2010
POPULATION & HOUSING CENSUS REPORT

URBANISATION

UN POPULATION FUND

Ghana Statistical Service
October, 2014

PREFACE AND ACKNOWLEDGEMENTS

The mandate of the Ghana Statistical Service (GSS), like many other national statistical offices, includes data collection, compilation and analysis as well as dissemination of statistical information in an accessible and user-friendly manner. In order to satisfy the needs of users, GSS is required to analyse and interpret statistics in a form that makes it easily understood for people to appreciate the value of the statistical information. There is also the need to disseminate widely all the statistics produced by GSS so that all data users including potential data users can have access to it.

Ghana, like many other developing countries, relies mainly on survey and population census data for planning at the national and the sub-national levels. Detailed analysis of such data provides users with a wealth of information for planning and policy formulation. Analysis of the 2010 Population and Housing Census data on topical issues, therefore, provides information for effective planning at all levels.

Several reports, including six monographs, were prepared using the 2010 Census data and published in 2012 and 2013. The published reports from the census data was a collaborative effort between the GSS and Local consultants from research institutions and universities in Ghana with funding from the Government of Ghana and various Development Partners (DPs). In order to strengthen the report writing capacities of the Ghana Statistical Service (GSS) and Ministries, Departments and Agencies (MDAs) which are engaged in population-related activities, professional staff of GSS and these MDAs were paired up with consultant writers to prepare the reports.

The monograph on 'Urbanisation in Ghana' is one of the additional eight monographs that has been prepared from the 2010 Population and Housing Census data and is meant to inform policy makers on issues relating to urbanisation in Ghana. The report focuses on population distribution in Ghana relative to the locality of residence (urban/rural), levels, trends and differentials in urbanisation in Ghana as well as the drivers of migration in Ghana.

The Ghana Statistical Service wishes to thank the United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA) for providing funds for the preparation of this monograph and the lead role UNFPA played in mobilizing resources from the UN System and from other DPs for the 2010 PHC. Our appreciation also goes to Professor Stephen O. Kwankye and Ms. Marian Kpakpah for the dedication and competence they demonstrated during the preparation of this report.

Dr. Philomena Nyarko
Government Statistician

TABLE OF CONTENTS

PREFACE AND ACKNOWLEDGEMENTS iii
LIST OF TABLES ..... **vi**
LIST OF FIGURES ..... **vii**
ACRONYMS AND ABBREVIATIONS ..... **viii**
CHAPTER ONE: INTRODUCTION **1**
1.1 Background Information 1
1.2 Definition of Concepts 2
1.3 Structure of the Monograph 5
CHAPTER TWO: OVERVIEW OF LEGAL, INSTITUTIONAL AND POLICY FRAMEWORKS FOR URBANISATION IN GHANA **6**
2.1 Introduction 6
2.2 A review of factors that determined urbanisation in Ghana 6
2.3 Policies and programmes that have contributed to the urbanisation process in Ghana 9
2.4 Legal, policy and institutional frameworks for urban planning and management 13
2.5 Conclusion 14
CHAPTER THREE: URBANISATION IN GHANA **16**
3.1 Introduction 16
3.2 Urban and rural population distribution of Ghana, population of large towns and cities 16
3.3 Levels and trends in urbanisation and differentials in Ghana 18
3.4 Drivers of urbanisation in Ghana 19
3.5 Conclusion 23
CHAPTER FOUR: ANALYSIS OF LIVING CONDITIONS IN URBAN AREAS **24**
4.1 Introduction 24
4.2 Socio-economic characteristics of urban dwellers 24
4.3 Housing 35
4.4 Water and Sanitation 43
4.5 Energy 50
4.6 Employment and economic status 54
4.7 Conclusion 66
CHAPTER FIVE: ANALYSIS OF INFORMATION COMMUNICATION FACILITIES IN URBAN AREAS AND URBAN PLANNING **69**
5.1 Introduction 69
5.2 Use of the internet 69
5.3 Use of computers 70
5.4 Use of cell phones 71
5.6 Conclusion 73
CHAPTER SIX: URBAN MOBILITY **74**
6.4 Introduction 74
6.2 Urban mobility and school attendance 74
6.3 Urban mobility and health facility 79
6.4 Urban mobility and place of work 83

6.5 Urban transport availability and reliability 86
6.6 Conclusion 88
CHAPTER SEVEN: CONCLUSIONS, RECOMMENDATIONS AND POLICY IMPLICATIONS 90
7.1 Summary 90
7.2 Conclusions 93
7.3 Policy Recommendations 94
7.4 Policy Implications 96
REFERENCES 98
APPENDIX 101

LIST OF TABLES

Table 3.1: Population by 5 year age groups, sex and type of locality i.e., urban and rural ...17
Table 3.2: Population distribution by region, sex and locality of enumeration, 2010 18
Table 3.3: Trends in urbanisation, 1960 - 2010 19
Table 3.4: Volume of net-migration by region, 1984-2010 20
Table 3.5: Contribution of migration and rate of natural increase to urban population growth by region 22
Table 4.1: Urban population 11 years and older by sex, literacy status, language in which literate by region 26
Table 4.2: Urban population 3 years and older by sex, level of education and region 28
Table 4.3: Population 12 years and older in urban localities by sex, marital status and region 32
Table 4.4: Population 12 years and older in urban localities by sex, religious affiliation and region.....34
Table 4.5: Households in urban localities by type of dwelling and by region.....36
Table 4.6: Households in urban localities by main construction material for outer wall, floor and roof by region 38
Table 4.7: Households in urban localities by ownership type, tenure arrangement and region.....40
Table 4.8: Households in urban localities by number of rooms, sleeping rooms occupied and region.....42
Table 4.9: Households in urban localities by main source of drinking water, source of water for other domestic use and region 44
Table 4.10: Households in urban localities by type of bathing and toilet facilities and region 46
Table 4.11: Households in urban localities by method of solid waste and liquid waste disposal and region 49
Table 4.12: Households in urban localities by main source of lighting and region.....51
Table 4.13: Households in urban localities by main source of cooking fuel and type of cooking space by region.....53
Table 4.14: Employed population 15 years and older in urban localities by sex, employment status and region 55
Table 4.15: Employed population 15 years and older in urban localities by sex, occupation and region.....57
Table 4.16: Employed 15 years and older in urban localities by sex, employment sector and region.....60
Table 4.17a:Employed population 15 years and older in urban localities by industry and region.....63
Table 4.17b:Employed male population 15 years and older in urban localities by sex, industry and region 64
Table 4.17c:Employed female population 15 years and older in urban localities by sex, industry and region 65
Table 6.1: Percent of persons in urban localities by average distance (km) from residence to school and region 75
Table 6.2: Percent of persons in urban localities by waiting time for transport to school and region.....77
Table 6.3: Percent of persons in urban localities by average travel time (minutes) to school and region 78

Table 6.4: Main difficulties faced in going to school by region 79
Table 6.5: Average distance (km) to health facility by region 80
Table 6.6: Waiting time for transport to a health facility by region 81
Table 6.7: Average travel time to health facility by region 82
Table 6.8: Main obstacles faced visiting a health facility by region 83
Table 6.9: Average distance (km) from residence to place of work 84
Table 6.10: Average travel time to workplace by region 85
Table 6.11: Availability of transport by region 87
Table 6.12: Reliability of transport by region 88

LIST OF FIGURES

Figure 5.1: Population of urban localities 12 years and above using internet by sex and region 70
Figure 5.2: Urban Households with ownership of desktop and laptop computers by region 71
Figure 5.3: Urban Population 12 and above having mobile phones by sex and region 72
Figure 5.4: Urban Households with ownership of fixed lines by region 72

ACRONYMS AND ABBREVIATIONS

AFD	Agence Française de Dévelopement
CAP 84	Town and Country Planning Ordinance
ERP	Economic Recovery Programme
GPRS	Ghana Poverty Reduction Strategy/Growth and Poverty Reduction Strategy
GSS	Ghana Statistical Service
ICT	Information Communication Technologies
IDA	International Development Agency
IMF	International Monetary Fund
KVIP	Kumasi Ventilated Improved Pit
LPG	Liquid Petroleum Gas
MDAs	Ministries Departments and Agencies
MMDAs	Metropolitan Municipal and District Assemblies
MTDP	Medium-Term Development Plan
PHC	Population and Housing Census
SAPs	Structural Adjustment Programme
TC&PD	Town and Country Planning Department

CHAPTER ONE
INTRODUCTION

1.1 Background Information

Ghana's population has witnessed not only rapid growth but also rapid urbanisation since independence. This has been fuelled by policies during the colonial period which have been largely sustained through the post-independence era as well as the interplay between natural population increase and migration. It is thus, often perceived that development in the urban areas is relatively better compared to that in the rural places of residence because of the development bias in favour of the urban areas. For example, Brown (1986) argues that after many years of political independence, the living conditions of the rural majority have not changed and consequently, the rural poor have not been able to share the benefits that have arisen from national growth (Olatunbosun, 1976). In the area of health, it was observed that there was a greater concentration of medical services, facilities and personnel in the towns and large cities (Brown, 1986) although at the time about 70 percent of the population in the country was in rural areas. These observations in the 1980s suggested that people in the urban areas were better off compared to their counterparts in the rural areas. This perception has since been sustained and has fuelled rural-urban migration in the country.

As a result of a combination of several factors, Ghana has moved from a more rural population to urban with more than half (50.9%) of the country's population reported to be residing in urban localities in 2010. From the national population censuses, the proportion of the population urban rose from a low of 23 percent in 1960 through 29 percent and 32 percent respectively in 1984 and 2000 to its 2010 record of almost 51 percent (See the 1960-2010 census reports). Comparatively, the urban population has recorded a more rapid growth than the rural. It has been recorded that the urban population grew by 4.7 percent per annum during 1960-1970, declined to 3.3 percent in 1970-1984 and picked up again during 1984-2000 with 4.6 parent annual growth rate. The corresponding growth rates for the rural population during the same periods were 1.6 percent, 2.3 percent and 1.5 percent giving a tempo of urbanisation of 3.2 percent, 1.1 percent and 3.1 percent respectively for the 1960-1970, 1970-1984 and 1984-2000 intercensal periods (Ghana Statistical Service, 2005:399). This indicates a big difference between the rate of growth of the urban and rural population in Ghana, reflecting a shift of the population from rural to urban localities while at the same time portraying that some rural localities have become urban over time.

It is also important to state that population distribution has largely been uneven as a result of differences in the attraction of each locality based on a number of factors including historical advantage or otherwise of each locality, natural resource availability and utilisation as well as policies which directly or indirectly affect population re-distribution in the country. The uneven spatial distribution of the population also suggests that Ghana is experiencing urban primacy where only eight of the 88,656 localities recorded in 2000 had population of 100,000 or more but represented almost one-fifth of the total population of the country. At the same time, all localities classified as urban numbered 366 in 2000 (i.e., 4.1% of all localities in the country at the time) but had a population that was close to half of the country's total population (See Ghana Statistical Service, 2005).

To enhance rapid economic growth, development and poverty reduction, urbanisation is important. However, the gains made will depend on its pattern across the country. With Ghana depicting a situation of urban primacy, which is fraught with serious developmental challenges, including overcrowding and housing problems, emergence and expansion of slums, inadequate urban services and facilities, high rates of unemployment, environmental sanitation as well as crime and other anomic social behaviours, it may be equally challenging for the nation to reap the benefits of rapid urban growth. However, the dimensions of these challenges and or benefits that could be derived from a rapidly urbanising population could only be seen when they are subjected to in-depth analysis using data such as from the national censuses.

Against this background, this monograph examines urbanisation in Ghana with the aim of bringing out the challenges it poses to development and the opportunities it offers in the country's drive towards achieving a higher middle income economy. Specifically, it seeks to present an overview of the legal and policy frameworks that have directly or indirectly affected the pattern and trend of urbanisation in Ghana in order to better appreciate the urbanisation situation in the country. It is also interested in assessing the living conditions and socio-economic characteristics of urban dwellers in the country in order to make appropriate recommendations towards addressing the challenges that are associated with urbanisation in Ghana and ultimately improve the quality of life of Ghanaians.

The main source of data for the analysis is the 2010 Ghana Population and Housing Census (PHC) with respect to the population reported to be resident in localities classified as urban. In addition to the 2010 PHC, the Ghana Statistical Service (GSS) conducted a National Household Transport Survey in 2007 and 2012 that provide relevant data to aid an analysis of urban mobility and the challenges that urban dwellers are confronted with regarding their intra-city movements. These two datasets are, therefore, used to examine the urban mobility situations in Ghana in Chapter Six of the Monograph. Wherever it is applicable, however, the results from the 2010 PHC and the two transport surveys are compared with earlier data to see what changes might have occurred with time.

By way of methodology, the analysis relies on descriptive statistics in presenting the results. Cross-tabulations using percentages are adopted throughout the report. It also uses a comparative analytical approach in discussing the results of the analysis. Consequently, regional comparisons are made to examine the urbanisation situation in the 10 administrative regions in Ghana. Furthermore, comparison is made by sex wherever is applicable in order to bring out the gender differences by region. Tables and charts where appropriate are used in presenting the results. The analysis also uses the Gini concentration ratio to examine the level of uneven distribution of the population in each region.

1.2 Definition of Concepts

The key concepts in this Monograph are urbanisation, urban locality/area, urban growth, urban slum, large towns, small towns and cities, urban primacy and urban agglomeration. The concept of urban has not only been defined but an attempt is made to examine its use in Ghana over the years to assess its appropriateness in addressing what it is used for.

Urbanisation: The term *Urbanisation* is used to describe the process of growth or increase in the population that is reported to live in localities classified as "urban" in Ghana. This is presented relative to the population living in localities which are defined as rural. In censuses, the proportion of the total population living in settlements defined as "urban" is used to show

how slow or rapid the process of growth of this population has been in the country. This process involves some localities losing some of their population to other localities due to several factors including migration. Again, some localities could increase their population and thereby cross over from rural to urban. The process of urbanisation, therefore, brings in its tray challenges including population increases and or the spread of the population over a larger land space which in turn could create other challenges for socio-economic development.

Urban locality/area or centre: The term *urban* may mean differently depending on which country is involved. Therefore, no universally acceptable definition exists in the literature. According to the Wikipedia, an urban area is characterised by higher population densities and vast human features in comparison to the areas that surround it and these may be classified as cities, towns or conurbations (www.en.wikipedia.org/wiki/Urban_area 07/11/13). These areas are continuously being created as the drivers of urbanisation continue to operate.

It is, however, most convenient to use a threshold population size to determine localities that can be considered as urban or rural. Based on this convenience, Ghana has over the years defined an urban area to include all localities with 5,000 or more population. All national censuses that have been organised in Ghana have so defined urban localities. Apart from its convenience, it is simple and easier to determine at any given point in time which localities can be classified as urban or otherwise based simply on the size of the population of the localities. However, this approach to defining an urban locality is too simplistic and lends itself to some weaknesses and often does not provide a standard basis for comparison since the composition of the population in any two such localities with population size of 5,000 or more may not necessarily be the same in terms of socio-economic activities or services engaged in by the population.

It is perhaps against this background that in some countries, the population size alone is not enough to classify an urban locality. Other considerations including the type of economic activity that is largely depended upon by the population are considered. For example, if in addition to the minimum population size, the majority of the population is engaged in non-primary economic activities, it could be classified as urban. While this added requirement may be good, it is not easy to monitor the economic activities of each locality to apply the classification formulae as these activities are subject to change with time.

Furthermore, urban settlements have been determined through the application of administrative criteria which may have little or no relationship with the actual physical extent of the urban area (See National Urban Policy of Ghana). This is simply by administrative fiat as a result of some unique policy that a government wants to implement to achieve the purpose of some spatial equality in development. An urban status classification could also be done based on the functions each settlement performs. For example, settlements whose functions are largely non-agricultural could be presumed to be urban while others that function as agricultural economies are considered as rural. In addition to all these, one could make a case for the inclusion of the availability of certain minimum social facilities like health facilities, educational infrastructure and energy consumption.

Admittedly, adding the functional classification and economic activities to the population size in determining what an urban locality or centre should be may be quite complicated. Yet, it is about time some mechanism is found to consider some of these other proposals so as not to leave the classification based solely on a minimum population size in Ghana. This is because

an area could easily attain the 5,000 threshold population to qualify as urban but still maintain its rural outlook based on the economic activities the residents may be engaged in. Besides, it may not boast of any modern infrastructure or facility that urban dwellers are generally expected to enjoy, including educational, health, energy and environmental facilities or services.

In the light of these challenges and limitations the different definitions present, it is suggested that Ghana takes a second look at the definition of urban locality in subsequent censuses. It is thus proposed that an analysis is done on the main economic activities of the population and every locality which has more than 60 percent of its residents to be engaged in non-agricultural activities in addition to having a minimum population size of 5,000 is classified as being an urban locality, area or centre. In the meantime, and for the purpose of the analysis in this Monograph, however, an urban centre is still defined using the population size cut-off of 5,000 or more. In line with this reasoning, therefore, all localities in Ghana with population of 5,000 or more are classified as urban in this Monograph.

Urban growth: This is used to describe increases in the population of an urban locality or area between two points in time. The growth in population may or may not involve spatial expansion of the locality.

Urban slum: An *urban slum* is used to describe very low class settlements within or close to cities or large towns which are unplanned and often spring up spontaneously. They are usually densely populated and lack the basic infrastructure and facilities that most urban localities are associated with including potable water, health facilities, schools, road network, etc. Urban slums are usually major residential areas for the urban poor and recent migrants into the city who may not be able to immediately afford descent housing and accommodation at high and middle class residential areas in the city. Housing structures are usually temporary and made up of poor materials including card boards, mud and thatch.

Urban agglomeration, conurbation or urban sprawl: This is used to describe the process where a city or town rapidly grows spatially to annex other nearby localities which originally were not part of the city or town such that it is difficult to find where the boundary of the city or town ends and other "annexed" localities begin. Often, the localities that eventually become part of the city or town may suffer from challenges of lack of basic household facilities or services, including electricity, potable water supply, sanitation, health and education.

Urban primacy: This concept describes the situation where rapid urbanisation is driven largely by the growth in the size of a few cities or towns. In such situations, one or two cities become more prominent among all the urban localities and that apart from these huge cities and towns all other urban localities are small in size with a huge gap between them in terms of size.

Large towns: Large towns refer to localities that have 20,000 or more population as has been used in the 2000 PHC.

Small towns: These describe any locality with a population of between 5,000 and 19,999 in Ghana.

Cities: Cities refer to Accra, Kumasi and Takoradi.

1.3 Structure of the Monograph

This Monograph is divided into seven chapters including the introduction. The introductory chapter provides background information on urbanisation in Ghana since the pre-colonial period and discusses the key concepts and the methodology. In Chapter Two, an overview of the legal, institutional and policy framework for urbanisation in the country is presented, highlighting some of the main policies and laws that have directly or indirectly affected the process of urbanisation in Ghana. The Chapter also informs readers on the institutions and structures in place that have been responsible for managing urban planning in the country in addition to the role of organisations towards urban planning. Chapter Three examines urbanisation comparing the distribution of population by type of locality looking at the levels and trend of urbanisation in addition presenting the key drivers of urbanisation in Ghana. Special attention is paid to an examination of natural increase and migration regarding which of them is stronger in driving urbanisation in Ghana.

The Monograph further analyses in Chapter Four the living conditions and characteristics of the population in urban areas in Ghana in terms of their education and literacy, religion, housing, water and sanitation, energy, employment and economic characteristics. This is followed with a discussion of the use of information communication facilities including the internet, computers and mobile phones in the urban areas in the country in Chapter Five. Further attention is paid to an examination of urban mobility in Chapter Six where the obstacles urban dwellers face in terms of commuting to school, health facilities and work daily are presented. Finally, Chapter Seven provides a summary of the key findings and presents the conclusions, recommendations and policy implications.

CHAPTER TWO
OVERVIEW OF LEGAL, INSTITUTIONAL AND POLICY FRAMEWORKS FOR URBANISATION IN GHANA

2.1 Introduction

This chapter presents a general overview of the legal, institutional and policy frameworks that have informed, shaped or directed the process of urbanisation in Ghana since the pre-colonial era. It provides a brief account of the relevant policies and historical as well as socio-economic and environmental factors that have informed the pattern and pace of urbanisation in the country. In addition, the institutional structures that have supported and continue to support urban development have been examined. The presentation suggests that long before colonial administration, conditions existed to support urbanisation in Ghana with some settlements having earlier advantage in attracting more inhabitants than others. Later, policies adopted by the colonial and post-colonial political administration have also reinforced the urbanisation that had earlier commenced.

2.2 A review of factors that determined urbanisation in Ghana

Consistent with observed trends in the rest of Africa, Ghana has been experiencing rapid urbanisation. Ghana's urban population has grown from only 9.4 percent in 1931 to 13.9 percent in 1948, 23 percent in 1960, 28.9 percent in 1970, 31.3 percent in 1984, and 43.9 percent in 2000 to 50.9 percent in 2010. Using the census definition of an urban centre, more than one in two people in Ghana lived in a town or city with more than 5000 people in 2010. From available data, the rising pace of urbanisation in Ghana has been driven by rural-urban migration, natural increases in towns and cities and the reclassification of villages as they attain the threshold population of 5,000 (Ghana Statistical Service, 2013: 223). Most writers have categorised Ghana's urban and rural development in three distinct phases as pre-colonial, colonial and post-colonial periods and these are very much related to the manner in which the country has developed in space and time.

2.2.1 Pre Colonial Phase

It is evident that trade and commerce have been the foundation of the formation of many towns in Ghana today. According to Songsore (2003), although urban settlements have been widespread in Africa for centuries, urban life was not a feature of sub-Saharan Africa until the mediaeval period. Despite this, sub-Saharan Africa featured a rich variety of civilisation in which religion played a key role and formed the basis for the eventual transformation and development of the urban centres. Due to the presence of the River Niger, Islamic civilisation took root in the early centuries with many "Saharan" empires flourishing in the northern and southern fringes of the Sahara along the desserts and grasslands. Some of these settlements such as Gambaga, Nalerigu, Yendi and Wa emerged as important seats of government and trading centres during trade with Western Sudan in the period between the 11th and 16th centuries. Dickson (1970 and 1971 as cited by Songsore, 2003), shows that commercial centres that developed within the same period included Walewale, Savelugu, Lawra and Larabanga. Others, including Begho, Salaga and Kumasi developed further inland along major trade routes in the north-eastern parts of northern Ghana.

By the end of the 16th Century, most ethnic groups constituting the modern Ghanaian population had settled in their present locations. The fall of the Songhai Empire to Morocco at the end of the 16th Century marked the close of an era of economic prosperity and urban development for the forest areas of Ghana. By the middle of the 15th Century, the Portuguese merchants arrived on the coast of West Africa. This was soon followed by the British and French. The arrival of the European traders shifted the focus of economic activities from the northern savannah areas. With the fall of the Western Sudan trade routes, West Africa as a whole saw new trading opportunities with the Europeans across the Atlantic Ocean. (Songsore 2003) documents that a string of towns developed along the coast, mainly in Elmina, Cape Coast and Accra. This was followed by a complex set of middle towns that emerged connecting the colonial forts and castles on the coast to the sources of raw materials in the hinterland. A significant town was the Asante capital, Kumasi which also served as a terminal point for the northern trade through Northern Ghana to Western Sudan which was in decline.

These activities signaled the beginning of a redistribution of the spatial arrangement of Ghana. In addition, a new urban system had emerged from the European costal trade. Although trade was controlled on both sides, it was carried on by merchants and middlemen acting as intermediaries between the Europeans and hinterland cities. This resulted in the patterns of urban development, including sets of towns springing up around these trading centres on the coast, middle and hinterland of Ghana some of which have remained to date (Songsore, 2003). This period marked the beginning of the first phase of the urban and spatial arrangements of the country where the coast and the forest areas became conditioned for more urban development as a result of its better integration with European trade (Dickson, 1970).

2.2.2 Colonial Phase

The second phase of Ghana's urbanisation process was the period of colonialism. The years of British administration of the Gold Coast during the 20th Century were an era of significant progress in social, economic and educational development. This development was uneven and skewed in favour of the regions with already identified natural resources. As such, areas that were suited for the growth of cash crops, timber exploitation and mining or close to the coast benefitted from these investments. This situation further deepened the gap between developments in the southern parts of the country compared to the northern half.

According to Adarkwa (2012), two main structures became evident in the spatial economy of the country. A centre-periphery structure emerged under which the centre consisted of a forest belt where production of raw materials was concentrated with Kumasi as the centre of this system. The second type of growth region consisted of coastal towns which played a crucial role in the import-export activities with Sekondi-Takoradi and Accra becoming the most important centres. These three towns – Accra, Kumasi and Sekondi-Takoradi thus monopolised much of the modern social infrastructure in the country (Songsore, 1979; Songsore, 1989). The result was an increase in the population of these towns. Evidence from census reports indicates that in 1921, 7.8 percent of the population lived in urban centres and hit a little more than 50 percent in 2010. Along with this increasing population was the increase in the concentration of the population in settlements of 5,000 or more, although this concentration is dominated by Accra and Kumasi (Owusu, 2005). This, according to Dickson (1968), partly accounts for the underdevelopment and least urbanised nature of the Upper East, Upper West and Northern regions, which hitherto had persisted.

Thus, Ghana's colonial towns did not develop as industrial centres, but rather as operational centres meant to facilitate the extraction of raw materials and the politico-administrative system on which this depended (Rakodi, 1997). Furthermore, and in a bid to support the diverse demands of a thriving and growing market economy, as well as to provide the needed administrative support to these commercial centres, transport infrastructure, especially railways, was developed to connect the ports to their hinterlands (Gugler and Flanagan, 1978; Mehretu, 1983; Coquery-Vidrovitch, 1991). Songsore (2003) argues that the "colonial city" developed as a centre of commerce and administration rather than as a result of industrial production. This led to the growth of urban centres in Accra for instance, where the population doubled to 38,000 between 1911 and 1921 and reached 200,000 by the 1940s (Collins, 2004), by which time Kumasi which was experiencing the cocoa boom grew to 70,000. As the colonial administrators and early settlers made their home in-country, their health, living environment, education of their children and wards as well as other concerns for social services became apparent. This gave rise to the establishment of rudimentary local government (King, 1990). It was during this period that the then colonial governor, Governor Guggisberg introduced the Infrastructure Development Plan spanning the period 1919-1926. The implementation of this plan which resulted in the construction and establishment of several schools and colleges as well as health facilities further gave a boost to the process of urbanisation with settlements that benefited from such educational and health infrastructure becoming urbanised within a short space of time.

The pattern of uneven regional development was a direct result of colonial policies and strategies which in turn influenced the distribution of the country's population.

2.2.3 Post-Independence Phase

Following independence of the country, the favoured development strategy was based on modernisation, industrialisation, economic diversification, and indigenisation of the economy (www.mongabay.com/history/ghana 08/10/13). Given the heavy reliance on the production of raw materials in the colonial period, the infrastructure was already available in the large towns of Accra, Sekondi-Takoradi and Kumasi thus supporting the emergence and growth of the modern industries and markets. Post-independence strategies were directed at industrialisation in these urban centres. It was expected that this top-down development strategy in which capital investments were concentrated in urban centres would stimulate growth that would trickle down to other sectors of the economy and to the rural and peripheral zones. Unfortunately, this development strategy failed to transform the economy and to bring about the much desired spatial integration and regional development (Yankson, 2006). According to Songsore (2003), however, the post-colonial import-substitution industrialisation was merely replaced and legitimised by the manufacturing of the same products locally.

In African countries, including Ghana, changes associated with independence increased the attraction of cities. The growth of civil service, attempts to industrialise, and the abandonment of remaining relics of influx control gave a boost to rural-urban migration. The centralisation of politics and bureaucracy formed a further attraction to investors who needed access to the state machinery, resulting in the emergence of many new towns along the fringes of the main urban centres (Rakodi, 1992).

The cumulative result of this was a deepening of the rural-urban migration in the country with a continued expansion of the urban centres. Songsore (2003) and Owusu (2005) both indicate that although Ghana's urban population has undergone a number of changes in the last 30 years, the proportion of the total population living in these centres has changed little over the years. Owusu (2005) concludes that government policies, e.g., the introduction of cocoa centres and decentralisation were a major contributory factor to the growth and proliferation of urban centres across the country.

2.3 Policies and programmes that have contributed to the urbanisation process in Ghana

The close association between economic development and urbanisation has been well-documented. In an examination of the impact of urbanisation on the socio-economic and political development of Ghana, Adarkwa (2012) concludes that the spatial form, urban infrastructure and urbanisation have changed tremendously since the pre-independence era. He writes that the colonial development policies greatly influenced spatial and physical development of towns in the country. This originated from the investment strategies of the colonial authorities which concentrated development in areas with exploitable resources, thus attracting population and development to some areas of the country relative to other parts. (Owusu, 2005).

2.3.1 Colonial Polices and programmes

Land use in the pre-colonial days was governed by customary laws and social norms. By the latter part of the 19th Century, there was a gradual shift from this traditional system of land use planning as the form and structure of Accra changed. Accra had become the nerve centre of the administrative, political and economic activities of the country. This caused an ever-increasing demand for land by government, commercial firms and individuals alike for developmental purposes such as roads, residential buildings and other public works and government began to legislate for modern town planning.

In 1876, the Colonial Government enacted the Public Lands Ordinance in order to acquire lands for the new seat of government and new capital. A Town Council was set up in Accra under the Town Council Ordinance of 1876 with powers to deal with environmental sanitation, the provision of infrastructure to ensure orderly planning of the town, the control and erection of buildings and the layout of streets (Quarcopome, 1992).

On 21st April 1945, the Town and Country Planning Ordinance (Cap 84) came into force "to provide for the orderly and progressive development of land, towns and other areas to preserve and improve their amenities and for related matters." This formed the basis for zoning and building codes which were strictly enforced in the urban centres.

The colonial administration ensured that areas inhabited by Europeans were low-density areas that were properly planned with adequate sanitation, recreational and spatial needs. There was strict compliance with regulatory building standards. Only buildings with materials of stone, concrete, brick and metal roofing materials were allowed. Efforts to accommodate the country's non-European population were, however, not matched with similar efforts. In contrast, the indigenous population lived in unplanned areas with poor sanitation. (Stanley 1876 as quoted by Grant and Yankson, 2002), described these areas as "one of mass thatched buildings arranged in a haphazard manner and separated by crooked streets." The indigenous migrant population who were arriving from the rural areas as a

result of the attractions and development of the urban centres found themselves in fringes of the urban areas such as Accra New Town and Nima which at that time were not part of Accra proper. Coupled with colonial racial segregation policies, these areas that fell outside the planning jurisdiction of Accra were, therefore, unregulated and quickly developed as squatter settlements or shantytowns. This pattern set in motion a pattern of spatial segregation in Ghanaian towns which continued to independence (Adarkwa, 2012).

Apart from the enactment of town planning legislations, colonial authorities influenced spatial development other ways. Prominent among this was the creation and or designation of existing towns as colonial administrative centres. For example, when the colonial authorities relocated the colonial capital from Cape Coast to Accra in the 1870s, there was a rapid increase in the population of Accra whilst there was a slow-down in the growth and development of Cape Coast (Njoh, 2007). According to Owusu (2005), by 1950, 15.4 percent of the population was living in urban centres, having doubled from 7.8 percent in 1921 with 3.4 percent and 1.9 percent domiciled in Accra and Kumasi respectively. This prompted the then colonial governor, Sir Gordon Guggisberg to initiate plans to expand the city through the launching of his Infrastructure Development Plan. Guggisberg's Development Plan of 1920-1930 set the foundation for the construction of infrastructural facilities in mineral and agricultural endowed regions in Ghana, thus confining development to the forest and coastal towns of Kumasi, Accra and Sekondi-Takoradi (Tetteh, 1992). A pattern of settlement distribution was consequently set in motion and later reinforced by subsequent development plans and policies in the post-colonial era (Tawiah, 1994: Songsore, 2009). Notable among these was the construction of a bridge across the Korle Lagoon to open up the land west of the Lagoon to human settlements. In addition, other government projects such as the building of hospitals, schools and railroads altered the country's spatial structure and increased the population in the urban centres.

Ghana saw the emergence of an industrial core region made up of Kumasi, Accra and Sekondi-Takoradi which together accounted for 86 percent of all registered industrial enterprises in the country during the post-independence era (Songsore, 1979). Today, population distribution in the country is dominated by these regions. Accra has undoubtedly emerged as the city that has benefited the greatest from this trend of urbanisation in Ghana, and government policies over time tend to reinforce this pattern. It has been singled out as a growth pole under the West African 'gateway concept' and the Vision 2020 Policy document for example anticipated that Accra, over time, will emerge as the financial capital of Africa competing with Nairobi and Johannesburg (GoG, 1995). The story is no different when it comes to investments.

