majority of all housing in urban Ghana, for all income groups, is provided by individual householders in collaboration with small-scale local contractors who are engaged to do the building. They usually obtain their land from the traditional community leaders (mainly chiefs and family heads) who are the acclaimed custodians of the land.

Indeed, the nation's housing policy has been fragmented instead of a holistic and comprehensive vision to deal with the complexities of housing a nation. Thus the sector has been experiencing a disjointed growth accompanied by urban sprawl as individuals build their own houses in an uncontrolled manner (UN Habitat, 2011).

### **2.12 Urban land-use planning in Ghana**

In Ghana the planning and development of human settlements revolves around four (4) agencies namely; the National Development Planning Commission (NDPC), the Ministry of Local Government and Rural Development (MLGRD), the Ministry of Finance and Economic Planning, the Ministry of Works and Housing (MWH) and the Ministry of Environment and Science (MES). These agencies through laws and regulations, policies and programmes, seek to promote effective land-use planning and practice to help regulate and manage human settlements in the country.

Land use policies have proven an effective means of dealing with the challenges of human settlement in many developing cities; and the need for efficient management of land has become more urgent in the face of an ever-increasing population and the growing demands in all the various activities based on land (Gyasi et al, 2006).

Ghana, since the pre-independence days has made many attempts to formulate and adopt viable and effective land use policies to regulate and control the use of land, as well as address the unending challenges arising from the ever growing informal settlements spread across the country. In 1892 for instance, the Town Ordinance of 1892 (cap 86) was passed to “regulate the development of towns and promote public health”. Its provisions covered many pertinent issues including the citing and building of individual structures, power to remove unlawful structures, keeping of pets and other animals, imposition of penalties for offences, and the promotion of public health, especially sanitation. The major weakness of this Ordinance however, was the fact that its powers were limited to regulating structures that had already been constructed.

A more current land use project in Ghana is the Land Use Planning and Management Project (LUPMP). This is a three year initiative (2007-2010) which forms an integral part of the broader Land Administration Project (LAP) being implemented by the Ministry of Lands, Forestry and Mines since 2003. The main objective of LAP, is stated by the Project as:

*"the first phase of the Project (LAP -1) is in response to the commitment by the Government to use the Land Administration Programme to reduce poverty and enhance economic/social growth by improving security of tenure, simplifying the process of acquiring land by the populace, developing the land market and fostering prudent land management by establishing*

*an efficient system of both state and customary land administration; based on clear, coherent and consistent policies and laws supported by appropriate institutional structures.*

The second phase of LUPMP (LAP-2) aims 'to consolidate and strengthen land administration and management systems for efficient and transparent service delivery' (LAP 2011, p.vi).

In the words of the TCPD (2014), LAP's "overall objective is to develop a coherent, streamlined and sustainable land use planning and management system which is decentralized and based on consultative and participatory approaches in order to manage effectively human settlements development".

In spite of the attractive objectives of LAP and other such programmes, Gyasi et al., (2006) believe that like many similar programmes, "overall there is a lack of coordinated land policy and planning at all spatial levels - national, regional, district... land users are seldom guided as to the environmental effects of their activities that threaten ecological status of land and the environment". Thurman (2007, p. 5) also stated that the Accra Metropolitan region "currently possesses few effective land use policies, the region stands to benefit a great deal from the establishment of a comprehensive and diverse set of policies".

### **2.13 Institutional and Legal Framework for the Building and Housing Sector in Ghana**

Building and Construction process for a long time has become an important component of Human development in Ghana. As such, a number of planning regulations have been put up to guide the development of structures in both urban and rural areas The main statutory document that deals with, and regulate building and construction activities in the country presently is the

National Building Regulations (NBR) L1 1630 (1996). This Regulation was a derivative of the Local Government Act of 1993 (Act 462) through the powers conferred on the Minister responsible for Water Resources, Works and Housing.

According to CASA Associati (2012), building codes seek to harmonise best practises, materials, methods and processes to achieve buildings and communities that enhance the quality of life for humanity. It is also meant to control, improve, plan and manage human settlements in the country. The National Building Regulations And Building Standards Act No. 103 (1977) (As Amended) of South Africa aims at providing "for the promotion of uniformity in the law relating to the erection of buildings in the areas of jurisdiction of local authorities; for the prescribing of building standards; and for matters connected therewith".

Section 2 of the Building Ordinance (Cap 123) (2000) of Hong Kong defines building works to "include any kind of building construction; site formation works, ground investigation in the scheduled areas, foundation works, repairs, demolition, alteration, addition and every kind of building operation, and includes drainage works.

In addition to the building regulations, Ghana has established formal land planning and management institutions that are backed by law to plan, control and ensure harmonious, sustainable and cost effective development of human settlements in accordance with sound environmental and planning principles ([www.townplanning.gov.gh](http://www.townplanning.gov.gh)). These institutions include the Metropolitan, Municipal and District Assemblies (MMDA), Town and Country Planning Department and the reconstituted Lands Commission (LC).

**a) Metropolitan, Municipal and District Assemblies**

The MMDAs were established and given legal backing through the Local Government Act of 1993 (Act 462) and by virtue of clause (3) of Article 241 of the Constitution, "the District Assemblies were given the mandate to exercise political and administrative authority as the highest political authority in the district". According to the Local Government Act of 1993 (462), the MMDAs are "responsible for the development, improvement and management of human settlements and the environment in the district". Also, as the planning authority in the districts, they are responsible for the overall development of the district and carry out development plans in the district upon the approval of the National Development Planning Commission (NDPC).

Mensah (2010) indicates that one of the statutory bodies that play a key role in land administration in the Assemblies is the Statutory Planning Committee (SPC) which is mandated to vet and approve building and development plans. Half of the members of this committee are appointed from the elected assembly members by the District Chief Executives (DCE) while the heads or directors of the various departments under the Assembly constitute permanent members who represent the other half of the committee.

Section 46 of the Local Government Act 462 (1993) also establishes another important planning body within the MMDAs known as District Planning Co-ordinating Unit (DPCU) which shall comprise the professional staff that the district planning authority shall appoint, in consultation with the NDPC. The specific role of the DPCU as spelt out by the Act is to co-ordinate the planning activities in the various Districts. Its functions include the preparation of the Districts'

Medium Term Development Plans (DMTDP) in consultation with the pre-scribed public agencies and local communities. In the execution of its functions, the DPCU maintains a strong network with the relevant stakeholders to enable it effectively serve as a secretariat to the District Assembly. It holds monthly and/or quarterly planning, and coordination meetings as may be required (Mensah, 2010).

#### **b) Town and Country Planning Department**

The Town and Country Planning Department was first established in 1945 pursuant to the Town and Country Planning Ordinance, 1945 (Cap 84) and currently operates under the Ministry of Environment, Science and Technology (MEST). Information from the official website of the Department ([www.townplanning.gov.gh](http://www.townplanning.gov.gh)) indicates that its mandate is derived from five main legal instruments namely: the Local Government Act, 1993 (Act 462), National Development Planning Commission Act, 1994 (Act 479); National Development Planning (Systems) Act, 1994 (Act 480); National Building Regulation, 1996 (L.I. 1630) and Town and Country Planning Ordinance, 1945 (Cap 84).

The information also states the core functions of the Department as:

- Planning and management of physical development and growth of human settlement in the country
- Preparation of spatial and land use plans (planning schemes to guide orderly development) and administration of controls to ensure that human settlements functions as healthy places for residence, work, and recreation

- Provision of various forms of planning services to public institutions as well as private individuals and organisations.

Based on these core functions, specific functions are performed at its National, Regional and District levels of governance under the decentralisation programme of the Local Government Act 1993 (462). At the District or local level, the TCPD is responsible for:

- Preparation of District Spatial Development Framework Plans, Structure Plans and Local Plans to direct and guide the growth and sustainable development of human settlements.
- Processing of planning schemes and development applications for consideration of the District Assemblies.
- Monitoring urban development processes and recommending for management by the District Assemblies.
- Co-ordination of the diverse physical developments promoted by departments, agencies of government and private developers.
- Providing technical guidance for both public and private institutions and individuals.

Under Act 462 (1993), the District Assembly is the planning authority and therefore responsible for the physical and spatial planning; hence, the TCPD in the performance of its functions operates in collaboration with the Physical Planning Departments of the MMDAs and other mandated public bodies. The functions of the TCPD are summed up in its website as shown in Table 2.3.

**Table 2.3: Functions of the Town and Country Planning Department**

<b>WHAT TCPD DOES NOT DO</b>	<b>RESPONSIBLE AGENCY</b>	<b>WHAT TCPD DOES</b>
Allocation or sale of land	Land Owners (Traditional leaders, Individual Land Owners, or Heads of Families, Land Commission)	Determination of land use through land use plan preparation
Issuance of building permit	District Assembly	TCPD processes whilst the District Assembly issues the permit
Construction of roads and drains	Roads department(Urban or Feeder Roads, Highways)	Determination of road reservations through land use plan preparation
Demolition of unauthorized buildings and structures	District Assembly	Making recommendations for removal of unauthorized developments
Prosecution of people who violate planning regulations	District Assembly through the Courts	Making recommendations and testifying for the prosecution of unauthorized developments
Managing refuse	District Assembly	Determination of the location of refuse disposal sites

Source: TCPD website, [www.townplanning.gov.gh](http://www.townplanning.gov.gh)

The services provided by the Town and Country Planning Department are shown in Table 2.4.

The Department clearly states that these service standards can be met only if clients meet all necessary requirements before the submission of applications for development and building permits.

**Table 2.4: The services provided by the Town and Country Planning Department**

<b>SERVICE</b>	<b>TIME FRAME</b>
<b>Development Application</b>	
• Process development/building applications for further consideration by the statutory Planning Committee	Within two (2) weeks of receipt of application
• Assessment of application by the Technical Sub-Committee, visit to site and presentation of recommendations to the Statutory Planning Committee	Within one (1) month of receipt of application
• Organize a meeting of the Statutory Planning Committee to consider development applications	Nine (9) working days of Technical Sub-Committee meeting
• Submission of the approved plans by the Statutory Planning Committee to the Works Department	Five (5) working days of approval for the issue of building permit
• Communicate to applicants the reasons for all deferred, queried and/or rejected applications	Five (5) working days
• Prepare building permits for collection by clients	Three (3) months after submission of development application.
<b>Planning Scheme/Local Plan/Settlement Layout</b>	
• Discussion of the draft plan	One (1) working day
• Discussion of the second draft plan by the Technical Sub-committee	Within two (2) weeks
• Submission of the second draft plan for consideration by the Statutory Planning Committee	Within two (2) weeks
• Publication of the final draft plan for public comments	Within two (2) weeks
• Final approval and signing of the plan by the District Chief Executive and the Secretary to the Statutory Planning Committee	Within two (2) weeks
• Prepare approved plans for collection by clients	Within two (2) months after submission of application

Source: TCPD ([www.townplanning.gov.gh](http://www.townplanning.gov.gh))

**c) Lands Commission**

In spite of the importance of land to the economy, land management in the country over the years have been characterised by several constraints such as land related conflicts in the courts, haphazard development and planning, weak institutional capacity and inadequate and ineffective legislative framework (Land Administration Project (LAP), Phase 2, 2011).

One institution that plays a critical role in the administration of land in Ghana is the Land Commission (LC). Its establishment was enacted under Article 258 of the 1992 Constitution and the Lands Commission Act, 2008 (Act 767) as a statutory body responsible for the facilitation of the acquisition of land for Government, and the administration and management of public and other lands in conformity with approved land use plans, among others (Section 23). Subsequently, the Survey Department, Land Valuation Board, Land Title Registry and the Lands Commission Secretariat have been brought under a new Lands Commission with four functional divisions. These are Survey and Mapping Division, Land Registration, Land Valuation and Public and Vested Lands Management Divisions.

***The Survey and Mapping Division (SMD)***

The role of the Survey and Mapping Division is felt in the land title registration scheme. According to Section 20 of the Lands Commission Act of 2008 (Act 767) the functions of the Survey and Mapping Division among others are to supervise, regulate and control the survey and demarcation of land for the purposes of land use and land registration; survey, map and maintain the national territorial boundaries including maritime boundaries and to certify the production of maps in the country.

### ***Land Registration Division (LRD)***

Land title registration was introduced in order to deal with problems associated with uncertainty and insecurity in land titles and transactions and thereby improve land management. The Land Title Registration Law, 1986 (PNDCL 152) was enacted to introduce a scheme to register all interests in land (both customary law and common law), including those held by stools, skins quarters and families which are to be registered in the name of the corporate group (Kassanga and Kotey, 2001). According to them, the process of registration is selective and at the moment, only applies to the urban centres of Accra, Tema and parts of Kumasi. The law also provides for channels for the resolution of conflicts between parties.

### ***Land Valuation Division (LVD)***

The original functions of the LC have been split by Section 43 of PNDCL 42 1986 which created the Land Valuation Board, now known as the Land Valuation Division with the functions of Government valuer. Its functions broadly include determining all matters of compensation for land acquired by the government, any organ of government or public corporation; establishing values of government rented premises and advising the Land Commission and the Forestry Commission on royalty payments on forestry holdings and products.

### ***Public and Vested Lands Management Divisions***

According to section 23 of the Lands Commission Act (Act 767), the functions of the Public and Vested Lands Management Division are to facilitate the acquisition of land for Government and managing state acquired and vested lands in conformity with approved land use plans.

It is observed that after many years of the introduction of the public sector land administration agencies discussed above, which were intended to streamline the administration and help enforce effective land use policies and practices, their impact have been negligible. Kassanga and Kotey (2001) summed up their failures as follows:

*"While the legal regime and institutional arrangements appear absolute, they are also, paradoxically, very weak... pervasive corruption are endemic and occur at all levels and agencies ... The division of tasks between the Land Valuation Board, the Lands Commission, Office of the Administrator of Stool Lands, the Deeds Registry and the Land Title Registry has resulted in the fragmentation of responsibility and lack of coordination (p. iii)".*

#### **2.14 What Is a Building Permit?**

Building, development or construction permits are building development approvals granted to prospective or potential developers (organizations and individuals) by a statutory authority to put up buildings for either residential or other purposes in approved locations. It is also intended to transform an existing building, or demolish an existing structure within a set time frame and in line with local or national building regulations. A development permit therefore, approves the use of a site, as well as the size and location of any buildings or structures.

It is a legal document covering any building or property for which its plans or drawings are found to be suitable for implementation and eventual human habitation or use. Building permits are required to cover both permanent structures, such as residential, industrial and commercial buildings, and temporary structures such as kiosks, fabricated metal containers and advertising hoardings or bill boards (Mensah, 2010).

The purpose of building permit is to among others ensure that the proposed project conforms to the building regulations and development control guidelines and thereby, uphold the integrity of the proposed structures. It also guarantees that the proposed land to host the building is suitable for the purpose and that it is covered by the required registered documents. It again ensures that the materials being used for the building satisfy the minimum required specification, and that all the general architectural engineering and planning standards have been met. The Victorian Building Authority (2012) states that:

*"building permit ensures that certain practitioners are registered ..., that adequate documentation is prepared to correctly construct the building, an independent review of that documentation occurs, key stages of the work are independently inspected and the completed building is independently assessed as being suitable for occupation"*.

Generally, building permits are the way counties, towns and municipalities enforce their building codes and bye-laws. Local governments adopt those codes in order to ensure that all buildings meet minimum safety and structural standards (Kelly, 2012). Building permits are therefore, about the safety and the health of the occupants of the building and the environment.

### **2.15 How Does Building Permit Regulate Unauthorized Structures?**

Section 49 (1) of Local Government Act 462 (1993) emphasizes that a *"physical development shall not be carried out in a district without prior approval in the form of a written permit granted by the District Planning Authority (DPA)"*. The Act again adds that the procedure and manner for securing a permit shall be prescribed by these Regulations. The National Building Regulation 1996 compliments this directive that *"no person shall begin to construct any*

*building or to execute any work except under and in accordance with the terms and conditions of a permit in the prescribed form signed by the Metropolitan Engineer (hereinafter called a "building permit")" (Section 3(1)).*

The DPA in accordance with these regulations therefore, may grant the applicant the building permit conditionally or unconditionally, or refuse to grant the permit all together. Where the permit is granted conditionally or refused, the DPA are required to provide reasons in writing to the applicant. A District Planning Authority also has the mandate to revoke a permit to develop or impose additional conditions to a permit that has already been granted based on the prevailing circumstances. In line with Section 52 of the Act under review:

*"where a physical development has been or is being carried out without a permit, or the conditions incorporated in a permit are not complied with, a DPA may give written notice in the prescribed form to the owner of the land requiring the owner on or before a date specified in the notice, to show cause in writing addressed to the DPA why the unauthorized development should not be prohibited, altered, abated, removed or demolished."*

Upon the receipt of the letter, the owner of the land is expected to file his defence within the defined period. Where he fails to show sufficient cause why the development should not be prohibited, altered, abated, removed or demolished, the DPA may carry out the prohibition, abatement, alteration, removal or demolition and recover the expenses incurred from the owner of the land as if it were a debt due to the DPA (Section 52). A person, who contravenes any of the terms of a permit granted, commits an offence and is liable on summary conviction to a fine not exceeding two hundred penalty units or to a term of imprisonment not exceeding six months

or to both. The Local Government Act 462 (1993) also imposes higher punishment for continuing offences.

DPA's are mandated in Section 55 to where appropriate and without prior notice, effect or carry out instant prohibition, abatement, alteration, removal or demolition of an unauthorized development carried out or being carried out that encroaches or will encroach on a community's right of space, or interferes or will interfere with the use of that space. Such places include open spaces meant for markets, schools, recreational parks and other such reserved public lands. This Section is intended to protect and safe-guard public lands from encroachment by developers.

To promote sanity, transparency and fairness in the building sector in the country, the NBR provides avenues for grievance resolutions through appeals and compensations whenever it is considered appropriate.