A recent report on the distribution of in-flows indicated that 78.9 percent of all projects registered in the first quarter of 2011 were located in the Greater Accra Region (Kunateh, 2011). This results in a promotion of polarisation of urban development in the country (Songsore, 2009) and further undermines implementation of the objective of "adopting measures to influence the volume and patterns of migration and to promote a more rational distribution of population and development between urban and rural areas and between zones and regions of the country" as stipulated under the National Population Policy of Ghana. According to Ayinam (1994), such development strategies are among the principal causes of inequalities in Ghana's space economy and acts as an impetus for migration to major cities such as Accra.

2.3.2 Post-Independence Policies

Following independence, Nkrumah sought to transform the country into a modern semi-industrialised state, making the state machinery, the agent of development. He launched the 1963/64–1969/70 Plan for National Reconstruction and Development focusing on industrialisation. Songsore (2010) observes that the industrialisation drive at that time was concentrated in the "golden triangle" of Accra -Tema, Kumasi and Sekondi-Takoradi and did little to eliminate the north-south divide that had been created as a result of concentrated developments in the southern parts of the country. Accordingly, during this period, Accra-Tema accounted for 59.1 percent of industrial establishments with Kumasi and Sekondi-Takoradi accounting for 16.5 percent and 10.2 percent respectively. Nkrumah's industrial policy also saw the creation and expansion of infrastructure such as roads, railways, communications and housing. Several kilometres of tarred roads were constructed connecting major towns, most importantly the Accra-Takoradi-Axim-Tarkwa road, the Kumasi-Tamale trunk road and the Sogakope Bridge over the Volta River linking the Volta Region with other parts of the country. Other rail transport connecting Achiase in Huni Valley to the Accra-Kumai rail line at Kotoku near Nsawam and the Achimota-Tema railroad contributed substantially to the growth of towns along arterial roads (Owusu, 2005). Owusu concludes that, the combination of these factors and the spill over effects from large urban centres, have contributed to the growth of towns that eventually grew to become large urban centres.

Furthermore, the period of economic decline between 1972 and 1984 which saw cuts in wages and massive retrenchment also saw the emergence of an informal sector which helped in the alleviation of poverty in urban areas (Bawa, 1995). Many migrants found means of livelihood in the informal sector in urban areas. From that time, the informal sector has remained the single most significant source of employment in the country, engaging about 60 percent of the non-agricultural employment, as compared to 15.6 percent of the formal sector (ILO/JASPA, 1989).

In the early 1980s, following the downtrend in economic performance, Ghana launched an Economic Recovery Programme (ERP) in 1983 that sought to implement the prescriptions of the World Bank and the International Monetary Fund (IMF). The first phase of the programme covered four years, 1983-1986, followed by a second phase (ERP II) that proceeded to 1991. The first phase of the programme focussed on stabilisation and liberalisation and aimed to establish a new macro-economic policy framework to reverse the downward trend of the economy and to put it back on the path of growth. The second phase was meant to consolidate the gains and maintain the progress towards sustained growth. Studies have indicated that the liberalisation policy introduced in Ghana in this period had an impact on the manufacturing economy and employment and consequently on urban development which has continued to date. Yankson (2005) shows that in the case of Accra, trade liberalisation allowed easier access to commodities including building materials which led to the development of residential properties around the perimeters of the city of Accra extending to Tema Municipal and the Ga District, thus contributing to the physical expansion of Accra. He goes on to indicate that similar developments have taken place in other urban centres of the country, though to a lesser degree. In addition, liberalisation of the financial sector has fuelled the growth of the housing industry as most of the transactions are conducted in foreign currencies, therefore making it lucrative to own a property in an urban centre. A classic example is the recent boom in the housing industry in Takoradi as a result of the oil find in Ghana in 2010.

The World Bank/IMF Structural Adjustment Programmes (SAPs) of the 1980s further widened the gap between the relatively well developed south and the deprived northern parts of the country. According to some arguments, the removal of subsidies, the shrinking of the formal sector and the high cost of living during this period reduced the attractions of the urban centres and contributed to the return migration of migrants to the rural areas. The implementation of the SAP significantly affected population growth and distribution in the country. Development strategies prior to the SAP in the early 1980s had focused on large-scale state-owned enterprises dependent on imported raw materials heavily protected by the state. The chronic food shortages, mass poverty, and high inflation which peaked at 123 percent in 1983, and a deteriorating currency forced Government to adopt the SAP in 1983 to adjust the structure of the Ghanaian economy to rid it of undue governmental control and introduce liberalization measures

The SAPs greatly affected poor and vulnerable groups who disproportionately bore the cost of withdrawal of subsidies, wage cuts and the promotion of exports at the expense of food crops resulted in a plummet in food production (Bawa, 1995: Post, 2001). According to Ayinam (1994), the traditional core economic regions (producing for export) benefited as compared to the food producing regions of the North. This further widened the gap between the North and the South and the subsequent migration of northern labour to cocoa farms and other alternative sources of livelihood in the South.

In Ghana, the creation of slums is associated with the continuous rural-urban migration, limited supply of land, and regulatory frameworks that are not addressing the needs of the urban poor. According to Obeng-Odoom (2007), there seems to be a close association of the urban growth rate (3 percent a year) and the slum growth rate (2 percent a year). In 2001, the slum population of Ghana was estimated at 4,993,000 people, growing at a rate of 1.83 percent per annum and scattered in all the major cities. This population was expected to reach 5.8 million by 2010 (GoG 2005). This is against a backdrop of an overall urban growth rate of 4.6 percent and the following intercensal growth rates in Ghana's key cities from 1984 to 2000: Accra (3.4 percent), Kumasi (5.6 percent), Tamale and Sekondi-Takoradi (5.6 percent and 2.8 percent respectively) according to GSS, 2000. The blight of rapid slum growth will continue unabated if concrete population, planning and management steps are not pursued.

The growth of towns particularly Accra, Kumasi and Takoradi in terms of economic activities, investments and population is largely undesirable. The lack of employment coupled with planning and development control have resulted in the development of slums with the proliferation of uncontrolled informal structures in almost every available open space in these three cities.

In 1988, Ghana embarked on a decentralisation policy and local government reform programme which established decentralised government machinery where the process of governance is through the participatory and consultative process at the local level. A basic goal of Ghana's decentralisation is rural development as a means of reducing migration to the large towns and cities. However, the establishment of new districts at any point in time in itself served as a basis for the growth of hitherto rural settlements into urban centres and hence increased the number of urban centres in the country (Owusu, 2005). The creation of new districts attracted public infrastructure and influx of migrants allowing centres to rapidly develop into towns thus, further aggravating the problems of spatial population distribution in the country.

2.4 Legal, policy and institutional frameworks for urban planning and management

Various legal and institutional frameworks have been put in place to address issues of urban management and planning. Under the Local Government Act (Act 462, 1993), the Town and Country Planning Department was charged with the overall planning and development control within its jurisdiction. Other legislative instruments which back the establishment of the department include, 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 (LI 1630) and the Town and Country Planning Ordinance, 1945 (Cap 84). The provisions of the Civil Service Law (PNDC Law 327) and the Local Government Act (462), decentralised the TC&PD in 1993 with its former Regional and District branches integrated into regional coordinating councils and the metropolitan, municipal and district assemblies.

In addition, there is a plethora of laws on planning and urban spatial management in Ghana. Some of these include the Town and Country Planning Ordinance (Cap 84), Local Government Act, 1993 (Act 462), Building Regulations (L.I. 1630), National Development Planning Commission (Cap 86 & Act 33) Act 1994 (Act 479) and the National Development Systems Act, 1994 (Act 480). The Local Government Act (Act 462) carries the legal mandate of establishing Assemblies which are responsible for the development, improvement, and management of human settlements and the environment in areas under the districts. The Town and Country Planning Ordinance (Cap 84) of 1945 also requires that all urban areas be covered by a Town Planning Scheme. Again, the National Development Systems Act, 1994 (Act 480) ensures that guidelines are issued to guide district assemblies, sector ministries, departments and agencies on the preparation of development plans on a five-year basis.

With the adoption of decentralisation with its legislative, administrative and planning systems in the late 1980s through the 1990s, a number of key urban development projects co-financed by the International Development Agency (IDA) of the World Bank and Agence Française de Dévelopement (AFD) were implemented. These projects included a number of urban-focused projects (Urban I through V and subsequently the Urban Environmental Sanitation Project (UESP) 1 and 2) and were directed at upgrading essential urban infrastructure and service delivery and improving technical, financial and managerial capacity of local government, starting in Accra, and spreading to other metropolitan areas, medium-sized towns and smaller towns, including regional and district capitals. However, these projects were not implemented within the context of a comprehensive urban development framework and hence their effects on other equally pressing urban development issues were very marginal, if any at all.

The Government of Ghana's Vision 2020 (1995-2020) represented an initiative to formulate and implement a long-term development plan in Ghana, and had by far the longest plan period for the past 25 years. The long-term goal of Vision 2020 was to improve the social and economic quality of life of Ghanaians and to eliminate extreme deprivation by encouraging the creativity, enterprise and productivity of all citizens. It also had an urban development component which emphasized on the development of medium-sized towns, as alternative centres to the large towns and cities. Overall, Vision 2020 was implemented for five years out of the Plan duration of 25 years and could not achieve its vision to improve the face of urban development in the country.

The next development policy frameworks after Vision 2020 were Ghana Poverty Reduction Strategy (GPRS I) and the Growth and Poverty Reduction Strategy (GPRS II). In the view of government, GPRS I & II represented attempts to address the challenges of previous development plans by instituting broad-based consensus-building among government, civil society, private sector and development partners on key issues and programmes for accelerated and sustained poverty reduction. The GPRS I like its predecessor development plans such as the Medium-Term Development Plan (MTDP) of Vision 2020 failed to provide any specific comprehensive strategy on the subject of urban and regional development in Ghana. There was very little or limited urban development strategies in the GPRS I development framework to address the challenges of rapid pace of urbanization and to exploit the potential benefits offered by the process in the country. Again, GPRS II which is the successor to GPRS I, had very little on urban development. In both policy documents emphasis was placed on urban housing and slum upgrading.

In the absence of clearly defined policy direction on urban development, past government interventions in the urban sector have largely been project-based and not comprehensive enough, with extensive donor support component. The response has been limited, resulting in increasing challenges that today confront the Ghanaian urban sector. Indeed, the numerous statutes and legal frameworks have only weakened urban governance in the country. This has been worsened by poor institutional coordination by key government ministries and metropolitan, municipal and district assemblies (MMDAs) charged with urban management. The role of the MMDAs has further been undermined by the lack of enforcement of laws and regulations on urban planning and development, leading to the haphazard and often unplanned development experienced across the country. As a result of this, planning in towns and cities is fragmented and there is constant shifting of blame when there are lapses in the planning process and implementation of plans. In addition, unavailability of accurate and timely socio-economic data often constrains the full assessment of programmes with ineffective measurement outcomes.

In response to this, government in 2012 promulgated a National Urban Policy. The Policy seeks to address the fundamental challenges associated with urban development and management in the country. The policy is supported by the Ghana National Urban Policy Action Plan which identifies key activities that need to be pursued in order to achieve the twelve policy objectives and related initiatives of the National Urban Policy.

2.5 Conclusion

In Europe and most parts of Asia, urbanisation has been as a consequence of economic development and the movement of people from an agricultural-based economy to manufacturing and service-led economy. In most African countries, however, urban growth was achieved without much industrialisation and only modest economic growth. In a paper to analyse the contribution of cash crops to urbanisation, Jedwab (nd) argues that sub-Saharan Africa has followed a different pattern of urbanisation from elsewhere. According to him, in contrast to standard theories of structural transformation, Africa did not urbanise following a green revolution or an industrial revolution, but as a result of natural resource exports. He concludes in his paper that, economic growth in the rural sector can lead to urbanisation but whether this urbanisation in turn promotes growth might depend on the type of cities created. He further argues that resource exports create consumption cities with small manufacturing and tradable service sectors and these consumption cities have relatively small impact on growth although they may be likely to exhibit agglomeration effects. These resource exports have positive economic effects in the short-term, as producing regions accumulate cities.

However, this may not have been enough to increase per capita income in the long-term probably due to limited production linkages and weak state institutions as in the case of Africa and this may in part explain the apparent paradox that sub-Saharan Africa is urbanised but poor. From available data, it is apparent that Jedwab's conclusion may indeed be applicable to Ghana which is experiencing rapid urbanisation in the face of slow growth in the manufacturing sector.

CHAPTER THREE
URBANISATION IN GHANA

3.1 Introduction

This chapter examines the population distribution in Ghana relative to the urban and rural localities of residence. It compares the proportion of the urban and rural population distribution by age and sex and region of residence. We also analyse the size of urban localities by region and compare them by generating the Gini Ratio for distribution of the urban population by size of locality in each region for the purpose of ascertaining the skewness or otherwise of the distribution of the urban population in each region in 2010.

In addition, the chapter discusses the levels and trends in urbanisation and differentials in Ghana by sex and region of residence with a comparison of sex ratios also by region. We further discuss the key drivers of migration in Ghana where we compare the regions on the basis of the volume of net migration during the period 2000-2010. In addition, the relative contribution of migration and natural increase for the urban population growth for the 10 regions in Ghana is examined with a comparison between the 1984-2000 and 2000-2010 periods to understand the regional variations.

3.2 Urban and rural population distribution of Ghana, population of large towns and cities

Table 3.1 presents information on the five year age-sex distribution of Ghana's population by urban and rural localities. The table suggests that about 51% of the population is made up of females while males make up the remaining 49 percent. The comparison by type of locality indicates a slightly higher proportion of the population to be female in the urban than the rural localities. This may be due to the recent phenomenon of relatively more female than male children who migrate from rural communities into urban areas (See Anarfi and Kwankye, 2009). Thus, as seen in Table 3.1, the variation in the male-female proportions of the population in the urban localities in the country is larger (4%) compared to that in the rural areas (0.8%).

Table 3.1: Population by 5 year age groups, sex and type of locality i.e., urban and rural

	Total			Urban			Rural		
Age	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	**24,658,823**	**12,024,845**	**12,633,978**	**12,545,229**	**6,016,059**	**6,529,170**	**12,113,594**	**6,008,786**	**6,104,808**
%	100.0	48.8	51.2	100.0	48.0	52.0	100.0	49.6	50.4
0 - 4	13.8	7.0	6.8	12.3	6.2	6.0	15.4	7.8	7.6
5-9	12.7	6.4	6.2	11.1	5.6	5.5	14.4	7.4	7.0
10-14	11.8	6.0	5.8	11.1	5.4	5.7	12.6	6.6	5.9
15 - 19	10.6	5.3	5.3	10.9	5.2	5.7	10.3	5.4	4.8
20 - 24	9.4	4.5	5.0	10.8	5.1	5.7	8.0	3.8	4.2
25 - 29	8.3	3.8	4.5	9.5	4.4	5.1	7.1	3.2	3.8
30 - 34	6.8	3.2	3.6	7.6	3.6	4.0	6.0	2.8	3.2
35 - 39	5.8	2.7	3.0	6.2	3.0	3.3	5.3	2.5	2.8
40 - 44	4.8	2.3	2.5	5.0	2.4	2.6	4.6	2.2	2.4
45 - 49	3.8	1.8	2.0	3.9	1.8	2.0	3.7	1.8	1.9
50 - 54	3.4	1.6	1.8	3.4	1.6	1.8	3.4	1.6	1.8
55 - 59	2.1	1.0	1.1	2.2	1.1	1.1	2.0	1.0	1.0
60 - 64	1.9	0.9	1.0	1.8	0.8	1.0	2.1	1.0	1.1
65 - 69	1.2	0.6	0.6	1.1	0.5	0.6	1.2	0.6	0.7
70 - 74	1.4	0.6	0.8	1.2	0.5	0.7	1.6	0.7	0.9
75 - 79	0.8	0.4	0.5	0.7	0.3	0.4	0.9	0.4	0.5
80 - 84	0.6	0.3	0.4	0.5	0.2	0.3	0.8	0.3	0.4
85 - 89	0.3	0.1	0.2	0.3	0.1	0.2	0.4	0.2	0.2
90 - 94	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1
95+	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1

Source: Ghana Statistical Service, 2010 Population and Housing Census

From Table 3.1, it is observed that 38.3 percent of the population of Ghana was reported to be below 15 years and shared between the male and female as 19.4 percent and 18.8 percent respectively. Between the urban and rural areas, however, a smaller proportion of 34.5 percent of the population in the urban areas was below 15 years compared to as high as 42.4 percent in the rural areas. This obviously could be a reflection of the higher fertility in the rural than urban areas in Ghana. Furthermore, the proportion of the rural male population of this age group is slightly higher than their female counterparts while there appears to be no difference between the two sexes in the urban localities. Further comparison between the urban and rural areas shows that for either the male or female population, the rural area is higher by 4.6 percent and 3.7 percent respectively among the male and female population.

Another important deduction from Table 3.1 is that overall 4.6 percent of the population of Ghana is aged 65 years and over (i.e., the elderly population). This, however, varies between the urban and rural areas with the latter recorder a relatively higher proportion of 5.2 percent compared to the former's low of 4.1 percent. This may be a reflection of some people returning to live in the rural areas after their retirement from active service and may not necessarily be due to rural populations living longer than their counterparts in the urban localities. In terms of the total age dependency burden, it is seen that the urban localities recorded a relatively lower proportion (about 63 percent) than the rural areas where it was about 91 percent while the total age dependency ratio for the country stood at 75 percent.

3.3 Levels and trends in urbanisation and differentials in Ghana

Analysis of the 2010 PHC indicates that for the first time, a little over half of Ghana's population lives in urban localities. There is, however, no uniformity across all the regions in the country. As is presented in Table 3.2, urbanisation varies in Ghana by region from as high as almost 91 percent in the Greater Accra Region to as low as 16 percent in Upper West Region. Ashanti Region comes next to Greater Accra as the most urbanised with almost 61 percent of its population living in localities classified as urban in 2010. Greater Accra's high urban status is to be expected considering its position as the host of the nation's capital city, Accra which combines with Tema as the nation's largest commercial centre. Similarly, Kumasi is located in the Ashanti Region and it the second largest city in the country, thereby influencing the level of urbanisation in the region. The Central Region is also close to attaining a 50 percent population living in urban localities while the other regions particularly the three northern regions are around 40% or lower in terms of population living in urban areas.

Table 3.2: Population distribution by region, sex and locality of enumeration, 2010

Region	Total	Population Urban		Population Rural		% Urban	Sex ratio	
		Male	Female	Male	Female		Urban	Rural
All regions	24,658,823	6,016,059	6,529,170	6,008,786	6,104,808	50.9	92.1	98.4
Western	2,376,021	490,699	517,270	697,075	670,977	42.4	94.9	103.9
Central	2,201,863	489,237	548,641	560,875	603,110	47.1	89.2	93.0
Greater Accra	4,010,054	1,752,132	1,878,823	186,093	193,006	90.5	93.3	96.4
Volta	2,118,252	336,560	377,175	682,838	721,679	33.7	89.2	94.6
Eastern	2,633,154	542,670	601,248	747,869	741,367	43.4	90.3	100.9
Ashanti	4,780,380	1,382,251	1,515,039	933,801	949,289	60.6	91.2	98.4
Brong Ahafo	2,310,983	491,681	536,792	653,590	628,920	44.5	91.6	103.9
Northern	2,479,461	370,476	380,236	859,411	869,338	30.3	97.4	98.9
Upper East	1,046,545	105,082	114,564	401,323	425,576	21.0	91.7	94.3
Upper West	702,110	55,271	59,382	285,911	301,546	16.3	93.1	94.8

Source: Ghana Statistical Service, 2010 Population and Housing Census

In terms of sex ratio, the 2010 PHC report indicates an overall ratio of 95.2 which suggests that females out-number the male population in the ratio of 100 females to 95 males. However, from Table 3.2, there is quite a big variation between urban and the rural population where we find a much higher sex ratio in the rural localities (98.4) compared to the urban (92.1). This may imply a relatively higher migration of females from the rural localities to the urban than the males. This may be supported by the clearly visible higher number of females that we find doing business along the main arteries in the cities and towns in Ghana as street vendors compared to the males.

The trend in urbanisation by region from 1960 to 2010 indicates that there has been consistent increase in the proportion of the population living in urban localities in the regions except the Western, Central and Greater Accra regions where in 1984 there were declines before picking up again in 2000 (Table 3.3). It is also to be noted that in 1970 and 1984, the Volta Region was among the three least urbanised regions in the country alongside Upper East and Upper West but in 2000 and 2010 its level of urbanisation became higher than the Northern Region which joined the Upper East and Upper West as the least urbanised in the

country. The trend in urbanisation in Ghana shows that the regions with the least proportion of population living in urban localities are also the regions that have been noted for recording high volumes of out-migration. This suggests that migration has an ultimate role to play in the rate of urbanisation in any geographical region.

Table 3.3: Trends in urbanisation, 1960 - 2010

	Urban Population				
Region	1960	1970	1984	2000	2010
All Regions	23.1	28.9	32.1	43.8	50.9
Western	24.7	26.9	22.6	36.3	42.4
Central	28.0	29.1	28.8	37.5	47.1
Greater Accra	72.6	85.3	83.0	87.7	90.5
Volta	13.1	16.0	20.8	27.0	33.7
Eastern	21.1	24.6	27.7	34.6	43.4
Ashanti	25.0	29.7	32.5	51.3	60.6
Brong Ahafo	15.6	22.1	26.6	37.4	44.5
Northern	13.0	20.4	25.2	26.6	30.3
Upper East	3.9	7.3	12.9	15.7	21.0
Upper West	5.0	6.7	10.9	17.5	16.3

Source: Ghana Statistical Service, 2010 Population and Housing Census

3.4 Drivers of urbanisation in Ghana

The drivers of urbanisation can be conceived in three main contexts. These are differences in natural increase between geographical areas, the extent of migration and government policies which directly or indirectly may affect the pace and dynamics of urbanisation, including the re-classification of districts as part of the decentralisation processes in Ghana especially since the beginning of the Fourth Republic in 1993. In this section, therefore, the main factors that have affected urbanisation in Ghana have been discussed while examining the relative importance of natural increase and internal migration as they affect urbanisation in the country with a comparison by region.

3.4.1 Natural increase

The interplay between births and deaths determines the rate at which the population of any geographical area grows naturally such that where births far exceed deaths, the population grows rapidly and in no time may exceed the threshold population for an urban area. In Ghana, there are spatial differences in both fertility and mortality and depending on the variation between these two demographic phenomena, one locality could be more rapidly growing and attaining an urban status earlier or much later than another. Consequently, regions with large numbers of people added to the population annually are likely to move from rural to urban status. This is the effect of natural increase in the population i.e., the difference between births and deaths even in the absence of migration.

Ghana appears to be at the third stage of the demographic transition model with a declining fertility that has reached a plateau during the past decade as total fertility rate (TFR) has remained at about four with no big signs of further decline. Meanwhile, mortality has been declining and much faster than fertility, thereby creating a situation where the number of people that is added to the population becomes quite substantial each passing year, and consequently rapidly increases urbanisation with or without migration taking place. In Ghana, fertility has certainly varied from one region to another and even within any one region, there is no uniformity. This shows the contribution natural increase has, and will continue to make to the process towards attaining urban status in the country.

Table 3.4: Volume of net-migration by region, 1984-2010

Region	Net-Migration		
	1984*	2000*	2010**
Western	+46,687	+350,792	+282,119
Central	-77.874	-274,579	-238,015
Gt. Accra	+153,154	+901,780	+1,275,452
Volta	-97,192	-403,404	-535,671
Eastern	-78,136	-224,386	-332,086
Ashanti	-28,327	+197,059	+240,020
Brong Ahafo	+52,192	+163,749	+117,884
Northern	+10,716	-139,216	-332,597
Upper East	-20,762	-201,532	-267,692
Upper West	-3,083	-191,653	-209,414

Source: *Ghana Statistical Service, 2005, Population Data Analysis Report. Volume 2, p. 407.
** Generated from 2010 PHC data.

3.4.2 Internal migration

Internal migration has for a long time been an important factor for population redistribution in Ghana. Spatially, development has been quite uneven in the country. There is generally a north-south development divide which had made regions that are relatively less developed to be the regions of largely out-migration to others perceived to be more developed and offer socio-economic opportunities for enhancement of livelihoods. Thus, regions in the southern half of the country have over the years been more recipient of migrant population from other regions in the country particularly the northern regions.

As is seen in Table 3.4, the Greater Accra Region has consistently recorded the highest volume of net in-migration in the country. Between 1984 and 2010, the volume of net in-migration increased from 153,154 through 901,780 in 2000 to over one million in 2010. The Western and Brong Ahafo regions also recorded net in-migration in all three census years although the volume in each region reduced in 2000 before rising again in 2010. On the other hand, Ashanti Region which recorded a negative volume of net migration in 1984 is shown to have been associated with positive net migration in both 2000 and 2010. The rest of the regions have all been characterised by net out-migration in all three census years except the Northern Region which in 1984 was a net in-migration region but became net out-migrant in both 2000 and 2010. The increased volume of migrants into a region determines the rate at which that region becomes urbanised as the volume of migration contributes to increasing the population to reach the minimum threshold to qualify as an urban locality in Ghana.

t also has to be noted that in Ghana, internal migration has often been in response to changes or shifts in both identification/discovery of natural resources and their utilisation from time to time. As and when new natural resources are identified and relevant use is found for existing ones, the regions where they are found become very important attraction for potential migrants from other regions due to the perceived economic opportunities that the new natural resources are considered to offer for their livelihood. For example, following the recent

discovery of oil in commercial quantities off the coast of Western Region, the region is seen as fast becoming more attractive of many a migrant. It is, therefore, not surprising that in 2010, it was one of the four regions that recorded a net positive migration in the country.

At this stage, it is important to examine the relative contributions made to urbanisation in Ghana using the United Nations Decomposition Formula (see Appendix A for computational formula). This method indirectly determines what proportion of the growth in the urban population in each region could be attributed to either migration or natural increase during the intercensal period. The method has limitations due to its inherent assumptions which may not be fully applicable to the Ghanaian situation. For example, it assumes the following:

(i) The annual growth of the population of the country remains constant and applicable to all the geographical sub-units of the country;
(ii) There are no territorial boundary changes of the urban centres during the period under study;
(iii) The effect of the reclassification has been taken care of by migration and;
(iv) International migration is negligible.

Subjecting these assumptions that underlie the United Nations Decomposition Formula suggests that while there has not been a dramatic change in the annual growth rate of Ghana's population in the recent past, the rates certainly have not remained constant. However, the regular changes in the boundaries of districts due to the creation of new ones during the last two decades have not affected the boundaries of most urban centres since most often a number of communities is pulled from one district or another to form a new or an existing district. This approach of creating new districts may not, therefore, affect the boundaries of the urban centres but rather the geographical entity called district. Yet, it is not known to what extent the effect of reclassification has been taken care of by migration and finally since data on international migration (emigration and immigration) are not readily available in Ghana by region, one is not in a position to make conclusions regarding how negligible international migration has been in the country. By far, however, the method's assumption that the growth of the urban population is confined within regions (i.e., by intra-regional migration and natural population increase) is unsustainable since in Ghana, migration is not confined within regions but there is evidence of much inter-regional migration.

In spite of these limitations, the United Nations Decomposition Formula is regarded as the most effective method for determining the rate of urban growth that can fairly be attributed to migration compared to natural increase in a country. The results of the analysis regarding the contribution of migration and natural increase by region in Ghana are shown in Table 3.5.

Table 3.5: Contribution of migration and rate of natural increase to urban population growth by region

Region	Urban Population		Growth due to migration		Growth due to natural increase	
	2000	2010	1984-2000*	2000-2010**	1984-2000*	2000-2010**
All regions	8,274,270	12,545,229	37.4	40.7	62.6	59.3
Western	698,418	1,007,969	59.2	31.0	40.8	69.0
Central	598,405	1,037,878	51.1	58.3	48.9	41.7
Gt. Accra	2,547,684	3,630,955	4.1	28.1	95.9	71.9
Volta	441,084	713,735	54.8	50.5	45.2	49.5
Eastern	727,914	1,143,918	54.6	46.5	45.4	53.5
Ashanti	1,853,065	2,897,290	56.3	45.7	43.7	54.3
Brong Ahafo	678,780	1,028,473	53.9	40.6	46.1	59.4
Northern	483,790	750,712	11.3	44.6	88.7	55.4
Upper East	144,282	219,646	57.5	41.4	42.5	58.6
Upper West	100,848	114,653	71.6	-123.5	28.4	223.5

Source: *Ghana Statistical Service, 2005, Population Data Analysis Report. Volume 2, p. 404.
**Generated from 2010 PHC data

The results in Table 3.5 indicate that overall, almost 60 percent of the growth in urban population in Ghana could be attributed to natural increase with migration contributing to about 40 percent of the growth during 2000-2010. Compared to 1984-2000, there is a slight increase of migration's contribution to urban population growth by some four percentage points. A similar higher proportion of contribution to urban growth by natural increase in almost all the regions is recorded except in Central and Volta regions where the contribution of migration to urban population growth in 2000-2010 was higher than that by natural increase. This is quite the contrary observation in 1984-2000 during which the contribution to urban growth was much higher in eight of the 10 regions with the exception of Greater Accra and Northern regions. It is also to be noted that migration's contribution to urban growth increased in only three regions: Greater Accra, Central and Northern between 1984-2000 and 2000-2010 while in the remaining seven regions, migration's role saw a decrease during the period under review.

3.4.3 Decentralisation and area re-classification

Ghana has practised a decentralised system of local governance and administration for a long time particularly during the onset of the Forth Republic in 1993. In the course of the implementation of the decentralisation system of administration, many more districts have been created. For example, in 1988, 45 new districts were created to add to the 65 existing ones, thereby increasing the total number of districts to 110. Since then, many more districts have been created as a way of bringing governance closer to the people for effective planning and development. Currently, there are 216 districts in Ghana, implying that many otherwise rural settlements have been elevated to district capitals and as a result, attracted high rates of growth to become urban localities. This has come about largely due to the provision of some minimum infrastructure that often accompany the elevation of localities to the status of district capital.

It has to be noted, however, that although the elevation of certain localities to district capitals has generally led to huge increases in their populations that have made them become urban by classification, this is not applicable to all such localities (GSS, 2005). This, therefore, means that although the creation of new districts as a major government development policy

under the decentralisation system of administration has not always led to urban growth, it nonetheless has played quite a significant role in changing the growth fortunes of many such localities that suddenly become district capitals of newly created districts in Ghana (see GSS, 2005, Table 7.19).

3.5 Conclusion

The analysis in this chapter has brought out a number of interesting results. There are variations between the sex ratios between the urban and rural localities in Ghana. A much higher proportion of the urban population was made up of females compared to the rural communities. This suggests a higher migration of more females into the urban areas than males. Furthermore, the age structure of the population shows a higher proportion of the rural than urban population below age 15 years due to fertility differences which show a higher figure in the rural areas than the urban. At the same time, a smaller proportion of the urban population was found to be classified as elderly persons than in the rural localities.

The trend in urbanisation at the regional level also indicates that all the regions with the exception of Western, Central and Greater Accra have recorded consistent increases in the proportion of their population living in urban localities since 1960. Overall, however, Greater Accra, followed by Ashanti happened to be the most urbanised while Upper West recorded the least proportion in urban localities in 2010. The drivers of urbanisation are several, including deliberate government policies such as decentralisation and area reclassification, variation in spatial development in response to natural resource identification and utilisation as well as natural increase and migration.

An analysis of the contribution of natural increase and migration to urbanisation at the regional level, however, showed natural increase as the major contributor in all the regions with the exception of Central and Volta which the reverse was the case. Furthermore, four regions: Western, Greater Accra, Ashanti and Brong Ahafo; were found to be net in-migration regions while the remaining six were net out-migration regions in either 2000 or 2010. Thus, so long as there are variations in the rates of fertility and migration across the regions, urbanisation will continue to vary. What is important, however, is that the pace of urbanisation should contribute positively in enhancing the quality of lives of the people in totality since the urban economy is inextricably linked to the rural.

CHAPTER FOUR
ANALYSIS OF LIVING CONDITIONS IN URBAN AREAS

4.1 Introduction

In this chapter, we present results of analysis of living conditions of people enumerated in urban localities in 2010 in Ghana. This is done by first presenting the socio-economic characteristics of urban dwellers with reference to their literacy and education, marital status and religious affiliation. Housing facilities and conditions are also examined relative to the type of dwelling, materials used for the floor and roof of household dwelling units as well as the number of rooms occupied for sleeping. Furthermore, analysis is done on water and sanitation at the household level in terms of main source of drinking water and for other domestic use, the type of bathing and toilet facility and methods of waste disposal. In addition, there is a focus on energy use at the household level and finally, analysis is done on the employment and occupational status of the urban dwellers as well as the employment sector they were engaged in for a livelihood.