### **2.16 Reasons for the low compliance with building permit regulations in Ghana**

The issue of building permit is a thorny one as it relates to the building and construction industry. It is clear that many developers in the country embark upon their projects without going through the necessary statutory regulations. Freiku (2003) in a report published for Local Government and Assembly titled "Kumasi Development Getting Worse, Chaotic", painted a disturbing picture stating that 80 per cent of buildings in the Kumasi Metropolis are without building permits, and that between 1990 and 2000 only 7.2 per cent of buildings in the Metropolis had permits. Indeed many factors account for this occurrence. This section attempts to discuss some the contributory factors.

**a) Delays in the Issue of the Permit**

Procuring building permit in Ghana possess a great challenge despite government effort in addressing this issue through the introduction of new land regulations and integration of the land agencies (Agyeman, Asiedu and Abeka, 2015). Clause 8 of the National Building Regulations, 1996, L.I. 1630 requires that application for building permits submitted to MMDAs by developers should be approved within three months from the date of receipt of the application. Issuing building permits with short waiting times is essential in providing satisfactory services for clients, building confidence in the processing system and thereby, promote compliance.

It is however, noted that this requirement is hardly met by the Assemblies. A research by Botchway, Afram and Ankrah (2014) on building permit acquisition in Kumasi showed that up to 60% of applications for building permit take as long as 18 months or more to be approved, while another 25% is done between 9 and 12 months. The research concluded that only 5% of applications are processed and approved within the stipulated three months. Kpamma and Adjei-Kumi (2013) also suggest that applicants go through 18 cumbersome procedures in the process of acquiring building permits. This complex procedure is also expressed in the Performance Audit Report of the Auditor General on the Management of Building Permits at Ga East Municipal Assembly (GEMA) (2011) for the period January 2005 to June 2008. The audit showed, for example, that out of the 140 approvals in 2008, only 18 were completed within the stipulated three months.

Agyeman, Abeka and Assiamah (2016), are of the view that the delays in processing building permits serve as a precursor for issuance of false permits by so called middlemen and the development of unauthorized structures by some unscrupulous developers. The sad aspect of this situation is that, the land administrators do not have any effective mechanisms to check the validity of some of the documents submitted by developers. They also posited that the long waiting processing period may influence some stubborn and impatient developers to blatantly ignore or resist development abatement directives citing delays or difficulties in securing the permits to justify their illegal development.

According to World Bank and International Finance Corporation (2013), Ghana ranked 151th position in the world in the ease of acquiring building permit rankings; and this is highly unacceptable and unfavorable to attract perspective investors into the building industry.

Factors contributing to the delays in the issuance of building permits by the MMDAs include:

- ***Delays in acquiring land titles:*** Many studies have shown that most landed property in Ghana are not properly registered, while many others are poorly documented; thus making transfer of title difficult if not impossible (Bank of Ghana, 2007). The building regulations in the country make land title registration mandatory when processing building documents.
- ***Wrong and inadequate documentation*** of the land, improper design and non-conforming working drawings by developers need to be corrected, which may delay the process.
- ***Lack of commitment on the part of the MMDA officials:*** The Audit Report on GEMA (2011) indicted the Assembly are not putting in place adequate measures to ensure that building permits are issued within the specific time frame, and for the fact that the Technical

Sub-Committee and the Statutory Planning Committee members do not adhere to meeting time schedules to approve building permits. This is usually attributed to challenges in financing the meetings by the Assemblies.

- ***Challenges facing the MMDAs:*** The lack of logistics such as means of transport, relevant up to the art equipment such as computers to speed up the process of keeping and retrieving records greatly impede their operations. Most of their offices are also old, dilapidated and poorly resourced and equipped. Many MMDAs do not have the required number of qualified professionals to handle the complex processes of approving and granting building permits. This ultimately affect their effectiveness in conducting meaningful field inspections and monitoring since they are often overwhelmed by the volume of work.
- ***Bureaucratic processes:*** It is obvious that the processes developers go through in acquiring lease and building permits are long and winding. This assertion is based on the fact that the connected agencies appear too many, and makes the process excessively bureaucratic. According to the United Nations (2007), excessive bureaucracy while issuing land development and building permits, and corruption of public officials are important institutional factors that influence the growth of unauthorized structures. Kassanga and Kotey, (2001) also suggested that the division of tasks between the then Land Valuation Board, the Lands Commission, Office of the Administrator of Stool Lands, the Deeds Registry and the Land Title Registry resulted in the duplication of functions, fragmentation of responsibility and lack of coordination. It is partly because of these overlapping roles that all the institutions have been brought together under the new Lands Commission.

### **b) Ignorance of the Building Permit Processes**

Many literatures on this subject point to the fact that many developers are unaware of the laws on housing and building permit documentations. It is true that public knowledge about building permit, especially the lay public, is scanty and unfavourable except amongst people of the middle and upper brackets of our society who have the wherewithal to fund building projects. Many people and developers have the perception that building permits are a document very difficult to obtain from the statutory agencies. Complaints about poor public relations on the part of the agencies, undue avoidable delays and lack of effective means of correspondence make up additional problems associated with the system.

Many developers, the public and housing agencies lack sufficient knowledge about the essence of a permit, conditions attached to a permit, the rights of property owners with regard to approved development and acceptable relating procedures. Many see the process of acquiring the permit a mere nuisance and as such ignore it. In the face of these challenges, Botchway et al. (2014) strongly suggested the need for the Planning Authorities to create awareness about the issues regarding approval and also educate stakeholders on the consequences of starting a building project without the requisite permit. They also proposed that training programmes should be organized for all stakeholders who seem to have very little knowledge of the processes.

### **c) Security of the Land and High Cost of Building Materials**

It is again obvious that because the procedure for acquiring leases and building permits in Ghana is too long and because of land insecurity, owners are forced to initiate building projects

to safeguard the land which already costs a fortune (Botchway et al., 2014). For the fear of encroachments, possible land litigations (arising from multiple sale of lands) and the rampant use of 'land guards' by landowners and developers, potential developer express their desire to avoid unnecessary stress coming from the long bureaucratic delays from officialdom and thereby, ignoring the process.

Another factor is the high cost of building in country. Ghana like most developing economies is confronted with ever rising prices resulting from inflationary and uncontrolled foreign exchange. As indicated earlier, most of the building materials used in the country are imported hence, the building sector is largely influenced by rapid price changes. In this regard, developers usually do not have the patience to hold on with their acquired capitals which are mostly raised from long-term personal savings and bank loans, in the face of inflation. Unfortunately, some of the building materials cannot be bought and stored over a considerable long period, cement for instance cannot be kept for too long and thus project must commence to follow through with construction plans, whilst avoiding price volatility.

#### **d) Poor Inspection and Monitoring Of On-Going Building Projects**

One of MMDA's functions as stated in Section 11 of the National Building Regulations, 1996 is to monitor construction activities that take place under the MMDA's jurisdiction. This specific function is assigned to professionally trained building inspectors who are expected to do daily monitoring of activities of developers to ensure that developments conform to the specifications in the drawings presented. Again, building inspectors are required to ensure that developers do not put up buildings without first acquiring permits from the Assembly. They are

also able to tell through these visits if there is a violation of the NBR and encroachment on public places and waterways.

Unfortunately, a document from the TCPD website dated 29th July, 2010 quoted the Architects Registration Council (ARC) as saying that there was an acute shortage of trained building inspectors and other built environment professionals and technicians within the MMDAs. It adds that the absence of these personnel has led to the inability of MMDAs to "monitor the general construction, physical development and planning requirements in all settlements of the country leading to the problems of uncontrolled development and non-compliance by developers with planning regulations and standard construction practices". The document concluded that this situation has resulted in the creation of several problems including, construction on water courses, which has led to flooding and the collapse of buildings all across the country and the resultant loss of lives and property. Magigi and Majani (2006) have also rightly observed that poor enforcement of building regulations is the cause of many unauthorized structures in many cities.

According to the Auditor General's Report (2011) on GEMA, as a way of addressing the challenges of limited building inspectors, the GEMA like my other Assemblies use specially constituted Task Force or Monitoring Teams which are made up of security guards and a few supervisors. Usually due to the fact that the Task Forces do not have the required expertise, they are unable to produce appreciable reports of their activities as demanded by the Assemblies by-laws. Mostly information from their field reports therefore, could not be used to improve developments database or help to improve planning and budgeting.

It is also noted from the Audit Report under review that the Monitoring Teams are usually met with resistance from developers and hence are mostly compelled to use “strong” men in the monitoring teams to prevent any aggression. The main work of these Teams is to stop developers from carrying out construction works where they are unable to produce building permits covering their works (by writing 'Stop work, produce permit' on the project) and to issue summons for the payment of penalties. On the whole, it has come out that this practice has not been effective in solving the problem since in most cases the payment of these penalties are misconstrued to mean permission to continue with the projects.

Unfortunately, the MMDA personnel do not follow up again on them after these payments. In some instances, the building inspectors and other officials are alleged to have misconduct themselves in the course of duty and/or compromised on their positions and consequently, rendering them ineffective during their monitoring exercises.

**e) Low levels of Incomes**

The level of income is a major factor influencing developers' decision in acquiring building permits. According to Nawagamuwa and Viking (2003), the majority of the people moving to the urban areas lack the necessary assets and finance to acquire a house with the minimum adequate standards. They therefore, usually have no alternative but to resort to lowly developed communities and thereby, add to the development of unauthorized structures.

**2.17 Procedure and Basic Requirement for Obtaining Building Permit in Ghana**

Section 4 (2) of the National Building Regulation, 1996 directs the Metropolitan Engineer to demand from an applicant a plan, sections, elevations, calculations and drawings and such

description of materials to be used as he may think necessary. Section 3 (1) also indicates that developers are required to complete and submit prescribed forms which are to be determined and duly signed by the Metropolitan Engineer.

A document from the TCPD website on 6th August, 2010 titled *Procedure for Acquiring Development Permit* provides the basic requirements for the application of building permit information as follows:

- Building Permit Application Form and Town and Country Planning Development Application Form 1.
- Two (2) sets of site plans (one on transparency)
- Four (4) sets of building fence and block plans (scale not less than 1:20 or 1:40 or metric equivalent 1:100 and 1:2000)
- 4 sets of working drawings
- Certificates/ official letter or search on status of land from the Lands Commission or Land Title Registry
- 5 self-addressed envelopes
- And any other as may be necessary

For multi-user and multi-level development, the following additional information are required; Fire Report and appropriate fire engineering drawing duly vetted and approved by Ghana Fire Service, Geo-Technical (Soil investigation) Report, Structure Integrity Report where vertical extensions are proposed on existing building, Traffic and Environmental Impact Assessment Reports from the appropriate agencies and Hydrological Report and appropriate drawings.

The TCDP document further describes the types of developments as including schools, hotels/restaurants, places of worship, buildings, factories, hospitals, residential buildings, factories, hospitals, residential buildings, offices, shops, underground structures, maximum height of pylons, car parks and amusements parks.

The step-by-step processes involved in the acquisition of building permits are as follows:

- **Step 1**

The first step in the long process is for the applicant to buy the Building Permit Application Form and TCPD Form 1 from the MMDAs Works Departments or the TCPD offices in the Districts or Regions. After completion, the forms are submitted to the Assembly's Town and Country Planning Department and pays a registration fee. On submission, the applicant shall be informed of corrections to be made or additions (if any), and a date for site inspection fixed (if applicable). It is indicated that application forms and attached documents shall be submitted on any day except Fridays.

- **Step 2**

The documents are reviewed at Town and Country Planning Office in accordance with the National Building Regulations, 1996. The TCPD ensures that the site plan submitted by the applicant fits into the layout/scheme of the area. Where there is no layout for an area, the Department has to ensure that the site plan fits into any future layout of the area in terms of designation of streets, empty spaces, public buildings, etc. After the review, the documents are referred to the Works Department of the Assembly where permit fees are then calculated.

- **Step 3**

The documents from the Works Department are forwarded to the Technical Sub-Committee (TSC) for evaluation and vetting of the details of the documents. A site inspection is then undertaken by the Joint TSC together with the prospective developer on the agreed date, and subsequently make recommendation to the SPC within one month from the date of receipt of application.

- **Step 4**

The Secretary of the SPC and the entire committee together with the Planning Officers process the application within two (2) weeks of receipt of the application. The Statutory Planning Committee approves or revokes the application based on their findings from the processing of the documents within nine (9) working days of the latter's meeting.

- **Step 5**

If approved, the Assembly's engineer sends the application back to the Works Department for the issuance of the permit within five (5) working days of the date of the approval. Applicants are informed about their approval or disapproval of the permits within ten (10) working days of meeting. Where the application is approved, the applicant is notified as to the fees to be paid. If approval is denied, the documents are returned to the TCPD to inform the applicant for necessary corrections to be made.

- **Step 6**

Where approval is given, the list of names of successful applicants are posted on the following notice boards: the Head Offices of the MMDAs, the respective District offices of the TCPD of

the Assemblies, the Works Departments of the Assemblies and their Sub Districts/ Metro Offices.

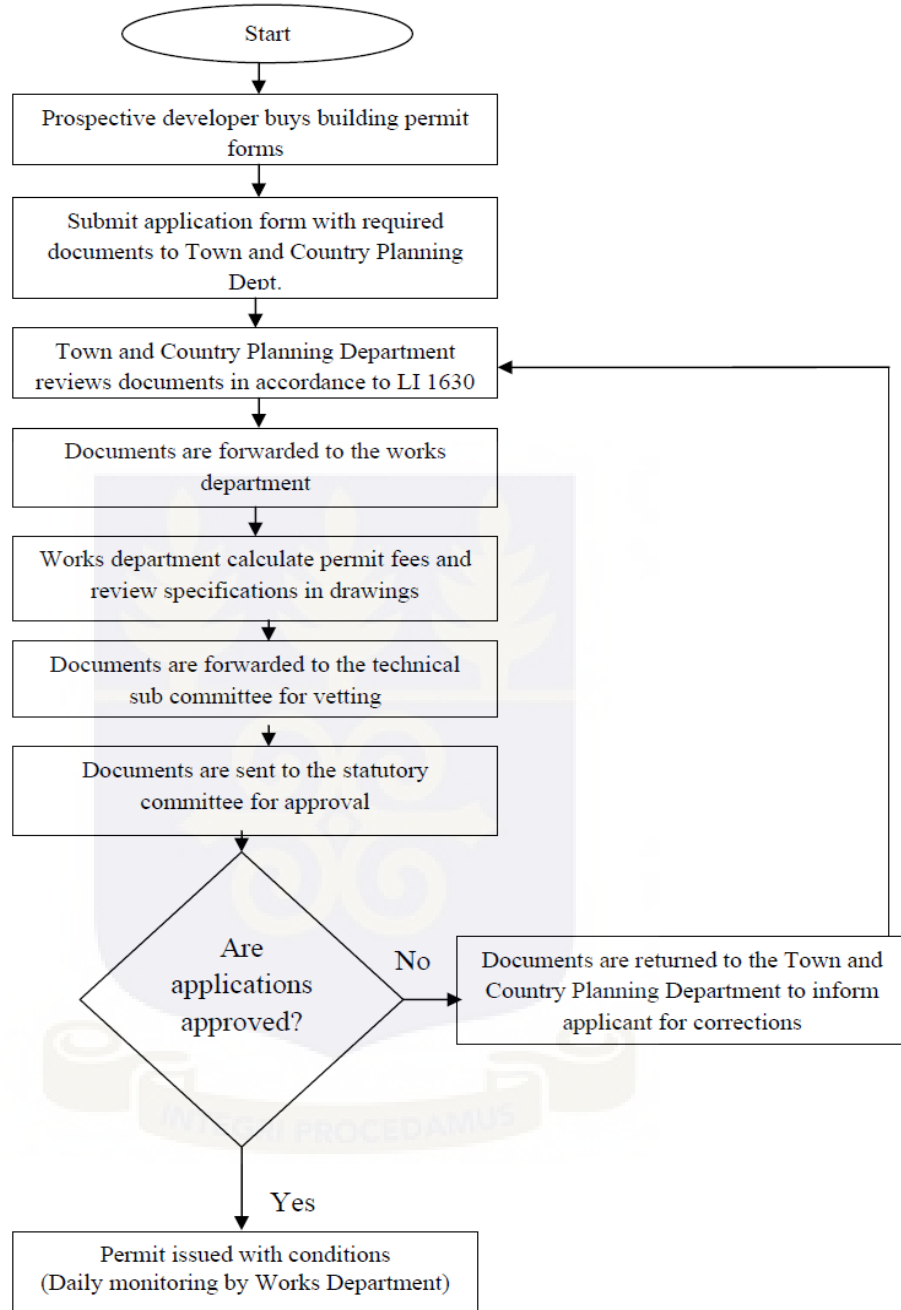
Successful applicants then collect their building permit certificates from the Works Department duly signed by the Metropolitan Engineer within ten (10) working days of receipt of approval list from the Secretary of the Statutory Planning Committee.

- **Step 7**

Successful applicants are given conditions for the commencement and routine construction of the project. Among others, applicants are informed that failure to make payments within twenty-eight (28) days indicates loss of interest in the permit. The developer are expected to give the District Planning Authority at least forty-eight hours notice in writing indicating the date on which he is intending to begin work, the dates on which the other stages of construction would be ready for inspection by the District's inspection teams, and any other information that will be required by the Assembly.

It is important to note that the validity of a Building Permit issued in accordance with the above process is five years. Developers are therefore required to seek renewal of Building Permit if development is not completed within five (5) years. A flow chart of the steps involved in acquiring a building permit is shown in Fig. 2.2.

**Figure 2.2: Processes involved in the acquisition of building permits**



Source: *Performance audit report of the Auditor-General on the Building permits in Ga East Municipal Assembly* (2011)

## **2.18 The Conceptual Framework of the Study**

The conceptual framework of the research as shown in Fig. 2.3 considers five (5) primary factors contributing to the development of unauthorized structures, namely socio-economic, institutional, physical, cultural, and political factors. Socio-economic factors include the developers' educational background, income levels in relation to their employment status, high rent charges in the urban areas and social contacts. Available literature indicate that people who reside in unauthorized structures usually have low educational background with low incomes, and are mostly casual and unskilled workers (Nawagamuwa and Viking, 2003). Majority of such people migrate from the rural areas to the urban centers in search of greener pastures and end up living in slums due to limited incomes to rent decent houses.

Institutional factors focus on the lack of administrative will on the part of authorities in effectively embarking on development planning projects, monitoring planning decisions, enforcing building regulations and their inability to sanction offenders. Again in many cases, authorities set high and complex building standards/codes which are usually blue-prints from the developed western economies (thus, in some cases not applicable in the developing world). Institutional factors also include bureaucratic and long, winding procedures leading to delays in processing building documents, and corruption on the part of enforcement officials.

The physical factors deal with the physical characteristics of places that make a location a preferred destination for the development of unauthorized structures. These include the advantageous location of the area (such as accessibility to jobs, health services and other social amenities) and the nature of land.

Cultural factors revolve around traditional and religious beliefs which encourage families to live in certain types of structures that do not conform to established building standards. Such people inadvertently ignore building rules and regulations and thus, contribute extensively to the development of unauthorized structures.

Political factors involve the displacement of people due to political instability such as wars and conflicts, inadequate housing policy by government to cater for the housing needs of the people, the inability of government to provide funding for proper city planning or governance, and lack of political will to enforce laid-down regulations such as stopping or demolishing unauthorized structures.

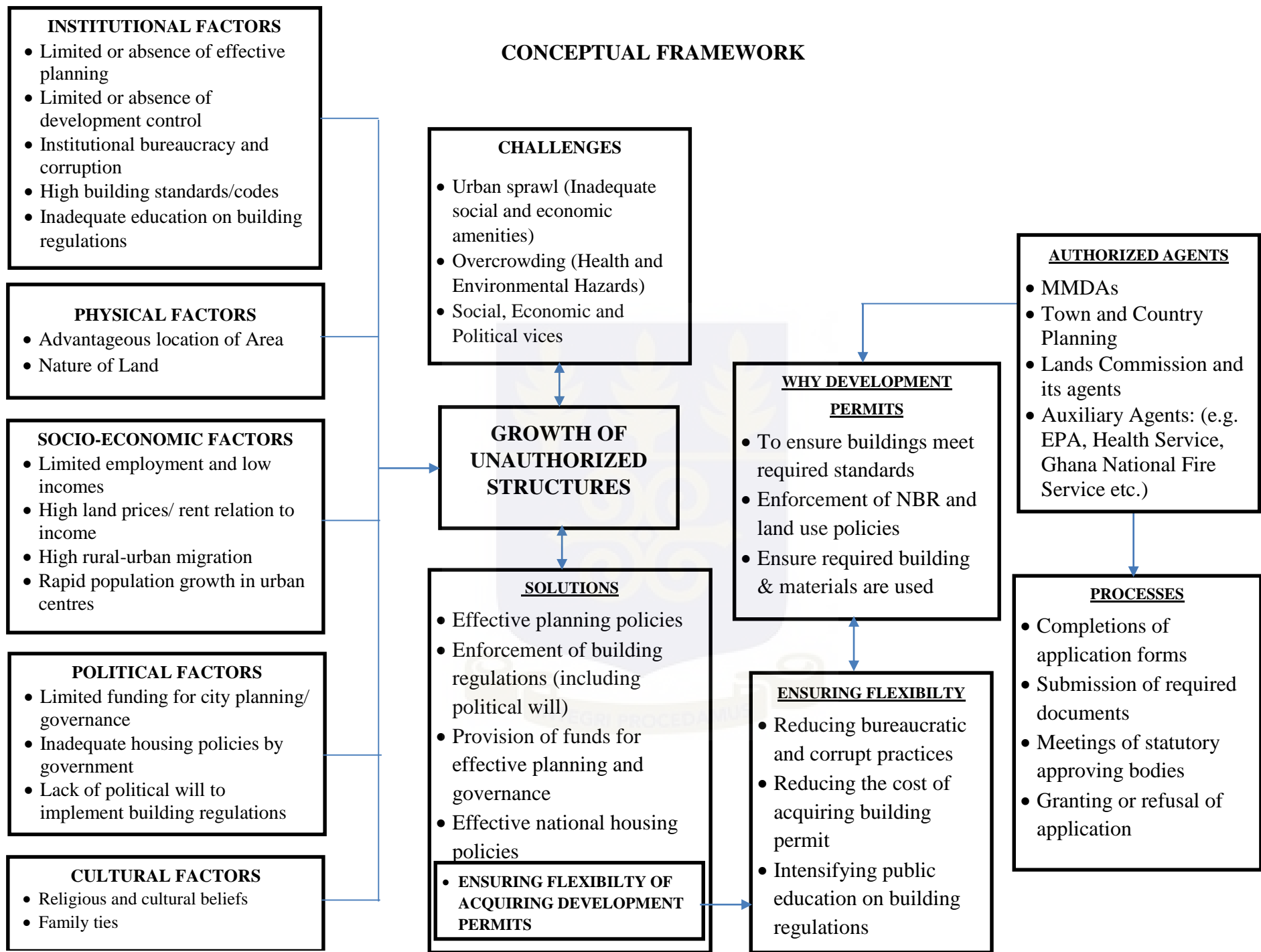
The development of unauthorized structures comes with numerous socio-economic-political challenges; which have proved to be major headaches for political and administrative authorities in developing countries. Governments over the years have adopted several approaches in dealing with these challenges. In Ghana, some of these steps have been the promulgation of laws, policies and regulations but unfortunately, most have failed to achieve the desired results. Some of such land use policies and regulations have included the Local Government Act (1993) and the NBR (1996) and many National Housing Policies. Numerous bodies and institutions have also been established and mandated to regulate the development of structures in the country to instil sanity, as well as control the development of unauthorized structures. These include MMDAs, TCPD, LC and its associated bodies.

One effective approach at dealing with the problem and instilling discipline in the sector is enforcing the acquisition of development permits before embarking on a development project.

This among others, is to ensure that buildings meet the required standard, that the right materials are used for construction and that they conform to the land use plans and building regulations of the area within which the projects are situated.

Unfortunately, the process of acquiring development permit in Ghana is bedevilled with a mountain of challenges which have greatly negated the relevance of the tool. The regulatory bodies are not only poorly resourced but also lack the requisite personnel with the appropriate training and skills to effectively monitor on-going projects; cumbersome and apparent corruption-prone processes resulting in delays in issuing building permits. Other challenges such as the lack of education of the public on the need to acquire a development permit and the permit procedures itself among others, have all worked against the system. These have to a large extent eroded the confidence developers have in the process and thereby, embark on their projects without the necessary building permits and the laid down building regulations.

The processes of acquiring a development permit starts with the completion and submission of application forms with the appropriate documents including an approved land document to the effect that the applicant owns the plot for the proposed project. After series of meetings by the statutory approving committees and authorities, the application for the development permit is either granted or denied. Where it is approved, the terms and conditions for the construction are clearly spelt out; and on the contrary, reasons for the denial are assigned for corrections to be made if necessary for subsequent re-submission.



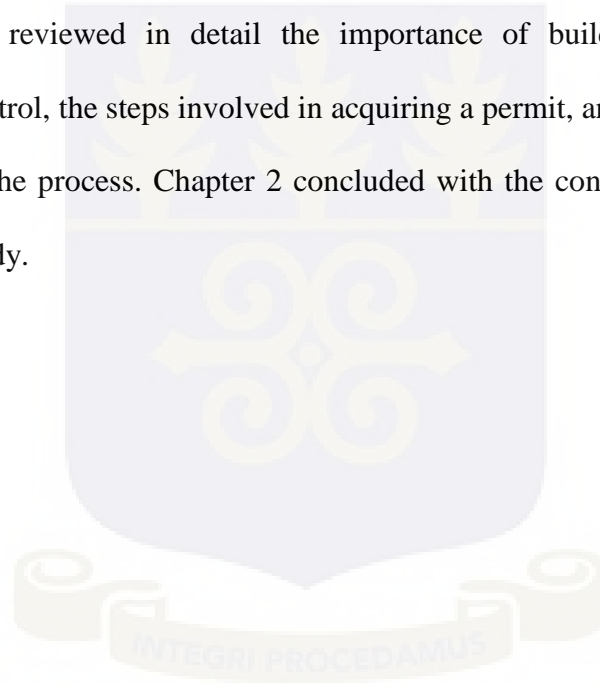
**Figure 2.3: Conceptual Framework**

Source: Author's Construct, 2015

## **2.19 Conclusion**

This chapter reviewed some salient subjects which were of interest to the study. Some of the issues discussed were the concept of unauthorized structures, informal settlements and slums; and the causes and solutions that could be proffered to address the associated challenges. It also looked at the National Building Regulations of Ghana and the land planning and management institutions such as the MMDAs, TCPD and the LC. Other issues addressed were the various urban land-use planning policies and practices, and the housing needs of the country.

The chapter also reviewed in detail the importance of building permits as a tool of developmental control, the steps involved in acquiring a permit, and the challenges developers encounter during the process. Chapter 2 concluded with the conceptual framework that was adopted by the study.



## **CHAPTER THREE**

### **STUDY AREA AND METHODOLOGY**

#### **3.1 Introduction**

This Chapter deals with a discussion of the study area and the methodology of the study. The study area includes the location and physical characteristics, the economic and demographic characteristics of the Tema Metropolis. The chapter again introduces and discusses the approach and methodology applied in collecting and analyzing the data and presentation of the results. Based on observations and relevant discussions, the ever increasing and worsening conditions of unauthorized structures notwithstanding the existence of building regulations in the Tema Metropolis set the basis for undertaking this research.

To achieve the aim of this study, the case study method was adopted. The research was conducted in three selected areas in the same Metropolis in order to ensure greater confidence and validity in the findings. The study area was analyzed by conducting site visits and interviews with key-persons and residents in the various communities. The study design also provides information on the population, the sampling technique, instruments of data collection, and source of data collection and the limitations of the study.

#### **3.2 STUDY AREA**

The construction of the harbour was proposed by the British colonial masters who ruled the Gold Coast during the pre-independence period. An old fishing village called Torman was

identified as the proposed site for the harbour's construction. Traditionally, Torman residents also grew the calabash plant (gourd), known as Tor in the local language; hence, the name of the village Tor-man (gourd-land). Ghana's first president Kwame Nkrumah however, began the construction of the ultra-modern seaport in the 1950s and finally commissioned it in February, 1962. The rapid industrialization that followed the commissioning of the port led to the town adopting the name Tema (which is a corrupt form of the local name of the fishing village).

To make way for the construction of the seaport, the residents were relocated to an improved and properly planned settlements to the east and beyond the harbour area. According to Glover (2016), for the smooth creation and development of the Tema town, the government acquired an additional 166 square kilometres of land north of the harbour (constituting 71 percent of the entire land area of Tema) from the chiefs of this village, Nungua and Kpone. This area was vested in the TDC after its establishment in 1952 to develop it into a township. The Corporation was mandated to provide all infrastructure facilities needed for industrial growth, residential housing, and other buildings needed for the development of the other sectors of the economy. The TDC carried out the entire developmental responsibilities in the city until 1993 when TMA was established (as a result of the decentralization policy of the then government) to take over the municipal functions from the former (Acquah, 2011).

To support the movement of goods and people from Tema and the nation's capital, Accra and other cities in the country; and to enable the new harbour operate efficiently, the Tema Motorway (a 19 kilometre highway) was built and opened to traffic in 1965. The construction of the Tema Harbour and other big industrial establishments and the main Tema Township

served as a great investment for development and increased the establishment of several large scale enterprises and activities in the Tema Municipality. The city has now grown to be the industrial hub of the country and at the same time one of the best planned cities in West Africa with a perfect layout of road network (DHDR, 2004).

### **3.2.1 Location and physical characteristics**

The Metropolis is flat, rising from the coast to 35 metres above sea level. There are a few inselbergs that do not rise more than 65 metres above sea level. It is situated 30 kilometres east of Accra, the national capital. The Metropolis shares common boundaries with the Accra Metropolis on the west, the Ga Municipalities on the North West and the Dangme West District on the northern and eastern borders. The Metropolis covers an area of about 87.8 km<sup>2</sup> with Tema as its capital. The Greenwich Meridian also passes exactly through the city of Tema (GSS, 2014).

It lies within the coastal savannah zone and has a vegetation of grassland and shrub land. The coastal zone comprises of two vegetation types, wetlands and dunes. The nature of the wetlands makes it highly productive and an important habitat for marine and terrestrial, especially bird life. The dune lands have been formed by the combination of wave action and wind. The dunes are almost uneven but stretch back several hundred metres in places and are stabilized due to the growth of several shrub and grassland species. In addition to the natural vegetation zones, a number of introduced trees and shrubs thrive in the metropolitan area. Neems, mangoes, cassias, avocados, and palms are all prominent trees on the landscape.

The Metropolis enjoys a dry equatorial climate. There are two rainy seasons with the major rains occurring between April and July and the minor from September to November. The average annual rainfall is about 730mm, which falls primarily during the two rainy seasons. The rains are often severe short storms with the highest amount experienced in May, June and early July. This usually give rise to local flooding. Throughout the year, the variations in temperature is marginal. The mean monthly temperature ranges from 24.7°C in August (the coolest) to 28°C in March (the hottest) with annual average of 26.8°C (GSS, 2014).

### **3.2.2 Economic characteristics**

The Tema Metropolis is well noted for performing various important functions including industrial, commercial, and agricultural and transportation among others. The Metropolis is the home of the Tema Harbour and host to several large – scale enterprises. The Metropolis hosts the industrial nerve centre of the country, which serves as a source of employment for many people, many of whom reside outside the Metropolis. According to Reese (2008) “today, it is Ghana’s industrial centre and the most important trading port in the country”. Despite the industrialized nature of the Metropolis, a huge number of the inhabitants are unemployed. The worsening unemployment situation has not shown any sign of improvement over the last decade (DHDR, 2004).

The coastal wetland is important for the sustainability of the fishing industry which also serves as an important occupation for many coastal dwellers. Though agriculture is an intrinsic phenomenon in the Metropolis, the activity has been exposed to threat because most lands have been lost to new developers. Women are mostly found in the wholesale and retail trade sectors.

The majority of workers are self-employed and this is especially the case for women of whom about 76% are self-employed (DHDR, 2004).

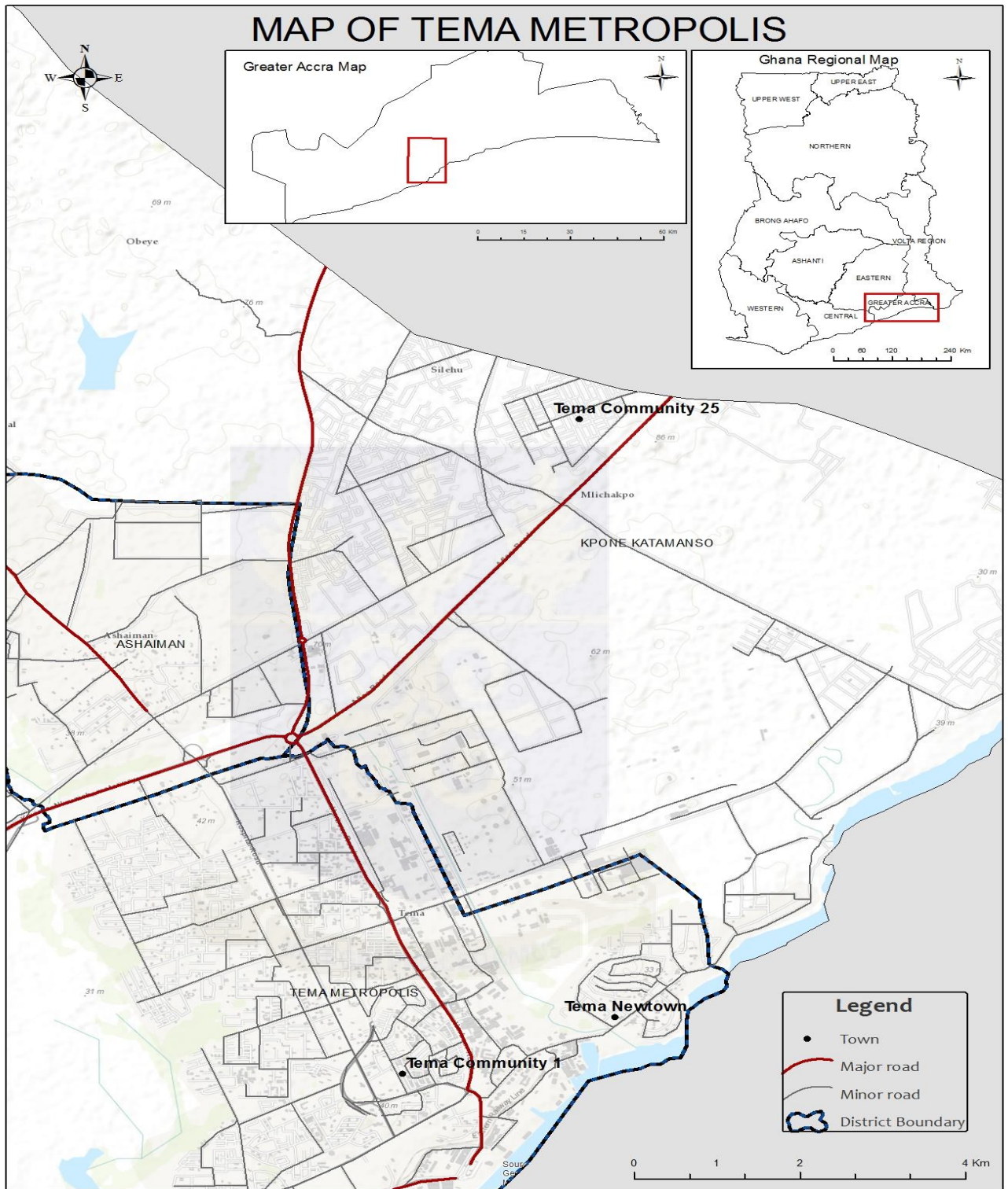
Transportation is a significant feature in the Metropolis. Various means of transportation are used for different purposes especially for trading or commerce. Heavy industrial materials and finished products as well as imported goods and industrial raw materials from the sea port are carried by long trailers. Carting of loads such as agricultural produce and clothing are often done by buses and other heavy duty vehicles. Buses, taxis and private vehicles of various sizes also serve as means of transportation of passengers. The harbour is the main source of imports and exports in the country.