In sum, it provides an exhaustive overview of both the characteristics of the population recorded in all urban areas in Ghana in addition to the socio-economic conditions they found themselves in as at 2010. Throughout, attempts are made to compare the results of the analysis by sex and region of residence to understand the variations among the urban population in the country.

4.2 Socio-economic characteristics of urban dwellers

4.2.1 Literacy and education

The 2010 PHC collected information on the literacy status of all persons 11 years and older in the country in addition to the level of education attained as at the time of the census. Information was further sought regarding the language the respondents were literate in. The information on literacy has been analysed and the results presented in Table 4.1. It should be understood that in the table, the proportion that was recorded to be literate and that for those who were non-literate add up to 100 percent. Further analysis is also done on those who were literate regarding the specific language(s) they were literate in which also add up to 100 percent in the table. The interpretation of the table should, therefore, be done bearing this in mind.

From Table 4.1, it is observed that 84 percent of all persons 11 years and older were literate in Ghana and 16 percent had no literacy in any language. As usual, literacy level is higher among the males than females by some 10 percentage points. While almost 90 percent of the male population in the urban localities were literate, about 80 percent of their female counterparts were recorded to be literate in the country. In terms of language in which they were literate, a majority of either the male or female population was literate in both English and Ghanaian Language. It is, however, noteworthy to state that a relatively higher proportion (about 30%) of the female urban dwellers in Ghana was literate in English Language only compared to their male counterparts (about 28%). It is difficult to explain the reasons behind this variation between the males and females relative to literacy in English Language only in urban areas in Ghana and may require further investigation. On the other hand, literacy in

Table 4.1: Urban population 11 years and older by sex, literacy status, language in which literate by region

Literacy status/Language literate	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Both sexes	**9,286,733**	**742,255**	**746,276**	**2,784,084**	**521,573**	**844,805**	**2,144,732**	**743,403**	**516,947**	**157,402**	**85,256**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
None (Not literate)	15.9	15.0	18.0	9.8	18.7	12.9	13.0	21.6	44.5	38.1	31.1
Literate	84.1	85.0	82.0	90.2	81.3	87.1	87.0	78.4	55.5	61.9	68.9
English only	28.7	33.5	30.7	39.0	16.0	18.9	17.2	20.6	42.5	71.6	36.8
Ghanaian language only	7.1	5.1	5.7	4.9	11.0	10.0	10.2	7.4	2.3	1.2	2.2
English and Ghanaian language	62.2	59.7	61.6	53.1	70.9	69.8	70.9	71.0	54.6	26.3	59.1
English and French	0.5	0.5	0.4	1.0	0.6	0.3	0.3	0.3	0.2	0.4	0.3
English French and Ghanaian Language	1.5	1.2	1.5	2.0	1.5	1.0	1.4	0.8	0.3	0.4	1.7
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Male	**4,374,237.0**	**356,240.0**	**342,078.0**	**1,327,590.0**	**240,515.0**	**391,741.0**	**1,002,227.0**	**347,543.0**	**252,050.0**	**73,543.0**	**40,710.0**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
None (Not literate)	10.5	9.3	11.3	5.7	11.7	7.5	8.0	15.5	34.7	29.7	22.5
Literate	89.5	90.7	88.7	94.3	88.3	92.5	92.0	84.5	65.3	70.3	77.5
English only	27.9	32.3	29.1	38.2	15.7	18.2	16.9	19.4	39.6	68.9	33.6
Ghanaian language only	5.1	4.0	4.5	3.3	8.1	7.2	7.3	5.3	2.3	1.2	1.9
English and Ghanaian language	64.8	61.8	64.4	55.3	73.6	73.1	73.9	74.1	57.5	28.9	62.0
English and French	0.6	0.6	0.5	1.1	0.7	0.3	0.3	0.3	0.2	0.4	0.3
English French and Ghanaian Language	1.6	1.3	1.4	2.1	1.9	1.1	1.5	0.9	0.4	0.6	2.2
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Female	**4,912,496.0**	**386,015.0**	**404,198.0**	**1,456,494.0**	**281,058.0**	**453,064.0**	**1,142,505.0**	**395,860.0**	**264,897.0**	**83,859.0**	**44,546.0**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
None (Not literate)	20.8	20.3	23.6	13.5	24.7	17.5	17.4	27.0	53.7	45.5	39.0
Literate	79.2	79.7	76.4	86.5	75.3	82.5	82.6	73.0	46.3	54.5	61.0
English only	29.5	34.7	32.3	39.9	16.3	19.5	17.6	21.8	46.3	74.7	40.4
Ghanaian language only	9.1	6.2	6.8	6.4	13.9	12.7	13.0	9.5	2.4	1.3	2.5
English and Ghanaian language	59.6	57.6	58.8	51.0	68.1	66.6	67.9	67.8	50.9	23.4	55.7
English and French	0.5	0.4	0.4	0.8	0.5	0.2	0.2	0.2	0.2	0.4	0.3
English French and Ghanaian Language	1.4	1.1	1.6	2.0	1.1	1.0	1.2	0.6	0.3	0.2	1.2
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Ghana Statistical Service, 2010 Population and Housing Census

French is very low in the country in spite of the fact that Ghana's neighbours are all French-speaking.

The results by region indicate that the Northern Region has the lowest literacy rate in the country with about 56 percent of its urban population being non-literate in 2010. In contrast, Greater Accra recorded the highest literacy rate in the country. This is to be expected considering the region's status as hosting the capital city of the country where level of education has consistently been found to be the highest. The results of the regional analysis by sex are consistent with the national average where males were found to be more literate than the females. It is, however, important to note that the variation between males and females by literacy is highest in the Northern Region where the proportion of the males that was literate is found to be as high as 16 percent while in the other regions it is not higher than eight percent.

Furthermore, it is to be noted that literacy in English only is generally higher in all the three northern regions than the other regions to the south. Again, the Upper East Region stands out quite uniquely as having a much higher proportion of its urban population with the highest level of literacy in English Language only. Among the urban population in Upper East Region, the results show that as high as 69 percent of the male population and 75 percent of the females were literate in English Language only compared to around 40 percent or less in the other regions particularly those to the south. The situation in the Upper East in particular and the other two northern regions could be attributed to the multiplicity of languages spoken there where there does not appear to be one dominant local language unlike the southern regions where in most cases one main local language may be dominant like the Akan which is widely spoken in almost all the regions in the country particularly in the south. Table 4.2 presents information on the level of education among all persons three years and older in urban localities by sex and region of residence at the time of the 2010 PHC. The information in the table indicates that one in seven urban dwellers three years and older had never attended any formal education in the country. Again, it is shown that a majority (about 565) of the urban population three years and above had attained primary to secondary level of education. There is also a variation between the males and females where a higher proportion of the females (18%) than the males (10%) had never attended any form of schooling in Ghana.

Comparing the results by region and sex indicates some consistency with the national average where in each region the male population happens to be relatively more educated than the females. It has to be noted, however, that the lowest proportion of persons with no education is recorded in the Greater Accra Region among either males or females. At the same time, the three northern regions are the most disadvantaged with regard to level of education with the Northern Region recording as high as 38 percent of its urban population with no level of education compared to Greater Accra's low of nine percent. This is the case for either the male or female population.

It is also important to observe that more than half of the population in urban areas in each region with the exception of Northern Region reported level of education to range from the primary to secondary level, the highest of 71 percent being recorded in both the Eastern and Ashanti regions with the lowest of 47 percent standing in the name of Northern Region. Beyond secondary level of education, it is interesting to underline the fact that Upper West Region (14.9%) is second to the Greater Accra Region (15.3%) with the highest proportion of urban dwellers with post-secondary level of education. While this is difficult to explain, it

Table 4.2: Urban population 3 years and older by sex, level of education and region

Level of education	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Both sexes	**11,599,522**	**932,469**	**953,450**	**3,370,746**	**657,778**	**1,060,380**	**2,676,343**	**949,407**	**689,540**	**202,782**	**106,627**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Never attended	14.2	13.3	16.2	9.1	17.0	11.4	11.2	18.5	37.7	32.4	27.2
Nursery	3.0	3.2	2.8	2.7	2.6	2.6	2.6	3.2	5.5	3.9	4.9
Kindergarten	5.0	5.1	6.0	4.3	5.7	5.9	5.3	6.0	3.5	3.7	2.5
Primary	23.0	22.6	24.9	20.7	26.0	25.0	22.8	25.2	23.1	26.0	22.5
JSS/JHS	20.0	20.6	19.8	20.4	18.9	21.6	22.0	19.9	12.2	13.1	13.5
Middle	10.6	11.4	9.9	11.5	10.5	13.7	12.0	8.9	2.0	3.2	3.4
SSS/SHS	11.0	10.6	9.0	12.6	9.4	9.4	12.2	10.0	9.0	8.6	9.9
Secondary	2.3	2.2	1.5	3.7	1.6	1.8	2.3	1.3	1.0	1.0	1.2
Vocational/Technical/Commercial	2.5	2.9	2.0	4.0	2.1	2.2	1.9	1.4	0.8	1.5	2.1
Post middle/secondary certificate	1.5	1.4	1.2	1.5	1.9	1.6	1.5	1.3	1.6	1.8	2.6
Post-secondary diploma	3.4	4.6	2.3	4.3	2.9	2.8	3.2	3.0	2.3	2.7	4.8
Bachelor degree	2.8	1.7	4.0	4.4	1.2	1.7	2.7	1.2	1.1	1.8	5.0
Post graduate (Cert. Diploma Masters PHD etc)	0.5	0.3	0.4	1.0	0.3	0.3	0.5	0.2	0.2	0.3	0.4
Male	**5,535,088**	**452,053**	**446,356**	**1,620,209**	**308,195**	**500,318**	**1,269,833**	**451,332**	**339,168**	**96,386**	**51,238**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Never attended	9.7	8.7	11.0	5.7	11.4	7.1	7.0	13.6	30.0	25.7	20.3
Nursery	3.2	3.5	3.1	2.8	2.8	2.8	2.8	3.5	5.7	4.1	5.3
Kindergarten	5.4	5.4	6.5	4.6	6.0	6.4	5.7	6.5	3.6	3.9	2.5
Primary	22.3	22.0	24.6	19.2	25.6	24.2	22.1	25.1	23.9	27.3	22.3
JSS/JHS	19.7	20.0	19.7	19.9	19.2	21.3	21.6	19.2	13.3	13.5	13.2
Middle	11.2	12.5	10.9	11.7	11.2	14.5	12.4	9.6	2.7	4.0	3.9
SSS/SHS	12.3	11.6	9.7	13.7	10.8	10.6	13.4	11.5	10.9	9.6	11.3
Secondary	3.0	2.8	2.0	4.5	2.2	2.4	3.0	1.9	1.4	1.4	1.6
Vocational/Technical/Commercial	2.7	3.1	2.2	4.3	2.2	2.4	1.9	1.4	0.9	1.6	2.0
Post middle/secondary certificate	1.5	1.3	1.1	1.3	2.0	1.5	1.4	1.6	2.1	2.0	2.8
Post-secondary diploma	4.4	6.1	3.1	5.3	4.0	3.7	4.0	4.0	3.3	3.5	6.4
Bachelor degree	3.9	2.4	5.5	5.5	2.0	2.5	3.9	1.9	1.7	2.9	7.7
Post graduate (Cert. Diploma Masters PHD ect)	0.8	0.6	0.7	1.4	0.5	0.5	0.8	0.3	0.3	0.5	0.7

Table 4.2: Urban population 3 years and older by sex, level of education and region (Cont'd)

Level of education	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Female	**6,064,434**	**480,416**	**507,094**	**1,750,537**	**349,583**	**560,062**	**1,406,510**	**498,075**	**350,372**	**106,396**	**55,389**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Never attended	18.3	17.6	20.7	12.2	21.9	15.2	14.9	23.0	45.1	38.5	33.7
Nursery	2.8	3.0	2.6	2.5	2.4	2.4	2.4	3.0	5.3	3.6	4.5
Kindergarten	4.7	4.8	5.5	4.0	5.3	5.5	4.9	5.5	3.4	3.6	2.4
Primary	23.6	23.1	25.1	22.0	26.4	25.8	23.5	25.3	22.3	24.7	22.7
JSS/JHS	20.3	21.2	20.0	20.8	18.6	21.8	22.3	20.5	11.1	12.7	13.8
Middle	10.1	10.3	9.0	11.3	9.9	13.1	11.6	8.2	1.4	2.4	2.9
SSS/SHS	9.9	9.7	8.4	11.5	8.1	8.4	11.0	8.6	7.1	7.7	8.6
Secondary	1.7	1.6	1.1	3.0	1.0	1.2	1.6	0.7	0.5	0.6	0.8
Vocational/Technical/Commercial	2.4	2.6	1.9	3.8	1.9	2.1	1.9	1.3	0.8	1.5	2.2
Post middle/secondary certificate	1.5	1.5	1.2	1.6	1.8	1.6	1.6	1.1	1.2	1.7	2.4
Post-secondary diploma	2.5	3.2	1.7	3.3	2.0	2.0	2.5	2.0	1.4	2.0	3.3
Bachelor degree	1.9	1.0	2.7	3.4	0.6	0.9	1.6	0.6	0.4	0.8	2.5
Post graduate (Cert. Diploma Masters PHD ect)	0.2	0.1	0.2	0.5	0.1	0.1	0.2	0.0	0.0	0.1	0.1

Source: Ghana Statistical Service, 2010 Population and Housing Census

could be traced to the establishment of the University for Development Studies (UDS) which has one of its campuses in Wa, the capital of the Upper West Region, which the population has taken advantage of to educate themselves to the University level. For example, the Upper West Region recorded five percent of its urban population to have a bachelor degree which is even higher than Greater Accra Region's 4.4 percent. The Western Region is third, recording almost 11 percent of its population in urban localities to have education beyond secondary level, the remaining regions having less than one in ten of their urban population with educational level beyond secondary school level.

The pattern by sex does not deviate from the general one observed among both sexes except that in each region, the males are more likely to have a higher level of education compared to the females. It is further deduced from Table 4.2 that the variation in educational level in terms of persons who have never attended schooling before is much higher in the Northern Region with a parity gap of 15 percent between males and females with no education. The region with the least gender parity gap between the males and females happens to be the Eastern Region with just about four percent gap between the males and females. The gap between males and females with respect to education has long been found to be a challenge that successive governments have tried to bridge.

4.2.2 Marital status

Information collected on marital status was among persons 12 years and older in the 2010 PHC. This was a slight deviation from previous censuses and national surveys which asked of marital status of persons 15 years and older. Putting the minimum age of eligibility for marital status question to be posed at 12 years has the advantage of capturing marriages that take place earlier than 15 years to be able to have a better appreciation of the likely effect of early marriage and infant and maternal health outcomes.

Table 4.3 shows the results of the analysis of marital status by sex and region of residence among all urban dwellers 12 years and above in Ghana. From the results, more than half of the population surveyed had ever been married and less than half were never married in the country. About 40 percent of the urban population was married at the time of the census and close to 10 percent were altogether recorded to be separated, divorced or widowed among both sexes. It is also important to underscore the observation that close to five percent of the Ghanaian urban population was in informal or consensual unions or relationships.

Table 4.3 further depicts quite a significant variation between the males and females. For example, among the male population, a little more than half were never married compared to a lower proportion of 40 percent among the females. This suggests that women are more likely to marry earlier than their male counterparts. In fact, at the time of marriage, males are more likely to be relatively older than their female spouses. It is, however, quite interesting to observe that the proportion that was recorded to be married at the time of the census was about the same for males and females although the proportion among the latter is slightly higher. The small difference between the married males and females could be due to the impact of polygynous marriages in the country.

By region, the results indicate some variation where for example, Volta Region recorded the lowest proportion of persons never married in contrast to the highest recorded in the Ashanti Region. In terms of the married persons, however, the three northern regions recorded the highest proportions of more than 40 percent with almost half the population in Northern Region being married at the time of the census. Furthermore, in all the regions with the

exception of the Volta Region, a little more than half of the population 12 years and over in the urban localities were never married, the highest being recorded in Upper West Region. Again, the three northern regions report relatively higher proportions married compared with all other regions in the country but record the lowest proportions in consensual unions. In fact, in each of the three regions, the proportion in consensual unions is one percent or less compared to almost four percent or higher in the other regions to the south with Brong Ahafo recording about six percent.

Similarly, the proportion ever married (made up of the separated, divorced or widowed) also varies from the highest of almost 13 percent in Eastern Region to the lowest in Upper West (about 7 %) with the national average standing at about 10 percent. It does may appear that marriages are relatively more stable in the northern regions compared to those in the south. It is further seen that marital status varies between the males and females in all the regions of Ghana particularly in the three northern regions where the proportion married is visibly higher among the females than the males while in the other regions not much difference is shown between the males and females. Quite clearly, the picture depicted in the northern regions is the result of polygyny where one man could be married to more than one woman at the same time, a practice which is largely supported by the Islamic Religion commonly practiced in northern Ghana.

Finally, the results depict the Eastern Region to have the highest proportion altogether that is separated, divorced or widowed either among males or females. It is followed by Volta and Central regions. It also has to be underscored that comparatively the proportion that was recorded to be separated, divorced or widowed was higher in all regions among the females than the males. The reason is likely to be found in the practice where males are more likely than females to re-marry upon divorce or being widowed in Ghana.

Table 4.3: Population 12 years and older in urban localities by sex, marital status and region

Marital status/Sex	Total	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Both sexes	**9,037,989**	**721,714**	**724,503**	**2,720,199**	**507,111**	**820,517**	**2,083,350**	**720,497**	**504,047**	**152,928**	**83,123**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Never married	45.9	45.8	43.9	46.8	41.7	43.7	48.0	46.2	43.4	43.3	47.7
Informal/Consensual union/ Living together	5.0	3.5	5.8	5.6	4.1	6.2	5.3	6.2	0.8	0.7	1.1
Married	39.4	40.6	38.7	38.7	42.3	37.4	37.5	37.9	48.9	46.6	44.4
Separated	1.9	1.8	1.9	2.3	2.6	2.3	1.6	1.4	1.1	1.2	0.8
Divorced	3.4	4.0	4.6	2.9	3.3	4.7	3.4	3.9	1.4	1.3	1.2
Widowed	4.4	4.3	5.2	3.7	5.9	5.7	4.2	4.4	4.4	6.9	4.8
Male	**4,252,234.0**	**346,095.0**	**331,374.0**	**1,296,969.0**	**233,348.0**	**379,825.0**	**972,017.0**	**336,108.0**	**245,512.0**	**71,235.0**	**39,751.0**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Never married	52.1	51.2	50.6	51.2	49.4	50.5	54.6	54.0	51.8	51.3	54.8
Informal/ Consensual union/ Living together	4.7	3.2	5.4	5.5	3.7	5.7	5.0	5.4	0.7	0.7	0.9
Married	38.9	40.6	38.7	39.0	41.1	37.8	36.7	36.7	44.9	44.9	42.0
Separated	1.3	1.2	1.3	1.5	1.9	1.5	1.0	0.9	0.8	0.9	0.6
Divorced	2.0	2.4	2.6	1.8	2.3	2.9	1.7	2.1	1.0	1.0	0.8
Widowed	1.2	1.3	1.4	1.1	1.7	1.6	1.0	0.9	0.8	1.2	0.9
Female	**4,785,755.0**	**375,619.0**	**393,129.0**	**1,423,230.0**	**273,763.0**	**440,692.0**	**1,111,333.0**	**384,389.0**	**258,535.0**	**81,693.0**	**43,372.0**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Never married	40.4	40.7	38.2	42.8	35.1	37.9	42.2	39.4	35.4	36.3	41.1
Informal/Consensual union/Living together	5.3	3.7	6.2	5.6	4.4	6.6	5.7	6.9	0.9	0.8	1.2
Married	39.8	40.7	38.6	38.5	43.3	37.0	38.2	38.9	52.7	48.2	46.6
Separated	2.5	2.3	2.5	3.1	3.3	2.9	2.1	1.9	1.3	1.5	1.1
Divorced	4.7	5.6	6.2	4.0	4.2	6.4	4.9	5.6	1.8	1.6	1.5
Widowed	7.3	7.0	8.4	6.0	9.6	9.3	6.9	7.4	7.9	11.8	8.5

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.2.3 Religious affiliation

Ghana is by constitution a secular state. However, religious activities are visible everywhere in the country. The 2010 PHC collected information on the religious affiliation of individuals enumerated. The results of the analysis are shown in Table 4.4. It shows the urban population 12 years and older by sex, religious affiliation and region of residence. The results indicate the dominance of the Christian Religion in the urban localities in the country with almost three in every four persons professing to be affiliated to the Christian Religion. On the other hand, about 18 percent of the urban population reported their affiliation to Islam while just about one percent said they were Traditionalist by religion. It is also seen that among the Christians, the Pentecostal/Charismatic group is the largest, enlisting close to a third of the population resident in urban localities in the country.

Comparing the results by sex, interesting observations are presented in Table 4.4. While Christianity is still the dominant religion irrespective of differences in sex, we find that a relatively higher proportion of females (79%) profess to be Christians compared to their male counterparts (about 74%). The contrast, however, is the case for Islam where we have a higher proportion of males (about 19%) to belong to the Islamic Religion compared to their female counterparts (about 17%). There is no significant variation between the sexes regarding their affiliation to the Traditional Religion. On the other hand, males are more likely than their female counterparts to indicate that they are affiliated to no religion in Ghana: about six percent among the males and three percent among the females said they do not belong to any religion.

The pattern of religious affiliation at the national level is not too different at the regional level. What is quite clear is that the three northern regions are more likely to profess the Islamic Religion compared to the others in the south. For example, about 82 percent of the urban population 12 years and older in the Northern Region were affiliated to Islam with no variation between males and females. The proportion that reported affiliation to Islam as a religion in the Upper East and Upper West regions was, however, lower (47%t and 54% respectively) although they were far higher than that reported in the remaining seven regions in the country.

As was observed at the national level, the proportion that said they were affiliated to the Christian Religion was higher among the females than the males in all the ten regions in the country with the exception of the Upper West Region where the reverse is the case. With reference to Islam, however, the results indicate that in every region, a higher proportion of males than females were affiliated to Islam. Again, although in all the regions Traditional Religion is patronised by a small proportion of the population whether male or female, Volta and Upper East regions stand out quite clearly as the regions with proportion of Traditional religious worship to be around eight percent.

From the analysis, we find that only a small fraction of the urban population professes no religion in Ghana. Thus, in spite of the secular nature of the country, individuals are seriously attached to their religious beliefs that are not offensive to the law. From the analysis so far, it appears that Ghana will for a very long time to come continue to be largely Christian and Islamic in religious outlook with Christianity being the dominant religion.

Table 4.4: Population 12 years and older in urban localities by sex, religious affiliation and region

Religion/Sex	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Both Sexes	**9,037,989**	**721,714**	**724,503**	**2,720,199**	**507,111**	**820,517**	**2,083,350**	**720,497**	**504,047**	**152,928**	**83,123**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
No religion	4.2	5.2	6.7	3.5	5.3	5.5	4.0	4.9	0.8	1.6	0.9
Catholic	11.6	15.8	10.8	8.1	19.2	8.1	12.5	17.0	6.0	23.9	30.5
Protestants	21.0	24.1	21.4	23.3	22.7	27.6	20.1	19.7	3.2	4.9	3.8
Pentecostal/Charismatic	32.4	30.3	30.6	42.8	29.4	33.9	31.6	27.0	4.4	9.7	5.2
Other Christian	11.4	14.3	19.7	8.7	7.4	15.0	14.2	11.3	1.4	2.0	1.8
Islam	17.5	9.2	9.2	12.3	7.9	8.4	16.5	18.4	81.6	47.4	53.6
Traditionalist	1.2	0.4	0.6	0.4	7.4	0.6	0.3	1.1	2.5	10.1	3.8
Other	0.8	0.8	0.9	1.0	0.7	0.9	0.8	0.6	0.3	0.3	0.4
Male	**4,252,234**	**346,095**	**331,374**	**1,296,969**	**233,348**	**379,825**	**972,017**	**336,108**	**245,512**	**71,235**	**39,751**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
No religion	5.9	7.4	9.3	5.0	6.4	8.1	5.9	7.2	0.9	1.9	1.0
Catholic	11.9	15.8	11.0	8.7	19.8	8.7	12.6	16.9	5.8	22.1	29.0
Protestants	20.2	23.3	20.7	22.7	22.4	26.4	19.3	18.4	3.1	4.7	4.3
Pentecostal/Charismatic	30.3	28.4	28.7	40.3	27.5	31.0	29.6	24.6	4.2	8.6	5.4
Other christian	11.1	13.8	18.4	8.7	7.3	14.5	13.9	10.8	1.4	1.9	2.0
Islam	18.6	10.1	10.3	13.1	8.8	9.6	17.5	20.1	81.6	48.4	53.8
Traditionalist	1.3	0.4	0.7	0.4	7.1	0.7	0.4	1.4	2.7	12.0	4.0
Other	0.8	0.8	0.9	1.1	0.7	1.0	0.8	0.6	0.3	0.3	0.5
Female	**4,785,755**	**375,619**	**393,129**	**1,423,230**	**273,763**	**440,692**	**1,111,333**	**384,389**	**258,535**	**81,693**	**43,372**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
No religion	2.6	3.1	4.5	2.1	4.3	3.2	2.3	2.9	0.7	1.4	0.9
Catholic	11.5	15.7	10.6	7.6	18.8	7.7	12.4	17.1	6.1	25.4	31.9
Protestants	21.6	24.9	22.1	23.9	23.0	28.6	20.9	20.9	3.2	5.1	3.3
Pentecostal/Charismatic	34.2	32.1	32.3	45.0	31.0	36.5	33.2	29.1	4.6	10.6	4.9
Other christian	11.7	14.7	20.7	8.6	7.5	15.3	14.4	11.7	1.4	2.2	1.7
Islam	16.5	8.3	8.3	11.5	7.1	7.4	15.7	16.9	81.5	46.4	53.5
Traditionalist	1.1	0.4	0.6	0.3	7.7	0.4	0.3	0.8	2.2	8.5	3.5
Other	0.8	0.7	0.9	0.9	0.7	0.9	0.7	0.6	0.3	0.3	0.4

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.3 Housing

4.3.1 Type of dwelling

Data on type of dwelling of households in urban localities were collected during the 2010 PHC to facilitate an analysis of housing conditions in the country. The data pertaining to urban localities in Ghana by region have been analysed and presented in Table 4.5. From the table, three out of every five households in Ghana was in a compound house while almost one in five were in a separate house. It is also noted that close to three percent of the households in the country were in housing facilities classified as improvised home (i.e., kiosks and containers) and about two percent were living in uncompleted buildings.

The table does not show serious variations by region. This is reflected in the observation that in all the regions the majority of the households were in compound houses, the highest proportion being recorded in the Northern Region where as high 76 percent of the households were in such compound housing facilities. So far, the proportion resident in compound houses was below the national average in four regions namely; Western, Greater Accra, Volta and Ashanti regions while in the other six regions, the proportion was higher.

The use of separate housing dwelling facility appears to be relatively more common in the Volta (28%) and Brong Ahafo (24%) regions compared to the other regions in Ghana. On the other hand, flat/apartment type of housing facility is highest in Ashanti and Western regions (each recording at least 10%) while in the other regions, it is less than 10 percent particularly in the three northern regions where it stood at less than three percent.

Again, it is seen that poor housing with regard to the use of containers/kiosks and uncompleted buildings happens to be generally uncommon except in the Greater Accra and Ashanti regions. In the Greater Accra Region for example, up to a little more than eight percent of the households were in such dwellings. This is likely to be due to the high rental accommodation that residents in the city of Accra-Tema and Kumasi are often confronted with. Those who are not able to afford the high rents that the more descent dwelling places attract may have no choice than to find accommodation in kiosks, containers and uncompleted buildings which have no housing facilities including toilet facilities, potable water, electricity and waste disposal facilities. In fact, it is not uncommon to walk in the night at certain locations in the cities to find several people sleeping in front of some shops in the open, a spectacle which may not be found in most rural communities in Ghana. It is also important to observe that the use of huts is most visible in Upper East Region where more than 10 percent of the households were enumerated in huts (in the same or different compound).

These variations notwithstanding, the type of dwelling alone is not enough to inform us about the quality or size of the dwelling since the material used in its construction is not provided together with this information on the type of dwelling facility. This calls for the need to examine into more detail the quality of the material used in constructing the dwelling facility. This is examined in the subsequent sections.

Table 4.5: Households in urban localities by type of dwelling and by region

Type of dwelling	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Separate house	18.3	18.6	21.3	15.5	28.3	19.7	17.0	24.4	12.8	11.6	19.6
Semi-detached house	7.8	9.4	7.5	8.3	6.8	6.7	8.7	6.0	4.0	5.5	9.0
Flat/Apartment	7.0	10.4	6.3	6.6	2.8	4.0	10.9	3.8	2.0	2.1	2.8
Compound house (rooms)	60.4	57.6	60.6	58.9	58.8	66.9	57.4	62.3	75.9	68.2	64.8
Huts/Buildings (same compound)	1.0	1.0	0.8	0.7	1.7	0.7	0.5	1.1	3.4	6.1	1.4
Huts/Buildings (different compound)	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	5.0	0.3
Tent	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.2
Improvised home (kiosk/container, etc)	2.7	1.3	1.1	6.0	0.4	0.7	2.1	0.8	0.1	0.1	0.0
Living quarters attached to office/shop	0.5	0.4	0.4	0.8	0.3	0.3	0.4	0.2	0.2	0.3	0.6
Uncompleted building	1.7	0.7	1.4	2.5	0.2	0.5	2.4	0.8	0.8	0.8	1.2
Other	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.1

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.3.2 Material for dwelling

As was noted in Section 4.3.1, the quality of the material used in the construction of the dwelling facility is more important in examining the living conditions of urban dwellers in the country. The analysis, therefore, looks at the type of material used to construct the outer wall, floor and roof of the housing unit accommodating the household members. Table 4.6 contains information on this analysis by region of residence. From the results presented in the table, it is quite clear that more than three of four households reported that the outer wall of their housing facility was constructed with cement blocks or concrete and a little more than one in ten of them were built with mud brick or earth.

The regional comparison reveals some variations although in most of the regions the use of cement blocks or concrete in the construction of the outer wall of their dwelling facilities is still dominant with the exception of Northern and Upper East regions where such houses constitute less than 50 percent of the dwellings. In the Northern and Upper East regions, the use of mud brick or earth is common with a little more than half of the dwelling facilities in the urban localities constructed with this cheap or poor material. Notice is also taken of the result that at least one in ten of the dwellings in the Greater Accra Region have their outer walls constructed with wood compared to the other regions where three percent or less of the dwelling units used wood in their construction. The situation in the Greater Accra Region could be the result of the expansion of the slums where wood is largely used in constructing the dwelling units. For example, at Old Fadama (popularly called Sodom and Gomorra) in Accra, most housing units are built with wood.

There is quite uniformity in the regions regarding the type of material used for the construction of the floor of dwelling units in urban localities in Ghana as shown in Table 4.6. From the results presented in the table, cement and concrete floors are the most common in all the regions. We have more than 80 percent of the dwelling units having cement or concrete floors. The other material that also appears relatively common after cement or concrete is earth or mud and this is highest in Northern Region (16%) and Upper East and Upper West (with 12% and 10% respectively). The other materials such as tiles and terrazzo do not appear to be commonly used perhaps due to the high cost they attract which may be beyond the financial capacity of many landlords and ladies.

Furthermore, the results of the analysis on the material used for the roof of dwelling units in urban localities in Ghana suggest the importance of either slate/asbestos or cement/concrete. For example, Eastern, Ashanti, Brong Ahafo and the three northern regions appear to use slate/asbestos mostly in roofing their dwelling units in the urban localities but in the other four regions, there appears to be some split between the two materials used for the roof of the dwelling units of the households. Interestingly, the regions that showed some balance between slate/asbestos and cement/concrete are the three most southern regions of Western, Central and Greater Accra although in each case, there is relatively higher use for slate/asbestos than cement/concrete. It has to be underscored also that the use of thatch roofing material is relatively more common in the Northern Region where 11 percent of the households lived in dwelling units roofed with thatch or palm leaf or raffia. This is followed by Volta Region with about six percent thatch roofs while in the other regions it is three percent or less.