### **3.2.3 Demographic characteristics**

The 2010 Population and Housing Census (PHC) gave the population of the Metropolis as 402, 637 (GSS, 2012). The most current data also showed a ratio of 47.8% males to 52.2% females. The majority of the population falls within the age group 25-29 while the least group is between the ages 95-99. Basically, the population is youthful in structure. It consists of a broad base of large number of youths and an apex of a small number of elderly persons (GSS, 2014). The Metropolis is entirely urban.

The Tema Metropolis has been a recipient of large number of migrants. About 56.9 percent of the population are migrants with the majority (about 63.9 percent) born outside the Greater Accra Region (GSS, 2014). The map of the Tema Metropolis is shown in figure 3.1.

Figure 3.1: Map of Tema showing the study area in regional and national context



Source: Author's Construct, 2015

### **3.3 METHODOLOGY**

#### **3.3.1 Research Design**

To ensure an in-depth understanding and enquiry into the relationship between the growth of unauthorized structures and the existence of building regulations and to help achieve the objectives of this study, the case study method was adopted. According to Bromley (1990) a case study research method is “systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest” (p. 302). The case study should have a “case” which is the object of study. A case is some kind of phenomenon, which occurs in a limited context and determined in social, spatial or temporal terms (Johansson, 2001).

The expectations of a case study to capture the complexity of a single case, and the methodology which enables this has developed within the social sciences. Such development in methodology has not only ensured its application in the social sciences, such as sociology, psychology, anthropology, and economics, but also in practice-oriented fields such as environmental studies, social work, education, and business studies (Johansson, 2001).

The case study strategy has been highly recognized because of its advantage of allowing the deliberate coverage of contextual conditions within a very large real-life context. Thus by so doing, a researcher is able to focus attention in areas that are most relevant to study (Yin, 1994). It has also been recognized for having a great deal of success in its field of study when used effectively. According to Johansson (2001) the essence of a case study lies in triangulation, the combination on different levels of methods — with the idea of using a design that incorporates

specific approaches to data collection and to data analysis. Thus, the case study is not merely a data collection method or a design feature, but a comprehensive research strategy (Yin, 1994).

The technique of establishing the combination of qualitative and quantitative approaches in a single research was adopted by this study. The use of this method helped in acquiring diverse information which made the wide disparities between the selected communities much clearer. Data provided by respondents and supported by quantitative analyzes in this research was ideal in ensuring a better understanding of the subject matter. Though this approach may be time consuming and difficult to codify, it provides quality standards in terms of truth, applicability, consistency, and neutrality. On the contrary, a common concern about case studies is that, they provide little basis for scientific generalization.

Various researchers have asked the question "How can you generalize from a single case?" According to Kennedy, (1976) the answer is not a simple one. However Yin (1994) established that the use of multiple-case studies with an appropriate research design can ensure replicability and success in this field. As in the case of this study, the multiple-case study (taking into account three different case areas with distinct characteristics) was used to ensure that a wider range of generalization can be made from this research.

### **3.3.2 Sources of data collection**

The study gathered information from both primary and secondary data. Primary information gathered for the study were organized through the use of methods including questionnaires, interviews and Focus Group Discussion (FGD). The Management staff of TMA and TDC provided first-hand information on the emergence of unauthorized structures and the problems

associated with them. They also provided information on the procedures involved in mitigating the problem in the Metropolis. These actors were the best sources of reliable information about the past and present situation of unauthorized structures in Tema.

The secondary sources of information were gathered from journals and textbooks on related topics, while the internet also served as a very reliable source of information.

### **3.3.3 Instrument of data collection**

The main instruments used in collecting data were an interview guide and a set of questionnaire. While the city authorities who served as key informants were interviewed through an interview guide (see Appendix B), the property owners responded to a set of questionnaire (see Appendix A). Focused Group Discussions were also used to acquire additional information.

#### ***Structured Questionnaire***

The questionnaire was structured into five (5) sections (A-E). It consisted of both close-ended and open-ended questions. Section A dealt with the general background information of the respondents such as sex, age, educational background, employment and incomes, marital status and nationality of the respondents. Section B asked questions about residency and housing characteristics. Respondents were quizzed about the location of their property, when and how they acquired their land, construction materials used, tenancy arrangements and cost of structure, among others. Section C looked at the perceptions and awareness of house owners on building regulations. Basically, general questions from building regulations were asked to test the knowledge of the respondents.

Section D dealt with questions on the processes and acquisition of building permit. In this section, house owners without building permit were required to elaborate on reasons why they built without approval, how they managed to build without permit, problems encountered whilst building and how they approached the associated problems. The final section (E) asked questions about the reasons for the growth of unauthorized structures. This section was designed to be answered by only house owners without permits. It quizzed the house owners on how important certain factors are in influencing people to live in unauthorized structures. These included institutional factors, socio-economic, physical and political factors.

### ***Interview Guide***

The interview guide concentrated on four (4) main areas; the functions and duties of the regulatory institutions, resources and collaboration, education and communication with the public and other stakeholders and lastly, the challenges the institutions encounter in performing their duties.

### **3.3.4 Sample size and selection**

#### ***a) Questionnaire***

A sample size of 150 house owners was selected for the study. The sample population was divided among three communities (Tema Newtown, Community 1 and Community 25). The study adopted the proportional sampling technique thus, based on the target population of each community, the sample was proportionally distributed among them. Information obtained from the TMA put the total population of the three (3) selected communities at 267,915. Tema Community 1 had the largest population of about 151,819 people. This was followed by Tema

Newtown and Community 25 having 80,375 and 35,721 persons respectively. Therefore, taking into consideration the population of the three communities, each of them (Tema Newtown, Community 1 and Community 25) were represented by 85, 45 and 20 respondents respectively. These data are presented in Table 3.1.

**Table 3.1: Population and sampling data of the selected communities**

<i>Location</i>	Community 1	Tema Newtown	Community 25	<i>Total</i>
<i>Population</i>	151,819	80,375	35,721	<b>267,915</b>
<i>Sample population</i>	85	45	20	<b>150</b>

Source: Tema Municipal Assembly, 2015; Field Survey, 2015

A systematic sampling approach was used to select house owners, choosing every fifth house within a specified community.

#### ***b) Interview***

Purposive sampling was used to select some management personnel from TMA and TDC for interview. A total of twelve (12) key informants were interviewed for the study. They consisted of top metropolitan officials including representatives from the Inspectorate Units, Quantity Surveying, the Building, Environment and Health inspectorates, and the Planning and Engineering Departments. These management personnel were specifically selected by virtue of their respective positions; who served as key informants and provided vital information and other reference materials. The in-depth interview granted interviewees the opportunity to express their opinions on building regulations and the development of unauthorized structures.

*c) Focus Group Discussions*

The study also benefited from the discussions held at the community level with some community leaders and members of the Municipal Assembly, land lords and ladies, representatives from the Traditional council (in Tema Newtown) and sub-structures. The selection of most of the participants of the group was based on availability. Tema Newtown and Community 1 had 10 representative each, while Community 25 had 5.

*d) Field Observations*

In order to acquire a better understanding of the problem and assess the seriousness of unauthorized structures in the study area, the research embarked on field observations. Field trips were organized (before the actual data collection) to the study area to collect first-hand information. Pictures were also taken to show some of the structures and environment in the study area as presented in Plates 4.1 to 4.6.

**3.3.5 Limitations of the study**

Though the research can be considered as being successful, there were obvious hindrances and obstructions which tended to slow down the pace of work. The main problems of the study were finance and getting access to relevant data and information. Due to the size of the study area, more time was needed and many visits required to gather adequate and reliable primary data from the respondents. This made the project more expensive and time consuming.

It was also difficult getting the required secondary data when it came to the fore that the land management agencies did not have enough useful literature to support the study. Unfortunately,

the story was not much different at the Department of Geography and Resource Development of the University of Ghana.

### **3.3.6 Techniques of data analysis**

The study employed the descriptive statistical tools in analyzing the data that was collected. The tools adopted included the measures of central tendencies such as mode and mean. The mode was used to rank the specific variables contributing to the growth of unauthorized structures to determine their relative levels of importance. These variables included delays in processing building permits, lack of political and administrative will, high cost of rent and institutional corruption. The mean on the other hand, was used in assessing the major factors (institutional, socio-economic, political and others) contributing to the growth. It was further applied in determining the mean monthly incomes of the three selected communities.

Again, cross tabulation was used to show the relationships between some relevant variables, such as the selected communities and the types of dwelling units, level of compliance with building regulations and the mechanism adopted by developers to outwit the building inspectors. Pie chart and histogram were also adopted to give a pictorial description of variables such as employment, educational background and monthly incomes of house owners.

The analysis begun with the data processing which involved screening and editing of the questionnaires collected from the respondents. The data were coded manually, but processed *using the Statistical Package for the Social Sciences (SPSS) version 20.0.*

## **CHAPTER 4**

### **RESULTS AND DISCUSSION**

#### **4.1 Introduction**

This Chapter deals with the analysis and discussion of results from the data collected from the property owners in the study area, participants in the focused group discussions as well as the top management personnel who were purposely interviewed by virtue of their positions in their respective land management institutions. The Chapter discusses the results under four broad sub-headings namely; background variables, residential characteristics, house owners' acquisition or otherwise of building permits before the commencement of their projects to assess the degree of compliance, and their level of awareness of the existing building regulations. The Chapter ends with the challenges associated with the implementation of the laid down building regulations.

#### **4.2 BACKGROUND VARIABLES**

This section examined the background information of the respondents including their sexes, ages, educational background, nature of employment and monthly incomes. Though the general background information was not an intended goal of this research, it was necessary to provide such information to enable us understand the characteristics of the respondents. It also created a level of relationships among some selected variables.

#### **4.2.1 Distribution of property owners by gender**

Around the world and as in many developing countries the issue of gender in property acquisition cannot be over emphasized. According to the Food and Agricultural Organization [FAO] (2002), despite numerous international legal instruments and declarations recognizing the importance of equal access to property rights, females continue to own only about 1-2 percent of land and other real property throughout the world.

The above observation is also supported by Rabenhorst & Bean (2011) who in a study prepared for the International Housing Coalition and Urban Institute in July, 2011 emphasized that there is a ‘...dismal record of developing countries in providing women with equal rights not only to land but to the basic necessities of life. Women have less access to shelter, income, water, food, education and healthcare when compared to men...’ (pg. 4). The said study concluded by stating that today’s women and girls in developing countries make up 70% of the estimated 1.2 billion people who live in absolute poverty surviving on less than \$1 a day.

Even though this idea seems to be slowly fading in the 21<sup>st</sup> century due to the advancement of formal girl-child education, this study proved that the disparity between the sexes still exists. The subject of gender inequality therefore, clearly came into play as shown in Table 4.1.

**Table 4.1: Sex distribution of respondents**

<i>Sex</i>	<i>Number Of Property Owners</i>	<i>Percentage (%)</i>
<i>Male</i>	108	72.0
<i>Female</i>	42	28.0
<i>Total</i>	<i>150</i>	<i>100.0</i>

Source: Field Survey, 2015

The data obtained from the field showed that the total number of males were one hundred and eight (108) and females, forty-two (42), representing 72% and 28% respectively. It was realized that a small number of women owned houses because most of them were either unemployed (house wives) or worked in the informal sector as petty traders, and as such did not earn enough to acquire their own houses. This is also explained by the cultural belief that females are meant to be either child bearers or housewives, whilst men are considered as breadwinners.

#### **4.2.2 Age distribution of property owners**

Age is also an important factor to consider when dealing with the study of unauthorized structures. This is because it allows for an understanding of the capacity and resourcefulness of the various age groups to own properties. The age of the respondents ranged from 20 to 82 years, and thus the age groups were categorized into 10 years intervals.

**Table 4.2: Age distribution of property owners**

<i>Age (Years)</i>	<i>Number Of Property Owners</i>	<i>Percentage (%)</i>
<i>20 – 29</i>	<i>5</i>	<i>3.3</i>
<i>30 – 39</i>	<i>32</i>	<i>21.3</i>
<i>40 – 49</i>	<i>43</i>	<i>28.7</i>
<i>50 – 59</i>	<i>28</i>	<i>18.7</i>
<i>60 – 69</i>	<i>23</i>	<i>15.3</i>
<i>70 and above</i>	<i>19</i>	<i>12.7</i>
<b><i>Total</i></b>	<b><i>150</i></b>	<b><i>100.0</i></b>

Source: Field Survey, 2015

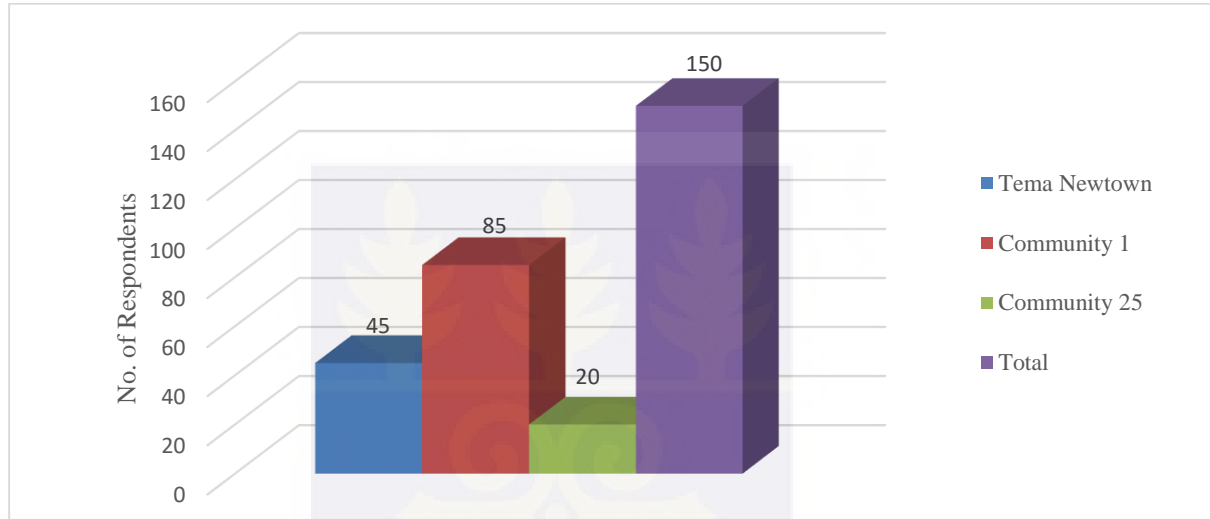
From Table 4.2, it was observed that the bulk of the property owners were between the ages of 40 and 49 years, representing 28.7% of the respondents; while those between the ages of 30 and 39 followed with 21.3%. Again, a marginal 3.3% of the respondents were within the 20 – 29 years age bracket. This result came out because this group consisted of the youth most of whom were still in school or had just graduated, and thus were not resourceful enough to own such properties. Many of the respondents in this group may also not be gainfully employed. Another 28% of the respondents were above 60 years and may have acquired their properties during their working lives.

In all, 103 or 68.7% of the respondent were between 30 and 59 years which demographically, consisted of the active working class. This distribution is explained by the Bank of Ghana (2007) report titled ‘The Housing Market in Ghana’, that at the early stages of the working lives of households, many rent apartments. As incomes increase above the basic consumption needs, investment opportunities in the housing industry become the prime objectives.

### 4.2.3 Distribution of house owners by location

As discussed in Chapter 3, the respondents for the study were proportionally selected based on the respective population size of the three communities under discussion. Figure 4.1 shows the detailed distribution of the respondents in the selected communities by location.

**Figure 4.1: Distribution of house owners by location**



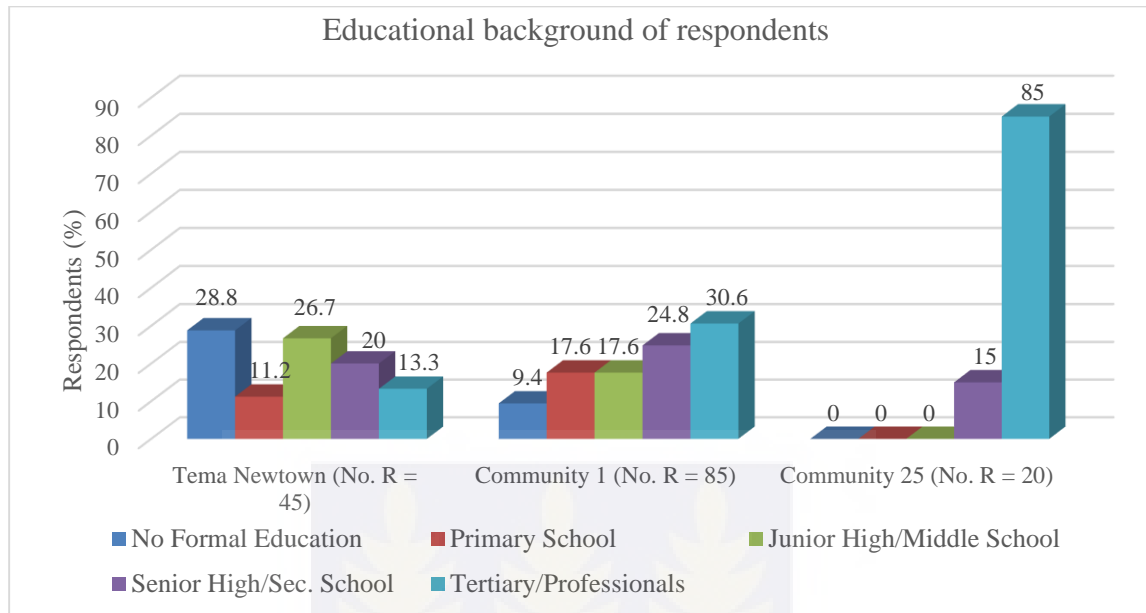
Source: Field Survey, 2015

Figure 4.1 shows that a total of 150 house owners were selected for the study. Out of this, 45, 85 and 20 were selected from Tema Newtown, Community 1 and Community 25 in that order.

### 4.2.4 Educational Background of property owners

Figure 4.2 shows the educational background of house owners in the three selected communities in the Tema Metropolis.