Table 4.6: Households in urban localities by main construction material for outer wall, floor and roof by region

Main construction material for outer wall/floor/roof	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Main construction material for outer wall	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***
Total	***3,049,366***	***248,919***	***255,365***	***950,336***	***178,814***	***293,547***	***715,462***	***236,283***	***106,071***	***41,941***	***22,628***
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Mud brick/Earth	12.4	16.7	17.8	1.9	26.5	16.6	5.5	22.3	50.4	55.7	37.3
Wood	4.7	3.1	2.2	10.5	0.8	1.4	2.7	1.4	0.8	0.4	0.4
Metal sheet/Slate/Asbestos	0.9	0.6	0.5	1.2	0.8	0.7	1.0	0.6	0.7	0.6	0.8
Stone	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.5	0.2	0.2
Burnt bricks	0.6	0.8	0.8	0.4	0.6	0.9	0.5	1.3	0.3	0.1	0.4
Cement blocks/Concrete	78.6	75.7	76.5	83.6	66.8	77.1	88.3	70.9	41.8	41.5	58.8
Landcrete	1.2	1.0	1.3	0.3	1.0	2.5	0.8	2.9	4.8	1.1	1.8
Bamboo	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
Palm leaf/Thatch (grass)/Raffia	0.3	1.1	0.1	0.1	2.6	0.1	0.1	0.1	0.3	0.0	0.1
Other	0.9	0.6	0.4	1.5	0.5	0.4	0.8	0.2	0.3	0.2	0.2
Main construction material for floor											
Total	***3,049,366***	***248,919***	***255,365***	***950,336***	***178,814***	***293,547***	***715,462***	***236,283***	***106,071***	***41,941***	***22,628***
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Earth/Mud	6.9	3.7	5.9	4.8	8.6	8.4	7.4	10.3	16.0	12.2	7.6
Cement/Concrete	84.0	88.9	89.0	80.3	88.4	87.1	82.4	86.0	81.5	85.5	89.2
Stone	0.6	0.5	0.4	0.5	0.5	1.0	0.6	0.7	0.6	0.4	0.4
Burnt brick	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Wood	1.6	0.8	0.6	3.9	0.2	0.3	0.8	0.3	0.0	0.0	0.0
Vinyl tiles	1.6	1.3	1.0	2.7	0.5	0.8	1.9	0.6	0.3	0.3	0.6
Ceramic/Porcelain/Granite/Marble tiles	2.3	1.9	1.5	3.9	1.0	1.1	2.3	1.1	0.9	0.7	1.3
Terrazzo/Terrazzo tiles	2.6	2.6	1.2	3.5	0.5	1.0	4.2	0.7	0.2	0.7	0.7
Other	0.3	0.3	0.2	0.4	0.3	0.2	0.3	0.2	0.4	0.2	0.2
Main construction material for roof											
Total	***3,049,366***	***248,919***	***255,365***	***950,336***	***178,814***	***293,547***	***715,462***	***236,283***	***106,071***	***41,941***	***22,628***
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Mud/Mud bricks/Earth	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.3	2.0	2.7	1.2
Wood	0.8	0.6	0.5	0.9	0.5	0.6	1.1	0.7	0.8	0.8	0.5
Metal sheet	71.7	56.9	55.9	48.6	79.3	94.3	91.1	93.7	82.9	89.6	93.5
Slate/Asbestos	20.1	25.0	38.2	43.5	11.9	1.9	1.6	0.5	1.0	0.4	0.5
Cement/Concrete	3.8	12.3	3.1	3.9	1.2	1.1	4.5	0.9	0.7	0.9	1.3
Roofing tile	0.7	0.6	0.4	1.5	0.4	0.2	0.5	0.1	0.2	0.1	0.8
Bamboo	0.3	1.5	0.4	0.2	0.1	0.2	0.1	0.2	0.3	0.1	0.2
Thatch/Palm leaf or Raffia	1.7	2.2	0.9	0.4	5.6	1.3	0.4	3.2	11.3	4.9	1.5
Other	0.6	0.6	0.4	0.7	0.7	0.4	0.4	0.5	1.0	0.4	0.5

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.3.3 Tenure/holding arrangement and ownership type

The analysis further pays attention to the type of ownership or tenure/holding arrangement that were enjoyed by households in urban localities in Ghana. From the analysis shown in Table 4.7, three main types of ownership stand out quite prominently, namely; ownership by household member, other private individual and a relative who is not a member of the household. About 40 percent of all urban households in the country said their dwelling unit was owned by a member of the household; a relatively smaller proportion (37%) indicated ownership by other private individuals while 16 percent was owned by a relative who was not a member of that household. Earlier in Table 4.5, it was shown that 60 percent of the households were in compound houses, implying that dwelling units that were said to be owned by other private individuals or a relative not a member of the household could mostly be compound houses. This is fairly consistent with the analysis on the type of dwelling for urban households in the country.

Comparing ownership of dwelling unit by region suggests some consistency across almost all regions with some slight variations. This is particularly the case with respect to dwelling units owned by household member in the three northern regions. In these three regions to the north, more than half of the households indicated ownership of dwelling unit by a household member. In fact, in Northern and Upper East regions, it was around two-thirds with lesser proportions answering ownership of dwelling unit by a relative not a member of the household. Once again, this is a reflection of the compound housing arrangement that is commonly practised in the northern parts of Ghana.

It is also to be noted from Table 4.7 that the type of tenure arrangement is consistent with ownership. For example, at the national level, owner occupied, renting and rent-free are the most prominent types of tenure arrangement that were reported in most of the urban localities in the country. Close to half of the dwelling units had renting arrangement, a third was by owner occupied and one in five was by rent-free. The three tenure arrangements are still visible in all the regions but owner occupied tenure is seen to be quite dominant in the Northern, Upper East and Upper West regions which is an indication that in those regions there is a tendency for most household members to live in dwelling units that are owned by a member of the household for which no rent is paid. Rental dwellings can also be seen to be more prominent in three regions in the country, namely; Greater Accra, Western and Ashanti regions. This is consistent with the fact that the three regions are home to the three cities in the country, namely; Accra, Takoradi and Kumasi respectively. In these cities, it is quite obvious that many people especially public and private sector employees have no other alternative than to resort to rental accommodation until they are in a position to acquire their own.

Table 4.7: Households in urban localities by ownership type, tenure arrangement and region

Ownership type/tenure arrangement	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Ownership type											
Owned by household member	39.7	40.4	41.3	38.5	46.9	39.5	32.9	40.4	66.9	63.6	50.9
Being purchased (e.g. mortgage)	1.1	1.1	0.9	1.0	0.9	0.8	1.5	0.9	0.7	1.0	1.4
Relative, not a household member	16.2	13.9	23.4	12.2	17.4	18.8	19.0	20.5	8.5	6.1	10.3
Other private individual	37.3	35.5	30.4	42.1	29.7	35.3	41.4	34.1	19.0	22.8	30.2
Private employer	1.6	1.7	1.1	2.0	1.1	1.2	1.8	1.3	0.9	0.7	0.9
Other private agency	0.5	0.7	0.4	0.5	0.5	0.6	0.5	0.4	0.3	0.4	0.4
Public/Government ownership	3.1	6.3	2.0	3.0	3.1	3.2	2.5	2.0	3.1	5.2	5.3
Other	0.5	0.5	0.5	0.7	0.5	0.5	0.5	0.5	0.6	0.2	0.7
Tenure arrangement											
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Owner occupied	32.7	31.4	35.0	30.9	42.7	31.9	24.6	35.2	64.7	63.1	49.8
Renting	45.0	46.8	35.9	48.8	39.2	44.4	49.8	40.1	26.4	29.9	38.3
Rent-free	21.2	21.0	28.4	18.4	17.5	23.3	24.7	24.2	7.9	6.5	11.3
Perching	0.5	0.4	0.4	0.8	0.4	0.2	0.4	0.3	0.4	0.3	0.1
Squatting	0.4	0.2	0.1	0.8	0.1	0.1	0.5	0.1	0.1	0.1	0.0
Other	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.2	0.6	0.1	0.4

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.3.4 Number of rooms occupied and used for sleeping

An examination of the number of rooms available for use as sleeping places per household is important in understanding the extent of overcrowding at the household level which also has implications for the health of household members. Against this background, information was collected on the number of rooms occupied and used by households in Ghana for sleeping purposes. In this analysis, however, the focus is on urban localities in the country.

Table 4.8 shows the proportion distribution of number of rooms occupied and used for sleeping by household and region of residence. The data indicate that at the national level, a chunk of the households had access to one room or two rooms which put together amount to 76 percent. This means that households that occupy three or more rooms constitute only 24 percent which could have negative implications for overcrowding and health of household members. This is more serious when we find in the same table that a much higher proportion (about 84%) of households in urban localities in Ghana use one or two rooms as their sleeping rooms with just 16 percent having access to three rooms or more.

The analysis by region is also quite consistent with the national averages except in the three northern regions particularly the Northern Region where just about 40 percent of the households occupied one or two rooms. A similar picture is shown with respect to rooms for sleeping except that the proportion of households having one or two rooms is higher in every region. This shows that households may have slightly higher number of rooms available but those meant for sleeping are fewer since the concentration is on one or two rooms.

The results of the analysis in Table 4.8 are consistent with what is to be expected in most urban localities especially the large towns and cities where rent is quite high and often beyond the average incomes of ordinary residents. Consequently, many urban dwellers are unable to rent big apartments with many rooms and are forced to make do with rental accommodations with fewer rooms for sleeping. Again, it has earlier in this monograph been found that a huge proportion of the urban dwelling households are in compound houses where they may have one or two rooms to share among their members. This suggests that overcrowding in households could be common features of many households in urban localities in Ghana with obvious negative health implications.

Table 4.8: Households in urban localities by number of rooms, sleeping rooms occupied and region

Number of rooms	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Number of rooms/Sleeping rooms occupied											
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Rooms Occupied											
One room	51.4	53.2	56.6	48.2	34.9	47.1	63.0	57.8	22.1	28.2	38.7
Two rooms	24.6	24.3	24.0	30.2	33.9	28.6	16.7	19.6	17.2	21.0	22.3
Three rooms	9.1	9.9	8.5	7.9	13.2	10.3	7.6	9.6	14.0	16.4	14.5
Four rooms	5.6	5.7	4.8	5.3	7.6	6.1	4.6	5.3	10.6	11.6	9.0
Five rooms	3.3	2.9	2.4	3.4	3.8	3.1	2.8	3.0	8.6	6.9	5.0
Six rooms	2.2	1.6	1.5	2.1	2.6	2.0	2.1	1.9	6.5	5.1	3.6
Seven rooms	1.4	1.0	0.9	1.3	1.6	1.2	1.4	1.2	5.2	3.2	2.2
Eight rooms	0.8	0.5	0.5	0.7	1.0	0.7	0.8	0.7	4.0	2.3	1.6
Nine rooms or more	1.4	0.7	0.7	0.9	1.5	1.0	1.1	1.0	11.8	5.3	3.2
Sleeping rooms											
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
One room	61.4	63.9	65.7	61.9	52.9	57.6	69.0	62.4	27.0	35.0	46.0
Two rooms	22.2	21.7	21.8	24.6	27.8	25.9	16.7	19.6	21.5	27.9	25.8
Three rooms	7.8	7.7	6.7	6.7	9.8	8.5	6.7	8.8	16.1	15.6	12.3
Four rooms	4.2	3.7	3.2	3.8	4.9	4.1	3.5	4.5	11.0	9.5	6.9
Five rooms	2.0	1.5	1.3	1.6	2.1	1.8	2.0	2.1	7.3	4.7	3.4
Six rooms	1.1	0.7	0.7	0.7	1.2	0.9	1.1	1.2	4.8	2.8	2.2
Seven rooms	0.5	0.3	0.3	0.3	0.5	0.4	0.5	0.5	3.3	1.4	1.0
Eight rooms	0.3	0.2	0.2	0.2	0.4	0.3	0.3	0.4	2.4	0.9	0.8
Nine rooms or more	0.6	0.3	0.2	0.2	0.5	0.3	0.4	0.5	6.6	2.1	1.5

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.4 Water and Sanitation

Water and sanitation are basic needs for every household in Ghana. Access to potable water for drinking and for domestic use is, therefore, critical in assessing the quality of life of people. For urban areas where there may not be streams that may provide water for domestic use, the residents' access to a regular source of water is very important. The 2010 PHC, therefore, collected valuable information on the main source of water for drinking and for domestic use in all households in the country. These data are analysed in this section of the Monograph to assess the variations in the main source of water available for drinking and for other domestic use.

4.4.1 Source of water supply

Table 4.9 presents the results of the analysis on source of water for drinking and domestic use among all urban localities by region in Ghana. According to the results, the proportion of urban population with access to pipe-borne water facility is a little less than two-thirds in the country. This is split among those who have pipe-borne water inside dwelling (24%), pipe-borne outside dwelling (26%) and public tap (15%). Apart from these three sources, sachet water popularly called "pure" water is quite commonly used in the country with about 14 percent of urban inhabitants patronising it as the main source of drinking water. It is also observed that the bore-hole and protected well are also used by quite a high proportion of urban dwellers: nine percent and six percent respectively. This is obviously due to the non-reliability of piped water supply from the public agency that is responsible for producing treated water for the public consumption in many urban localities in the country. Again, it could be due to the rapid rate of urban agglomeration which runs ahead of the capacity of the Ghana Water Company to meet demand as the urban localities spatially spread with increased population.

At the regional level, similar results are shown with some significant variations. It is to be noted that the three northern regions which usually lag behind the other regions in the country with regard to social services or facilities appear to be relatively more advantaged in terms of the use of piped water within or outside dwelling compared to many of southern regions particularly Brong Ahafo, Volta, Eastern and Central regions. Besides, the use of water from bore-hole and protected wells is also more common in the three northern regions compared to their counterparts in the south. This may be due to the concentration of organisations that support the production of water by bore-hole to communities in these three regions. The use of the so-called "pure water" for drinking in the northern regions is, therefore, quite low relative to the other regions.

From Table 4.9 again, we find at the national level that the proportion that uses pipe-borne water for domestic purposes is relatively higher compared to their use for drinking. Similarly, the use of the bore-hole and protected well is much higher for domestic use than for drinking. Again, sachet water is completely missing from the source of domestic water for domestic use perhaps due to the fact that it could be very expensive when used for domestic use other than for drinking. The pattern shown in the regions is not very different from that seen at the national level. The use of unprotected well, however, appears to be higher in the Volta Region (about 11%) than all the other regions where it is generally below five percent. Furthermore, the use of the stream or river is equally higher in the Volta and Eastern regions where respectively about eight and seven percent respectively were using river/stream as a major source of domestic water use.

Table 4.9: Households in urban localities by main source of drinking water, source of water for other domestic use and region

	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Main source of drinking water											
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Pipe-borne inside dwelling	23.9	21.0	15.3	27.8	15.4	15.1	33.3	11.1	22.3	22.5	21.5
Pipe-borne outside dwelling	25.9	29.2	27.0	28.6	29.0	21.9	23.6	20.1	26.9	19.8	29.3
Public tap/Standpipe	14.6	23.3	24.2	9.4	19.5	16.8	10.7	25.3	12.8	5.3	7.7
Bore-hole/Pump/Tube well	9.4	6.4	6.3	1.0	7.6	10.4	16.1	20.2	15.9	34.3	28.6
Protected well	6.3	7.0	5.0	0.5	6.9	13.4	8.2	13.0	8.4	11.1	6.7
Rain water	0.5	0.1	0.9	0.1	3.3	1.3	0.1	0.3	0.5	0.2	0.1
Protected spring	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.3	0.4	0.3	0.3
Bottled water	0.6	0.5	0.4	1.1	0.2	0.3	0.4	0.2	0.1	0.1	0.1
Sachet water	13.9	8.2	13.4	27.9	6.6	14.1	5.1	4.9	0.6	0.7	2.7
Tanker supply/Vendor provided	1.5	0.3	5.0	2.8	0.3	0.4	0.6	0.1	0.5	0.6	1.1
Unprotected well	0.9	0.8	0.8	0.1	5.2	0.9	0.4	1.3	4.4	3.7	1.0
Unprotected spring	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0
River/Stream	1.7	2.5	1.0	0.1	5.0	4.7	1.0	2.9	3.5	0.6	0.7
Dugout/Pond/Lake/Dam/Canal	0.3	0.2	0.3	0.0	0.6	0.2	0.1	0.1	3.5	0.6	0.2
Other	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.2	0.0
Main source of water for domestic use											
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Pipe-borne inside dwelling	27.5	22.2	17.5	37.0	15.1	16.4	34.5	12.0	22.1	22.2	20.8
Pipe-borne outside dwelling	28.0	27.3	28.5	38.1	22.1	19.7	23.0	19.8	26.1	17.4	28.1
Public tap/Standpipe	15.0	22.5	24.3	11.9	16.2	15.5	10.7	25.4	11.6	4.6	7.4
Bore-hole/Pump/Tube well	10.9	8.6	7.8	3.2	8.1	12.5	17.6	19.3	15.3	33.7	28.7
Protected well	10.0	12.9	9.0	2.0	14.0	24.2	10.8	16.9	9.6	14.2	9.8
Rain water	0.6	0.1	1.0	0.3	3.7	1.3	0.2	0.2	0.7	0.4	0.2
Protected spring	0.4	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.4	0.3	0.3
Tanker supply/Vendor provided	2.7	0.5	6.9	5.9	0.4	0.5	0.6	0.2	0.6	0.6	1.1
Unprotected well	1.8	2.3	1.8	0.4	10.8	1.8	0.7	1.7	4.6	4.6	1.5
Unprotected spring	0.1	0.1	0.2	0.1	0.2	0.3	0.1	0.1	0.1	0.2	0.2
River/Stream	2.5	2.8	2.0	0.6	7.6	6.9	1.3	3.7	4.5	1.0	1.6
Dugout/Pond/Lake/Dam/Canal	0.4	0.2	0.5	0.1	1.2	0.3	0.1	0.3	4.4	0.7	0.3
Other	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.4.2 Type of bathing facility

Table 4.10 has information on both bathing and toilet facility for all urban localities in the country. The information on bathing facilities shows that at the national level, one in four households used their own bathroom for their exclusive use; two in five share separate bathroom in the same house while one in five shares open cubicle. Those who use public bath house constitute quite a small proportion (about 4%). It is also interesting to note that some of the urban households do not have facilities for bathing and resort to using bath rooms from other houses. Although these constitute a small proportion (2%), it is interesting when considered against the background that urban localities are more anonymous and individualistic in outlook. Again, it is noteworthy to underline the result that four percent of the households in urban localities in Ghana use open space around the house as their bathrooms or spaces for bathing.

The regional comparison indicates that ownership of bathrooms for the exclusive use of the household is highest in the Northern Region where almost 30 percent of the urban households have such a facility. This is followed by Upper East and Volta regions (about 29% each) while Brong Ahafo ranks the lowest with 20 percent. On the other hand, regarding the use of shared separate bathrooms in the same house, Ashanti Region ranks on top with a little more than half of urban households in that region using this type of bathing facility. Here also, it is observed that Eastern, Brong Ahafo, Western and Upper West regions are next to Ashanti Region with their proportion using shared separate bathroom facilities above the national average of 40 percent.

Furthermore, shared open cubicle is quite common in each of the regions particularly in Volta Region where the analysis shows one in five urban households making use of shared open cubicle as bathroom. Ashanti Region recorded the lowest proportion of urban households using shared open cubicle as bathroom. It is also to be observed that four regions, namely; Central, Brong Ahafo, Upper East and Volta recorded at least five percent of their urban households using open space around the house as their bathing facility. All the other facilities recorded very insignificant proportions in each of the regions in the country.

4.4.2 Type of toilet facility

Availability of toilet facility by type at the household level is important for assessing the quality of life of household members. From Table 4.10, one in four urban households in Ghana has access to water closet toilet facility at the household level and a little more than one in 10 urban households use either pit latrine or KVIP toilet facility. Public toilet facility (made up of water closets, KVIP, pit or pan latrine) is also used by close to two of five urban households in the country. What is important, however, is not the mere use of public toilet but the standard of hygiene that is maintained at these public toilets particularly in localities where there is no access to regular flow of water from the pipes.

It has to be noted also that almost one in 10 of urban households in the country have no toilet facility and, therefore, make use of the bush, beach or any available field. This constitutes a major challenge that requires some policy intervention. This is because of the health implications this practice could have on not only households that use these areas as places of convenience but all urban dwellers since the impact of these practices could be distributed air-borne across the urban population and even beyond.

Table 4.10: Households in urban localities by type of bathing and toilet facilities and region

Bathing/Toilet facilities	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Type of bathing facility											
Own bathroom for exclusive use	24.7	26.0	21.0	26.9	28.6	20.7	24.0	19.9	29.6	28.7	27.0
Shared separate bathroom in the same house	40.3	41.5	36.9	32.7	29.8	44.2	51.3	46.2	35.8	33.8	41.4
Private open cubicle	4.4	3.9	5.5	3.7	7.1	5.4	3.5	5.3	5.5	9.5	5.6
Shared open cubicle	20.4	18.2	23.7	24.0	25.5	23.0	14.1	19.0	17.3	18.4	17.4
Public bath house	3.8	3.0	3.0	7.5	0.9	0.5	2.1	0.8	6.1	3.8	2.9
Bathroom in another house	1.9	3.5	3.9	1.4	2.3	1.9	1.2	3.1	0.7	0.3	0.8
Open space around house	4.1	3.4	5.4	3.4	5.3	4.0	3.7	5.4	4.7	5.4	4.8
River/Pond/Lake/Dam	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1
Other	0.3	0.2	0.5	0.3	0.4	0.2	0.2	0.2	0.3	0.1	0.2
Type of toilet facility											
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
No facilities (bush/beach/field)	9.3	7.0	14.6	6.0	16.2	5.3	3.4	10.4	42.6	56.7	34.3
W.C.	24.9	26.2	15.1	32.3	13.2	15.4	33.6	11.6	5.2	10.9	10.6
Pit latrine	12.9	15.1	19.7	8.8	12.6	19.7	12.9	18.8	2.8	4.2	5.5
KVIP	12.8	7.5	14.2	14.5	18.9	21.0	8.8	11.3	7.7	6.2	9.4
Bucket/Pan	1.2	0.5	0.8	2.5	0.9	1.0	0.3	0.2	1.0	0.8	0.1
Public toilet (WC,,KVIP,Pit,Pan, etc)	38.4	43.2	35.0	35.4	37.7	37.2	40.5	47.3	40.1	21.1	39.8
Other	0.5	0.5	0.6	0.5	0.4	0.4	0.4	0.3	0.6	0.2	0.3

Source: Ghana Statistical Service, 2010 Population and Housing Census

The regional comparison has interesting results. Apart from Greater Accra and Ashanti regions where about a third of urban households were using water closet toilet facilities, smaller proportions in the other regions reported access to water closets at the household level. The region that reported the lowest use of water closet within the household is Northern Region which recorded just five percent of water closet use. The use of public toilet facility is also quite high in almost all the regions, the highest being in Brong Ahafo (43%) and the least in Upper East Region (21%). The important question about public toilet facility usage is whether or not it could be kept clean and hygienic to avoid the spread of infections. Again, the capacity of the public toilets often is below the size of the population that is expected to use such a facility. This could push people who are unable to wait and queue during rush hours to use available open spaces like the bush.

Absence of toilet facilities is very visible in the northern regions especially Upper East Region where more than half of the urban households report to have no toilet facilities for their use. This is followed by Northern Region (43%) and Upper West (34%). With such a situation, there is a high tendency for urban household members to use the bush and any available space to attend to nature's call, which could have long-term negative health and environmental implications. Comparatively, the regions in the south appear to be more advantaged since apart from Volta and Brong Ahafo regions where respectively 16 percent and 14 percent of the urban households had no toilet facility, less than 10 percent of urban households in the other regions recorded the absence of any toilet facility.

4.4.3 Means of solid waste disposal

Analysis of information collected from urban households on method of solid and liquid waste disposal is presented in Table 4.11. It is seen that one in five urban households reported that their solid waste is collected. A similar proportion also reported to be disposing off their solid waste by public dump at any open space. This compares with almost two in five urban households that disposed their solid waste at a public dump in a container. At the same time, one in ten urban households burned their solid waste. About five percent of the households either dumped their solid waste indiscriminately or buried it.

There are variations at the regional level with Greater Accra Region conspicuously standing out with half of the region's urban households reporting the collection of their solid waste compared to 14 percent and 13 percent of their counterparts in Western and Ashanti regions respectively as the closest in the collection of their solid waste. Apart from these regions, less than 10 percent of the urban households in the remaining regions reported the collection of their solid waste. This shows that solid waste that is collected at the household level in the country is common only in the Greater Accra Region.

The means of solid waste disposal that is the most dominantly used is by public dump using the container. The use of this facility for solid waste disposal is highest in Ashanti Region where 53 percent of the region's households resort to public dumping of solid waste into containers. So far, Upper East and Greater Accra regions recorded the lowest use of public dump into containers for solid waste disposal. Interestingly, in many urban areas, cities and towns, the containers into which the solid waste is dumped could best be described as dumping waste at open spaces because in most cases, we observe the containers to overflow and spill over as if the containers do not exist for the solid waste. Furthermore, public dump into open spaces in the country is also quite common in Brong Ahafo, Central and Western regions where a third or higher of the urban households were dumping their solid waste at public open spaces. This could have serious implications for the public health of the nation.

4.4.4 Means of liquid waste disposal

From Table 4.11, throwing into gutter appears to be the commonest means used by households in urban Ghana to dispose of liquid waste. This formed almost 30 percent of urban households in the country. This is followed by one in four of the households that responded to throwing their liquid waste onto the compound while one in five threw it onto the street/outside the house. The use of the drainage system into the gutter and through the sewerage system was reported by 18 percent and five percent respectively of the urban households in the country. This is an indication of the limited development of the sewerage system in urban Ghana.

The regional analysis shows some significant variations in the means of liquid waste disposal in urban localities in the country. For example, for the most improved method of liquid waste disposal, i.e., through the sewerage system, the highest use was in the Greater Accra Region and that amounted to about 10 percent. Interestingly, Greater Accra was the only region whose use of the sewerage system for liquid waste disposal was higher than the national average of five percent. It was followed by four percent in Ashanti and Upper East regions. All the other regions recorded lower use of the sewerage system.

On the other hand, Ashanti (29%), Western (20%) and Greater Accra (20%) stand out among the other regions as the highest users of liquid disposal through the drainage system into a gutter compared to the other regions where use of this method of liquid waste disposal was 10 percent or lower. Throwing liquid waste into gutter or onto the compound also appears to be well patronised in most of the regions with the exception of the three northern regions particularly for liquid waste thrown into gutter where in the three regions, use was much lower. For these three northern regions, the results indicate quite clearly that liquid waste is disposed mainly by throwing it onto the street/outside. As high as 50 percent or higher proportion of households in urban localities reported to depend on this practice of liquid waste disposal. The region that comes close to the three northern regions is Brong Ahafo with 44 percent of its urban households using this mode of liquid waste disposal.

Table 4.11: Households in urban localities by method of solid waste and liquid waste disposal and region

Method of solid/liquid wastes	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Method of solid waste disposal											
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Collected	22.1	14.0	6.2	51.1	6.4	4.4	13.2	3.6	5.9	8.7	3.7
Burned by household	10.2	6.5	18.7	11.2	16.3	14.0	5.2	4.7	10.4	20.6	8.1
Public dump (container)	38.7	40.5	32.8	27.2	39.4	41.5	52.9	44.1	39.9	26.4	44.0
Public dump (open space)	22.7	33.5	34.3	7.0	26.5	31.8	23.8	39.7	29.5	31.6	25.4
Dumped indiscriminately	3.1	2.5	3.0	1.6	5.2	3.1	2.4	4.9	11.1	8.3	16.8
Buried by household	2.3	2.4	3.1	1.0	5.5	4.5	2.1	2.3	2.4	3.1	1.6
Other	0.8	0.6	1.9	0.9	0.7	0.5	0.5	0.6	0.7	1.4	0.4
Method of liquid waste disposal											
Total	***3,049,366***	***248,919***	***255,365***	***950,336***	***178,814***	***293,547***	***715,462***	***236,283***	***106,071***	***41,941***	***22,628***
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Through the sewerage system	5.1	3.8	1.8	9.6	1.4	2.1	4.3	1.7	2.8	4.0	2.5
Through drainage system into a gutter	17.6	20.4	10.6	19.6	4.9	9.1	29.4	4.3	9.4	9.2	8.5
Through drainage into a pit (soak away)	3.7	2.7	2.2	5.4	3.5	2.3	3.2	2.2	5.8	5.0	5.3
Thrown onto the street/outside	20.9	15.1	27.1	11.6	31.5	23.2	14.1	44.0	51.9	57.9	57.7
Thrown into gutter	28.2	35.7	24.4	36.3	15.1	27.5	29.9	10.4	12.5	7.6	7.1
Thrown onto compound	23.8	21.6	32.5	16.9	42.2	35.1	18.8	37.2	17.1	16.1	18.6
Other	0.6	0.7	1.5	0.6	1.3	0.7	0.3	0.2	0.5	0.2	0.4

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.5 Energy

Household energy usage is an important indicator of the wellbeing or standard of living of members of the household. For example, depending on the source of energy for household use i.e., whether improved or traditional could constitute a good indication of the quality of life of the members. Against this backdrop, this section presents an analysis of the main source of lighting for urban households in Ghana with a comparison among the ten regions. In addition, the main source of cooking fuel and cooking space at the household are analysed, again bringing out the regional variations.

4.5.1 Main source of lighting

The results of the analysis presented in Table 4.12 show quite clearly that in Ghana a little more than four in five urban households use electricity as the main source of lighting. While this is to be expected, it is also true that some urban households have no access to electricity for lighting. For those households that do not access electricity for their lighting, the kerosene lamp and flashlight/touch are the two mainly used sources of lighting which respectively are patronised by eight percent and about six percent respectively.

A similar pattern is shown at the regional level where the major source of lighting in all the regions happens to be electricity although there are some variations. For example, the regions with the highest proportion of nearly 90 percent access to electricity for household lighting are Greater Accra, Western and Ashanti regions. In contrast, the other regions each reported less than 80 percent use of electricity for household lighting, the lowest use being recorded in the Upper East (about 65%) and Volta regions (almost 70%). In these two regions where access to electricity is lowest, the other major alternative source of lighting at the household level is kerosene lamp. In the Volta Region, one in four urban households reported to depend on kerosene lamp. A similar proportion of urban households in Upper East Region also named kerosene lamp as the second major source of lighting. It is also important to note that the use of flashlight/torch was highest in Brong Ahafo Region where as high as 15 percent of the urban households were using this facility, followed by Upper East and Upper West where about 10 percent of their urban households were using flashlight/torch. In the remaining eight regions, however, less than 10 percent reported to use the flashlight or torch as the major source of lighting at the household level.

Table 4.12: Households in urban localities by main source of lighting and region

Main source of lighting	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Electricity (mains)	83.8	88.5	78.4	89.1	69.9	78.3	88.0	76.2	75.1	64.6	77.4
Electricity (private generator)	0.6	1.0	0.7	0.6	0.7	0.6	0.5	0.5	0.8	0.5	0.7
Kerosene lamp	8.4	6.1	15.7	4.3	24.5	15.2	3.5	6.7	18.6	23.3	10.6
Gas lamp	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3
Solar energy	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2
Candle	1.1	0.6	0.8	1.9	0.8	0.5	1.0	0.4	0.2	0.3	0.4
Flashlight/Torch	5.5	3.3	3.9	3.5	3.5	4.8	6.5	15.4	4.4	10.2	9.8
Firewood	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2
Crop residue	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.1
Other	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.4

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.5.2 Main source of cooking fuel

With respect to the main source of cooking fuel, Table 4.13 indicates a massive dependence on wood products in the country, a situation that could have negative implications on the nation's quest to reduce deforestation. From Table 4.13, we find that for almost 62 percent of the urban households in the country, wood products are the main sources of cooking fuel. This is split between charcoal as the main source used by almost half of urban households (48%) and wood on which 14 percent of the urban households depend for cooking. Less than 10 percent of the urban households said they did not have any source of cooking fuel. These are likely to be single-person households that largely depend on cooked food by vendors on the streets, markets or restaurants. Increasingly, many such people depend on fast foods that are becoming common in the country. It is also noteworthy to report that about 29 percent of urban households in Ghana today use the liquefied petroleum gas (LPG) as the main source of cooking after years of government policy to encourage its use by all households in the country.