**Figure 4.2: Educational background of property owners**



No. R = Number of respondents

Source: Field Survey, 2015

The disparities in the level of education in the various communities was evident considering their income levels and degree of development. In Tema Newtown (the least developed) it was observed that bulk of the respondents, representing twenty-nine (29%) percent had no formal education. Eleven (11%) percent constituted those who completed basic or primary school. Only thirteen (13%) percent represented respondents who had attained tertiary education. Twenty-seven (27%) and twenty (20%) percent however, represented respondents with their highest level of education being up to the Junior High and Senior High Schools respectively.

In Tema Community One it was observed that there was a vast decline in respondents with no formal education. This represented only nine (9%) percent of property owners. A majority (30%) of the respondent however, were identified to have their highest education up to the

tertiary level. This was followed by house owners with Senior High School constituting twenty-five (25%) percent.

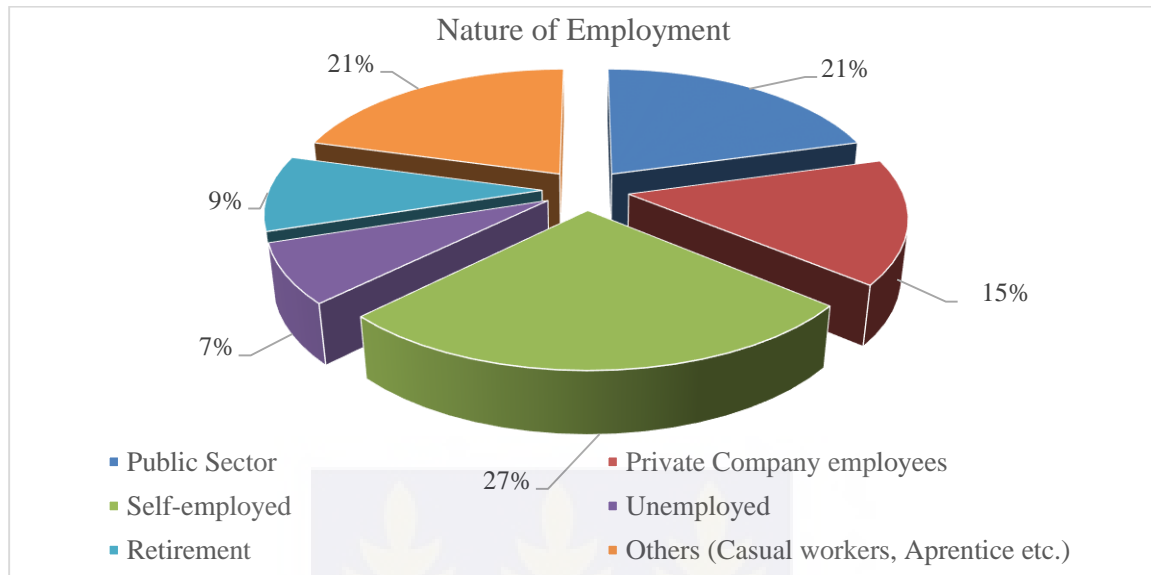
In Tema Community 25 – relatively the most developed community, also had majority, that is eighty-five (85%) percent, of its respondents educated up to the tertiary or professional levels. The least form of education here was at the Senior High School level representing only 15%.

#### **4.2.5 Nature of Employment**

Respondents were further asked to state the nature of their employment. The nature of employment of dwellers in informal settlements has been identified as one of the major determinants for the growth of unauthorized structures in many cities. The employment status of individuals impact on their incomes, and thereby influences their ability to save or access credit from financial institutions, which in turn determines the type of structure or buildings they will be able to construct, purchase or rent.

Durand-Lasserve (2006) supports the above view that persons in the high-income and middle-income groups tend to have regular employment, and hence have access to formal credit to provide them with decent living conditions. He continues that ‘the urban poor and large segments of low-and-moderate-income groups have no option but to rely on informal land and housing markets for access to land and shelter, thus fostering the expansion of irregular settlement in cities’ (pg. 1).

**Figure 4.3: Nature of employment of respondents**



Source: Field Survey, 2015

From the pie chart it can be observed that the highest singular form of employment of the respondents constituting twenty-seven (27%) percent were self-employed. Again twenty-one (21%) of the residents were identified to be engaged in menial jobs such as casual workers, apprentices and contributing family workers. This was due to the fact that majority of the respondents (particularly residents of Tema Newtown) had low educational background, with fishing as their predominant occupation.

The above observation partially agrees with the District Human Development Report – Tema Municipality (2004) that the majority of workers in the Tema Metropolis are self-employed and this is especially the case for women of whom about 76% are self-employed. The study showed that a substantial percentage of the respondents made up of 15% and 21% were employed in the private company and public sector respectively. The high number of

employees recorded in this study is as a result of the fact that Tema Community 25 which can generally be described as an elite community due to its high literacy rate, were predominantly top level or management personnel and professionals. Fig 4.3 also shows that seven (7) and nine (9) percent of the residents were unemployed and pensioners respectively.

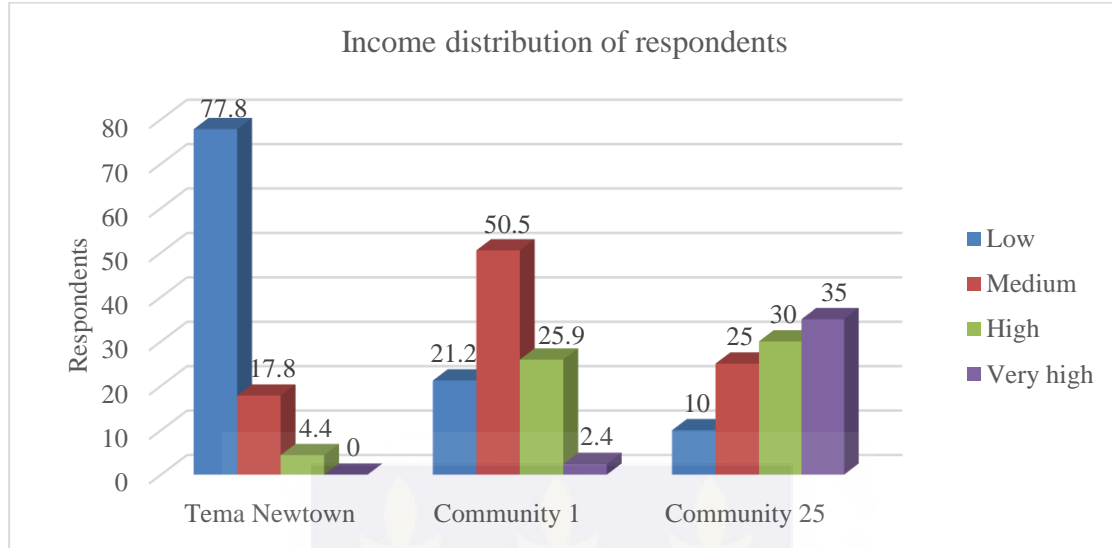
#### **4.2.6 Monthly income distribution of respondents**

According to U.N-Habitat (1989), poverty is the main barrier to successful delivery of housing to low-income households. The UN-Habitat report on Ghana Housing Profile (2011) projected that the Ghanaian household can afford a minimum of US\$10,000 and US\$18,000 (currently GHS 36,000 – 65,000) which could be 2.5 to 6 times of one's average annual salary as capital cost for housing in the country. The report adds that credit is used by about one quarter of Ghanaians but most households do not borrow money to build houses; they borrow for business and use profits to build. Of successful house-building householders, the majority use personal savings or family loans.

The income levels of the respondents were therefore, critically considered and formed an integral part of this study.

The study categorized the various monthly incomes of the respondents as follows:

GHS 0 - GHS 2,000.00:	Low Income,
GHS 2,001 - GHS 4,000.00:	Medium Income,
GHS 4,001 - GHS 6,000.00:	High Income
Over GHS 6,000.00:	Very High Income

**Figure 4.4: Monthly income distribution of respondents**

Source: Field Survey, 2015

Figure 4.4 shows that 80% of the respondents in Tema Newtown earned low monthly incomes. This could be as a result of the relatively low level of formal education (See Fig. 4.2) in the community and the resultant difficulty in landing decent jobs. The data also showed that some of the respondents were young adults who had recently come out of school and hence, not earning enough incomes. Again, 18% of the respondents were within the medium income bracket, whilst only 4% were high income earners. None of the respondents in Tema Newtown belonged to the very high income earners.

In Community One however, a bulk of the respondents (50.5%) were medium income earners. This was followed by high income and low income earners representing about 25.9% and 21.2% respectively. Another 2.4% of the respondents were very high income earners. Averagely this community showed an improvement income level than the former.

The data also showed that while 35% of the respondents of Tema Community 25 were very high income earners, 30% fell into the high income earners category. Another 25% were in the medium income bracket with the remaining 10% being low income earners. Considering the high level of education in this community, it was a matter of course that they were in a far better income group as compared to the others.

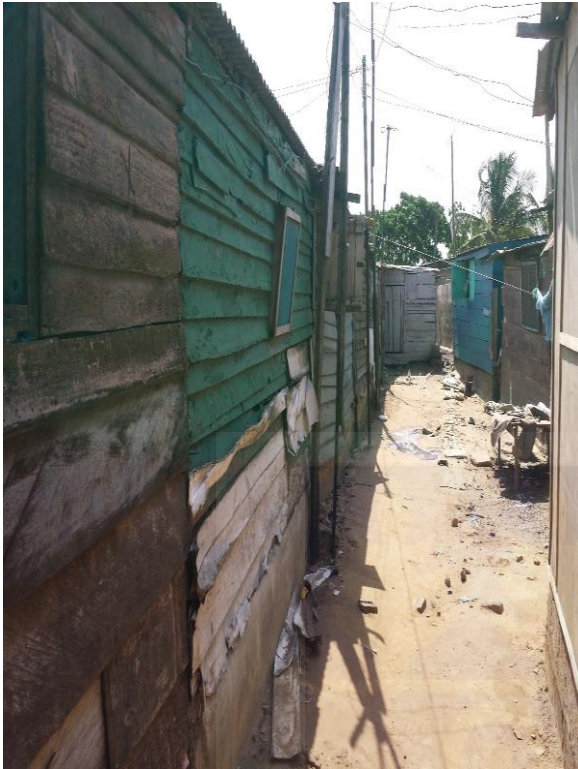
The mean monthly incomes for the three communities was calculated as GHS 2,537.6 which placed the average income of the respondents in the medium income category.

### **4.3 STRUCTURAL CONDITIONS OR RESIDENTIAL CHARACTERISTICS**

The study considered the differences between the housing characteristics in the three selected communities by collecting data on the main construction materials, ownership types, tenure arrangement and the types of dwelling units.

#### **4.3.1 Main construction material**

The most predominant material used for the construction of the majority of the houses in Tema Newtown was wood. Out of the 45 respondents, 25 of them had their properties made of wood while 9 was made of partly wood and blocks, and 7 and 4 were made of only blocks and metal sheets containers respectively. This can be attributed to the nature of land ownership in the community. Residents were therefore, not interested in investing huge resources in temporary structures hence, the increased number of low quality properties including kiosks and wooden houses in the community. The poor state of structures in Tema Newtown can be seen from Plates 4.1 and 4.2.



**Plate 4.1: Wooden structures at Tema Newtown**



**Plate 4.2: A mixture of wooden and block structures at Tema Newtown**

In Community 1, majority (over 70%) of the houses were made of blocks. Most of the respondents here had building permit since they acquired their houses directly from TDC or purchased them from persons or developers who had already acquired the building permit before construction. Again 19% and 8% of the respondents' houses were partly wooden and block and metal containers respectively. Wooden structures were the least in this community (3%). Again, respondents in this category were mostly artisans such as carpenters and mechanics who had converted their homes into their place of work. Only a few of these

makeshift houses acquired permit before constructing the projects. Some of the structures in Community 1 are presented in Plates 4.3 and 4.4.



**Plate 4.3: A typical altered TDC building at Community 1**

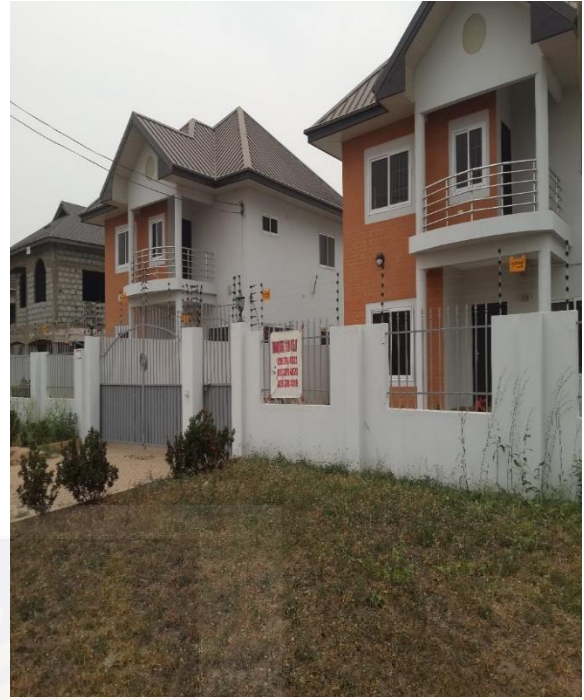


**Plate 4.4: A TDC structure with a wooden extension at Community 1**

About 95% of the houses in Tema Community 25 were made of blocks. The remaining 5% were either wooden or metal containers. None of the houses in this community was made of only wood. Plates 4.5 and 4.6 show some of the settlement and structures in Community 25:



**Plate 4.5: An uncompleted building in Community 25**



**Plate 4.6: Executive houses being offered for rental in Community 25.**

The building materials used in the three selected communities conform to the conclusions of the 2010 Population and Housing Census (District Analytical Report, Tema Metropolitan (2014) that the main construction material for outer walls of dwelling units in the Metropolis is cement blocks/concrete accounting for 76.3 percent with wood constituting 19.8 percent.

#### **4.3.2 Tenancy arrangement**

This section looks at the ownership of the dwelling units in Tema Newtown, Community 1 and Tema Community 25. It was an attempt to find out whether the buildings were occupied by the owners, rented or occupied rent-free.

In the cases of the rented houses, the nature of rental was also considered. Some of the issues that were considered in this respect were:

- Is it partly occupied by the owner and partly rent?
- Is the building rented out for commercial or residential purposes?
- Is the owner living within the community and how often does he/she visit the house?

The 2010 Population and Housing Census (District Analytical Report, Tema Metropolitan (2014) indicates that in the Tema Metropolis, the highest proportion of dwelling units are owned by household members (48.2%), followed by those owned by other private individual (33.6%), a relative not a household member (8.1%) and public (government) ownership (5.2%). For the purposes of this research however, attention was focused on only those owned by the individual house owners.

The study revealed that majority of the houses (74 respondents or 49.3 %) were exclusively occupied by their owners with 13 or 8.7% by relatives who were not household members. These revelations were therefore clearly, in support of the assertion by the 2010 Population and Housing Census stated above. Another 34 house or 22.7% were partly occupied and rented by the owner. The study also observed that the remaining 29 respondents or 19.3% had wholly rented out their houses for both commercial and residential purposes.

It was again established that while Tema Newtown had the highest number of owner occupancy with 35 house owners or 77.8%, only half (10 respondents) of the houses in Tema Community 25 were owner occupied. Twenty-nine (29) representing 34.1% of the house owners in Community One were living in their own houses. From the data collected, it was also deduced that Community One had the most house owners sharing their houses with

tenants with 28 or 33% falling into this category. In Tema Community 25, six (6) houses were occupied by relatives who were not a household member.

#### 4.3.3 Types of dwelling units

The houses in the three communities were classified according to the 2010 Population and Houses Census categorization as compound houses, semi-detached houses, separate houses, and flats/apartments. The rest were improvised homes and uncompleted buildings. The findings of the study with regards to the dwelling houses in Communities 1 and 25 and Tema Newtown as shown in Table 4.3 were contrary to what pertains in the Metropolis where almost a third (31.2%) are compound houses with 20.2 percent and 25.4 percent being separate and semi-detached houses respectively (2010 Population and Housing Census: District Analytical Report, Tema Metropolitan, 2014). This may be due to the nature of the selected communities.

**Table 4.3: Types of Dwelling Units**

Community	Type of house						Total
	Compound	Separate	Semi-Detached	Flat/ Apartment	Improvised	Uncompleted	
<b>Community 1</b>	10 (11.8%)	19 (22.4%)	32 (37.6%)	7 (8.2%)	8 (9.4%)	9 (10.6%)	<b>85</b>
<b>Tema Newtown</b>	5 (11.1%)	9 (20%)	15 (33.4%)	0	11 (24.5%)	5 (11.1%)	<b>45</b>
<b>Community 25</b>	0	10 (50%)	5 (25%)	2 (10%)	1 (5%)	2 (10%)	<b>20</b>
<b>Total</b>	<b>15</b> <b>(10%)</b>	<b>38</b> <b>(25.3%)</b>	<b>52</b> <b>(34.7%)</b>	<b>9</b> <b>(6%)</b>	<b>20</b> <b>(13.3%)</b>	<b>16</b> <b>(10.7%)</b>	<b>150</b>

Source: Field Survey, 2015

From the study, it is observed that only 10% of the dwelling houses in the three (3) communities were compound houses, while the majority constituting 90 houses or 60% were either separate or semi-detached. Almost a quarter were either improvised or uncompleted with Tema Newtown having the highest number of houses falling into this category. Tema Community 25 which is classified as an elite residential area had 85% of its houses being single, semi-detached or flat/apartment. No compound house was identified in this location. A majority (37.6) of the dwelling houses in Community One were semi-detached.

#### **4.4 COMPLIANCE AND GROWTH OF UNAUTHORIZED STRUCTURES**

This section discusses the mode of land acquisition, the level of compliance with building permits, the causes of the growth of these structures and finally, how developers are able to put up their structures in spite of the existence of building regulations in the Metropolis.