At the regional level, the results indicate some variations. Greater Accra Region recorded the highest use of LPG for cooking at the household but even this was less than 50 percent. This is followed by Ashanti Region with about 30 percent of its urban households using LPG while Northern Region trails with only about eight percent of its urban households patronising LPG for cooking. Similar to the observation at the national level, charcoal and wood constitute the major sources of fuel for cooking in all the regions in the country. In each of the regions except the Greater Accra, Ashanti and Western regions, more than 70 percent of the urban households were using charcoal or wood as a source of cooking fuel. While Upper West leads in the use of charcoal (about 64 percent), the Northern Region (45%) ranked the highest in the use of wood as cooking fuel. All these suggest that in almost all the regions, dependence on the environment for cooking fuel is quite high and shows how negatively this practice could impact on the nation's forest timber resources.

4.5.3 Type of cooking space

Table 4.13 further shows the type of cooking space used by urban households in the country. From the results, it is observed that less than a third of all urban households in Ghana have separate room for exclusive use as cooking space. Aside this, two other spaces that are quite common are the veranda and open space in compound used by 30 percent and 20 percent respectively in the country. It should also be noted that eight percent of all urban households said they did not have any cooping space. These could be the households that do not cook in the house but instead purchase already cooked food from outside the home.

Similar results are shown at the regional level but some variations exist between the regions. The Western Region recorded the highest proportion (35%) of urban households with separate room for exclusive use. This was followed by Volta, Eastern, Greater Accra and Upper East where the proportion with such a facility was higher than the national average while that in the remaining regions were below. Once again, the proportion of urban households in each region using the veranda or open space in compound was quite significant. For example, the use of the veranda for cooking ranged from a low of about 16 percent in the Volta Region to a high of 46 percent in the Upper West Region. In contrast, the Northern Region recorded the highest proportion (44%) use of open space in compound as cooking space compared to the lowest in Ashanti Region (about 13%). Furthermore, although the proportion of households with no cooking space was generally low, the results indicate that three regions, namely; Ashanti, Brong Ahafo and Eastern recorded 10 percent or higher of their urban households to have no cooking space. This compares with proportions of less than 10 percent in the other regions with the Volta Region recording the lowest percentage of four. As was explained earlier, these are likely to be households that depend on cooked food from outside.

Table 4.13: Households in urban localities by main source of cooking fuel and type of cooking space by region

Main source of cooking fuel/space	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Main source of cooking fuel											
Total	**3,049,366**	**248,919**	**255,365**	**950,336**	**178,814**	**293,547**	**715,462**	**236,283**	**106,071**	**41,941**	**22,628**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
None, no cooking	7.2	6.4	5.8	7.2	2.8	5.9	9.9	8.9	4.3	3.9	3.6
Wood	13.8	16.2	20.0	1.6	24.3	24.4	7.5	35.2	45.1	28.3	17.0
Gas	28.9	27.7	19.8	42.9	19.2	19.8	29.9	13.0	7.5	14.8	13.9
Electricity	0.8	1.0	0.3	1.0	0.3	0.8	0.9	0.3	0.3	0.2	0.6
Kerosene	0.7	0.7	0.7	1.2	0.7	0.7	0.5	0.3	0.4	0.4	0.9
Charcoal	47.9	47.6	52.9	45.6	52.1	47.9	50.8	41.6	41.3	45.2	63.5
Crop residue	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.3	0.4	6.8	0.2
Saw dust	0.2	0.2	0.1	0.3	0.2	0.1	0.2	0.4	0.3	0.1	0.2
Animal waste	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Other	0.2	0.2	0.1	0.3	0.1	0.1	0.2	0.1	0.4	0.2	0.1
Type of cooking space											
Total	***3,049,366***	***248,919***	***255,365***	***950,336***	***178,814***	***293,547***	***715,462***	***236,283***	***106,071***	***41,941***	***22,628***
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
No cooking space	8.4	7.8	7.2	8.5	4.2	7.1	10.9	10.0	5.2	5.0	4.5
Separate room for exclusive use of household	28.2	35.4	24.8	30.6	33.1	32.3	24.0	22.4	19.5	30.2	19.4
Separate room shared with other household(s)	7.7	8.7	6.8	2.8	2.9	10.0	14.5	10.9	2.9	3.2	2.2
Enclosure without roof	1.4	1.0	1.5	1.6	1.5	1.1	0.7	1.1	2.3	7.7	0.5
Structure with roof but without walls	2.8	2.5	4.1	1.2	10.1	4.8	1.6	4.4	1.6	0.6	0.5
Bedroom/Hall/Living room)	1.8	1.1	2.0	2.7	5.9	1.8	0.5	0.4	0.4	0.6	2.4
Verandah	29.5	29.5	28.5	29.7	15.5	29.2	34.8	26.0	23.7	30.3	46.0
Open space in compound	19.8	13.7	24.7	22.2	26.6	13.3	12.6	24.5	44.0	22.0	24.3
Other	0.4	0.4	0.5	0.5	0.3	0.4	0.3	0.4	0.3	0.2	0.2

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.6 Employment and economic status

The 2010 PHC collected information on all employed persons 15 years and older about their employment. These were classified into employment status, type of occupation engaged in, the employment sector of engagement and the type of industry each person was working in. To a large extent, a person's employment status and the type of occupation he/she is engaged in could have not only implications on the person's income and general wellbeing but most critically would inform relevant policy interventions. The analysis in this section, therefore, looks at these four areas in presenting information that relate to the economic status of persons who reported to be employed at the time of the 2010 PHC. Throughout the analysis, the regions are compared to bring out relevant variations and similarities across the ten regions in Ghana.

4.6.1 Employment status

Table 4.14 presents information on employment status of all urban residents by region and sex. The results have interesting variations by sex and region of residence. The general observation, however, is the dominance of employee and self-employed without employees across all the regions in the country. At the national level, we find as high as 82 percent of the urban dwellers reporting to be either employees or self-employed without employees. The breakdown of this, however, is 28 percent and 54 percent respectively for the employees and the self-employed without employees. Just a small proportion of about seven percent said they were self-employed with employees. This means that in Ghana, even in the urban localities, more of the employed persons do their own business as an individual without engaging other employees.

Between the two sexes, there is apparently no variation except that among the males, the difference between the proportion engaged as employees and others who were self-employed without employees is quite low compared to that among the females. Thus, we find that almost two-thirds of the females reported to be self-employed without employees compared to 43 percent among the males. In contrast, almost 40 percent of the males compared to less than 20 percent of the females were classified as employees. This means that while a higher proportion of the males are likely to be employees, more of the females are employed as self-employed without employees. Again, while males are more likely to be employed in the formal sector, the informal sector appears to be the preserve for females in particular.

The regional comparisons do not deviate dramatically from that which is observed at the national level. The proportion of males that were reported to be employees in each region is far higher than that recorded among the females. In contrast, the proportion that reported to be self-employed without employees in each region was higher among the females compared to the males. It has to be noted that with respect to employees, Greater Accra reported the highest proportion of its employed male urban population to be classified as such (48%) with the least recorded in the Northern Region (23%). The same result is shown among the females with Greater Accra still recording the highest proportion (24%) of employed persons as employees and the Northern Region reporting the lowest (about 10%). Again, among the male population, Volta Region recorded the highest proportion (56%) to be self-employed without employees with the lowest in Greater Accra (35 percent). Similarly, among the females, the highest proportion of self-employed without employees was recorded from the Volta Region (about 73%) with Greater Accra still recording the lowest (60%), the other regions falling between the two regions.

Table 4.14: Employed population 15 years and older in urban localities by sex, employment status and region

Employment status	Total	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Both sexes	**5,125,635**	**387,005**	**397,974**	**1,643,860**	**279,734**	**460,595**	**1,152,344**	**416,653**	**264,572**	**84,905**	**37,993**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Employee	27.9	30.3	23.8	35.8	20.6	24.2	26.3	19.8	16.6	20.1	28.1
Self-employed without employee(s)	54.1	52.9	60.0	47.5	64.8	61.1	52.8	60.4	59.6	58.3	51.4
Self-employed with employee(s)	6.8	5.9	5.4	7.5	4.2	5.2	9.0	5.2	5.3	4.6	5.5
Casual worker	2.1	2.4	1.9	2.2	1.9	1.9	2.4	1.7	1.5	1.5	1.9
Contributing family worker	4.3	4.2	4.7	2.3	5.2	3.5	3.0	7.9	13.1	12.2	8.2
Apprentice	4.0	3.6	3.5	3.6	2.7	3.6	5.8	4.3	2.9	2.6	4.3
Domestic employee (Househelp)	0.6	0.5	0.5	0.9	0.5	0.4	0.5	0.5	0.7	0.6	0.5
Other	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.3	0.1	0.2
Male	**2,477,284**	**188,089**	**181,438**	**812,902**	**129,874**	**213,923**	**560,631**	**197,327**	**134,109**	**40,588**	**18,403.0**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Employee	38.6	44.3	36.0	48.2	29.2	34.6	35.7	27.8	23.4	27.1	37.5
Self-employed without employee(s)	42.9	39.0	46.8	34.6	55.9	50.3	41.6	53.7	54.9	52.6	44.2
Self-employed with employee(s)	7.9	6.6	6.8	8.4	5.0	6.0	10.7	5.9	5.9	5.1	6.2
Casual worker	2.9	3.6	2.9	3.1	2.7	2.7	3.1	2.4	1.4	1.9	2.5
Contributing family worker	3.1	2.7	3.5	1.4	4.4	2.6	2.0	6.2	10.6	10.2	5.9
Apprentice	3.9	3.1	3.4	3.4	2.3	3.3	6.3	3.3	3.0	2.4	3.0
Domestic employee (Househelp)	0.5	0.5	0.5	0.7	0.4	0.4	0.5	0.5	0.7	0.5	0.6
Other	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
Female	**2,648,351**	**198,916**	**216,536**	**830,958**	**149,860**	**246,672**	**591,713**	**219,326**	**130,463**	**44,317**	**19,590**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Employee	17.8	17.2	13.6	23.7	13.2	15.2	17.5	12.6	9.5	13.7	19.2
Self-employed without employee(s)	64.6	66.0	71.1	60.1	72.5	70.4	63.3	66.4	64.5	63.5	58.1
Self-employed with employee(s)	5.8	5.2	4.3	6.6	3.5	4.5	7.4	4.6	4.7	4.2	4.8
Casual worker	1.4	1.3	1.1	1.4	1.3	1.2	1.7	1.0	1.6	1.0	1.3
Contributing family worker	5.4	5.7	5.7	3.2	5.9	4.3	3.9	9.5	15.7	14.1	10.4
Apprentice	4.2	4.0	3.6	3.7	3.0	3.8	5.5	5.2	2.8	2.7	5.6
Domestic employee (Househelp)	0.7	0.6	0.5	1.1	0.5	0.5	0.6	0.6	0.8	0.6	0.4
Other	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.6.2 Occupational status

Table 4.15 presents the results of the analysis by sex, occupation and region of residence among all urban employed population 15 years and older. From the results, three occupational groups stand out. These are service and sales workers (32%); craft and related trades workers (20%) and skilled agricultural forestry and fishery workers (14%). These three form two-thirds of all occupational groups in the country. Interestingly, these are occupations that require little or no education. This pattern is quite to be expected because in the urban areas, agriculture for example, is not a dominant economic activity as one would see in the rural areas in the country. The other occupations that require high level of education and training including managerial and professional ones recorded smaller proportions below 10 percent.

There is not much difference between males and females. However, the composition of each of the three major occupational groups changes between males and females. From the table, the highest proportion of the male population recorded to be in craft and related trades is much higher compared to that for the females (25% versus 16%). A similar result is seen with respect to skilled agricultural forestry and fishery which recorded a relatively higher proportion of the male population compared to their female counterparts. In contrast, however, we find as high as 47 percent of the female population indicating to be engaged in service and sales occupation relative to as low as 17 percent of their male counterparts.

It is also important to underscore the point that among the males in particular, the proportion that said they worked as plant and machine operators and assemblers was quite appreciable and stood at 18 percent in the Western Region as the highest, followed by the Greater Accra and Ashanti regions each of which had 14 percent. On the other hand, the three northern regions reported the lowest proportions of plant and machine operators and assemblers (less than 10% in each of the three regions) compared to the other regions where more than 10 percent of their male employed population were in this occupation. This is a reflection of the spatial differences in development between the south and the north.

The results for the regions are consistent with the national pattern with some variations regarding the proportions in each of the three dominant occupations between the males and females. What is quite clear, however, is that the two most urbanised regions, i.e., Greater Accra and Ashanti recorded the highest proportion of their employed persons to be engaged in the service and sales occupation among either males or females in comparison with the other regions. At the same time, both regions recorded the lowest proportion of skilled agricultural forestry and fishery workers compared to their counterparts in the other eight regions in the country.

Table 4.15: Employed population 15 years and older in urban localities by sex, occupation and region

Occupation	Total	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Both sexes	**5,125,635**	**387,005**	**397,974**	**1,643,860**	**279,734**	**460,595**	**1,152,344**	**416,653**	**264,572**	**84,905**	**37,993**
Percent	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***
Managers	4	3	3	5	3	3	4	2	2	2	3
Professionals	8	7	8	8	8	9	8	7	7	8	11
Technicians and associate professionals	3	3	2	4	2	3	2	2	2	2	3
Clerical support workers	2	3	2	3	2	2	2	2	1	2	3
Service and sales workers	32	29	29	37	29	29	36	24	25	25	27
Skilled agricultural forestry and fishery workers	14	16	19	2	22	20	8	37	37	32	20
Craft and related trades workers	20	20	24	21	22	20	22	15	17	17	21
Plant and machine operators and assemblers	7	10	5	7	5	7	7	6	3	4	4
Elementary occupations	9	9	7	11	6	8	10	5	6	7	7
Other occupations	0	1	0	1	0	0	0	0	0	0	0
Male	**2,477,284**	**188,089**	**181,438**	**812,902**	**129,874**	**213,923**	**560,631**	**197,327**	**134,109**	**40,588**	**18,403**
Percent	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***
Managers	4	4	3	6	3	3	4	3	2	3	4
Professionals	10	9	10	10	11	11	10	9	10	10	14
Technicians and associate professionals	5	5	4	6	4	4	4	3	3	4	5
Clerical support workers	3	3	2	3	3	2	3	2	1	3	3
Service and sales workers	17	14	14	21	12	13	19	11	12	15	16
Skilled agricultural forestry and fishery workers	16	18	26	4	28	25	9	39	44	35	23
Craft and related trades workers	25	22	24	27	24	22	31	17	17	17	20
Plant and machine operators and assemblers	13	18	11	14	11	15	14	11	6	7	8
Elementary occupations	6	6	5	8	5	6	6	5	5	7	8
Other occupations	1	1	0	1	0	0	0	0	0	0	0

Table 4.15: Employed population 15 years and older in urban localities by sex, occupation and region (Cont'd)

Occupation	Total	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Female	**2,648,351**	**198,916**	**216,536**	**830,958**	**149,860**	**246,672**	**591,713**	**219,326**	**130,463**	**44,317**	**19,590**
Percent	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***
Managers	4	3	3	5	3	3	3	2	2	2	2
Professionals	6	6	6	6	6	7	7	5	4	6	8
Technicians and associate professionals	1	1	1	2	1	1	1	1	1	1	2
Clerical support workers	2	2	1	4	2	1	2	1	1	2	2
Service and sales workers	47	43	42	52	43	43	51	36	38	35	38
Skilled agricultural forestry and fishery workers	12	14	14	1	16	16	8	35	30	30	17
Craft and related trades workers	16	18	23	15	20	18	13	12	16	16	23
Plant and machine operators and assemblers	0	1	0	0	0	1	0	0	0	1	0
Elementary occupations	11	11	9	14	8	10	14	6	8	7	7
Other occupations	0	0	0	0	0	0	0	0	0	0	0

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.6.3 Employment sector

The sector of employment urban dwellers were engaged in during the 2010 PHC is presented in Table 4.16. According to the results shown in the table, the informal private sector is the major employer of urban dwellers in Ghana. This is evidenced by the huge proportion of almost 80 percent that were recorded to be working within this sector in 2010. Eleven percent of people 15 years and older were engaged in the private formal sector while a little less than one in 10 was in the public or government sector of employment. Quite clearly, therefore, government is the least employer of the population in the urban areas in Ghana. This could be much less in the rural areas considering that public sector workers are more likely to be in the urban areas which house most of government ministries, departments and agencies.

A similar pattern is shown among males and females but with different proportions. For example, a much higher proportion of the female employees were recorded to work within the private informal sector compared with the males (86% versus 71%). In contrast, higher proportions of the males than females were reported for both public and private informal sectors of employment in the urban areas. In either of the public or private formal sector, more than 10 percent of the males compared to just about seven percent of the females were enrolled. The variation no doubt could be related to differences in education between the males and females in Ghana. This is because, both the public and private formal sectors of employment depend largely on educational qualification but unfortunately many females than males have lower levels of education. Consequently, these two sectors are more likely to be dominated by males relative to females. Again, in the urban localities in Ghana, a lot of private informal activities go on including buying and selling which require little or no education and are dominated by women.

According to the results by region, private informal sector employment dominates in all the 10 regions and varies from a high of about 86 percent and 84 percent respectively in Northern and Brong Ahafo regions to a low of 72 percent and 74 percent in Greater Accra and Upper West regions. On the other hand, the proportion of the population employed in the private formal sector was highest in Greater Accra (18%) and lowest in Northern Region. It is also noted that the remaining regions recorded less than 10 percent of their urban population to be employed in the private formal sector with the exception of Western and Ashanti regions which recorded about 13 percent and 10 percent respectively. In contrast, Upper West reported the highest proportion of their urban population to be employed in the public sector. Almost one in five of persons 15 years and older in the Upper West Region was a public sector worker. The region that was closest to Upper West in this regard was Upper East with 13 percent of its urban population as public sector employees while Greater Accra recorded the least proportion of eight percent.

Once again, the comparison by sex at the regional level does not reveal too dramatically varied results except in few instances. Generally, the proportion of males in the public and private formal sector employment is relatively higher for males in all regions compared to females. With respect to public sector employment, Upper West recorded the highest proportion (25.4%) of its urban population to be employed within the sector either among the males or females (14.1%). However, the lowest proportion recorded in this sector was in Ashanti Region among the males (10.1%) and in both Greater Accra and Northern regions among the females (6.1%).

Table 4.16: Employed 15 years and older in urban localities by sex, employment sector and region

Employment sector	All Regions	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Both sexes	**5,125,635**	**387,005**	**397,974**	**1,643,860**	**279,734**	**460,595**	**1,152,344**	**416,653**	**264,572**	**84,905**	**37,993**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Public (Government)	9.4	11.0	9.1	8.3	11.6	11.5	8.4	9.2	10.5	13.2	19.6
Private Formal	11.2	12.6	7.2	17.8	5.2	7.3	10.0	6.1	3.3	3.6	5.2
Private Informal	78.5	75.3	83.2	72.5	82.4	80.6	80.7	84.1	85.5	82.4	74.1
Semi-Public/Parastatal	0.2	0.3	0.1	0.2	0.2	0.4	0.2	0.2	0.1	0.2	0.3
NGOs (Local and International)	0.7	0.8	0.4	1.0	0.5	0.2	0.7	0.3	0.6	0.7	0.7
Other International Organisations	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Male	**2,477,284.0**	**188,089.0**	**181,438.0**	**812,902.0**	**129,874.0**	**213,923.0**	**560,631.0**	**197,327.0**	**134,109.0**	**40,588.0**	**18,403.0**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Public (Government)	12.1	14.7	12.4	10.4	15.5	15.2	10.1	12.0	14.7	17.4	25.4
Private Formal	16.0	19.4	10.7	24.7	7.6	10.7	14.1	9.0	4.6	4.9	6.8
Private Informal	70.5	64.2	76.2	62.9	75.9	73.1	74.4	78.3	79.7	76.7	66.3
Semi-Public/Parastatal	0.3	0.5	0.2	0.2	0.3	0.7	0.3	0.3	0.2	0.2	0.4
NGOs (Local and International)	1.0	1.2	0.5	1.5	0.8	0.3	1.1	0.4	0.7	0.8	0.9
Other International Organisations	0.1	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.1	0.0	0.1
Female	**2,648,351.0**	**198,916.0**	**216,536.0**	**830,958.0**	**149,860.0**	**246,672.0**	**591,713.0**	**219,326.0**	**130,463.0**	**44,317.0**	**19,590.0**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Public (Government)	6.9	7.5	6.4	6.1	8.3	8.2	6.9	6.7	6.1	9.3	14.1
Private Formal	6.7	6.2	4.3	11.1	3.2	4.3	6.0	3.4	2.0	2.4	3.7
Private Informal	85.9	85.8	89.0	82.0	88.1	87.1	86.7	89.4	91.4	87.6	81.4
Semi-Public/Parastatal	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2
NGOs (Local and International)	0.4	0.4	0.3	0.6	0.3	0.2	0.3	0.3	0.4	0.6	0.5
Other International Organisations	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1

Source: Ghana Statistical Service, 2010 Population and Housing Census

Furthermore, Greater Accra recorded the highest proportion of private formal sector workers among males (24.7%) and among the females (11.1%) with Northern Region recording the lowest proportion among males (4.6%) and females (2.0%). In the case of the private informal sector, the results indicate that Northern Region ranked first as the region with highest proportion of employees among the males (79.7%) and females (91.4%). In contrast, Greater Accra had the lowest proportion of its urban population working within the private informal sector either as males (62.9%) or females (82.0%).

4.6.4 Type of economic activity

In the census, information on the type of economic activity engaged in by people is collected on the type of industry of employment among persons of age 15 years and older. This is presented in tables 4.17a, b and c respectively for both sexes put together, and males and females separately each of which is by region of residence during the 2010 PHC. These three tables are used for the analysis of type of economic activity among the population 15 years and older in all urban localities in Ghana by region and sex.

The results for both sexes as presented in Table 4.17a indicate the importance of wholesale and retail/repair of motor vehicle and motorcycles as an economic activity in urban Ghana. This is evidenced by the fact that it engaged 29 percent of the urban population 15 years and older in Ghana and ranked the highest in proportion relative to all other economic activities in the urban areas in the country. This was followed by agriculture forestry and fishing with about 15 percent of the employed urban population in Ghana while manufacturing recorded about 14 percent. Other popular economic activities but which recorded much smaller proportions of the urban employed persons included accommodation and food service (7.9%); other service activities (6.9%); education (5.6%) and construction (4.5%). These are to be expected on account of the largely commercial and service economy the urban environment presents in Ghana. It is, however, noteworthy to observe that for 14 percent of employed persons in urban localities to be engaged in manufacturing appears to be on the low side for a middle income economy like Ghana.

The regional distributions appear to follow a similar pattern where the economic activities that offer higher employment to the urban dwellers are the same in almost all the regions with variations relative to the size of each activity in the regions. For example, wholesale and retail/repair of motor vehicles and motorcycles attracted the highest proportions of employees in urban localities in Ashanti (34.8%) and Greater Accra (32.6%) regions while the lowest was recorded in Brong Ahafo Region (19.8%). On the other hand, the proportion of employed persons in manufacturing ranged from a high of 16 percent in Volta Region to a low of almost 10 percent in Brong Ahafo Region. We also find that Brong Ahafo and Northern regions ranked topmost in terms of the proportion of employed persons in agriculture forestry and fishing each with almost 38 percent compared to Greater Accra's three percent. This is quite to be expected since Greater Accra is the most urbanised in the country in addition to hosting the nation's capital city, a situation that is likely to limit these primary economic activities in the region. For the other economic activities, there are no remarkable variations between the regions except in a few instances as shown in Table 4.17a.

A comparison between the males (Table 4.17b) and females (Table 4.17c) reveals interesting variations that appear to be dictated by economic activities considered to be masculine or feminine. At the national level, for example, the proportion of females in Table 4.17b working in manufacturing; wholesale and retail and repair of motor vehicles and motorcycles; other service activities as well as accommodation and food service is relatively higher

compared to the males in Table 4.17c. This is the case in all the regions for these major economic activities when the males are compared with the females. The only exception is recorded in the Ashanti Region for manufacturing where contrary to the situation in all the other regions, a relatively lower proportion of the females than the males in that region were recorded (13.9% versus 12.5%). Again, with respect to other service activities, the Northern and Upper East regions appear to deviate from what pertains in the other regions. While the males and females in the Northern Region recorded the same proportion of 3.2 percent in other service activities, in the Upper East, females recorded a relatively lower proportion (4.8%) compared to their male counterparts (5.1%).

In contrast, agriculture forestry and fishing; construction; and transport and storage are three economic activities that appear to attract relatively higher proportions of the male population compared to the females. This observation is consistent in all the ten regions in the country. For example, among the male population, the proportion working in construction varies from a low of 4.4 percent in Northern Region to a high of 10.9 percent in Greater Accra. This compares with less than one percent each of the regions among the females. A similar observation can be made with regard to the proportion of the population working in transportation and storage economic activity which ranges once again from a high of 12.1 percent in Greater Accra Region to a low of 5.1 percent in Northern Region among the males (Table 4.17b) compared to less than one percent in each of the other regions among the females (Table 4.17c). This is to be expected because these are activities which traditionally in Ghana are dominated by males. Finally, not much significant variation is seen between the two sexes regarding education as economic activity although in almost all the regions with the exception of Western and Greater Accra, a relatively higher proportion of males than females are found to be engaged in this area of economic activity in urban Ghana.

Table 4.17a: Employed population 15 years and older in urban localities by industry and region

Industry	Total	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Number	**5,125,635**	**387,005**	**397,974**	**1,643,860**	**279,734**	**460,595**	**1,152,344**	**416,653**	**264,572**	**84,905**	**37,993**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Agriculture forestry and fishing	14.7	16.6	20.0	3.2	22.2	21.0	9.0	37.9	37.6	32.5	20.7
Mining and quarrying	0.9	3.8	0.7	0.4	0.2	1.4	1.0	1.0	0.1	0.6	0.2
Manufacturing	13.7	15.4	15.8	14.9	16.1	12.3	13.2	9.6	10.9	11.4	15.1
Electricity gas stream and air conditioning supply	0.3	0.4	0.2	0.3	0.2	0.5	0.2	0.1	0.1	0.2	0.3
Water supply; sewerage waste management and remediation activities	0.4	0.5	0.3	0.4	0.5	0.3	0.3	0.3	0.2	0.4	0.5
Construction	4.5	3.9	4.7	5.6	3.8	3.9	4.6	3.0	2.3	2.8	4.2
Wholesale and retail; repair of motor vehicles and motorcycles	29.0	24.8	25.2	32.6	24.2	25.3	34.8	19.8	23.1	22.0	21.4
Transportation and storage	5.3	5.9	4.4	6.4	4.5	4.9	5.7	3.7	2.7	2.9	3.6
Accommodation and food service activities	7.9	8.1	8.4	9.2	6.7	7.5	7.7	5.4	6.1	6.1	5.6
Information and communication	0.7	0.5	0.4	1.3	0.3	0.4	0.5	0.3	0.2	0.3	0.5
Financial and insurance activities	1.2	1.1	0.8	1.9	0.8	0.8	1.2	0.8	0.4	0.7	0.8
Real estate activities	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Professional scientific and technical activities	1.5	0.9	1.4	2.0	0.9	2.3	1.2	0.8	1.3	0.9	1.3
Administrative and support service activities	1.0	1.0	0.8	1.6	0.6	0.9	0.8	0.6	0.8	0.6	0.9
Public administration and defence; compulsory social security	2.5	3.2	1.8	3.2	2.8	2.0	1.8	2.1	1.8	3.4	4.9
Education	5.6	5.3	6.4	4.3	6.4	6.7	6.2	5.6	6.2	6.3	9.4
Human health and social work activities	1.9	1.6	1.6	1.9	2.3	2.2	1.9	1.7	1.6	2.8	3.5
Arts entertainment and recreation	0.9	0.7	0.7	1.3	0.8	0.7	0.9	0.5	0.4	0.4	0.6
Other service activities	6.9	5.6	5.7	7.9	6.0	6.0	8.3	5.9	3.2	4.9	5.3
Activities of households as employers; undifferentiated goods - and services - producing activities of households for own use	0.9	0.5	0.8	1.3	0.6	0.9	0.7	0.8	0.9	0.7	1.1
Activities of extraterritorial organizations and bodies	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Ghana Statistical Service, 2010 Population and Housing Census

Table 4.17b: Employed male population 15 years and older in urban localities by sex, industry and region

Industry	Total	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Number	**2,477,284**	**188,089**	**181,438**	**812,902**	**129,874**	**213,923**	**560,631**	**197,327**	**134,109**	**40,588**	**18,403**
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Agriculture forestry and fishing	17.4	19.6	27.1	4.5	29.0	26.3	9.9	41.0	44.4	35.1	23.5
Mining and quarrying	1.6	6.6	1.3	0.5	0.2	2.7	2.0	1.9	0.1	1.0	0.3
Manufacturing	12.6	13.0	11.1	14.4	13.0	10.7	13.9	8.2	8.8	8.0	9.4
Electricity gas stream and air conditioning supply	0.4	0.6	0.3	0.5	0.4	0.9	0.3	0.3	0.2	0.3	0.6
Water supply; sewerage waste management and remediation activities	0.4	0.6	0.4	0.5	0.6	0.5	0.3	0.3	0.3	0.5	0.6
Construction	9.0	7.9	10.0	10.9	8.0	8.3	9.2	6.2	4.4	5.7	8.2
Wholesale and retail; repair of motor vehicles and motorcycles	20.1	15.3	14.6	24.1	12.6	13.5	26.5	12.4	14.4	16.2	16.2
Transportation and storage	10.4	11.4	9.3	12.1	9.3	10.2	11.2	7.5	5.1	5.7	7.1
Accommodation and food service activities	2.0	2.1	2.0	2.8	1.4	1.6	1.9	1.3	1.0	1.3	1.2
Information and communication	1.1	0.8	0.8	2.0	0.6	0.6	0.8	0.5	0.4	0.5	0.8
Financial and insurance activities	1.5	1.4	1.1	2.3	1.3	1.1	1.3	1.0	0.6	1.0	1.2
Real estate activities	0.1	0.0	0.1	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Professional scientific and technical activities	2.0	1.4	1.6	2.8	1.1	2.4	1.7	0.9	1.3	1.2	1.4
Administrative and support service activities	1.7	1.7	1.3	2.6	0.9	1.5	1.3	0.9	1.2	1.0	1.2
Public administration and defence; compulsory social security	3.7	5.0	2.9	4.5	4.4	3.2	2.6	3.1	2.8	5.2	7.5
Education	6.2	5.2	7.9	4.0	8.0	7.8	6.8	7.0	8.7	7.9	11.5
Human health and social work activities	1.7	1.3	1.5	1.6	2.2	2.1	1.5	1.7	1.8	2.8	3.1
Arts entertainment and recreation	1.7	1.3	1.5	2.3	1.5	1.3	1.7	1.0	0.6	0.8	1.0
Other service activities	5.4	4.2	4.7	6.1	4.9	4.6	6.5	4.0	3.2	5.1	4.2
Activities of households as employers; undifferentiated goods - and services - producing activities of households for own use	0.8	0.5	0.6	1.1	0.6	0.8	0.7	0.7	0.7	0.7	1.0
Activities of extraterritorial organizations and bodies	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1

Source: Ghana Statistical Service, 2010 Population and Housing Census

Table 4.17c: Employed female population 15 years and older in urban localities by sex, industry and region

Industry	Total	Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Northern	Upper East	Upper West
Number	2,648,351	198,916	216,536	830,958	149,860	246,672	591,713	219,326	130,463	44,317	19,590
Percent	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Agriculture forestry and fishing	12.1	13.8	14.0	1.9	16.4	16.4	8.2	35.1	30.7	30.2	18.2
Mining and quarrying	0.3	1.1	0.2	0.2	0.1	0.3	0.1	0.2	0.0	0.3	0.0
Manufacturing	14.8	17.7	19.7	15.4	18.9	13.6	12.5	10.8	13.1	14.6	20.4
Electricity gas stream and air conditioning supply	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Water supply; sewerage waste management and remediation activities	0.3	0.5	0.3	0.3	0.4	0.2	0.3	0.2	0.2	0.2	0.4
Construction	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.1	0.2	0.2	0.4
Wholesale and retail; repair of motor vehicles and motorcycles	37.3	33.8	34.0	40.9	34.2	35.4	42.7	26.4	32.1	27.2	26.2
Transportation and storage	0.6	0.7	0.3	0.9	0.3	0.4	0.4	0.3	0.3	0.3	0.4
Accommodation and food service activities	13.3	13.9	13.7	15.4	11.3	12.6	13.2	9.2	11.3	10.5	9.8
Information and communication	0.4	0.2	0.2	0.7	0.2	0.2	0.2	0.2	0.1	0.1	0.2
Financial and insurance activities	0.9	0.9	0.5	1.5	0.4	0.5	1.0	0.6	0.2	0.4	0.5
Real estate activities	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Professional scientific and technical activities	1.1	0.5	1.2	1.2	0.6	2.2	0.7	0.7	1.3	0.6	1.2
Administrative and support service activities	0.4	0.3	0.4	0.6	0.3	0.4	0.3	0.4	0.4	0.2	0.7
Public administration and defence; compulsory social security	1.4	1.5	0.9	1.9	1.4	1.0	1.0	1.2	0.8	1.8	2.5
Education	5.0	5.3	5.2	4.6	5.1	5.8	5.6	4.4	3.7	4.9	7.4
Human health and social work activities	2.1	1.8	1.8	2.1	2.4	2.2	2.2	1.7	1.5	2.8	4.0
Arts entertainment and recreation	0.2	0.2	0.1	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.2
Other service activities	8.3	6.9	6.5	9.7	7.0	7.3	10.1	7.5	3.2	4.8	6.4
Activities of households as employers; undifferentiated goods - and services - producing activities of households for own use	1.0	0.5	0.9	1.5	0.6	0.9	0.7	0.9	1.1	0.7	1.3
Activities of extraterritorial organizations and bodies	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Ghana Statistical Service, 2010 Population and Housing Census

4.7 Conclusion

This chapter sought among other things, to examine the household conditions and characteristics of the urban population in Ghana, with a comparison among the sexes as well as the regions. The analysis cut across issues of literacy and education, marital status, religion, housing conditions and facilities in addition to household energy usage and employment status and sectors of employment among the urban population.