##### **4.4.1 Mode of Land Acquisition**

With regards to land management, the Tema Metropolis consists of two district planning areas. These are the Tema “Acquisition Area” which is managed by the TDC, and the “Non-Acquisition Area” which is owned by the various traditional authorities but managed by the TMA. However recent amendments have placed the Acquisition Area under the jurisdiction of TMA (GSS, 2014). It is important to note that Communities 1 and 25 fall under the Acquisition Area, whilst Tema Newtown falls under the Non-Acquisition Area.

The study showed that a bulk of the respondents in the Tema Newtown acquired their plots of land through either private land owners (what they referred as “land lords/ladies”) or the chiefs. This constituted 33.3% and 51.1% respectively. Discussions however revealed that land

owners were individuals who had acquired land directly from the chiefs or the traditional authorities and therefore, held a secured tenure of ownership. It also came out that 15.6% of the land were acquired through family ties.

In Tema Community 1, 61 of the respondents representing 71.8% purchased their land together with their houses from TDC. This was followed by respondents who acquired only their land from the same institution; constituting 18.8%. The remaining 9.4% acquired their land through private land owners or family relations.

With respect to Community 25, 40% of the house owners acquired their land (mostly serviced plot) from TDC with 30% acquiring their land together with their houses from the Corporation. Again, 20% of the respondents purchased their land from private land owners whilst only 10% acquired their properties from corporate real estate developers.

#### **4.4.2 Level of compliance with building regulations in the Tema Metropolis**

The second objective of the research was partly aimed at the developers' level of compliance with the established building regulations in the Metropolis. The study therefore, considered the number of respondents in the three communities who put up their structures with or without the required building permits. The results obtained as shown in Table 4.4 confirmed the assertion that unauthorized structures persist in the Tema Metropolis.

**Table 4.4: Acquisition of building permit**

<i>Decision</i>	<i>Location of property</i>			<i>Total</i>
	Tema Newtown	Community 1	Community 25	
<i>Acquire</i>	21 (47%)	64 (75%)	17 (85%)	102 (76%)
<i>Did not Acquire</i>	24 (53%)	21 (25%)	3 (15%)	48 (24%)
<i>Total</i>	45	85	20	150

Source: Field Survey, 2015

From the Table, it was observed that Tema Newtown had the highest level of non-compliance with the building regulations. The results showed that out of the 45 sampled house owners, 24 or 52% did not acquire building permit before developing their projects. This can be attributed mainly to the fact that a significant proportion of the property owners in this community rented their land temporary from land lords/ladies and therefore, did not consider it necessary to acquire building permit before construction.

Further enquiries indicated that of the 21 house owners who acquired the development permits, 11 or 52.4% did not build to the approved specification. Majority of such developers responded that they had to draw those decent building plans merely for the purposes of acquiring the building permit, as they obviously did not have the resources to put up the approved structures.

Tema Community1 had a relatively lower percentage as compared to Tema Newtown in spite of the fact that it had a larger proportion of the sampled house owners (85). The data showed that, 75% of the house owners acquired building permit before embarking on their projects whereas the remaining 25% did not. Tema Community 25 had the least number of house

owners without building permit. Only 3, representing 15% did not acquire building permit with a vast majority (85%) acquiring the necessary permit before construction.

It can therefore, be affirmed that unauthorized structures were more prevalent in the more deprived communities. Thus, it can be concluded that the more developed the community, the fewer the number of unauthorized structures and vice versa.

#### **4.4.3 Major factors contributing to the growth of unauthorized structures**

The first objective of the research is to determine the major contributory factors to the development of unauthorized structures in the Tema Metropolis. The results from the data collected is discussed in this section. As indicated earlier, the United Nations (2007) categorization of the causes of unauthorized structures was adopted for the study. These are the institutional, socio-economic, political, physical and cultural factors.

Fifteen (15) variables which were earlier identified among the various categories were used to assess the respondents' understanding of the factors contributing to the development of unauthorized structures. A total of 48 house owners who did not acquire the necessary development permit before embarking on their projects were considered in this section. They were required to indicate the extent to which the afore-mentioned variables influenced them to construct their houses without the necessary development permits. The percentage of the positive response of each of the variables was calculated in order to rank them to determine their degree of importance. Again, the mean of the positive responses in each specific category (factor) was used to identify its contribution to the problem at hand.

**Table 4.5: Respondents' view on variables contributing to the growth of unauthorized structures**

<i>FACTORS/ Variables</i>	<i>Respondents (% of Frequency)</i>				<i>Mean</i>
	<i>No.</i>	<i>I (%)</i>	<i>M.I (%)</i>	<i>N.I (%)</i>	
<b><i>SOCIO-ECONOMIC</i></b>					
<i>a) Limited employment and low level of Income</i>	<b>48</b>	<b>31 (64.5)</b>	9 (18.8)	8 (16.7)	<b>28.3</b>
<i>b) High Cost of Rent</i>	<b>48</b>	<b>32 (66.7)</b>	6 (12.5)	10 (20.8)	
<i>c) Low level of Education</i>	<b>48</b>	<b>24 (50.0)</b>	4 (8.3)	20 (41.7)	
<i>d) Rural-Urban migration</i>	<b>48</b>	<b>26 (54.1)</b>	8 (16.7)	14 (29.2)	
<b><i>PHYSICAL</i></b>					
<i>e) Suitability of Land for habitation</i>	<b>48</b>	<b>19 (39.6)</b>	8 (16.7)	21 (43.7)	<b>19.5</b>
<i>f) Advantageous location of Area</i>	<b>48</b>	<b>20 (41.7)</b>	11 (22.9)	17 (35.4)	
<b><i>POLITICAL</i></b>					
<i>g) Inadequate effort by government to prevent unauthorized structures</i>	<b>48</b>	<b>26 (54.1)</b>	13 (27.1)	9 (18.8)	<b>25.7</b>
<i>h) Ineffective housing policies by government</i>	<b>48</b>	<b>27 (56.3)</b>	10 (20.8)	11 (22.9)	
<i>i) Limited funding for city planning</i>	<b>48</b>	<b>24 (50.0)</b>	12 (25.0)	12 (25.0)	
<b><i>INSTITUTIONAL</i></b>					
<i>j) High building standards, codes and regulations</i>	<b>48</b>	<b>30 (62.5)</b>	12 (25.0)	6 (12.5)	<b>32.3</b>
<i>k) Delays in acquisition of legal documents (Bureaucracy)</i>	<b>48</b>	<b>37 (77.1)</b>	5 (10.4)	6 (12.5)	
<i>l) Institutional corruption</i>	<b>48</b>	<b>28 (58.3)</b>	6 (12.5)	14 (29.2)	
<i>m) Lack of enforcement of Building Regulations</i>	<b>48</b>	<b>34 (70.8)</b>	5 (10.4)	9 (18.8)	
<b><i>CULTURAL</i></b>					
<i>n) Religious and cultural beliefs</i>	<b>48</b>	<b>15 (31.3)</b>	7 (14.6)	26 (54.1)	<b>12.5</b>
<i>o) Family ties</i>	<b>48</b>	<b>10 (20.8)</b>	11 (22.9)	27 (56.3)	

**No.** = Total number of respondents; **I** = Important; **M.I** = Moderately Important  
**N.I** = Not Important

Source: Field Survey, 2015

From Table 4.5, it was realized that each of the variables had a different significant level of importance. The list below therefore, shows the rankings of the variables and their relative importance (in percentages) to the challenge of unauthorized structures.

<b>Rank</b>	<b>Variables</b>	<b>Percentage (%)</b>
1 <sup>st</sup>	Delays in acquisition of legal documents	77.1
2 <sup>nd</sup>	Lack of enforcement of Building Regulations	70.8
3 <sup>rd</sup>	High Cost of Rent	66.7
4 <sup>th</sup>	Limited employment and low level of Income	64.5
5 <sup>th</sup>	High building standards, codes and regulations	62.5
6 <sup>th</sup>	Institutional corruption	58.3
7 <sup>th</sup>	Ineffective housing policies by government	56.3
8 <sup>th</sup>	Inadequate effort by government to prevent unauthorized structures	54.1
8 <sup>th</sup>	Rural-Urban migration	54.1
10 <sup>th</sup>	Low level of Education	50.0
10 <sup>th</sup>	Limited funding for city planning	50.0
12 <sup>th</sup>	Advantageous location of area	41.7
13 <sup>th</sup>	Suitability of land for habitation	39.6
14 <sup>th</sup>	Religious and cultural beliefs	31.3
15 <sup>th</sup>	Family ties	20.8

(Source: Field Survey, 2015)

From the above, it is observed that the most important variable contributing to the growth of unauthorized structures in the selected communities was the delays in the acquisition of legal documents (77.1%). This was followed by the lack of enforcement of building regulations (70.8%), the high cost of rent (66.7%), limited employment and low level of income (64.5%) in that order. The least important variable contributing to the development of unauthorized structures was however, identified as family ties (20.8%).

In general, using the mean, it was realized that the two most important factors influencing the development of unauthorized structures were the institutional (with a mean of 32.3) and socio-economic factors (28.3). Political and physical factors followed with a mean of 25.7 and 19.5 respectively. The least important factor was cultural with a mean of 12.5. The above results also affirmed the information gathered from the in-depth interviews (IDI) with the management of the city authorities and FGDs held with the house owners.

The contribution of the five factors proposed by United Nations (2007) as influencing the growth of unauthorized structures in the Tema Metropolis are further discussed as follows:

### ***Institutional factors***

Institutional factors were identified by the research as the most important reasons for the growth of unauthorized structures in the Tema Metropolis. The delays in the issuing of legal building documents such as land titles and building permits were the most prominent institutional variable. According to Botchway et al. (2014), 66.6% of developers in Kumasi acquired their land titles beyond 18 month of application. One reason given for the delay is the fact that most landed property in Ghana are not properly registered, while many others are

poorly documented; thus making their transfers difficult (Bank of Ghana, 2007). The NBR makes land title registration mandatory during the processing of building permits.

During the FGD in Tema Newtown, the respondents expressed their reservations about the lack of commitment on the part of the land administrators to the extent that the Technical Sub-Committee and the SPC members do not adhere to meeting time schedules to approve building permits. In fact, the Audit Report on Ga East Metropolitan Assembly (2011), indicted the members of the committees on this same lapses. The house owners concluded that such delays make the processes frustrating, cumbersome, and costly.

There is also the problem of poor inspection and monitoring of on-going building projects, and in some cases the lackadaisical approach of the authorities in applying the building regulations to the letter. Section 11 of the NBR mandates the MMDAs to monitor construction activities that take place under their jurisdiction to ensure conformity to the regulations. The interviews however, revealed that for a number of reasons including limited resources (notably qualified personnel, equipment and vehicles), the land administrators failed in this direction. This supports the observation of Magigi and Majani (2006) that poor enforcement of building regulations is the cause of many unauthorized structures in many cities.

The UN (2007) also identified complex legislation and inappropriate high building standards as a major institutional variable that contributes to the emergence of unauthorized structures. Some of the discussants during the FGD agreed with this assertion by describing the regulations as being too complicated and difficult to comply with. They therefore, called for a revision of some portions to suit what they called the 'local environment'.

### ***Socio-Economic Factors***

The socio-economic factors centered on the levels of education, employment and incomes of property owners. The level of education of developers is significant when considering awareness of, application and compliance with building regulations. This also influences their employment status and incomes hence, their ability to rent decent accommodation and thereby, live in healthy environments. The impact of low education was particularly felt in Tema Newtown which is the least developed among the three selected communities.

Several researches have also characterized informal settlements dwellers with high illiteracy rate and low level of education (Nawagamuwa and Viking, 2003). This assertion was confirmed by the results based on the disparities in the levels of education in the selected communities. It is observed that the number of unauthorized structures in the communities moved in a direct relation with the level of education of the property owners. Thus, the communities that recorded higher levels of education experienced fewer number of unauthorized structures and vice versa.

The nature of employment has been identified as one of the major challenges to the growth of unauthorized structures. The employment status of individuals' as hinted by Durand-Lasserre (2006), impacts on their incomes and thereby, influences the type of buildings they are able to construct, purchase or rent.

Again an earlier study by the Global Development Research Centre (2003) emphasized that unemployment status of dwellers influences them to build sub-standard structures which do not meet building regulations. Weiner (2003) also identified poverty as the leading socio-

economic factor that accounts for the development of unauthorized structures. Sietchiping (2000) opined that due to low incomes and poverty, the rural poor are unable to cope with the high rent and prices of land to acquire decent housing in the urban communities.

The study also indicated that rural-urban migration was the third most important socio-economic variable contributing to the challenges of unauthorized structures in the Metropolis. Following the official opening of the Tema Harbour in 1962 and the subsequent construction of the Tema township, a large population influx began owing to the city's employment opportunities. The then Tema District was therefore, overwhelmed by the sudden population explosion. Unfortunately, TDC was unable to provide adequate housing and other essential services to meet the needs of this migration ([www.vibeghana.com](http://www.vibeghana.com)). This to a large extent contributed to the current poor state of housing in the Tema Metropolis.

### ***Political Factors***

The prominent variables that came under political factors included the inability of governments to adopt and implement sustainable housing policies partly due to lack of initiatives and funds. There have however, been many attempts to introduce effective housing policies in the country, the latest being the new comprehensive housing policy which was launched in March, 2015 by the Minister of Water Resources, Works and Housing in Accra. According to Songsore (2003), the various government housing policies have over the years turned out to be a near drain on public wealth and incapable of pursuing their fundamental mandate of public housing provision. Ahadzie and Amoah- Mensah (2010) support this view that the implementation of

numerous housing projects, have sadly failed to meet expected production target amidst an acute housing delivery deficit.

Another challenge is the lack of political will on the part of political authorities, and in some extreme cases political interferences since land administrators are sometimes coerced to buck-out from approved directives to satisfy the public (Kumar, 2012). Sadly, many administrators are unable to resist pressures from politicians for fear of victimization (Shawan, 2013). Writing about the situation in Old Fadama in Accra for example, Prempeh (2015) criticized the various governments of Ghana thus: *'Since Ghana bounced back to democratic governance in 1992, political elites have politicized the fate of Old Fadama. Residents of Fadama have always been threatened with forced eviction; however, the political elites have, as well, always lacked the political will to execute such initiatives'*.

Such show of ineptitude have frequently occurred in many other places in the country especially after disasters like flood and collapse of buildings, when there are pledges to deal with offending developers. A typical case in point is when the then President of the Republic of Ghana issued an executive order in Parliament on 15<sup>th</sup> July, 2015 directing a nationwide demolition of unauthorized structures following the June 3 flooding disaster that claimed over 100 lives in Accra ([myjoyonline.com](http://myjoyonline.com). 15<sup>th</sup> July, 2015). The implementation of this directive was probably shelved due to Ghana's 2016 general elections.

### ***Other Factors***

The physical and cultural factors though considered by the study, did not appear to have any significant impact of the growth of unauthorized structures in the Metropolis.

#### 4.4.4 How do people build without approved permit?

According to Section 49 (1) of Local Government Act 462 (1993), a physical development shall not be carried out in a district without the prior approval by the District Planning Authority. The National Building Regulation 1996 re-emphasized this directive by stressing that no person shall begin to construct any building or to execute any work except under and in accordance with the terms and conditions of a permit signed by the Metropolitan Engineer. By implication therefore, developers are compelled by the above laws to acquire the necessary building permits before starting their projects.

The study established however, that a number of house owners flouted this directive and managed to put up their structures without the prescribed permits. Table 4.6 seeks to explain how such developers managed to circumvent the laid down regulations and completed their houses without much hindrance.

**Table 4.6: How developers build without building permit**

Community	Mechanisms adopted to build without permit				Total
	Built during odd hours	Building Inspectors did not visit my site	Bribed the building inspectors	Used land guards	
Tema Newtown	9	6	6	3	24
Community 1	7	5	7	2	21
Community 25	0	3	0	0	3
	16 (33.3%)	14 (29.2%)	13 (27.1%)	5 (10.4%)	48

Source: Field survey, 2015

The Table shows that the most dominant approach was for developers to build during odd hours with 33.3% of the defaulters adopting this strategy. It was realized that developers built in the night when the building inspectors had closed from work. This was experienced mostly in Tema Newtown where more than a third of the recalcitrant house owners conceded to building in the night with the help of their families and friends.

Again, some house owners succeeded in this direction because the monitoring personnel did not visit the respective building sites of the developers, as required by the building regulations. As a result, 29.2% of the house owners took advantage of this flaw and developed their properties. In fact, all the 3 house owners in Community 25 who circumvented the process succeeded without any hindrance because of this inaction of the city authorities.

The generally perceived notion that the building inspectors extort monies from potential developers and thereby, encourage the construction of unauthorized structures also came out prominently with about 27% respondents confirming. It was established from the results that the role of 'land guards' in construction was not a major challenge in the study area.

#### **4.5 PERCEPTION AND AWARENESS OF THE BUILDING REGULATIONS**

The second objective of the study again sought to examine house owners' perceptions on, and their awareness of the existing building regulations. This section of the study therefore, examines the house owners' and developers' perception on, and the depth of awareness of the building regulations, and how these knowledge contribute to the growth of unauthorized structures in the Tema Metropolis.

#### 4.5.1 Perceptions on building permits and construction of unauthorized structures

A five point Likert or rating scale questionnaire format was used to solicit the respondents' perceptions on the importance of acquiring building permits and construction of unauthorized structures. The values that were assigned to the responses were: 'strongly agree', 'agree', 'undecided or uncertain', 'disagree', 'strongly disagree' in that order. The results are shown in Tables 4.7 and 4.8.