It has been found that males in urban Ghana were more literate than females and this is consistent with the general observation of a higher education among males than females in Ghana. Literacy in English only was, however, found to be higher among females than males and also higher in the three northern regions compared to those in the south. It was clear from the analysis presented that literacy was highest in Greater Accra and lowest in Northern Region. Unfortunately, in spite of Ghana's border with three French-speaking countries, literacy in French was found to be very low, indicating the inadequate investment we make as a country in French as an important language in Ghana.

Linked to literacy, it has been observed that in all regions in the country, males were found to have relatively higher education than females with the three northern regions being the most disadvantaged. It was also found that most people do not go beyond the secondary school level of education in the country. However, beyond secondary level of education, Upper West was found to be second to Greater Accra to have the highest proportion of its urban dwelling population with post-secondary level education. On the other hand, the gap between males and females in terms of education was much wider in the Northern Region especially with respect to persons with no education. This shows that although some remarkable achievements in education have been made in the country over the years, much remains to be done in bridging the gap between males and females.

We have found that half of the population 12 years and older in urban localities in Ghana were ever married with almost five percent of them in informal or consensual unions. There were less than 40 percent of the female population that reported to be never married compared to more than the same proportion of their male counterparts. The variations between the sexes where a higher proportion of the female population was married relative to males is the result of the impact of polygyny which allows one man to be married to more than one woman at the same time, a practice which was found to be more prevalent in the three northern regions in the country. Again, the finding that the proportion of the population that was separated, divorced or widowed was higher in all regions among the females than males point to a higher re-marriage rate for males than females in Ghana.

The dominance of the Christian Religion was found in all Ghana's urban localities with three in every four persons professing to be Christian. The Pentecostal/Charismatic Religion was the largest Christian Religion in Ghana's urban localities. The Islamic Religion is more dominant in the three northern regions. In all the regions with the exception of Upper West, a higher proportion of the females were found to be Christians compared to males. In contrast, a higher proportion of the male population than females was reported to profess the Islamic Religion.

With respect to housing, there is dominance of compound houses where three of four households were reported to be in compound houses in all urban localities in Ghana. Three percent of households in urban Ghana were also housed in kiosks and containers with two percent in uncompleted buildings. There were no serious variations by region but Greater

Accra and Ashanti regions were leading in the proportion of households housed in kiosks and containers, obviously the result of slum growth and the high cost of accommodation that are the hull-marks of the two regions as the most urbanised in the country.

An examination of the material used in the construction of the outer wall of dwelling units in urban localities in Ghana showed a dominance of concrete and cement blocks. However, less than half of the dwelling units in Northern and Upper East regions used cement blocks and concrete. Instead, the use of mud brick or earth for the outer wall or floor was more common in the three northern regions. This suggests that materials used in the construction of dwelling units in the north are of lower quality than others in the other regions, either due to differences in poverty or traditional building practices that have been adopted over the years. There also appears to be some overcrowding at the household level considering that as high as 76 percent of the urban households had one or two rooms for sleeping, a situation which is indicative of the inability of many urban dwelling households to rent or acquire bigger apartments for use as their dwelling units perhaps on account of the high cost of rental accommodation in the urban localities in the country.

There is no universal access to pipe-borne water facility for drinking in all urban localities in Ghana. The analysis suggests two-thirds accessibility to piped water facility either within or outside the household dwelling unit in urban localities in the country. The three northern regions are still lagging behind the other regions in the country. The common use of sachet water as source of drinking water by some 14 percent of urban households is an indication of the challenges many urban households face in accessing treated piped water for drinking purposes.

It has also been seen that only a quarter of urban households in the country used their own separate bathrooms, the remaining three-quarters sharing bathroom with other households, patronising public bathrooms or using open spaces outside the house with negative sanitation implications for the urban environment. Similarly, just one in four of the urban households reported access to water closet (WC) toilet facilities at the household level with one in ten households not having any kind of toilet facility and, therefore, made use of the bush or beaches. This practice has obvious negative health implications for the urban population especially children.

Furthermore, solid waste collection is not universal in urban Ghana for only one-fifth of the urban households reported the collection of their solid waste with the rest dumping them at designated public dumps/containers to be collected while others use open spaces for their solid waste disposal. Besides, liquid waste disposal into gutters is quite common in the country while there is limited use of the sewerage system (less than 5%), an indication of the undeveloped sewerage system in most urban localities in the country. Consequently, the practice of throwing liquid waste unto the street or outside the house is quite common particularly in the three northern regions where more than half of the households were involved in this practice.

Urban household energy use showed that although access to electricity for lighting was on average 80 percent, it varied across the regions with some of the households using flashlights and torches. The use of LPG for household cooking is also limited with less than a third of urban households making use of this source of fuel. The consequence of this finding was that dependence on charcoal and wood as household cooking fuel was very high and has long-term implications for the country's forest resources which in turn could also have effects on the ecosystem in general in the country. Again, not all the urban households reported to have

separate spaces for cooking and thereby used the veranda or open spaces in the house for this purpose. Depending on the control measures put in place, cooking anywhere in the house could have serious implications for fire out-breaks with a consequence for lives and property.

Finally, it has been noted in the analysis that the private informal sector is the highest employer of the active labour force in Ghana in all the regions in the country. The public sector does not engage more than 10 percent of the urban employed population and also employs a higher proportion of males relative to females on account of educational differences between males and females, the latter being more disadvantaged. This means that the private sector should be supported to expand to be able to employ more persons eligible for employment as a way of limiting or reducing unemployment. Added to this is the finding that limited proportions of the employed persons in urban localities were engaged in manufacturing with high proportions going into the wholesale and retail trading activities with regional variations. Policy actions should, therefore, take into consideration the regional and sex differentials in urban household socio-economic conditions and facilities that have been revealed in this analysis.

CHAPTER FIVE
ANALYSIS OF INFORMATION COMMUNICATION FACILITIES IN URBAN AREAS AND URBAN PLANNING

5.1 Introduction

There is no doubt that Information and Communication Technologies (ICT) are a catalyst for sustainable development in the 21st century. According to a World Bank/African Development Bank/African Union report, ICTs, especially mobile phones have revolutionised communications in Africa. The report points out that in 2012, there were more than 650 million mobile subscriptions in Africa, more than in the US or in the Europe Union, making Africa the fastest growing region in the world.

In Ghana, the ICT industry has made and continues to make significant impacts impact on the Ghanaian society. Investments have been made by both the public and private sectors in the ICT industry. Recognising the crucial role of ICT in facilitating and accelerating socio-economic development, government has put in place relevant policies, strategies and institutional frameworks to enable the economy to be transformed into information and knowledge-based economy. This emerging economy is expected to create opportunities and expand access to ICT across all sectors and serve as a means of rapid economic growth, job creation and wealth generation, good governance among others.

Some of the legislations and policies which the Government of Ghana has put in place include the National Communications Act (Act 769, 2008) which established the National Communications Authority as a central body to license and regulate communication activities and services. Others are the Electronic Communications Act of Ghana (Act 775, 2008), the Ghana ICT for Accelerated Development (ICT4AD) Policy (2003) which was developed to simultaneously target the development of the ICT sector and industry, as well as the use of ICT as a broad-based enabler of development and the Ghana National Telecommunications Policy of 2004.

For the first time, the 2010 PHC collected data on ownership of and access to ICT among individuals and households. Information was sought about households which owned a desktop or laptop computer. In addition, data were collected on ownership of mobile phones among all household members aged 12 years and above. In addition, the 2010 PHC collected information on ownership of fixed telephone lines at the household level in the country. It further sought information on the use of the internet by individuals 12 years and older. These data form the basis for analysis of developments in the ICT sector among all urban localities in Ghana.

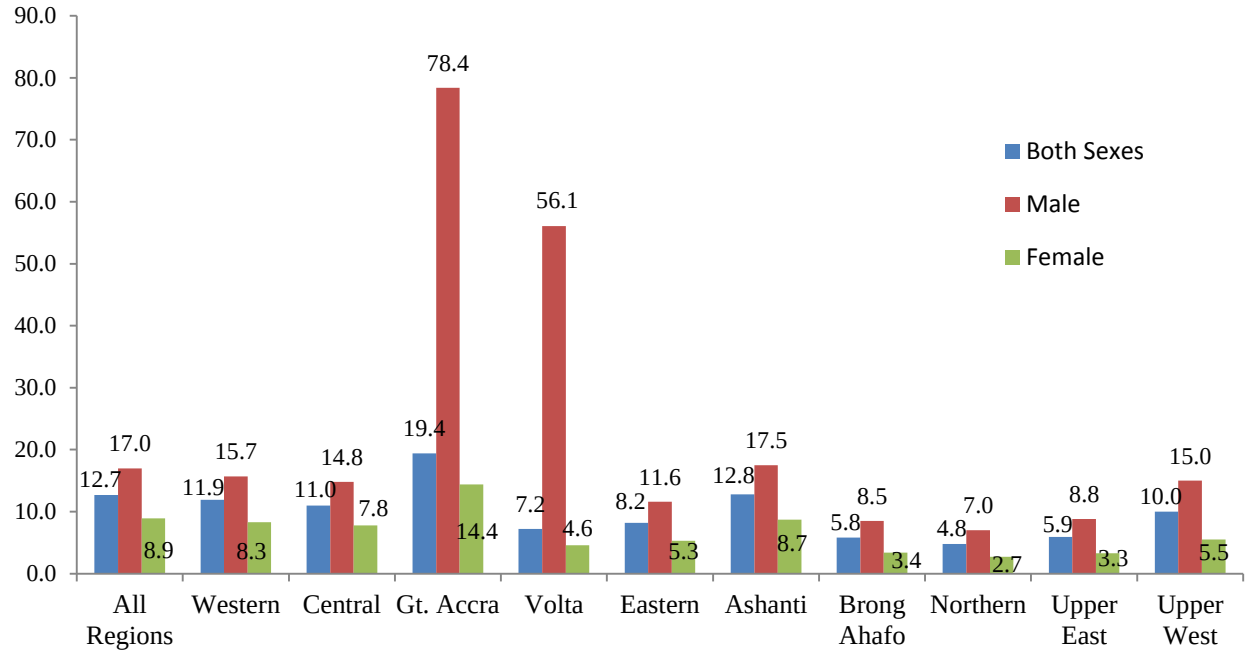
5.2 Use of the internet

As illustrated in Figure 5.1, while the urban localities in Ghana account for 50.9 percent of Ghana's population, only 12.7 percent of the urban population aged 12 years and older reported using the internet. Similarly, the proportion of urban households with ownership of computers across the regions was low. The Greater Accra Region reported the highest proportion of its population using internet facilities (19.4 %). Ashanti (12.8%), Western (11.9%) and Central (11.0%) regions followed closely whilst Upper East (5.9%), Brong

Ahafo (5.8%) and Northern (4.8%) recorded the lowest proportions. Females in all regions reported substantially lower proportions of their population accessing the internet compared to their male counterparts. Generally, in most regions, the ratio of internet use between the sexes was one female to every two males. In the Greater Accra Region, however, the variation between the sexes was wider with one female to five males who reportedly used the internet. In contrast, it was three males to one female in the Northern and Upper West regions. The widest gap in the use of internet facilities by sex was reported in the Volta Region where about five percent of females compared to 56 percent of males had internet access.

The low use of internet services is not surprising considering the obstacles to internet connectivity across the country. These include low levels of computer literacy in the population, poor infrastructure and unreliable power supply. In addition, it has been established that the high cost of internet services in Africa, makes the cost of internet access unaffordable to a large segment of the population (wikipedia.org/wiki/Internet_in_Africa, 26/11/13). Despite these observations, the actual numbers of internet users in the country could be higher than that reported in the 2010 PHC. This is because, it has been noted, that data on internet subscribers only partially reflects the actual number of internet users in Africa as cybercafés and Internet Kiosks are common in the urban areas of many African countries (wikipedia.org/wiki/Internet_in_Africa).

Figure 5.1: Population of urban localities 12 years and above using internet by sex and region

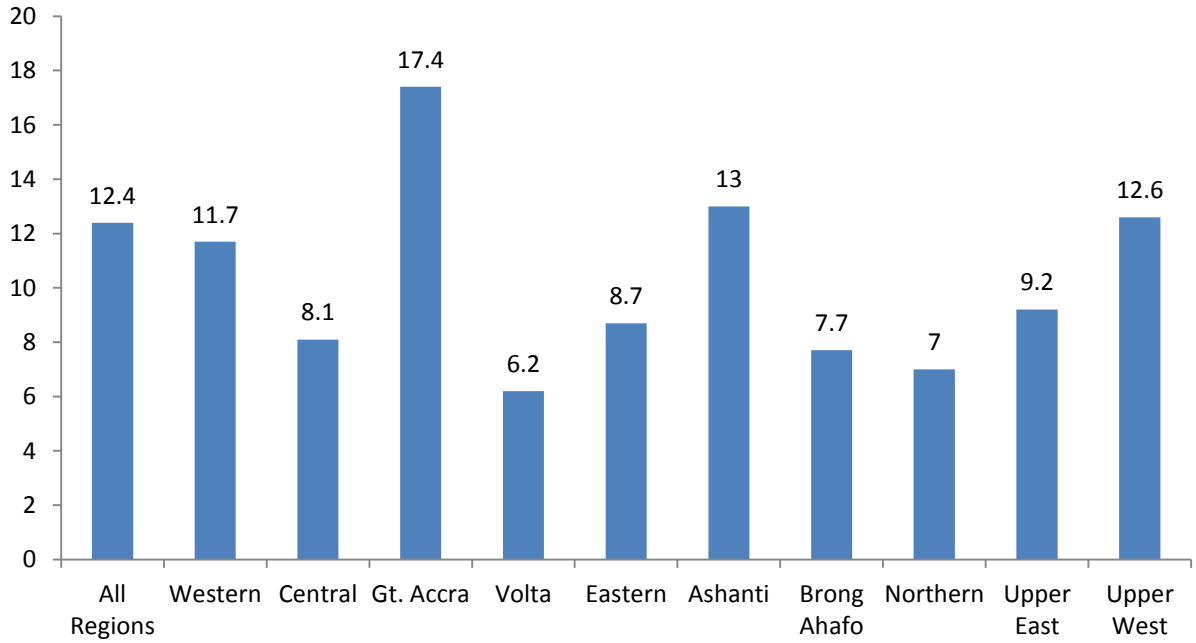


5.3 Use of computers

Figure 5.2 indicates that, of the 3,049,366 households in urban localities in Ghana, only 12.4 percent reported ownership of a desktop computer or laptop. This appears low for a country with urbanization beyond 50 percent. The situation at the regional level was no different. Less than a quarter of all urban households in each region reported ownership of a computer.

Greater Accra had the highest proportion (17.4%) of households owning computers and was followed by Ashanti Region (13%) and Upper West Region (12.6%). The lowest proportions of households with computers/laptops were in the Brong Ahafo (7.7%), Northern (7.0%) and Volta (6.2%) regions.

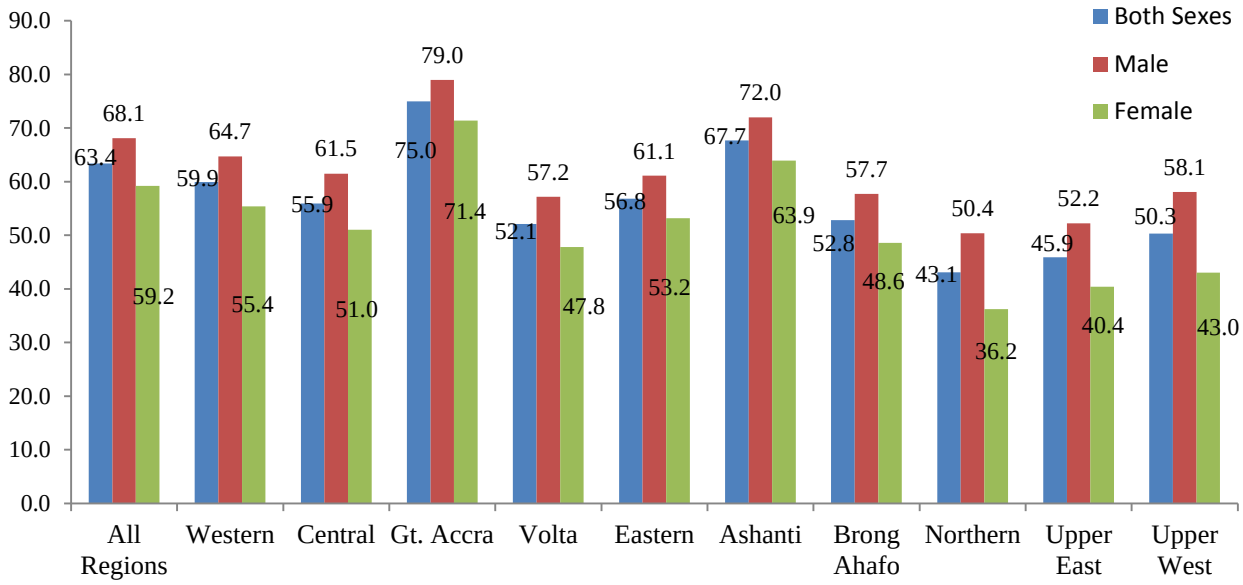
Figure 5.2: Urban Households with ownership of desktop and laptop computers by region



5.4 Use of cell phones

Figure 5.3 shows the percentage of the urban population 12 years and older having mobile phones by sex and region. From the data available, it is evident that almost three-quarters of all persons aged 12 years and above own a mobile phone in urban localities in the country. The Greater Accra Region recorded the highest proportion of ownership of mobile phones of 75.0 percent. The Ashanti and Western regions followed with 68 percent and 60 percent respectively. The region that reported the least proportion of ownership of mobile phones was the Northern Region (43.1%). In all regions, a higher proportion of males than females owned mobile phones. As presented in Figure 5.3, the results indicate few variations by region and sex with regard to ownership of mobile phones. The high ownership of mobile phones is consistent with observations made by the World Bank and other partners on the rapid increases in the use of mobile phones in Africa including Ghana.

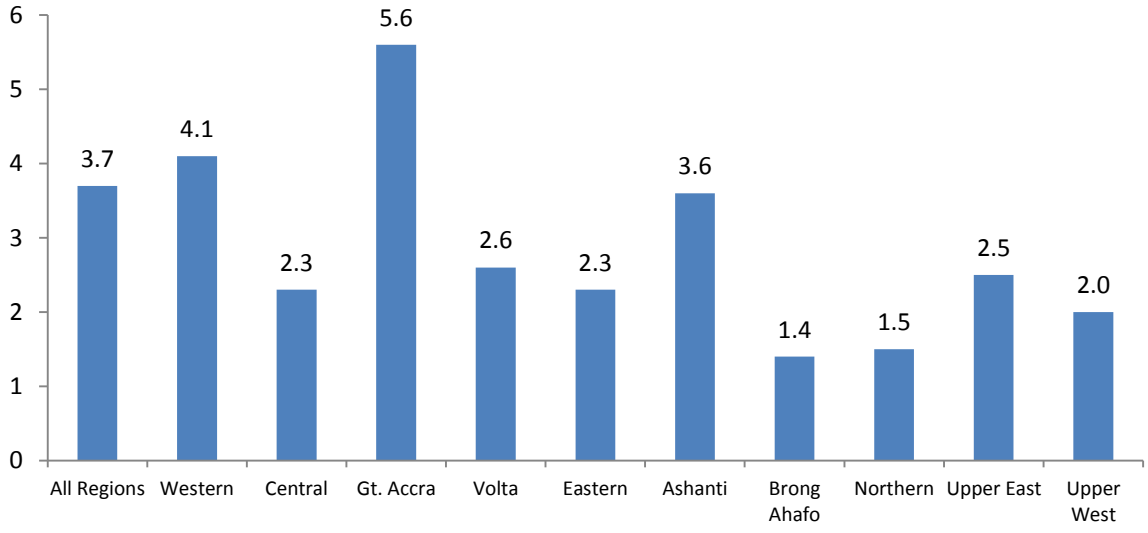
Figure 5.3: Urban Population 12 and above having mobile phones by sex and region



5.5 Ownership of fixed telephone lines

With the advent of mobile phones, the fixed line is fast becoming less important. Indeed, the fixed lines were never readily available to most of the population in the country. Its use was dominated by organisations and businesses in the public and private sector and the elite few who could either afford a fixed line or were resident in areas where the infrastructure permitted it. Figure 5.4 shows that the proportion of urban households with fixed lines was less than five percent with the exception of Greater Accra which recorded 5.6 percent. The Brong Ahafo Region by far recorded the lowest proportion of fixed telephone line ownership of 1.4 percent, followed by Northern Region's 1.4 percent. Comparing ownership of fixed telephone lines and cell phones (Figure 5.3 versus Figure 5.4) shows the limited importance that is attached to fixed telephone lines in the country.

Figure 5.4: Urban Households with ownership of fixed lines by region



5.6 Conclusion

As earlier observed, 12.4 percent of urban households own computers with about the same percentage (12.7%) having internet access. Regional variations in the ownership of computers and internet use did not follow the same pattern. Greater Accra and Ashanti regions recorded the highest proportions in the ownership of computers of 17.4 percent and 13.0 percent respectively. Internet access was the same with Greater Accra having 19.4 percent of its population and Ashanti with 12.8 percent with internet access. However, the regions with the lowest proportions for both variables varied. For instance, with respect to ownership of computers Volta Region had the lowest proportion at 6.2 percent whilst Northern Region recorded the least proportion 4.8 percent with internet access.

With the exception of Northern Region which recorded 43.1 percent of all persons age 12 years and above owning a mobile phone, all other regions had over fifty percent of this population owning a mobile phone. As has been observed, more males than females owned mobile phones at national and regional levels. The Northern Region recorded the least male (50.4%) and female (36.2%) populations owning mobile phones. In addition, the 2010 PHC data reveal that only a small proportion (3.7%) of households owned fixed lines with Greater Accra having the highest proportion at 5.6 percent and Brong Ahafo with the lowest at 1.4 percent.

Despite the high levels of urbanisation in the country, the use of ICTs is rather low. Considering the impact ICTs on a country's socio-economic development efforts must be made to accelerate its use in the country. The government must support the building of infrastructure and create an enabling environment for individuals and businesses to take advantage of the opportunities that ICT offers.

CHAPTER SIX
URBAN MOBILITY

6.4 Introduction

Rapid urbanisation has implications for intra-city mobility of people as a result of increased vehicular movement that tends to compete with human movement at the same time. This usually happens when urban infrastructural development, particularly road construction and expansion do not keep pace with the rate of urbanisation. As traffic on the roads increases, commuting within the city becomes difficult and could negatively affect productivity and cost of production.

Against this background, data from the 2007 and 2012 household transport surveys were extracted to assess the degree to which urban mobility constitutes a challenge for urban dwellers in Ghana. These are with reference to three key areas of development: school attendance, visiting a health facility and daily commuting to the workplace in the city of residence. This chapter, therefore, examines how the ten regions in Ghana compare with each other with reference to the experiences of urban dwellers as they commute to school, workplace and visit a health facility whenever it becomes necessary. The analysis provides us with a fair idea regarding the urban mobility situation in each region and how the regions compare with each other in the country in 2007 and 2012.

6.2 Urban mobility and school attendance

Both surveys investigated the average distance respondents commuted between their residence and school. The results of the analysis of their responses are presented in Table 6.1. It must be understood that in the city, the distance covered in order to attend school by residents could vary depending on which school each one chooses irrespective of where it is located. Therefore, the longer distance one covers may not necessarily mean absence of schools within walking distance but may be just a matter of choice. This, notwithstanding, the results present a fair account of differences in the average distance that commuters to school covered since one is not restricted to choose schools from particular locations in the city and, therefore, schools that may not be chosen by some residents may be selected by other residents from other parts of the same city or town.

From Table 6.1, we find that at the national level, a little more than two in five of the eligible urban dwellers commuted less than one kilometre to attend school in 2007. The figure increased to more than 50 percent in 2012, suggesting that during the five-year period between 2007 and 2012, there were improvements in the sense that a much higher proportion of the urban dwelling school attendees commuted less distance to school than they did five years earlier. Persons attending school at locations more than five kilometres from their place of residence also reduced from eight percent in 2007 to about seven percent in 2012.

Table 6.1: Percent of persons in urban localities by average distance (km) from residence to school and region

Region	Distance (km)							Total	
	Boarding school	<1.0	1.0-1.9	2.0-2.9	3.0-3.9	4.0-4.9	5+	Percent	Number
2007									
All regions	13.9	**56.2**	**8.4**	6.9	4.4	2.1	8.0	100.0	2,046,841
Western	15.4	53.6	15.4	7.1	3.3	1.2	4.1	100.0	208,477
Central	3.9	51.0	20.6	10.8	9.8	0.0	3.9	100.0	62,913
Greater Accra	18.9	48.4	5.3	6.8	4.0	2.6	13.9	100.0	705,307
Volta	8.5	65.3	3.5	8.0	5.5	3.5	5.5	100.0	122,743
Eastern	9.3	64.8	9.3	3.2	3.7	2.3	7.4	100.0	133,228
Ashanti	11.1	59.5	4.4	10.2	5.8	2.9	6.2	100.0	407,086
Brong Ahafo	13.5	65.9	7.0	3.5	3.1	1.7	5.2	100.0	141,247
Northern	10.7	61.0	15.8	4.0	5.1	0.4	2.9	100.0	167,769
Upper East	18.4	49.4	27.6	4.6	0.0	0.0	0.0	100.0	53,661
Upper West	5.6	76.4	9.7	4.2	0.0	1.4	2.8	100.0	44,409
2012									
All regions	10.2	56.0	8.5	8.3	6.6	3.7	6.8	100.0	3,980,857
Western	4.9	56.1	9.1	7.3	5.2	7.0	10.5	100.0	321,451
Central	8.7	56.4	11.5	9.6	6.0	0.9	6.9	100.0	331,521
Greater Accra	11.0	52.4	4.5	8.2	6.7	4.9	12.3	100.0	803,180
Volta	5.2	47.4	19.3	13.3	7.4	3.7	3.7	100.0	157,677
Eastern	10.5	62.1	5.8	7.0	6.1	2.2	6.3	100.0	476,537
Ashanti	11.6	62.1	6.1	7.7	5.4	3.2	3.9	100.0	1,045,014
Brong Ahafo	14.7	50.3	12.0	10.5	6.9	2.7	3.0	100.0	334,965
Northern	11.2	42.9	17.0	6.4	15.2	1.5	5.8	100.0	282,427
Upper East	7.2	48.8	14.5	6.3	3.4	13.5	6.3	100.0	139,050
Upper West	2.2	70.8	3.4	12.4	5.6	1.1	4.5	100.0	89,035

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators database Surveys

At the regional level, Table 6.1 depicts most of the regions to have more than 40 percent of their school attendees to commute less than one kilometre from their residence to school in 2007. The exceptions are Greater Accra, Ashanti and Upper East regions where the proportion was less than 40 percent. Eastern and Brong Ahafo regions recorded the highest proportions (60 percent) attending schools located less than one kilometre from their residence. In 2012, however, visible changes had taken place with some of them recording increases in the proportion attending school less than a kilometre away from home while others had decreases indicated against them. For example, while Greater Accra increased from less than 40 percent in 2007 to 52 percent in 2012, there was a reduction from 61 percent to 50 percent in Brong Ahafo Region within the same period of five years. The Northern Region took over from Upper East as the region with the least proportion of persons attending school within a kilometre from home with the latter's proportion increasing from 23 percent in 2007 to about 49 percent in 2012.

It must further be noted that although smaller proportions of persons attended school within a kilometre from home, the situation in Greater Accra is worth highlighting in either 2007 or 2012. In 2007, the region recorded more than 10 percent of its population attending school over a distance of five kilometres or more which reduced slightly in 2012. Apart from the Greater Accra and Western regions, all the other regions had less than 10 percent of their population attending school over a distance of five kilometres or more. In Upper East for example, none of its population that attended school in 2007 was recorded within a distance of three kilometres or more, but in 2012, it was six percent. On the other hand, however, while in 2007 Western Region recorded just four percent of its population attending school over a distance of five kilometres or more, in 2012, the figure had risen to almost 11 percent. While it is difficult to explain this change, it could be the result of the region's rapid urbanisation that might have created a situation where schools that are perceived to be of higher quality may have sprang up at distant locations from many city residents between 2007 and 2012.

Table 6.2 also has information on an important aspect of mobility within cities and towns and this is with regard to the waiting time for transport to school. The shorter the waiting time, the more it reflects improvements in transportation within the city or town. From the results of the analysis, there appears to be some improvement between 2007 and 2012. This is reflected in the evidence in Table 6.2 that in 2007, almost two-thirds of persons attending school waited for less than 15 minutes before having a public bus or vehicle to go to school in the country. However, in 2012, the figure rose to 78 percent which is a suggestion that more people are waiting less number of minutes before having a vehicle to transport them to school. At the other end, we find that in 2007, about nine percent of school attendants in the cities and towns in Ghana had to wait for more than 40 minutes before getting a vehicle for school, but in 2012, the figure had reduced to only two percent. This re-emphasises the earlier point that public transport system in Ghana's towns and cities has improved to the extent that it is relatively shorter for persons going to school to have a means of transport to go to school in 2012 compared to 2007.

The analysis by region follows the national trend with the exception of two regions: Brong Ahafo and Upper West. This is because the proportion of persons attending school that indicated a waiting time for transport below 15 minutes increased between 2007 and 2012 in all the regions with the exception of these two regions (Brong Ahafo and Upper West) where there were reductions. This may suggest improvements in urban transport between the two survey years such that it is become easier in 2012 to find transport to go to school in Ghana's cities and towns than in 2007 in most of the regions. In addition to this, Table 6.2 further shows that the proportion indicating waiting time for transport more than 40 minutes reduced between 2007 and 2012 for all regions and even in seven of them, it was zero percent. Apart from the increase in private transport services, government has embarked on the operation of public transport services especially with the coming into operation of the Metro Mass Transport services in the cities and towns. In fact, in the mid-2000s, government had a policy where school children in uniforms boarded these public buses free, thereby reducing the stress school children go through commuting to and from school in the country.

Table 6.2: Percent of persons in urban localities by waiting time for transport to school and region

Region	Time (minutes)			Total	
	<15	15-40	>40	%	Number
2007					
All regions	92.9	5.2	1.9	100.0	1,255,799
Western	96.1	1.7	2.2	100.0	143,097
Central	93.6	6.4	0.0	100.0	28,989
Greater Accra	91.2	7.3	1.6	100.0	441,627
Volta	87.1	9.7	3.2	100.0	38,241
Eastern	93.7	2.8	3.5	100.0	87,585
Ashanti	87.6	8.8	3.6	100.0	224,514
Brong Ahafo	94.9	3.6	1.4	100.0	85,118
Northern	99.6	0.0	0.4	100.0	162,218
Upper East	100.0	0.0	0.0	100.0	6,168
Upper West	100.0	0.0	0.0	100.0	38,241
2012					
All regions	78.2	19.5	2.3	100.0	1,046,801
Western	59.7	36.4	3.9	100.0	86,243
Central	93.3	6.7	0.0	100.0	45,622
Greater Accra	78.7	18.3	3.0	100.0	317,500
Volta	83.3	16.7	0.0	100.0	14,016
Eastern	84.6	15.4	0.0	100.0	111,121
Ashanti	78.8	18.1	3.1	100.0	345,459
Brong Ahafo	67.4	32.6	0.0	100.0	86,249
Northern	97.1	2.9	0.0	100.0	29,187
Upper East	100.0	0.0	0.0	100.0	9,404
Upper West	50.0	50.0	0.0	100.0	2,001

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators database Surveys

Table 6.3 has information on the average travel time urban dwelling students reported it took them to go to school in each of the ten regions in Ghana. The results do not suggest a general reduction or increase in the average time spent going to school in the country but there are some variations in the regions. A comparison between 2007 and 2012 shows a slight reduction of the proportion that spent less than 10 minutes commuting to school in the urban localities from 47 percent to 45 percent. At the extreme end also, we find that about four percent of the respondents in 2007 reported to spend one hour or more going to school compared to none in 2012. At the same time, the proportion spending between 20 and 39 minutes commuting to school increased from about 24 percent in 2007 to about 34 percent in 2012.