**Table 4.7: House owners' perception on the importance of building permits**

<b>STATEMENTS</b>	<b>NO.</b>	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
		<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>
<b>Building permits are not important to me</b>	150	8.0	12.0	11.3	34.0	34.7
<b>Information on the processes of acquiring building permit is too scanty</b>	150	26.0	23.3	10.7	20.7	19.3
<b>Building regulations are too rigid to comply</b>	150	36.0	24.7	10.7	16.7	12.0
<b>With land guards, I do not need a building permit</b>	150	4.0	4.7	8.0	40.0	43.3
<b>Building Inspectors and other Authorities are hostile and unfriendly and must be avoided</b>	150	32.3	28.0	5.1	21.3	13.3
<b>Building Inspectors extort money and paves the way for me to build without permit</b>	150	29.3	23.0	5.0	22.0	20.7

[SA = Strongly Agreed; A = Agreed; U = Uncertain; D = Disagree; SD = Strongly Disagree; No. = Number of respondents]

Source: Field Survey, 2015

From Table 4.7, it is noted that majority of the respondents (68.7%) believed that the building regulations in Ghana are important in ensuring sustainable development in quality building. However, 49.3% believed that information on the processes of acquiring building permit is too scanty and inadequate in assisting developers to minimize the challenges they encounter in the course of obtaining such the permits. This results shows the acceptance of the usefulness of the building permits by house owners and their willingness to abide by them, subject to the provision of further information. Also 60.7% of the respondents confirmed that the requirements of Building Regulations are too rigid and difficult to comply with.

The responses also showed that the house owners were not satisfied with the work ethics and general attitude of the personnel of the planning institutions thus, discouraging them from acquiring the permits. While 60.3% either strongly agreed or simply agreed that the personnel were hostile and unfriendly, with 52.3% confirming the perception of extortions by the personnel. Darko (2008) had earlier cited that the spokesman for the Tema Traditional Council, Nii Anum Keteke criticized the TDC Task Force for being involved in corrupt practices and also conniving with some developers to enter the Tema Stool land without authority.

Interestingly, a significant 83.3% also indicated that the presence of 'land guards' is not an alternative to acquiring building permits, a clear indication that the house owners were willing to co-operate with the city authorities.

**Table 4.8: House owners' perception of construction of unauthorized structures**

<b>STATEMENTS</b>	<b>NO.</b>	<b>SA</b> <b>(%)</b>	<b>A</b> <b>(%)</b>	<b>U</b> <b>(%)</b>	<b>D</b> <b>(%)</b>	<b>SD</b> <b>(%)</b>
<b>Once permit is acquired, one can put up any kind of structure he wishes to build</b>	150	15.0	25.0	7.0	20.7	32.3
<b>Building permits regulate the types of materials I can use for my building</b>	150	33.3	22.7	8.7	17.3	18.0
<b>Planning authorities can stop me if I do not have the prescribed building documents</b>	150	48.6	18.7	14.7	10.7	7.3
<b>Planning authorities can stop me or demolish my building if it is wrongly sited</b>	150	52.3	20.0	4.7	6.3	16.7

[SA = Strongly Agreed; A = Agreed; U = Uncertain; D = Disagree; SD = Strongly Disagree; No. = Number of respondents]

(Source: Field Survey, 2015)

Table 4.8 shows the responses of the house owners to further specific questions emanating from the building regulations. Although the NBR specifies the type of materials that should be used in building, 40 % of the respondents claimed they were ignorant of this requirement. In fact, only about half (53%) appeared to be aware of this law; with 35.3% of the house owners expressing their ignorance of the fact that every area had a development plan and therefore, were of the notion that they could put up any kind of structure once the permit is acquired. This confirms the widely held perception that once a permit has been obtained, one can construct whatever property he/she wishes.

Most of the house owners were however, aware of the fact that the building authorities could stop them, or in the extreme situations demolish their buildings if they do not have the requisite building documents or if building is sited at the wrong place. The above shows that at least 67.3% and 72.3% agreed to these facts respectively.

#### 4.5.2 Awareness of the existence of Building Regulations

This section of the study is aimed at examining the respondents' level of awareness of the existing building regulations and their source(s) of information.

**Table 4.9: Respondents' awareness of the existence of building regulations**

<i>Response</i>	<i>Location of the property</i>			<i>Total</i>
	Tema Newtown	Community 1	Community 25	
<i>Yes</i>	24 (53.3%)	70 (82.4%)	20 (100%)	<b>114 (76.0)</b>
<i>No</i>	21 (46.7%)	15 (17.6%)	0	<b>36 (24.0%)</b>
<i>Total</i>	45	85	20	150

Source: Field Survey, 2015

From the results shown in Table 4.9, it was observed that a total of seventy-six (76%) percent of the respondents were aware of the rules and regulations governing the development of buildings in the Metropolis. In general, Tema Newtown which recorded 53.3%, had the least respondents expressing their awareness of the building regulations. Tema Community 1 and Community 25 showed a relatively higher level of awareness representing 82.4% and 100% respectively. In all, only 36 respondents representing twenty four percent (24%) claimed to be completely unaware of the building regulations and their related by-laws in the study area.

The information on the regulations according to the respondents were acquired through flyers, the print and electronic media, internet and through seminars and conferences. The TDC and TMA also served as principal sources of information in the Metropolis. However, almost half of the respondents concluded that the information provided by the regulatory bodies were too scanty and not comprehensive enough to provide effective and useful education.

In the view of most respondents, many salient information were not adequately disclosed. It was observed for instance, that the cost to be paid at the each stage of the processes were in most cases not clearly defined. Equally important was the fact that the time lines for the completion of the various stages of the processes were not communicated to them. This therefore, depended on the discretion of the institutions and their personnel. These situations also resulted in frustration and inconveniences which paved the way for extortion by the personnel of the institutions.

#### **4.5.3 Level of awareness of the building regulations**

According to Kings-Amadi (2004), unauthorized structures are partly the result of lack of enlightenment and ignorance of developers about building regulations. To verify this in the study area, the house-owners were required to answer specific salient questions drawn from the building regulations of Ghana.

However, the answers provided by the respondents as shown in Table 4.11 indicated a proof of an average level of awareness of the details of the NBR. In almost all cases, an average of a mere 50% to 55% of the respondents expressed their support for the statements enshrined in the regulations. The study however, found out that most of the respondents in Community 25

had a relatively better knowledge, with those in Community One and Tema Newtown following in that order.

**Table 4.10: House owners' awareness of specific aspects of the building regulations**

<b>STATEMENTS</b>	<b>NO.</b>	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
		<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>	<b>(%)</b>
<b>Authority should notify applicant within 7 days of receipt of Permit application</b>	150	30.2	26.4	10.0	18.6	14.8
<b>Within 3 months of application, Authorities should notify the applicant of grant or refusal</b>	150	31.5	25.3	9.40	19.2	14.6
<b>One may assume grant of permit and may commence development, if one is not informed about the decision of his/her application within 90days</b>	150	28.7	22.6	8.0	24.0	12.7
<b>The planning authorities must be notified on the date on which one is ready to commence his/her building</b>	150	26.0	24.0	10.0	25.0	15.0
<b>Developers are required to seek renewal of Building Permit if development is not complete within (5) five years</b>	150	25.5	24.0	6.0	28.7	13.1

[SA = Strongly Agreed; A = Agreed; U = Uncertain; D = Disagree; SD = Strongly Disagree; No. = Number of respondents]

(Source: Field Survey, 2015)

According to the National Building Regulation, the approving authorities are to notify applicants within 7 days of receipt of their applications. However, Table 4.10 shows that only 56.6% of the respondents agreed to this statements, while about a third expressed ignorance of this regulation. Almost the same opinion was expressed in the building regulation requirement that within 3 months of application, Authorities should notify the applicant of the granting or otherwise of the Building Permit.

The study also established that 40.7% of the house-owners were not aware that one may assume grant of permit and may thus commence building if he or she is not informed about the decision of his/her application within 90days. In addition, 50% of the house owners expressed awareness of the fact that that the planning authorities must be notified on the date on which one is willing to commence his/her building. A bulk of the house owners (41.8%) either disagreed or were uncertain that developers are required to seek renewal of Building Permit if development is not complete within (5) five years of acquiring the permit.

The expression of a mere average awareness of the building regulations of Ghana as discussed, may be attributed partly to the low key public education by the planning authorities. An interview with some of the management officials of TDC and TMA revealed that education on building regulation was one aspect that the institutions have been battling with over the years. They agreed to their inability to conduct frequent and effective public education programmes as a result of limited funds, but they were also quick to rate the public's responses to their educational activities as discouraging.

#### **4.5.4 Challenges associated with the implementation of the building regulations**

The interviews and interactions with some of the heads of the land institutions brought to the fore their awareness of the public's concerns about the processes of acquiring building permits and the difficulties they go through in their efforts to comply with this requirement. The main complaints had to do with the lengthy nature of the permit acquisition processes, the costs involved, information black-out, apparent extortions and corruption, and the inconveniences and frustrations developers encounter. On the issue of the undue delays, the heads of the inspectorate departments of both TDC and TMA were of the opinion that *“all the processes involved are very important and that they do not deem it prudent to side-step some aspects for the sake of accelerating the process, and that in many respects, they serve as checks on both the institutions and developers”*.

They also disagreed with the developers that the cost of acquiring the permit was too high considering the processes involved. The city authorities also as expected, refuted the claims of corruption levelled against their personnel. These denials were obviously vehemently counter challenged by the developers.

Some of the challenges associated with the processes which were enumerated by the land administrators are discussed below:

##### ***Collaboration between the planning agencies***

The management of the stakeholder institutions painted a positive picture of mutual understanding and corporation between them and thus, promoting harmony in their respective

working environments. It was therefore, concluded that there existed a cordial relationship which had enabled them collectively achieve a high level of efficiency.

Subsequent to this therefore, there has been increased inspection and monitoring of on-going projects, and that the NBR was being implemented fully in the Metropolis. The representative of the inspectorate unit of TMA for instance added that “...*effective measures have been put in place in the various Departments and with other collaborating institutions such as the Ghana National Fire Service, EPA and the Lands Commission to promote smooth, frequent and effective inspections*”.

In spite of the seeming peaceful collaboration between the planning agencies, one of the primary institutional challenges confronting them is the overlapping functions of TMA and TDC. The management lamented that some of such roles have often led to internal conflicts between them. One management personnel of TDC added that “*these overlapping functions have the tendency of discouraging developers from obtaining the necessary building permits*”.

According to the 2010 Population and Housing Census (District Analytical Report, Tema Metropolitan (2014), these duplicated functions ‘breed a lot of conflicting issues such that most residents report that development permits acquired from TDC are normally annulled by TMA and vice-versa’ (p. 3). Agyeman, Asiedu and Abeka (2015) in a study identified lack of coordination between the land agencies and the local authorities as one of the factors which contribute to the bureaucratic processes and delays associated with acquiring building permits in the country. Most respondents therefore, expressed their discomfort about such situations which often lead to increased cost of construction and loss of value.

### ***Public Education and communication***

The importance of public education on the NBR and related by-laws came out strongly as an indispensable approach to dealing with the mountain challenge. It was obvious from the study that the efforts of the city authorities had not been effective at producing the desired results. The management of TMA and TDC partly attributed this situation to the lack of funds to enable them have sustained and well-planned educational programmes. A Director of Operations at TMA hinted that *“our institution is confronted with inadequate funding by the central government, and as such we have to rely on our meager internally generated funds (IGF)”*.

The responses of developers to invitations to public educations have equally been disappointing since they do not show much interest in such programmes. During the FGDs in Tema Newtown, some of the participants openly declared their lack of interest in the educational activities of the land administrators, and therefore, boycott them. This has deepened the ignorance of developers and thereby giving credence to the opinion of Kings-Amadi (2004), who attributed the development of unauthorized structures to lack of enlightenment and ignorance of people about building regulations.

### ***Other major challenges of the institutions***

Other challenges the institutions were confronted with included:

- Inadequate qualified personnel with the needed expertise to handle challenging assignments. The modern trends in land management and administration demand skilled personnel who will show professionalism in the performance of their duties. Unfortunately, these are lacking in most of the land administrations.

- Lack of adequate logistics, modern and state of the art equipment and computers. The head of the Inspectorate Division of TMA emphasized; “*we cannot continue to use our outmoded and dilapidated tools to handle today’s sophisticated and complex assignments*”. He added that to compete with the fast changing world, the institution as a matter of urgency, has to do away with the manual and mechanical tools we are presently working with.

The institutions also do not have adequate heavy duty vehicles such as trucks and pick-ups to take the field officers round the numerous project sites for their routine inspections, considering the poor road network in most construction areas. The above observations confirm the assertion by Aryeetey, Kotey, Amponsah and Bentsil-Encill (2007) that land institutions perform below expectation because of poor logistics, and inadequate human and financial resources.

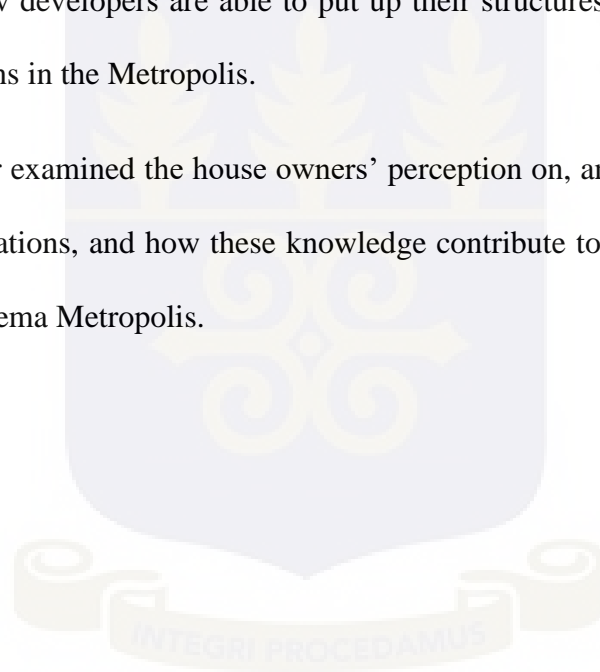
- Though the problem of the use of ‘land-guards’ was not prominent in the selected communities, the issue of security cannot be over-looked. According to the officials of TMA and TDC, there have few instances where they had been attacked by developers, especially those without development permits. This is so because such recalcitrant developers usually hire ‘land guards’ to protect their interest in specific properties (Darkwa and Attuquayefio, 2012).
- Low salary, poor remuneration and unattractive working conditions serve as serious demotivating factors for the workers, considering the risk involved in their operations.

#### **4.6 Conclusion**

This chapter discussed the results of the study under four main headings; these are the background variables, residential characteristics, compliance and growth of unauthorized structures and the perception and awareness of the building regulations.

Some of the key issues discussed include the construction materials, tenancy arrangement and the types of dwelling units. The chapter also discussed the mode of land acquisition, house owners' level of compliance with building permits, the causes of the growth of unauthorized structures and how developers are able to put up their structures in spite of the existence of building regulations in the Metropolis.

Lastly, the chapter examined the house owners' perception on, and the depth of awareness of the building regulations, and how these knowledge contribute to the growth of unauthorized structures in the Tema Metropolis.



## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

Chapter 5 gives a brief summary of the major findings of the study. It also discusses the conclusions drawn from the findings, and suggests recommendations that can be adopted to deal with the problem. It finally highlights a few uncovered areas and makes suggestions for further research into these areas to enrich the study.

#### 5.2 Summary of the main findings

The general objective of this research was to examine the building regulations of Ghana and its relevance to the management of unauthorized structures in the Tema Metropolis. Key findings were made under the four (4) main objectives. These findings are discussed in line with the specific objectives and the conceptual framework of the study as follows:

##### 5.2.1 Major factors contributing to the development of unauthorized structures in the Tema Metropolis.

The study found out that institutional, socio-economic, political, cultural and physical factors were the key determinants for the growth of unauthorized structures in the Tema Metropolis. Institutional factors contributed the most to the total variations explained. Socio-economic and political factors followed in that order. Physical and cultural factors however, played insignificant roles.

The two topmost institutional factors that contributed to the growth of unauthorized structures in the Metropolis were the delays in the processing of the building permits and other legal documents and lack of administrative will to enforce the building regulations.

### **5.2.2 How developers manage to build without permits in spite of the existence of building regulations**

The building regulations and other legal frameworks including the National Building Regulation of 1996 and the Local Government Act, 1993 are being implemented to help instil discipline in the building and construction industry.

Some developers however, adopted several mechanisms to outwit the personnel of the land management institutions. These included building during odd hours when the building inspectors would not be working (during the night and weekends) and bribing the personnel for them to turn a blind eye on their illegal activities.

### **5.2.3 Challenges associated with the implementation of the building regulations.**

The appropriate land management institutions - TMA, TDC, TCPD and LC are operational in the Tema Metropolis, and are implementing their respective building regulations and the related bye-laws albeit, not to the letter.

All the land administrators are financially constrained because they do not receive the much needed central and local governments support. They are therefore, compelled to supplement their receipts with their meager internally generated funds, hence most of them lack resources such as modern equipment, vehicles and decent offices. They are also unable to recruit and

retain the right number of qualified personnel for speedy processing of building documents. This results in undue delays in the processing of building permits which lead to frustrations and ultimately, high processing cost due to frequent follow-ups.

It also came out that they are unable to conduct effective monitoring of, or educational programmes for developers. The institutions again have bad corporate image since the personnel are perceived to be corrupt.

The study also established that there is limited coordination between the functions of TMA and TDC, and the other land administrators resulting in over-lapping and duplication of roles in certain cases.

#### **5.2.4 House owners' awareness of the building regulations, their perceptions about, and levels of compliance with the regulations.**

The study established that developers' awareness of the building regulations is high with 76% claiming to be aware of the NBR and the related TMA bye-laws. While all the respondents in Community 25 affirmed to this awareness, 82.4% and 53.3% of residents in Community 1 and Tema Newtown respectively followed in that order.

Though majority of the respondents (68.7%) expressed the opinion that the building regulations were useful in controlling the development of projects, 49.3% believed the information provided on the processes and procedures were too scanty. In addition, most of the developers were not satisfied with the work ethics and level of commitment of the personnel of the planning institutions. While 60.3% believed the personnel were hostile and

unfriendly, 52.3% confirmed that they were compelled to part with money to speed up the processing of their documents.

Again on the average, 76% acquired the necessary permits before commencing their projects, with the number decreasing from Community 25 (85%) through Community 1 (75%) to Tema Newtown (47%). The findings confirmed that unauthorized structures were more prevalent in the less developed communities and tend to reduce in the more developed ones. Thus, they were more predominant in Tema Newtown than Communities 1 and 25 in that order, confirming the notion that the level of education (socio-economic factor) influences the development of unauthorized structures.

#### **5.2.5 Other findings**

The results from the study indicated that majority (72%) of the property owners in the three communities were males with the remaining 28% being females. The ages of the respondents ranged from 20 to more than 70 years, with the bulk (68.7%) falling between 30 and 59 years which is the most economically active group.

Again, while the majority of the house owners in Community 25 had higher levels of education (85% had attained tertiary education or professional qualifications), those in Tema Newtown had the least (only 20% had secondary education).

The majority of the respondents constituting 36% were found to be employees in either the public or private sectors; 27% being self-employed, 7% unemployed while 9% were on retirement. Also, most of the respondents in Tema Newtown lived on low monthly incomes (up to GHS 2,000.00) with the situation improving as one moved between Communities 1 and

25. Community 25 had a very high monthly income bracket (over GHS 6,000.00) placing the residents in the higher income brackets.

The study affirmed that there were fewer unauthorized structures in Community 25 (a higher social and economic class) than Tema Newtown thus, supporting the notion that unauthorized structures are largely developed by people with lower employment status and incomes.

Finally, it was confirmed that both land administrators and political heads usually do not have the courage to enforce the building regulations, because of the fear of losing their positions.

### **5.3 Conclusions**

The following conclusions were drawn from the main findings of the study:

1. The research confirm the prevalence of unauthorized structures in the Tema Metropolis, and that considering the disparities in the levels of development in the three selected communities, it can be deduced empirically that the more developed communities have fewer challenges of unauthorized structures than the less developed ones. Thus, Community 25 posed a lesser threat to land administrators (because of its level of development) than Tema Newtown which is relatively less developed.
2. House-owners' awareness of the building regulations of Ghana was in total just average. However, the house owners in Community 25 proved to have a more useful knowledge of the regulations. Community 1 followed positively in that order. The application of the knowledge, and compliance with the requirements of the regulations also followed in that order. It can therefore, be concluded there is a positive relationship between ones' level of education and his compliance with development regulations.

3. Multiple factors (institutional, socio-economic, political, physical and cultural) account for the growth of unauthorized structures in the Tema Metropolis, with the two most predominant determinants being the institutional and the socio-economic.
4. The land administrators are poorly resourced hence, are unable to acquire modern equipment, vehicle and decent offices which negatively affect their performance. They are also not able to recruit and retain adequate qualified personnel to help speed up the processing of building documents as well as embark on effective monitoring. This in the end result in undue delays of the processes and thereby, lead to frustrations for developers, which pave the way for some unscrupulous personnel of the institutions to cash in to exploit anxious developers.
5. Most developers are of the view that the cost and time of acquiring building permits are too high, and the processes unnecessarily cumbersome. Some again view the building regulations as too complex, rigid and difficult to apply. They therefore, go on with their projects without any recourse to the laid down regulations.
6. The land administrators and political leaders lack the will to enforce the building regulations. In some cases, politicians appear to interfere with, and frustrate the work of the city planners. Unfortunately, most administrators are unable to resist political pressure for the fear of losing their positions

#### **5.4 Policy Recommendations**

Based on the findings and conclusions of the study, the following recommendations are made:

#### **5.4.1 Provision of adequate resources and recruitment of qualified personnel**

Government needs to pay more attention to the land planning and management institutions by adequately resourcing them. Their subventions should be increased substantially and paid promptly to enable them acquire the needed equipment and vehicles, as well as improve upon the state of their offices to facilitate their work. With more resources, adequate qualified personnel can be recruited. Frequent refresher courses and training programmes can also be organized for the staff to improve their knowledge in current land-use planning and management practices, as well as sharpen their skills in the use of modern equipment.

The government again has to reconsider the remuneration of the personnel to make their work more attractive in order to retain them. This is also intended to reduce the level of perceived corruption that has apparently dented the image of the institutions.

The land management agencies should also work within the dictates of the National Building Regulations to increase the confidence of developers in the system to enhance compliance. The officials should exhibit fairness and transparency in their daily activities.

The government should have the political will to support the planning authorities to carry out their programmes without unnecessarily interferences from the political leaders in its efforts to look good in the sight of the electorate.

#### **5.4.2 Effective monitoring and supervision of the personnel**

The management should adopt a more effective approach at monitoring and supervising their building inspectors and other personnel to ensure transparency and discipline in the

performance of their duties. This may help reduce or eliminate the haphazard and uncomplimentary work attitude of the personnel of the agencies. Effective supervision is also likely to promote efficiency, commitment and honesty which may help correct the corruption tag that hangs around the neck of the institutions.

#### **5.4.3 Need to intensify public education**

The institutions should intensify public education on the need, modalities, processes and procedures for acquiring development permits and other such related issues. They should also produce more useful educational manuals for developers, and constantly update their website to provide relevant information. The educational materials where possible, should be translated into the major Ghanaian languages for easy reading and understanding. They should also organize workshops, seminars and educational programmes for potential developers.

#### **5.4.4 Streamlining permit acquisition process**

The management should as a matter of necessity streamline the processing of building documents to reduce the time and cost of doing business with the planning authorities and thereby, minimize the frustrations of developers. It is established in the study that delays in issuing building permits is the most important variable influencing the rapid growth of unauthorized structures in the Tema Metropolis.

#### **5.4.5 Strengthen revenue collection**

The land management institutions should strengthen their internal revenue collection mechanisms to boost their IGF in order to raise more funds to support their activities. This

will enable them acquire some of the much needed modern equipment and logistics to supplement the efforts of the government.

#### **5.4.6 Defining functions and regular amendment of laws**

It is again recommended that the government must appoint dedicated and knowledgeable persons with strong vision to serve on the Boards who can formulate prudent administrative and operational policies to drive them ahead of time. The government should through the Board of Directors redefine the functions of the respective agencies to eliminate overlapping roles to ensure the smooth running of the institutions.

The government should periodically amend the laws to conform to modern trends as some of them are out of tune with the current techniques of land administration. Such a step will improve the public confidence in the system since many developers consider the standard of the building regulations as high and complex, and a mere copy of the western world. Such regular revisions are likely to promote voluntary compliance with the building regulations.

#### **5.5 Suggestions for further research**

Due to limited funds, the study area was confined to only three communities; also the sample size was restricted to a few respondents. It is suggested that to make the research more useful, the study area can be expanded to cover more communities, if not the entire Tema Metropolis, with an enlarged sample size to solicit for a better view of the problem of unauthorized structures.

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**APPENDIX A**

**QUESTIONNAIRE FOR HOUSE OWNERS OF THE TEMA METROPOLIS**

This study is being conducted in partial fulfilment for the award of a Master's Degree in Geography and Resource Development by University of Ghana, Legon. This is purely for academic purpose and your response will be treated with strict and utmost confidentiality.

Thank you for your anticipated cooperation.

**SECTION A: BACKGROUND INFORMATION**

1. Sex:  Male  Female
2. Your age: ..... years
3. Educational background: (your highest completed level of education)  
 No formal education       Primary School       Junior High School/ Middle school  
 Senior High school/ Senior Secondary School       Tertiary
4. Nature of Employment:  
 Government Employed       Casual worker  
 Privately Employed       Contributing family worker  
 Self-Employed without employee(s)       Apprentice  
 Self-Employed with employee(s)       Unemployed  
 Other (Specify).....
5. Monthly Income: .....
6. Marital Status:  Married       Divorced/ Separated       Single       Widowed  
 Other (specify).....
7. If married, state the occupation of your spouse(s).....

8. What is the size of your household? .....

9. Nationality: .....

10. If Ghanaian (State Home Region): .....

**SECTION B: RESIDENCE AND BUILDING PROJECT**

11. Where is the property situated?  Tema Newtown  Community 1  Community 25

12. Are you resident in the community?  Yes  No (If No, Skip to **Q. 14**)

13. If yes, how long have you been in the community? .....

14. If 'No', how often do you visit the community?  Daily  Weekly  Monthly

Quarterly  annually  Other (Specify).....

15. How did you acquire the plot of land?

- |   |   |
|---|---|
| <input type="checkbox"/> Chiefs and traditional authorities | <input type="checkbox"/> Private land owner     |
| <input type="checkbox"/> Tema Development Corporation       | <input type="checkbox"/> Real Estate Developers |
| <input type="checkbox"/> Family property                    | <input type="checkbox"/> Other (Specify).....   |

16. When did you acquire the plot of land?

- Up to 5 years  6 – 10 years ago  11 – 15 years ago  16 – 20 years ago  
 Other (Specify): .....

17. What is the main construction material for the floor of your structure?

- |  |   |
|--|---|
| <input type="checkbox"/> Earth / Mud               | <input type="checkbox"/> Cement / Concrete      |
| <input type="checkbox"/> Stone                     | <input type="checkbox"/> Burnt brick            |
| <input type="checkbox"/> Wood                      | <input type="checkbox"/> Ceramic / Marble tiles |
| <input type="checkbox"/> Terrazzo / Terrazzo tiles | <input type="checkbox"/> Other (Specify): ..... |

18. How many sleeping rooms are in your structure? .....

19. What is the main tenancy arrangement of your structure?

- |  |   |
|--|---|
| <input type="checkbox"/> Owner occupied                          | <input type="checkbox"/> Residential Rental                       |
| <input type="checkbox"/> Commercial Rental                       | <input type="checkbox"/> Partly Personal and Rental (Residential) |
| <input type="checkbox"/> Partly Personal and Rental (Commercial) | <input type="checkbox"/> Both Residential and Commercial Rental   |
| <input type="checkbox"/> Other (Specify): .....                  |   |

20. What are the facilities available in the building structure? (Multiple Responses Applies)

- |  |   |
|--|---|
| <input type="checkbox"/> Bath rooms                  | <input type="checkbox"/> Toilets          |
| <input type="checkbox"/> Electricity                 | <input type="checkbox"/> Pipe borne water |
| <input type="checkbox"/> Hand dug well               | <input type="checkbox"/> Fence Wall       |
| <input type="checkbox"/> Kitchen, Porch, Garage etc. | <input type="checkbox"/> All of the above |
| <input type="checkbox"/> None of the above           |   |

21. What is the estimated cost of the structure?

- |   |  |
|---|--|
| <input type="checkbox"/> Less than GHS 20,000.00          | <input type="checkbox"/> GHS 20,001 -- GHS 50,000.00   |
| <input type="checkbox"/> GHS 50,001 -- GHS 100,000.00     | <input type="checkbox"/> GHS 100,001 -- GHS 150,000.00 |
| <input type="checkbox"/> GHS 150,001.00 -- GHS 200,000.00 | <input type="checkbox"/> More than GHS 200,000.00      |
| <input type="checkbox"/> Cannot estimate                  |  |

22. What was the source of the income used in the building project?

- Personal Savings  Bank Loan  Lottery  The property was a gift/  
Inherited
- Other (Specify): .....

23. How long did it take you to complete the structure?

- Up to 2 years  3 years to 5 years  6 years to 10 years  Ongoing (Not completed)
- Other (Specify).....

### SECTION C: AWARENESS OF BUILDING REGULATIONS

24. Are you aware of any rules and regulations governing the building of houses?  Yes  
 No

If yes, answer **Q. 25 - 27** below (If No, skip them)

25. Briefly mention some of them .....

.....

26. How did you acquire the information? (Multiple Responses Applies)

- Through Flyers/Newspaper  Through the Internet  Through Seminars/Conferences
- Tema Municipal Assembly  Tema Development Corporation  Others (specify).....

27. How effective do you think those rules and regulations are in your community?

- Effective  Slightly Effective  Not Sure  Slightly Ineffective  Ineffective

28. Can you describe how much you agree or disagree with the following statements?

**1**                      **2**                      **3**                      **4**                      **5**  
*Strongly Agree*      *Agree*              *Uncertain*        *Disagree*        *Strongly Disagree*

	<b>STATEMENT</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Building regulations are not important to me.					
2	Information on the processes of acquiring building permit is too scanty					
3	Building regulations are too rigid for me to comply.					
4	With the assistance of land guards, I do not need a building permit					
5	The building inspectors and other authorities are hostile and unfriendly					
6	The building inspectors and other authorities extort monies from prospective property owners and this practice discourages them from acquiring the permit					
7	After applying for building permit, District planning authority should notify the applicant within 7 days of the receipt of the application.					
8	Within 3 months of application, district planning authorities should notify the applicant whether the application is granted or refused.					
9	One may assume grant of permit and may commence development, if one is not informed about the decision of his/her application within 90days.					
10	The planning authorities must be notified on the date on which one is willing to commence his/her building.					
11	Developers are required to seek renewal of Building Permit if development is not complete within (5) five years					
12	Once permit is acquired, one can put up any kind of structure he wishes to build					
13	Building permits regulate the types of materials I can use for my building					
14	Planning authorities can stop me if I do not have the necessary building documents					
15	Planning authorities can stop me or demolish my building if it is sited at the wrong place.					

**SECTION D: ACQUISITION OF BUILDING PERMIT**

29. Did you acquire the necessary permits before starting construction of your house?

Yes  No

IF NO, answer **Q. 30 - 34**

30. What are your reason(s) for not acquiring the building permit, if any?

.....  
.....

31. How were you able to build without permit? .....

32. Did anyone aid you to build without the permit?  Yes  No

33. Did you have any problems during the building process?  Yes  No

If 'Yes', what are some of the problem(s) you encountered?.....

34. How did you manage these problem(s)? .....

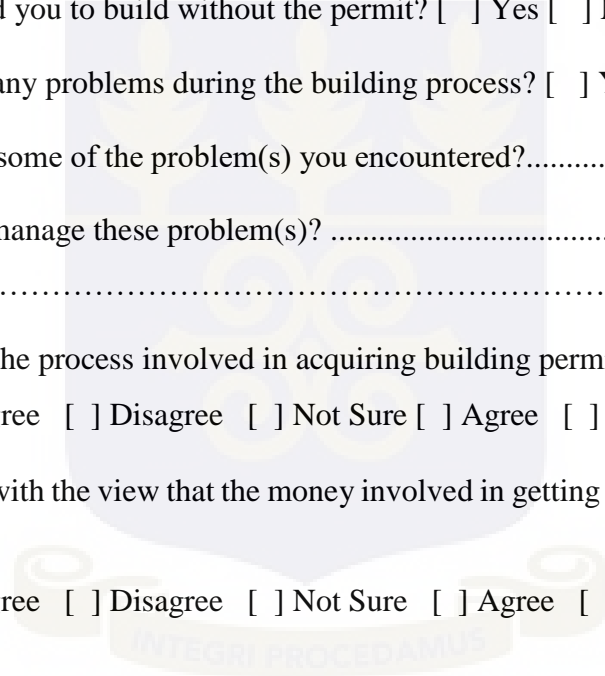
.....

35. Do you agree the process involved in acquiring building permit is too cumbersome?

Strongly Disagree  Disagree  Not Sure  Agree  Strongly Agree

36. Do you agree with the view that the money involved in getting a building permit is too high to bear?

Strongly Disagree  Disagree  Not Sure  Agree  Strongly Agree



**SECTION E: GROWTH OF UNAUTHORIZED STRUCTURES**

**(FOR HOUSE OWNERS WITHOUT PERMIT ONLY)**

**37. On a Scale of 1 to 5, rate how important the following factors are in influencing people to live in unauthorized structures in the Tema Metropolis**

	1	2	3	4	5	
	<i>Not important</i>			<i>Extremely important</i>		
	<b>FACTORS</b>					<b>RATING</b>
	<b>SOCIO-ECONOMIC</b>					
1	Limited employment and low level of Income					
2	High Cost of Rent					
3	Low level of Education					
4	Rural-Urban migration					
	<b>PHYSICAL</b>					
5	Suitability of the Land for habitation					
6	Advantageous location of the area					
	<b>POLITICAL</b>					
7	Inadequate effort by government to prevent unauthorized structures					
8	Ineffective housing policies by government					
9	Limited funding for city planning					
	<b>INSTITUTIONAL</b>					
10	High building standards, codes and regulations					
11	Delays in acquisition of legal documents (Bureaucracy					
12	Institutional corruption					
13	Lack of enforcement of Building Regulations					
	<b>CULTURAL</b>					
14	Religious and cultural beliefs					
15	Family ties					

## APPENDIX B

### INTERVIEW GUIDE FOR CITY AUTHORITIES

#### INTRODUCTION

I am a final year Masters' degree student of the Department of Geography and Resource Development of the University of Ghana. I am undertaking a project on the topic 'Building Regulations and the development of Unauthorized Structures in the Tema Metropolis'.

By virtue of your position in the Tema Metropolitan Assembly/Tema Development Corporation, you have been selected as respondent and I humbly request that you respond to the questions as frankly and honestly as possible.

I wish to state that your responses would be kept strictly confidential.

Thank you for your time and cooperation.

Name of Department.....

Name of Unit.....

Name of District/Region.....

Rank.....

#### **FUNCTIONS AND DUTIES OF THE REGULATORY INSTITUTIONS**

- What are the main functions of the institution?
- What are the main Departments in the institution and what are their respective roles in regulating the construction of buildings in the Metropolis?
- What building process does a developer has to go through before, during and after the construction of a building?

## **RESOURCES AND COLLABORATION**

- How would you describe the adequacy and quality of your human and material resources in ensuring effective and efficient running of activities your institution?
- How often do you organize in-service trainings or workshops for the staff to sharpen their skills?
- What are your main sources of funding? (Example: Charges and fees, fines and penalties, Government subvention, external donors etc.)
- What are the main agencies that you collaborate with in the performance of your duties?
- How effective or cordial is the relationship between you and the collaborating institutions mentioned above?

## **EDUCATION AND COMMUNICATION WITH THE PUBLIC**

- What are your perception about the public knowledge of the building regulations in the Metropolis?
- What are the means by which you educate the public on the existing building and other regulations? (Example: Electronic media, print media, workshop, seminar and/or public fora)
- On a scale of 1 to 5 (with 1 being the least), how will you rate the public responses to your educational efforts?
- How effective do you consider your educational programmes to be, and are they achieving their intended goals?

- What are your views on the perception that the processes of acquiring building permits too cumbersome and expensive?
- What are some of the amendments you will suggest in the current building regulation to suit the need of the public?

### **CHALLENGES**

- What are the major challenges facing your institution in enforcing the building regulations?
- How does the institution deal with these challenges?