A look at the regional results also indicates that with the exception of Greater Accra and Western regions where the proportion that said they used less than 10 minutes commuting to school each day increased, in the other eight regions, there was a decrease. This suggests that in these eight regions, a relatively higher proportion of school-going persons were spending longer tome going to school. However, none of them in any of the 10 regions reported to be using one hour or more going to school. The proportion that used 20-39 minutes on average to commute to school was on the other hand higher in 2012 than in 2007 in each of the regions. The overall picture, therefore, does not show consistency across all the regions, but looking at the changes that had occurred at the two extreme ends of the scale, i.e., less than

10 minutes and one hour or more, it may appear that no serious changes had taken place in the average time spent by commuters going to school in the regions between 2007 and 2012 although there are some obvious variations.

Table 6.3: Percent of persons in urban localities by average travel time (minutes) to school and region

	Time (minutes)					Total	
Region	<10	10-19	20-39	40-59	>60	Percent	Number
2007							
All regions	47.2	18.5	23.8	6.4	4.1	100.0	1,919,472
Western	33.5	20.6	28.2	15.2	2.5	100.0	194,908
Central	47.5	16.2	17.2	8.1	11.1	100.0	61,063
Greater Accra	40.5	17.3	29.5	7.2	5.6	100.0	645,786
Volta	45.3	19.3	22.9	5.2	7.3	100.0	118,425
Eastern	61.8	15.1	17.5	2.8	2.8	100.0	130,761
Ashanti	53.0	19.6	20.3	4.2	2.9	100.0	383,031
Brong Ahafo	56.7	21.6	18.7	1.9	1.0	100.0	128,294
Northern	55.0	19.9	19.9	1.5	3.7	100.0	167,152
Upper East	28.9	21.1	26.3	23.7	0.0	100.0	46,877
Upper West	80.0	11.4	8.6	0.0	0.0	100.0	43,176
2012							
All regions	45.3	13.1	33.5	8.2	0.0	100.0	3,724,209
Western	34.6	14.5	43.9	7.1	0.0	100.0	301,291
Central	39.2	12.7	40.2	7.8	0.0	100.0	310,231
Greater Accra	51.3	11.8	31.1	5.8	0.0	100.0	762,313
Volta	22.1	23.8	44.3	9.8	0.0	100.0	142,494
Eastern	52.9	12.2	29.7	5.3	0.0	100.0	446,620
Ashanti	47.9	14.2	30.4	7.5	0.0	100.0	978,081
Brong Ahafo	40.8	13.6	35.6	10.0	0.0	100.0	309,893
Northern	49.7	11.5	30.9	7.9	0.0	100.0	260,966
Upper East	26.1	8.0	34.0	31.9	0.0	100.0	126,287
Upper West	50.0	7.0	30.2	12.8	0.0	100.0	86,034

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators database Surveys

Information collected on the main difficulties faced by persons going to school with respect to transportation is presented in Table 6.4. From the information provided, we find that at the national level, heavy traffic on the road attracted the highest proportion of respondents in 2007 as the main difficulty faced by the persons going to school in the urban localities in the country. This was followed by bad roads (20.7%), long distance (16.7%) and long waiting time for transport (10.9%). The other difficulties each attracted less than 10 percent of the responses. In 2012, however, there were shifts in the responses where bad roads became the most cited difficulty for persons going to school. Almost 30 percent cited bad roads as the main difficulty faced and was followed by long waiting time (15.1%), no money for transport (13.4%) and heavy traffic on road (12.8%). This is quite difficult to explain because one wonders as to what happened between 2007 and 2012 for the proportion citing bad roads as a main difficulty faced in going to school to increase by almost 10 percentage points. Perhaps this might have been due to possible deterioration in some of the urban roads between 2007 and 2012.

Table 6.4 further shows that between 2007 and 2012, the shifts in what were considered as the main difficulties faced by persons going to school in terms of transportation are quite difficult to explain at the regional level. For example, in terms of bad roads as a difficulty, five regions (Western, Greater Accra, Volta, Upper East and Upper West) recorded increases

in the proportion of persons citing it as the main difficulty between 2007 and 2012. For the other five regions, however, a contrary picture is recorded. Note must be taken of the situation in Upper East and Upper West where in 2007 bad roads was considered as a difficulty by zero percent and 25 percent respectively but in 2012 they increased dramatically to 71.4 percent and 100 percent respectively. Similarly, in the Central Region, the proportion that responded that they had no money for transport as their main difficulty was 60 percent but in 2007, no one cited it as a difficulty. The situation becomes more difficult to appreciate when we find from Table 6.4 that the proportion of respondents citing heavy traffic on the road in Greater Accra as the main difficulty reduced from about 51 percent in 2007 to 20 percent in 2012 in spite of the obvious increases in the number of vehicles on the roads in the city between 2007 and 2012. Quite clearly, therefore, caution must be exercised in the interpretation of these results.

Table 6.4: Main difficulties faced in going to school by region

	Main difficulty faced								Total	
Region	No access road	Bad roads	Difficulty getting vehicle	Long waiting time	Heavy traffic on road	Distance too long	No money for transport	Other	Percent	Number
2007										
All regions	3.1	20.7	8.6	10.9	28.0	16.7	8.6	3.4	100.0	379,330
Western	0.0	19.7	16.4	3.3	9.8	26.2	19.7	4.9	100.0	37,625
Central	0.0	33.3	33.3	0.0	0.0	33.3	0.0	0.0	100.0	3,701
Greater Accra	1.1	11.2	11.6	9.1	50.9	8.4	3.2	4.6	100.0	175,787
Volta	0.0	16.1	0.0	9.7	0.0	71.0	3.2	0.0	100.0	19,121
Eastern	0.0	45.2	0.0	16.7	0.0	14.3	21.4	2.4	100.0	25,905
Ashanti	3.5	18.8	7.1	31.8	22.4	9.4	2.4	4.7	100.0	52,428
Brong Ahafo	47.4	52.6	0.0	0.0	0.0	0.0	0.0	0.0	100.0	11,719
Northern	4.9	37.0	2.5	2.5	2.5	28.4	22.2	0.0	100.0	49,961
Upper East	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	617
Upper West	0.0	25.0	0.0	0.0	0.0	25.0	50.0	0.0	100.0	2,467
2012										
All regions	9.8	29.9	9.2	15.1	12.8	9.9	13.4	0.0	100.0	70,405
Western	0.0	33.3	0.0	66.7	0.0	0.0	0.0	0.0	100.0	3,360
Central	0.0	20.0	0.0	0.0	20.0	0.0	60.0	0.0	100.0	7,604
Greater Accra	0.0	20.0	0.0	40.0	20.0	10.0	10.0	0.0	100.0	15,718
Volta	0.0	50.0	0.0	0.0	0.0	0.0	50.0	0.0	100.0	2,336
Eastern	0.0	20.0	40.0	0.0	0.0	40.0	0.0	0.0	100.0	5,342
Ashanti	0.0	7.7	30.8	7.7	30.8	7.7	15.4	0.0	100.0	14,034
Brong Ahafo	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	100.0	2,006
Northern	66.7	25.0	0.0	0.0	0.0	8.3	0.0	0.0	100.0	10,301
Upper East	0.0	71.4	0.0	0.0	0.0	28.6	0.0	0.0	100.0	4,702
Upper West	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	5,002

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators database Surveys

6.3 Urban mobility and health facility

One of the commonly cited delays in addressing maternal health challenges is delay in getting to the health facility which is often a challenge posed by transportation difficulties. This could often arise from long distances people have to trek to the nearest health facility, absence of reliable means of transport or bad roads which are often non-motorable during a greater part of the year. Both the 2007 and 2012 transport surveys collected information on the average distance urban dwellers had to trek to the nearest health facility. The results are presented in Table 6.5.

The results depict quite a strange development comparing the situation in 2007 and 2012. At the national level, more than half of the respondents in the survey reported that the average

distance from their residence to a health facility was less than one kilometre. However, in 2012, less than one percent of the respondents reported the average distance between their residence and health facility to be less than one kilometre while almost 70 percent said the distance was five kilometres or more. A similar picture is also shown at the regional level where there are dramatic changes between 2007 and 2012 for the proportions indicating average distance of five kilometres or more from their residence to a health facility. Unless these constitute data challenges, it is difficult to explain the big change between 2007 and 2012. This should be subjected to further investigation because in five years, it is unreasonable to conceive that health facilities that were within a kilometre reach are now so far away that one needs to travel five kilometres or more before being able to access facility-level health service.

Table 6.5: Average distance (km) to health facility by region

	Distance (km)						Total	
Region	<1.0	1.0-1.9	2.0 -2.9	3.0-3.9	4.0- 4.9	5+	Percent	Number
2007								
All regions	56.6	11.5	10.9	8.0	4.6	8.4	100.0	1,341,379
Western	43.6	16.4	14.8	13.0	6.2	6.0	100.0	237,467
Central	63.2	19.7	1.3	6.6	2.6	6.6	100.0	46,877
Gt. Accra	74.5	4.8	8.7	3.3	1.4	7.2	100.0	434,071
Volta	37.6	19.8	15.8	12.9	5.0	8.9	100.0	62,296
Eastern	44.4	12.1	7.3	8.9	9.7	17.7	100.0	76,483
Ashanti	49.0	7.9	15.6	9.3	6.5	11.7	100.0	264,606
Brong Ahafo	47.6	26.2	14.6	6.8	1.0	3.9	100.0	63,530
Northern	55.8	16.8	3.0	10.7	8.1	5.6	100.0	121,509
Upper East	58.8	26.5	14.7	0.0	0.0	0.0	100.0	20,971
Upper West	40.9	4.5	0.0	13.6	4.5	36.4	100.0	13,570
2012								
All regions	0.8	9.3	8.5	5.6	6.0	69.8	100.0	2,097,354
Western	0.8	4.0	4.8	3.2	8.0	79.2	100.0	140,005
Central	1.0	6.3	7.3	4.2	3.1	78.1	100.0	145,991
Gt. Accra	0.0	18.7	13.3	9.4	6.7	52.0	100.0	756,026
Volta	1.6	6.5	0.0	1.6	0.0	90.3	100.0	72,415
Eastern	3.4	1.9	7.3	5.8	3.4	78.2	100.0	220,104
Ashanti	0.9	4.9	8.6	3.2	8.9	73.6	100.0	376,766
Brong Ahafo	2.0	4.0	4.7	4.7	12.0	72.7	100.0	150,434
Northern	0.0	3.0	3.0	1.2	0.0	92.8	100.0	142,501
Upper East	0.0	0.0	0.0	1.2	2.4	96.5	100.0	57,098
Upper West	0.0	2.8	0.0	0.0	0.0	97.2	100.0	36,014

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators database Surveys

Table 6.6 provides information on the waiting time for urban dwellers in Ghana finding transport to a health facility. The information indicates that between 2007 and 2012, relatively more time is required to find transport to a health facility. At the national level, 86 percent of urban dwellers reported to spend less than 15 minutes looking transport to attend a health facility in 2007 compared to a lower proportion of 64 percent. At the extreme end, we find that the proportion spending 40 minutes or more to look for transport to a health facility increased from 4.1 percent in 2007 to 28.1 percent. This suggests some deterioration in the lives of the urban dwellers between 2007 and 2012.

A similar pattern is shown in the regions with the proportion reporting average waiting time less than 15 minutes reducing while that for 40 minutes and more increased between 2007 and 2012. This suggests that with time, it is becoming increasingly more time consuming

finding transport to a health facility. For example, Volta Region recorded 4.5 percent of their urban respondents in 2007 to wait for 40 minutes or more, but its corresponding figure in 2012 was as high as 46.4 percent. While this could be interpreted to mean more challenges for urban dwellers in 2012 than in 2007, it could also mean that the increase in the urban population in 2012 might have outran the pace at which public transport expanded during the same period.

Table 6.6: Waiting time for transport to a health facility by region

Region	Time (minutes)			Total	
	<15	15-40	>40	Percent	Number
2007					
All regions	86.1	9.8	4.1	100.0	4,276,254
Western	86.3	6.6	7.0	100.0	446,561
Central	99.0	0.5	0.5	100.0	121,509
Greater Accra	89.4	8.0	2.7	100.0	1,210,156
Volta	85.9	9.6	4.5	100.0	191,824
Eastern	86.1	12.5	1.4	100.0	355,275
Ashanti	78.4	16.1	5.6	100.0	1,028,817
Brong Ahafo	81.2	12.5	6.3	100.0	325,052
Northern	92.8	2.9	4.3	100.0	471,233
Upper East	91.3	8.7	0.0	100.0	14,186
Upper West	91.7	7.2	1.1	100.0	111,640
2012					
All regions	64.2	7.7	28.1	100.0	901,442
Western	45.9	18.0	36.1	100.0	68,322
Central	65.5	9.1	25.5	100.0	83,641
Greater Accra	60.6	5.1	34.3	100.0	275,062
Volta	53.6	0.0	46.4	100.0	32,703
Eastern	62.4	10.5	27.1	100.0	142,106
Ashanti	75.6	7.0	17.4	100.0	216,992
Brong Ahafo	61.5	10.3	28.2	100.0	39,113
Northern	73.3	3.3	23.3	100.0	25,753
Upper East	75.0	0.0	25.0	100.0	10,748
Upper West	71.4	0.0	28.6	100.0	7,003

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators database Surveys

With respect to the average time spent going to a health facility, the results of the analysis presented in Table 6.7 indicate that a higher proportion of urban residents in Ghana spent less time in 2012 than in 2007. This is an indication of improvements in their living conditions than five years earlier. For example, almost 46 percent of the urban dwellers in 2007 reported to spend less than 10 minutes going to a health facility but in 2012, the figure increased to 59 percent. At the extreme end, however, the proportion that spent more than one hour getting to a health facility increased by one percentage point from four to five between 2007 and 2012.

A similar pattern is shown by region as the proportion in each region reporting to spend less than 10 minutes to a health facility increased quite substantially between 2007 and 2012 with the exception of Greater Accra where there was a slight reduction from 52.5 percent to 51.2 percent. The increase between 2007 and 2012 was by far much higher in Upper East and Upper West. What is interesting, however, is that none of them reported travel time between

10 and 19 minutes to a health facility in 2012 in any of the regions but there were increases in the proportion indicating travel time of 40-59 minutes. It must also be noted that for travel time more than 60 minutes, two regions are quite unique. These are Volta and Brong Ahafo. While Volta Region's proportion that said they travelled more than one hour to a health facility dropped from 13.1 percent in 2007 to 3.2 percent that for Brong Ahafo increased from 3.3 percent to 11.5 percent. It is, however, not clear what accounted for these visible changes in the opposite direction in these two regions between 2007 and 2012.

Table 6.7: Average travel time to health facility by region

Region	Time (minutes)					Total	
	<10	10-19	20-39	40-59	>60	Percent	Number
2007							
All regions	45.7	17.5	27.5	5.2	4.1	100.0	6,083,623
Western	30.1	16.7	34.3	13.5	5.3	100.0	567,453
Central	37.1	21.7	29.2	8.5	3.5	100.0	196,141
Greater Accra	52.5	18.8	22.6	3.2	3.0	100.0	1,883,852
Volta	38.3	21.2	21.0	6.4	13.1	100.0	338,005
Eastern	50.2	18.5	26.7	3.3	1.3	100.0	432,375
Ashanti	44.7	16.0	32.3	4.1	2.8	100.0	1,472,911
Brong Ahafo	42.4	17.5	31.0	5.8	3.3	100.0	471,233
Northern	50.3	14.0	28.4	3.5	3.7	100.0	479,251
Upper East	45.7	17.2	21.0	16.1	0.0	100.0	114,724
Upper West	40.1	10.1	22.7	2.4	24.6	100.0	127,677
2012							
All regions	59.1	0.0	4.5	31.3	5.0	100.0	2,068,916
Western	65.3	0.0	2.5	27.1	5.1	100.0	132,165
Central	62.9	0.0	2.1	29.9	5.2	100.0	147,512
Greater Accra	51.2	0.0	4.9	37.2	6.8	100.0	740,308
Volta	46.8	0.0	0.0	50.0	3.2	100.0	72,415
Eastern	68.8	0.0	2.9	26.8	1.5	100.0	219,036
Ashanti	66.4	0.0	6.3	25.0	2.3	100.0	375,687
Brong Ahafo	47.3	0.0	10.1	31.1	11.5	100.0	148,428
Northern	64.4	0.0	4.3	25.8	5.5	100.0	139,926
Upper East	78.6	0.0	0.0	21.4	0.0	100.0	56,426
Upper West	73.0	0.0	0.0	27.0	0.0	100.0	37,014

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators database Surveys

The 2007 and 2012 transport surveys also investigated the difficulties urban dwellers faced when visiting a health facility. The results of the analysis of the information generated are presented in Table 6.8. From the results, five main difficulties are visible at the national level in 2007. These are bad roads (27.2%), difficulty getting vehicle (23.7%), heavy traffic on road (15.7%), long distance (10.1%) and long waiting time (9.8%). In 2012, the same five challenges existed but there were shifts in their perceived magnitude. While the proportion that mentioned bad roads and difficulty in getting vehicle reduced in 2012, that which was recorded for heavy traffic on road, long distance and long waiting time increased, suggesting that the three were considered to have become more serious challenges for the urban dwellers who visited health facilities.

There were variations in the regions with shifts recorded between 2007 and 2012. According to the results in 2007, bad roads, as a difficulty was recognised largely in Brong Ahafo

(94.9%), Volta (46%) and Upper East (36.8%). By 2012, however, the three regions had seen drastic changes with the proportion citing these as challenges reducing. For example, less than 10 percent of the urban dwellers in Brong Ahafo and Volta regions indicated bad roads as a challenge. On the other hand, Upper West recorded the highest proportion that cited difficulty in getting vehicle to the health facility in 2012 (58.3%) although in 2007, it was about 24 percent. Also interesting is the observation that in Brong Ahafo, half of the respondents said getting vehicle was a difficulty in 2012 when in 2007 it was just one percent.

Table 6.8: Main obstacles faced visiting a health facility by region

	Main difficulty faced								Total	
Region	No access road	Bad roads	Difficulty getting vehicle	Long waiting time	Heavy traffic on road	Distance too long	No money for transport	Other	Percent	Number
2007										
All regions	1.3	27.2	23.7	9.8	15.7	10.1	7.0	5.3	100.0	1,372,373
Western	0.0	20.4	29.9	4.0	4.0	15.0	21.9	4.7	100.0	169,002
Central	0.0	12.5	37.5	0.0	0.0	0.0	0.0	50.0	100.0	4,934
Gt. Accra	1.0	22.8	12.8	12.8	38.9	1.4	0.6	9.7	100.0	317,034
Volta	0.0	46.0	20.7	8.0	0.0	22.7	2.7	0.0	100.0	92,520
Eastern	1.3	25.5	21.3	11.7	1.7	19.2	9.2	10.0	100.0	147,414
Ashanti	1.8	23.1	31.1	13.3	20.1	5.1	1.5	4.0	100.0	413,871
Brong Ahafo	4.0	94.9	1.0	0.0	0.0	0.0	0.0	0.0	100.0	61,063
Northern	2.1	12.4	37.6	4.6	0.0	18.0	25.3	0.0	100.0	119,659
Upper East	0.0	36.8	15.8	2.6	0.0	35.5	9.2	0.0	100.0	46,877
Upper West	1.3	27.2	23.7	9.8	15.7	10.1	7.0	5.3	100.0	1,372,373
2012										
All regions	1.2	17.6	19.1	18.2	17.0	16.8	6.9	3.2	100.0	617,385
Western	0.0	17.9	10.7	3.6	21.4	28.6	7.1	10.7	100.0	31,361
Central	5.4	13.5	13.5	24.3	0.0	21.6	21.6	0.0	100.0	56,267
Gt. Accra	0.8	19.7	9.8	24.6	30.3	3.3	4.1	7.4	100.0	191,757
Volta	0.0	8.7	8.7	34.8	8.7	26.1	13.0	0.0	100.0	26,864
Eastern	0.0	27.7	24.6	10.8	3.1	29.2	1.5	3.1	100.0	69,450
Ashanti	0.0	8.5	22.9	24.6	28.0	10.2	5.9	0.0	100.0	127,388
Brong Ahafo	0.0	7.1	50.0	0.0	0.0	42.9	0.0	0.0	100.0	14,040
Northern	6.7	42.2	8.9	6.7	0.0	31.1	4.4	0.0	100.0	38,630
Upper East	0.0	10.7	39.3	0.0	0.0	37.5	12.5	0.0	100.0	37,617
Upper West	0.0	16.7	58.3	0.0	0.0	16.7	8.3	0.0	100.0	24,009

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators Database Surveys

Another observation that is worth noting from Table 6.8 is that heavy traffic on roads appeared to be highest in Greater Accra and Ashanti regions in either 2007 or 2012 perhaps due to the situation in Accra and Kumasi. However, while the magnitude of heavy traffic on roads in Greater Accra was recorded to have reduced between 2007 and 2012 (from 38.9% to 30.3%), in Ashanti, it had increased from 20.1 percent to 28 percent. This could be due to differences in new roads constructed or expanded in the two regions between 2007 and 2012. For example, in Accra, the newly constructed road named George Walker Bush Highway (popularly called N1 Road) has contributed a great deal in reducing traffic congestion on that road.

6.4 Urban mobility and place of work

In the cities and towns, many inhabitants are faced with difficulties in the morning and evening going to and from work. Apart from persons whose workplaces are within walking

distance from their residence, many others cannot avoid using vehicles. Table 6.9 has information on the average distance from residence of employed urban dwellers in Ghana to their workplaces by region. The results indicate that in 2007, more than 50 percent of the employed urban dwellers in Ghana reported that their place of work was less than one kilometre from their residence. This, however, reduced to about 32 percent in 2012, which is quite difficult to explain when cities and towns are expanding in both population and their spatial spread.

The regional analysis also shows that most employed persons in the regions had their workplaces within one kilometre from their residence in 2007. This was especially the case in Brong Ahafo which recorded as high as almost 85 percent within this category. The only exceptions were Northern and Upper West regions which recorded less than 50 percent of their employed persons having their workplaces within one kilometre from their residence. From our knowledge of where many workers commute to work from their residences in Accra and Kumasi for example, the results do not appear to be consistent with everyday observation in these cities. It must be added that with the exception of Brong Ahafo and Upper East regions where less than five percent of the employed urban dwellers reported that their workplaces were five kilometres or more from their residence, all the other regions recorded more than 10 percent with Greater Accra recording almost 25 percent, followed by Ashanti and Western regions each with 20 percent.

Table 6.9: Average distance (km) from residence to place of work

	Distance (km)						Total	
Region	<1.0	1.0-1.9	2.0-2.9	3.0-3.9	4.0-4.9	5+	Percent	Number
2007								
All regions	54.7	6.1	7.9	6.5	5.6	19.1	100.0	2,897,096
Western	55.8	12.1	5.8	6.9	7.7	11.7	100.0	296,063
Central	58.6	4.3	5.7	6.4	5.0	20.0	100.0	86,352
Greater Accra	58.3	3.0	7.0	3.8	3.0	24.8	100.0	964,054
Volta	52.7	3.7	12.7	9.0	6.5	15.5	100.0	151,115
Eastern	59.3	7.0	8.1	6.1	4.4	15.1	100.0	212,178
Ashanti	51.9	4.2	10.5	6.5	6.7	20.1	100.0	735,222
Brong Ahafo	84.5	5.0	3.9	1.7	0.6	4.4	100.0	111,640
Northern	35.5	14.0	6.7	13.4	11.3	19.1	100.0	229,448
Upper East	57.8	34.4	3.1	1.6	1.6	1.6	100.0	39,475
Upper West	27.6	6.0	8.6	25.9	16.4	15.5	100.0	71,548
2012								
All regions	31.9	11.1	6.5	16.6	13.8	20.0	100.0	4,626,517
Western	30.8	16.9	5.5	15.3	15.3	16.2	100.0	344,972
Central	27.7	8.9	9.4	18.8	11.7	23.5	100.0	323,918
Greater Accra	30.5	12.3	7.3	16.3	14.7	18.9	100.0	1,211,842
Volta	32.5	12.3	7.8	15.6	14.9	16.9	100.0	179,869
Eastern	37.7	12.1	5.8	16.1	12.7	15.7	100.0	538,508
Ashanti	31.3	8.8	6.2	17.0	13.9	22.8	100.0	1,144,334
Brong Ahafo	24.9	9.5	6.0	20.3	14.6	24.7	100.0	370,066
Northern	36.3	11.1	4.6	13.2	14.2	20.6	100.0	278,993
Upper East	41.7	6.2	8.3	10.9	10.9	21.9	100.0	128,974
Upper West	41.0	13.3	2.9	21.9	9.5	11.4	100.0	105,041

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators database Surveys

In contrast to the 2007 situation, the results in 2012 indicate that the proportion of employed urban dwellers whose workplaces were less than one kilometre from their residence reduced in all the regions with the exception of Northern Region which registered no significant

change and Upper West Region which increased to 41 percent from about 28 percent. The proportion indicating a distance of three kilometres or more increased in almost all the regions with a few exceptions between 2007 and 2012. This could suggest increases in the spatial spread of the population in the urban centres as their populations increased, making the workplaces new entrants to the cities and towns can find jobs become located farther away from their places of residence.

A comparison between 2007 and 2012 with respect to the average travel time to place of work among urban dwellers as presented in Table 6.10 suggests some important variations which are not easy to explain. From the table, it is to be noticed that at the national level, the proportion of persons responding to use less than 10 minutes to go to their workplace increased from 35 percent in 2007 to about 41 percent in 2012. This appears to indicate that workers spent relatively shorter time to travel to their workplaces in 2012 than five years earlier. This is further reinforced by the observation that while in 2007 a little more than 20 percent of the employed urban dwellers in Ghana reported to spend one hour or more travelling to their workplaces, none of them said so in 2012.

Table 6.10: Average travel time to workplace by region

	Time (minutes)					Total	
Region	<10	10-19	20-39	40-59	60+	Percent	Number
2007							
All regions	35.4	15.7	17.0	10.3	21.6	100.0	1,671,057
Western	41.6	13.1	11.1	12.0	22.2	100.0	216,496
Central	51.9	11.4	8.9	3.8	24.1	100.0	48,727
Greater Accra	27.8	18.6	21.1	12.3	20.2	100.0	507,778
Volta	34.1	15.9	14.3	7.7	28.0	100.0	112,257
Eastern	37.3	14.8	14.1	9.9	23.9	100.0	87,585
Ashanti	34.4	16.6	18.3	10.6	20.1	100.0	437,926
Brong Ahafo	60.5	25.6	4.7	7.0	2.3	100.0	26,522
Northern	46.4	10.2	17.1	5.9	20.4	100.0	187,506
Upper East	15.4	7.7	7.7	30.8	38.5	100.0	8,018
Upper West	25.8	8.1	14.5	9.7	41.9	100.0	38,241
2012							
All regions	40.8	6.1	40.9	12.2	0.0	100.0	3,786,373
Western	41.5	3.5	42.3	12.7	0.0	100.0	291,210
Central	41.3	5.4	42.5	10.8	0.0	100.0	253,964
Greater Accra	40.9	5.6	41.6	11.9	0.0	100.0	1,034,231
Volta	39.4	4.4	43.1	13.1	0.0	100.0	160,013
Eastern	43.4	10.0	37.1	9.5	0.0	100.0	440,209
Ashanti	40.9	5.7	41.5	11.9	0.0	100.0	921,944
Brong Ahafo	37.5	4.0	40.9	17.6	0.0	100.0	301,870
Northern	42.5	7.7	37.7	12.1	0.0	100.0	234,354
Upper East	36.1	12.0	34.3	17.6	0.0	100.0	72,548
Upper West	32.9	6.6	48.7	11.8	0.0	100.0	76,030

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators database Surveys

There appears to be some consistency at the regional level between 2007 and 2012 with few exceptions. For example, in six of the regions, namely; Greater Accra, Volta, Eastern, Ashanti, Upper East and Upper West, the proportion that indicated that it took them less than 10 minutes on average to reach their workplaces increased between 2007 and 2012. The reverse was the case in Central, Brong Ahafo and Northern regions while Western Region remained virtually the same. Those who spent between 20 and 39 minutes to get to their workplaces were also much higher in all regions in 2012 than in 2007 while no one reported

travel time of one hour or more in 2012 compared to 20 percent or higher in all regions in 2007 except in Brong Ahafo where the proportion was less than five percent. This also suggests that travel time to workplaces had relatively reduced between 2007 and 2012. This is also quite difficult to explain considering that in 2012, more vehicles have been put on the roads, resulting in heavier traffic congestion that could also reduce the speed at which urban commuters are able to move to and from their workplaces.

6.5 Urban transport availability and reliability

The availability and reliability of urban transport could pose some challenges to urban dwellers regarding their mobility. These challenges are examined relative to the time during the day transport is considered available and its reliability in each region in Ghana in 2007 and 2012. These are analysed in Tables 6.11 and 6.12. The period during which transport is said to be available is shown in Table 6.11. It is to be noted that there is a big variation between the results of 2007 and 2012. At the national level, almost 70 percent of the urban dwellers interviewed in 2007 said transport was available all day but in 2012 only about 13 percent said so. From the results, it may appear that five years later after 2007 the transport situation in the urban areas in Ghana has been worse since only 13 percent of them indicated that they can find transport all day. Again, transport availability is seen to have shifted from all day to the morning and evening with about 41 percent and 36 percent respectively attesting to this in 2012 compared to less than 10 percent in either case in 2007.

Interesting results are also observed from Table 6.11 pertaining to the regions. For example, in eight of the regions, none said transport is available all day with the exception of Northern, Upper East and Eastern regions. In the Northern Region, a very high proportion (97%) indicated that they could find transport all day and in the Eastern and Upper East regions, much lower proportions said so (4.6% and 36% respectively).

Furthermore, the regions vary quite dramatically regarding the period in the day transport is seen to be available in the towns and cities in Ghana. In the Upper West for example in 2012, all the respondents said transport was available during the evening while in Ashanti Region, 99 percent indicated transport availability in the morning. Similarly, about 81 percent of the respondents in Greater Accra Region were of the opinion that transport was available in the morning while in the Northern Region less than five percent said so. On the other hand, transport was said to be available mainly in the evening and afternoon (almost 60% and 25% respectively). These are interesting results which defy easy explanation and may, therefore, require further investigation.

Table 6.11: Availability of transport by region

Region	Time of day				Total	
	Morning	Afternoon	Evening	All day	Percent	Number
2007						
All regions	9.4	13.1	8.2	69.3	100.0	2,124,789
Western	3.2	17.0	9.8	70.0	100.0	195,525
Central	8.0	23.6	6.5	62.0	100.0	162,218
Greater Accra	35.0	5.7	13.0	46.3	100.0	75,866
Volta	12.2	20.3	11.6	55.9	100.0	212,795
Eastern	9.1	7.8	12.6	70.6	100.0	230,605
Ashanti	18.9	7.0	11.3	62.9	100.0	415,104
Brong Ahafo	1.7	52.5	15.8	30.0	100.0	74,016
Northern	5.7	10.7	4.6	79.0	100.0	375,629
Upper East	0.0	0.0	0.9	99.1	100.0	272,007
Upper West	5.6	30.6	1.7	62.2	100.0	111,023
2012						
All regions	40.7	10.5	36.0	12.9	100.0	1,324,531
Western	29.2	13.2	57.6	0.0	100.0	272,170
Central	62.7	22.0	15.3	0.0	100.0	89,724
Greater Accra	80.6	13.3	6.1	0.0	100.0	154,034
Volta	28.2	16.0	55.7	0.0	100.0	153,005
Eastern	10.7	25.2	59.5	4.6	100.0	139,969
Ashanti	99.3	0.7	0.0	0.0	100.0	153,298
Brong Ahafo	45.1	0.8	54.1	0.0	100.0	133,384
Northern	2.3	0.6	0.0	97.1	100.0	150,227
Upper East	10.8	0.0	52.7	36.5	100.0	49,709
Upper West	0.0	0.0	100.0	0.0	100.0	29,011

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators database Surveys

In Table 6.12, the reliability of transport in the urban localities in each region is presented once again for 2007 and 2012. From the results shown in the table, we observe that in 2007, the transport situation was found to be more reliable than in 2012. This is evidenced by the finding that 77 percent of the urban dwellers interviewed in 2007 were of the view that transport was reliable compared to 60 percent in 2012. To strengthen this point, more than a quarter of the respondents in 2012 said transport was not reliable compared to less than 10 percent in 2007. This somehow is consistent with the results in Table 6.11 that showed a much smaller proportion of the respondents indicating transport availability all day in 2012 compared to 2007.

The results in the regions also tend to be consistent with the average for the country. The proportion of the respondents that said transport was reliable in 2007 in each region was much higher than that in 2012. For example, in the Central Region, as high as 91 percent of the urban dwellers interviewed indicated that transport was reliable in 2007, but in 2012 this reduced to 55 percent. In the same region in that same year, the proportion that reported that transport was not reliable was just about six percent but in 2012, it increased to almost 37 percent. Again, in Upper East and Upper West, about 65 percent and 51 percent respectively confirmed transport reliability in 2007, but in 2012, the proportions reduced to as low as 17 percent and three percent respectively to suggest a worsening transport situation five years after the 2007 survey. On the other hand, zero percent and 20 percent respectively in Upper

East and Upper West said that transport was not reliable in 2007, but in 2012, this increased to 36 percent and 39 percent respectively in 2012. Similar results can be observed in all the regions, pointing to some deterioration in the reliability of transport in the urban localities in the country between 2007 and 2012.

Table 6.12: Reliability of transport by region

Region	Time of day			Total	
	Reliable	Reliable sometimes	Not reliable	%	Number
2007					
All regions	77.0	14.4	8.6	100.0	2,124,789
Western	74.8	19.7	5.5	100.0	195,525
Central	91.1	3.2	5.7	100.0	162,218
Greater Accra	85.2	11.5	3.3	100.0	75,866
Volta	62.6	20.3	17.1	100.0	212,795
Eastern	70.9	17.0	12.0	100.0	230,605
Ashanti	70.3	16.8	12.9	100.0	415,104
Brong Ahafo	90.1	6.3	3.5	100.0	74,016
Northern	73.8	10.5	15.7	100.0	375,629
Upper East	64.9	35.1	0.0	100.0	272,007
Upper West	50.8	29.0	20.2	100.0	111,023
2012					
All regions	60.3	13.8	26.0	100.0	1,940,233
Western	41.7	9.6	48.7	100.0	128,805
Central	55.3	7.9	36.8	100.0	115,576
Greater Accra	79.2	3.5	17.3	100.0	672,722
Volta	34.4	16.4	49.2	100.0	71,247
Eastern	53.6	23.0	23.4	100.0	223,310
Ashanti	60.5	18.5	21.0	100.0	355,175
Brong Ahafo	43.0	20.8	36.2	100.0	149,431
Northern	64.3	11.7	24.0	100.0	132,200
Upper East	16.9	47.0	36.1	100.0	55,754
Upper West	2.8	58.3	38.9	100.0	36,014

Source: Ghana Statistical Service, 2007 and 2012 Transport Indicators database Surveys

6.6 Conclusion

This chapter has examined urban mobility with regard to school attendance, visit to a health facility, workplace and the difficulties encountered by urban dwellers so far as availability of transport in urban localities in Ghana is concerned. The results of the analysis generally indicate some improvements in mobility relative to both distance travelled from residence to school and the average time spent commuting to school. This clearly shows that public transport system in Ghana's towns and cities has somewhat improved with relatively higher proportions of persons travelling over shorter distances and waiting for shorter periods for transport to go to school in 2012 compared to 2007. There were, however, some variations in the regions with respect to the Metro Mass Transport services in the cities and towns which allowed all school children in uniforms to board public buses freely to and from school in the country.

It was also found that not much change had taken place between 2007 and 2012 with respect to the average commuting time from residence to school in urban localities in Ghana although some changes could be seen in the reduction of the proportion that spent less than 10 minutes commuting to school in the urban localities between 2007 and 2012. There were, however, no

consistency across all the regions although the proportion of respondents at the two extreme ends of the scale, i.e., less than 10 minutes and one hour or more suggested no significant changes were recorded between the two survey years in spite some obvious regional variations between 2007 and 2012.

The results further suggest that heavy traffic on the urban roads constituted a big difficulty in 2007 but this shifted to bad roads, followed by heavy traffic in 2012. The expectation, however, is that with new roads being constructed, one does not expect bad roads to be more prominent as a difficulty in urban localities as the years roll by. Thus, if this is the thinking of urban dwellers, then it may appear the rate at which urban roads are being improved may not be the best.

Again, interesting results were registered regarding average distance to health facility from the residence. In 2007, more than half of the urban residents interviewed said the average distance to a health facility was less than one kilometre but in 2012, less than one percent gave this response. One, therefore, wonders what had changed between 2007 and 2012 to produce this result. Perhaps, with the urban sprawl in some cities and towns, some residents have moved to settle at new developing suburbs farther away from health facilities but the magnitude of such movement is still not known. It was also seen that urban residents were spending longer time waiting for transport to go to a health facility in 2012 than in 2007, a situation which is not easy to explain considering that between 2007 and 2012 public transport has expanded in the urban areas in the country. This is also reinforced by the finding that a higher proportion of respondents were spending less time than in 2007 travelling to a health facility, a situation that suggests some improvement in urban transportation.

The difficulties that were mentioned to confront urban dwellers going to a health facility are indications of more efforts needed to improve on public transport services in the urban centres while taking steps to do away with bad roads in the cities and towns. This is because bad roads, difficulty in getting vehicles and long waiting time for transport were cited as some of the major transport difficulties by the urban dwellers that were interviewed. Greater Accra and Ashanti were, however, peculiar in their mention of heavy traffic which could have been influenced by the situation is Accra and Kumasi respectively.

Regarding place of work, it was quite interesting to find that in 2007 more than 50 percent of the respondents had their workplace within one kilometre from their residence, but in 2012 this reduced to about 30 percent with some variations in the regions as usual. This is an indication that with time, more and more urban dwellers are staying farther away from their workplaces. This may be understood in the context that as the cities and towns expand spatially, many people may stay farther away from their workplaces or the central business district, thereby increasing their mobility challenges. In contrast to this, it was found that the proportion of persons travelling on average 10 minutes to their workplaces increased between 2007 and 2012 which defies common understanding when the distance between their residence and workplaces is seen to be increasing.

Finally, the results have indicated that urban transport was more reliable in 2007 compared to 2012 as a smaller proportion in 2012 said it was reliable than in 2007 and the reverse was the case with respect to those who responded that it was not reliable. This was consistent in the regions and shows that the state has to invest more in addressing the key challenges of urban transport in the area of heavy traffic that often results from bad and narrow roads and unreliable public transport system.

CHAPTER SEVEN
CONCLUSIONS, RECOMMENDATIONS AND POLICY IMPLICATIONS

7.1 Summary

This Monograph has examined urbanisation in Ghana against the background of the rapid pace at which the country has been urbanising since 1960 when a huge proportion of the country's population lived in localities classified as rural. Characterised by uneven spatial distribution of population, urban primacy, slum growth, unemployment, environmental deterioration and shortage of infrastructure, urbanisation in Ghana has been driven by differences in natural increase and migration as well as government policies which have either directly or indirectly affected the concentration of population or otherwise across the country. While urbanisation is considered an important part of the development process, it has not led to poverty reduction in Ghana since it brings in its tray its own challenges which tend to vary spatially. The Monograph, therefore, had the aim of examining urbanisation within the context of the challenges and opportunities that are associated with it as Ghana strives to attain a higher middle income status.

The analysis sought to present an overview of the legal and policy frameworks that have directly or indirectly affected the pattern and trend of urbanisation in Ghana and assessed the living conditions and socio-economic characteristics of urban dwellers in the country. It also examined the urban mobility situation in the country and compared it by region to bring out their similarities and differences.

The 2010 Ghana Population and Housing Census (PHC) was the main source of data for the analysis. However, the National Household Transport Surveys conducted by the Ghana Statistical Service in 2007 and 2012 provided additional relevant data to aid an analysis of urban mobility and the challenges that urban dwellers are confronted with regarding their intra-city movements. Descriptive statistics based on cross-tabulations using percentages were adopted in presenting the results of in the Monograph. Comparative analysis was also adopted to bring out both gender and regional differences in urbanisation. Tables and charts were used in presenting the results. In addition, Gini Concentration ratios were computed to examine the degree of uneven distribution of the population in each region.

Reviewing the legal and policy frameworks that affected urbanisation since the pre-colonial period, it was documented that urbanisation has been a consequence of economic development and the movement of people from agricultural-based economies to manufacturing and service-led economies. Ghana, like many African countries, has experienced rapid urban growth without much industrialisation which is quite different from that experienced in the advanced countries of Europe and North America. Quite clearly, therefore, it is possible that economic growth in the rural sector can lead to urbanisation. However, such a process of urbanisation may not necessarily promote growth depending on the type of cities that may be created. Consequently, in spite of the rapid urbanisation that Ghana has experienced, having been influenced by the legal and policy frameworks that have been put in place, its impact on poverty reduction particularly in the urban centres or

localities is limited considering that Ghana is experiencing rapid urbanisation in the face of slow growth in the manufacturing sector.

Weaknesses in the classification of urban localities that is solely based on population size have been highlighted with proposals made for the way forward regarding the possibility of adding other criteria including using the main economic activities a majority of residents is engaged in, i.e., the functional classification of towns in addition to the population size.

The analysis has brought out important variations between the sex ratios of the urban versus the rural populations in Ghana, suggesting a higher rate of migration of females into the urban areas relative to the males. Differences in the age structure of the population between the urban and rural localities in the country also could be traced to fertility differences where rural areas exhibit higher fertility rates than the urban.

The trend in urbanisation at the regional level depicted all the regions with the exception of Western, Central and Greater Accra to record consistent increases in the proportion of their population living in urban localities since 1960. Greater Accra and Ashanti regions were, however, the most urbanised with Upper West as the least in 2010. Drivers of urbanisation included deliberate government policies such as decentralisation and area reclassification, variation in spatial development in response to natural resource identification and utilisation as well as natural increase and migration. Natural increase was, however, found to have contributed more than migration towards urbanisation in all the regions with the exception of Central and Volta regions. Western, Greater Accra, Ashanti and Brong Ahafo regions were also found to be net in-migration regions but in the six remaining regions, net out-migration took place in either 2000 or 2010.

Household conditions and characteristics of the urban population in Ghana were examined by comparing the sexes and the regions. Overall, literacy was highest in Greater Accra and lowest in Northern Region. It was also found that males in urban Ghana were more literate than females. At the same time, males had relatively higher education than females with the three northern regions being the most disadvantaged. However, literacy in English only was higher among females than males and also higher in the three northern regions compared to those in the south. Interestingly, literacy in French was very low among the urban population in all the regions in the country. Again, most people do not go beyond the secondary school level of education in the country. The educational gap between males and females was found to be much wider in the Northern Region, which is an indication that more investment is required to bridge the gap between males and females.

Half of the population 12 years and older in urban localities in Ghana were ever married with almost five percent of them in informal or consensual unions. The females reported a higher proportion married compared to the males, which could be due to the impact of polygyny which allows one man to be married to more than one woman at the same time, a practice which was found to be more prevalent in the three northern regions in the country. A higher proportion of the females than males also reported to be separated, divorced or widowed in all regions and may be due to a higher re-marriage rate among males than females in Ghana.

Analysis by religion showed a dominance of the Christian Religion with three in every four persons professing to be Christian. However, the Islamic Religion was more dominant in the three northern regions. With the exception of Upper West, a higher proportion of the females were Christians compared to males, but the reverse was the case among those who professed to be Moslems.

Analysis of housing characteristics and conditions revealed the dominance of compound houses with three of four households reported to be in compound houses in all urban localities in Ghana. Greater Accra and Ashanti regions were leading in the proportion of households housed in kiosks and containers, obviously due to the large slum populations in those two regions. There was, however, a dominance of concrete and cement blocks used to construct the outer walls of most houses in urban Ghana with the exception of Northern and Upper East regions where mud brick or earth was the most commonly used material for the outer wall or floor of the dwelling units. It was also found that as high as 76 percent of the urban households had one or two rooms for sleeping, a situation which depicted some overcrowding at the household level.

Pipe-borne water facility for drinking was not universal in all urban localities in Ghana with one-third of the urban households not having access to piped water facility either within or outside the household dwelling unit. The three northern regions were the most disadvantaged. Some 14 percent of urban households also used sachet water for drinking in the country. At the same time, only a quarter of urban households in the country used their own separate bathrooms, the remaining three-quarters sharing bathrooms while other households patronised public bathrooms or using open spaces outside the house. Furthermore, only one-fourth of the urban households reported to have access to water closet (WC) toilet facilities at the household level.

The collection of solid waste was not universal in urban Ghana as only one-fifth of urban households reported their solid waste to be collected while the rest dumped them at designated public dumps/containers and others used open spaces. Liquid waste disposal also showed a limited use of the sewerage system which was less than five percent, suggesting that the sewerage system is not well developed in most urban localities in the country, permitting many households to throw their liquid waste unto the street or outside the house.

Urban household energy use was quite high (80 percent on average) but varied very much across the regions with some of the households using flashlights and torches while LPG for household cooking was used by less than a third of urban households in Ghana. There was, therefore, a high dependence on charcoal and wood for cooking with long-term negative implications for the country's forest resources. Many households also did not have separate spaces for cooking and thereby used the veranda or open spaces in the house which could have serious implications for fire out-breaks.

The analysis further showed that the private informal sector is the highest employer of the active labour force in all the regions in the country with the public sector engaging less than 10 percent of the urban employed population. A higher proportion of males than females were also working in the public sector. Again, only limited proportions of the employed persons in urban localities were engaged in manufacturing while wholesale and retail trading activities constituted the largest employer with regional variations.

Household ownership of computers was quite low with just a little more than one in 10 urban households responding to own a computer. A similar proportion of urban dwellers also reported to have access to the internet. The regional variation indicated that Greater Accra and Ashanti regions ranked the highest in either household computer ownership or internet access while Volta Region ranked the lowest in computer ownership with Northern Region recording the least proportion with access to the internet.

In contrast to computer ownership, a much higher proportion of urban dwellers owned a mobile phone which stood at more than 50 percent in all the regions with the exception of Northern Region. More males than females also owned mobile phones. Ownership of fixed phone lines was, however, very low and was less than five percent in all regions except in the Greater Accra.

The results of the analysis of urban mobility generally indicated some improvements in mobility relative to both distance travelled from residence to school and the average time spent commuting to school. This is an indication that public transport system in Ghana's towns and cities has somewhat improved with relatively higher proportions of persons travelling over shorter distances and waiting for shorter periods for transport to go to school in 2012 compared to 2007. It appears that the introduction of the Metro Mass Transit services in the cities and towns which allowed all school children in uniforms to board public buses freely to and from school in the country has contributed immensely to this development.

The analysis further suggested that heavy traffic on the urban roads were a big difficulty in 2007, but in 2012, bad roads was considered the most serious challenge. Interesting results were also recorded with respect to average distance to health facility. There were variations between 2007 and 2012, where a far smaller proportion of the urban dwellers in 2012 said the average distance to a health facility was less than one kilometre compared to 2007. Furthermore, urban residents were spending longer time waiting for transport to go to a health facility in 2012 than in 2007. Bad roads in the cities and towns, difficulty in getting vehicles and long waiting time for transport were also mentioned as some of the major transport difficulties urban dwellers reported to be facing. Heavy traffic was, however, peculiar to Greater Accra and Ashanti regions.

It was also found that more than 50 percent of the urban dwellers that were interviewed in 2007 had their workplace within one kilometre from their residence. However, in 2012 this reduced to about 30 percent with some variations in the regions. On the other hand, an increase was recorded in the proportion of persons travelling on average 10 minutes to their workplaces between 2007 and 2012. Urban transport appeared to be more reliable in 2007 than in 2012 considering that the proportion that said transport was reliable in 2012 was higher than in 2007 while the reverse was recorded regarding those who responded that it was not reliable. These findings present important policy implications for further action through interventions.

7.2 Conclusions

Several important conclusions flow from the findings presented in this Monograph based upon which policy recommendations and implications are postulated. These include the uneven spatial distribution of the population in Ghana as a whole and specifically the urban areas. This also translates into a variation in the degree and pace of urbanisation by region in the country. Overall, urbanisation has been quite rapid but varies across the ten regions in the country.

Different factors have been responsible for the pattern and trend of urbanisation in Ghana. Natural increase is, however, a very important contributor to urbanisation in comparison with internal migration. Therefore, so long as there are regional variations in fertility and migration, urbanisation is likely to vary by region. Government and administrative policies have also influenced and shaped the pattern of urbanisation either directly or indirectly. Interestingly, unlike other developed countries, urbanisation is proceeding in the face of

limited manufacturing. Consequently, urbanisation has not contributed much to poverty reduction among the population considering the myriad of challenges that confront the urban economy today.

Literacy and education among urban dwellers tend to vary between males and females with the latter being more disadvantaged. The three northern regions are also more disadvantaged compared to their counterparts in the south.

Materials used for the construction of household dwellings which were found to be largely compound houses are generally of higher quality but the three northern regions appear to lag behind the other regions in the country. There are also diverse sources of water for drinking in Ghana as pipe-borne water is not available to every urban household. Water closet toilet facility accessibility is limited to many households and it will take some time for half of the households in urban areas to access water closet at the household level. Linked to this is the limited use of solid waste disposal by collection.

Furthermore, electricity use is not universal among urban households in Ghana. At the same time, there is limited use of LPG as a source of cooking fuel, thereby making many urban households depend on charcoal and wood which are the most commonly used sources of household cooking fuel in the urban localities in the country.

In addition, there is a clear variation between males and females regarding their sectors of employment in the urban areas. Although the private informal sector is the biggest employer of urban labour force, relatively higher proportions of employed males were in the public sector than females perhaps due to differences in education which place females at a disadvantage.

Again, notwithstanding the high levels of urbanisation Ghana has seen in the recent past, use of ICTs is low as a result of the low ownership of computers and internet access. Considering the impact of ICTs on a country's socio-economic development, efforts must be made to accelerate its use in the country. The government must support the building of infrastructure and create an enabling environment for individuals and businesses to take advantage of the opportunities that ICT offers.

In addition, in spite of obvious improvements recorded between 2007 and 2012 with respect to urban transport, there were still challenges posed to urban mobility that ought to be addressed through policy actions. One important intervention, however, is the Metro Mass Transit System that has assisted daily commuters in urban areas to undertake their socio-economic activities. The need to expand such urban transport services without doubt requires government's priority attention.

Finally, the classification of urban localities based solely on population size presents weaknesses which require a re-definition. This is because it is not enough to attain an urban status simply by increasing population size without any signs of an urban economy. Currently, many urban localities in Ghana have nothing urban about them except their large population sizes.

7.3 Policy Recommendations

The conclusions presented call for a number of recommendations. The implementation of these recommendations should, however, take into account the regional variations in the results that have so far been documented in this Monograph.

Government must prioritise and increase its budgetary allocation to local authorities to enable them meet the cost of providing services to their growing populations particularly in the urban areas. This must be accompanied by greater accountability and citizens' participation to ensure funds are applied for the very purpose for which they are released.

Ghana does not lack in the availability of well-formulated policies and programmes. The ability of government to implement these policies will go a long way to address the challenges of urbanisation. The implementation of these policies and programmes need to be supported with the requisite political will as well as with adequate financial, human and technical resources. To this end, the relevant organisations and institutions should be strengthened to effectively implement policies that have already been formulated. More specifically, the 2012 National Urban Policy which was launched in 2013 should be implemented to the letter. Similarly, the process that has recently been initiated to revise the 1994 National Population Policy (Revised Edition) should be supported to integrate the urbanisation dynamics into the new policy while strengthening implementing agencies to discharge their mandate effectively. Consequently, population management should be seen as a critical component of sustainable development. This calls for intensification of programmes that establish functional linkages between rapid population growth and development such as the national family planning programme.

The national campaign towards universal LPG use should be intensified and ways found to subsidise its use for household use relative to commercial usage by transport owners. This will no doubt reduce the country's dependence on the environment for their household energy use.

The private informal sector which is the biggest employer of urban economically active labour force should be strengthened and supported through micro finance facilities to expand to provide more jobs for jobless unemployed youth in the urban areas in Ghana. This is the case as the public sector is incapable to absorbing the labour force the nation turns out each year.

Urban mobility should be made smooth through the expansion of existing public transport systems such as the Metro Transit Mass Transport system. Government should also make it a policy to develop and expand intra-city urban railway system in the country to ease urban mobility challenges. Concrete efforts should also be made to integrate population dynamics into urban spatial planning in order to ensure that urban roads are large enough to forestall future heavy traffic that slows down movement.

Furthermore, policies regarding the provision of modern toilet facilities such as WC should be enforced. The Metropolitan, Municipal and District Assemblies (MMDAs) should strengthen their monitoring units to ensure that no new buildings are permitted without evidence of a modern toilet facility. Steps should also be taken to assist existing housing units to create modern toilet facilities within the existing structures.

Availability of current and high quality data are important for an understanding of population dynamics including urbanisation. Efforts must, therefore, be made to improve relevant data collection activities in the country. Government agencies such as the Town and Country Planning Department and MMDAs must be resourced to enable them collect, analyse and utilise data for urban planning and management. It is also necessary for government to support the further analysis of available data from national population and housing censuses

and other surveys to provide government with the much needed information to inform decision-making processes and policy actions.

As was discussed earlier in this Monograph, the statistical classification of an urban centre in Ghana as a locality with a population of 5,000 or more lends itself to some weaknesses. It is strongly recommended that the Ghana Statistical Service in consultation with government and other stakeholders should consider re-defining an urban locality using not only the population size but other factors such as the major economic activity a majority of the population is engaged in. A national stakeholders and experts forum should be convened for this purpose.

7.4 Policy Implications

The entire developing world is in transition and Ghana is no exception with more than 50 percent of its population residing in localities classified as urban. The rapid rate of urbanisation has implications for economic growth and sustainable development of the country. Urbanisation and urban growth processes play important roles in the economic and demographic transition of the country and it is important that sound and favourable policies are put in place to harness the benefits of this urban growth.

The country's urban transition which pre-dates the colonial administration and has persisted to date will require pragmatic and sustained efforts to curb the associated challenges that have been highlighted in this Monograph. From the evidence so far presented, the pattern of urbanisation in Ghana has been skewed with indications of urban primacy. The urban infrastructure in the cities and towns of the country also shows a non-uniform pattern and varying spatial development across the regions in the country. Examining the policy implications of the recommendations presented is an important step towards realising the benefits of urbanisation for the country's development.

Strengthening local authorities through effective budgetary allocation for the provision of services for the benefit of the growing urban population has the potential to enhance the quality of life of the people. Efforts must, therefore, be made to regulate urban growth and spatial distribution of the population in the country. Accelerating fertility decline will ultimately reduce both the stock of potential migrants and the rates of natural population increase in the cities, towns and potential urban localities. A variety of explicit fiscal measures to stimulate economic activity in all parts of the country especially regions that have characteristically been net out-migration regions must be adopted and implemented to re-direct migration flows. In addition, the adoption and implementation of the Draft Migration Policy is likely to strengthen efforts towards re-directing migration to where it is mostly needed for development.

Improving living conditions of urban dwellers has the implication of reducing poverty levels in the whole country considering the linkage between urban and rural communities in the country. As Ghana moves toward a higher middle-income status, urbanisation processes are more likely to have positive impacts on the poverty situation in the country. However, as the population in urban localities increases, the absolute numbers of people living in poverty may rise in the urban areas relative to the rural areas. More attention may be drawn to addressing urban poverty challenges to the neglect of rural communities which could also be disastrous and should be guarded against.

Reducing the inequalities among urban dwellers with respect to literacy, education, health, and access to income between males and females must be key to changing the fortunes of the urban dwellers. Strengthening institutions for the effective implementation of urban-specific policies would go a long way to addressing the development inequalities that exist between urban and rural localities. The National Urban Policy that was adopted in 2012 should be a pivotal policy document around which the country's development efforts should be centered and its implementation must be prioritised. The policy with its accompanying Action Plan has been well crafted through a broad stakeholder analysis and seeks to address the fundamental problems associated with urban development and management in the country that have for a long time plagued the country.

Lessons from Ghana's recent history have shown that, formulating progressive policies, passing laws and establishing institutions and agencies for implementation are not enough to harness the potential of urbanisation or to ensure integrated urban development. These broad policy aspirations and sectoral programmes (e.g., for education, health, housing, transport, schools, etc.,) must be translated into workable strategies that align with the long-term vision of a better quality of life for the population and must be financially supported so that they can achieve their intended goals.

Effective enforcement of urban planning policies including intensifying campaigns on LPG use for household cooking is likely to positively affect livelihoods in the urban areas and also save our fragile environment from further deterioration. This, however, calls for the strengthening of law and policy enforcement agencies and institutions in the country particularly at the local and community level.

Rapid urbanisation will continue to be accompanied by challenges but available current and high quality data have positive implications for the country's ability to analyse the challenges and be able to address them through carefully conceived and formulated policies that are implementable. In addition to the regular censuses and national demographic and health surveys, the organisation of regular migration surveys would improve the data situation in the country to facilitate effective analysis and monitoring of urbanisation in the country so as to be able to address its associated challenges which include urban primacy, slum growth, poor housing, overcrowding, poverty, unemployment, environmental deterioration, sanitation and shortage of infrastructure and facilities.

REFERENCES

Adarkwa K. K., 2012. "The changing face of Ghanaian towns" African Review of Economics and Finance. Vol. 4, No. 1.

Anarfi, J.K. and Kwankye, S.O. (eds)., 2009. Independent child migration in Ghana. ISSER, Accra, Ghana, pp. 132-170.

Anyinam, C., 1994, Spatial implications of structural adjustment in Ghana. Tijdschrift voor Economische en Sociale Geografie, 85, (5), pp. 446- 60.

Bawa, S. D., 1995, Structural Adjustment Programmes and the Urban Informal Sector in Ghana, Issues in Development, Discussion Paper 3, Geneva: International Labour Organization.

Brown, C.K., 1986. "Urban Bias and Rural Development in Ghana". Rural Development in Ghana, edited by Brown, C.K. Ghana Universities Press, Accra, pp. 201-219.

Collins, J., 2004. "Transactions of the historical Society of Ghana" New Series, No. 8, pp. 208-226.

Coquery-Vidrovitch, C., 1991. The process of urbanization in Africa (From the origins to the beginning of independence). African Studies Review 34(1): 1-98.

Dickson, K. B., 1968. Background to the problem of economic development in Northern Ghana. Anals of the Association of American Geographers. Vol 58 pp. 686-696

Dickson, K. B., 1970. Urbanisation in precolonial Ghana. Annual Museum Lectures 1969-1970, Accra. Ghana

Dickson, K. B., 1971. The Ghanaian town, its nature and function, Accra. Ghana Universities Press.

Ghana Statistical Service. 1995. Analysis of Demographic Data, Vol. 2, Detailed Analysis Reports, Accra. Ghana.

Ghana Statistical Service. 2005. Population data Analysis Report. Vol. 2. Policy implications of population trends. Accra. Ghana Statistical Service.

Ghana Statistical Service. 2013. 2010 Population and housing census: National analytical report. Accra. Ghana Statistical Service.

Government of Ghana, 2005, Draft National Housing Policy, Accra: Ministry of Water Resources, Works and Housing.

Government of Ghana, 2012, National Urban Policy Framework, Accra. Ministry of Local Government and Rural Development.

Grant R. and Yankson P. 2002. City Profile: Accra. Cities 20 (1) 65-74.

Gugler, J. and Flanagan, W. G., 1978. Urbanization and social change in West Africa. Cambridge University Press, Cambridge.

International Labour Organisation (ILO)/Jobs and Skill Programme for Africa (JASPA). 1989. From redeployment to sustained employment generation: Challenges for Ghana Programme of Economic Recovery and Development. Addis Ababa.

Jedwab, R. (nd). Why Is African Urbanization Different? Evidence from resource exports in Ghana and Ivory Coast. PSE and LSE. JOB MARKET PAPER.

King, A.D., 1990. Urbanism, Colonialism, and the World-Economy: Cultural and Spatial Foundations of the World Urban System. Routledge, London.

Kunateh, M.A., 2011 Ghana: FDI Inflows to Country up in 1st quarter of 2011. **in**

Mehretu, A., 1983. Cities of Sub-Saharan Africa. In: S. D. Brunn and J. F. Williams, eds., Cities of the World. Harper & Row, New York, pp. 243-279.

Njoh Ambe, J., 2007. Planning Power: Town Planning and Social Control in Colonial Africa. University College London Press, London.

Obeng-Odoom, F., 2007, Enhancing urban productivity in Africa', Social Science Research Network, Opticon 1826 Journal, Vol. 2, No. 1, pp 1-9.

Obirih-Opareh, N., 1998, Evaluation of local government reform in Ghana: From colonial roots to the present', Report to the National Institutional Renewal Programme.

Olatunbosun, D., 1976. "Rural Development in Africa – An Integrated Approach". Paper presented at The Rural Development in Africa International Workshop, Organised by the Commonwealth Secretariat, 10th - 18th April, University of Ibadan, Nigeria.

Owusu, G., 2005. Small Towns in Ghana: Justification for their inclusion under Ghana's Decentralisation Programme. African Studies Quarterly. Vol 8.

Post, J., 2001, Urban development and policy reform in Ghana' in Adarkwa, Kwafo K. and J. Post (eds.) Fate of the Tree, Accra: Woeli Publishing Services, pp. 17-23.

Quarcopome. S.S., 1992: Urbanisation, Land Alienation and Politics in Accra. Research Reviews, NS Vol. 8, nos. 1 &2.

Radoki C., 1997. (ed.) Global forces, urban change and urban management in Africa **in** The urban challenge in Africa: Growth and management of its large cities. Tokyo. United Nations University Press.

Rakodi, C., 1992. Urbanization in Zambia. Papers in Planning Research, Department of City and Regional Planning, University of Wales, Cardiff.

Songsore, Jacob, (1979), Structural Crisis, Dependent Capitalist Development and Regional Inequality in Ghana, (ISS Occasional Papers, No. 71, The Hague).

Songsore. J. (nd). The urban transition in Ghana: Urbanization, national development and poverty reduction. Prepared for the IIED as part of the eight country case studies on urbanization.

Songsore, Jacob. 2009. The urban transition in Ghana: Urbanisation, National Development and Poverty Reduction. Draft report to be presented at the IIED-UNFPA research meeting on population and urbanization issues, London.

Songsore J., 2003. Towards a better understanding of Urban Change: Urbanisation, National Development and Inequality in Ghana. Ghana Universities Press.

Songsore J., 2010. From everyday risks to disaster risks: Confronting 'brown' and 'green' issues in Ghana's human settlements. Accra. Ghana Academy of Arts and Sciences.

Tawiah, E.O., 1995. Demographic Patterns and Sustainable Development in Ghana. Legon: Regional Institute for Population Studies.

Tetteh, P.A., 1992. Population distribution and development planning in Ghana. Regional Institute for Population Studies. Monograph Series No. 7, pp. 129-170

Yankson, P.W.K., 2006. Urbanisation Industrialisation and National Development: Challenges and Prospects of Economic Reform and Globalisation. Ghana. Ghana Universities Press.

APPENDIX

Appendix A: The UN Urban Growth Decomposition Method

The following formula represents the UN Urban Growth Decomposition Method:

$$\text{Ue} = Uo\frac{2+rt}{2-rt}$$

Where;

Ue = expected population at the second census.

Uo = population at the first census.

r = annual rate of growth of population of the country. It should be noted that in the computation that was done, the exponential growth method was used.

t = intercensal period (years) between the second and the first censuses.

The proportion of growth due to migration was computed using the following formula:

$$\text{m} = \frac{Ut-Ue}{Ut-Uo}\ x\ K$$

Where;

m = proportion of urban growth due to migration.

Ut = reported population at the second census.

Ue = expected population at the second census.

Uo = population at the first census.

r = annual rate of growth of population of the country. It should be noted that in the computation that was done, the exponential growth method was used.

t = intercensal period (years) between the second and the first censuses.

K = constant (usually 100).

The proportion of urban growth due to natural increase is obtained by subtracting m (proportion of urban growth due to migration from 100) and expressed in percentage.